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»» Materials on Development Financing



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Proposal of a methodology for tracking publicly mobilized private climate finance

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Content

1.	Overview	3
2.	Background	4
3.	Methodology	5
3.1.	Define core concepts (Stage 1)	7
3.1.1.	Definition of climate change activities	8
3.1.2.	Definition of public and private finance	9
3.1.3.	Classification of developed and developing countries	10
3.1.4.	Determination of geographical origin of finance	11
3.2.	Identify public interventions and instruments that can be credited for mobilizing private climate finance (Stage 2)	11
3.2.1.	Types of public interventions	11
3.2.2.	Specific instruments used for the interventions	12
3.3.	Value public interventions and account for total private finance involved (Stage 3)	12
3.3.1.	Choice of and conversion of currency	12
3.3.2.	Choice of point of measurement	13
3.3.3.	Valuation of different public interventions	13
3.3.4.	Boundaries and estimation of private finance involved	14
3.3.5.	Availability of climate-specific private finance data or proxies	15
3.4.	Estimate mobilized private climate finance (Stage 4)	15
3.4.1.	Assessment of causality between public interventions and private finance	15
3.4.2.	Attribution of mobilized private climate finance to public interventions and instruments	17
4.	Example calculation	18
5.	The 2015 pilot DFI climate finance mapping	20
5.1.	Background and methods	20
5.2.	Results	20
5.3.	Lessons learned	21
6.	Conclusion and outlook	

1. Overview

This paper was drafted to describe a proposal of a technical methodology to track the impact public financial interventions have in mobilizing private capital to address climate change. The methodology was developed for, and voluntarily pilot tested by members of a group of bilateral development finance institutions (coordinated and lead by KfW) and consequently reflects the requirements and norms to the practice of development finance.

To introduce the methodology, this paper proceeds in six sections. Following this introduction, a brief background on international climate finance negotiations is offered. Using a “decision point” framework developed by the OECD-led Research Collaborative on tracking private climate finance, the third section of the paper outlines the specific elements of the methodology, detailing the approach, providing the rationale, and introducing a brief discussion of overarching issues relevant to each decision point. A sample illustrative calculation then puts the methodology to practice in the paper's fourth section. The paper concludes with results from the pilot tracking by the group of (bilateral) development finance institutions (section five), followed by lessons learned and an outlook for the future in the sixth section.

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2. Background

In 2009 at the 15th Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP15) in Copenhagen, Denmark a group of developed countries made a financial commitment to assist developing countries in the context of climate change: “In the context of meaningful mitigation actions and transparency on implementation, developed countries commit to a goal of mobilizing jointly USD 100 billion a year by 2020 to address the needs of developing countries.”¹ The mobilization of these USD 100 billion can come from a wide variety of sources (public and private, bilateral and multilateral, including alternative sources of finance).

Since its introduction this USD 100 billion mobilization target has been one of the framing questions for long-term climate finance negotiations. Still unresolved in these negotiations are how to track progress toward and ultimate achievement of the target. As the UNFCCC Standing Committee on Finance succinctly stated in their first biennial report in 2014 “The UNFCCC does not have a definition of climate finance.”²

The methodology presented in this paper provides a practical example of how one aspect of this definition – the mobilization of private finance by developmental public climate finance – has been at least partly tracked by development finance institutions (DFIs). This paper’s methodology (along with other practical and academic studies³) is detailed to provide an evidence base of approaches that, by outlining what is technically feasible, may expand into ongoing climate finance negotiations. Nevertheless it is only a proposal of a more widely usable methodology and reported numbers for the mobilized private finance have been derived applying differently wide scopes across institutions. The proposal does not constitute a harmonized and agreed methodology of the participating DFIs.

¹ The full text of the so-called Copenhagen Accord can be found at: <http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf>

² The report: “2014 Biennial Assessment and Overview of Climate Finance Flows Report” can be found at: http://unfccc.int/cooperation_and_support/financial_mechanism/standing_committee/items/8034.php

³ See for example the list of projects organized under the banner of the OECD’s Research Collaborative on tracking private climate finance, available online here: <http://www.oecd.org/env/researchcollaborative/on-going-activities.htm>

3. Methodology

This section introduces a methodological approach to estimate the volume of private climate finance mobilized by public financial interventions in developing countries (the methodology). The methodology was created by and for a group of developed country bilateral development finance institutions (DFIs) and development banks, which recently completed a pilot tracking⁴ on a voluntary basis under the lead and coordination of KfW. A full list of voluntary participating institutions is provided below in Table 1.

Table 1: Pilot climate finance tracking participant developed country development finance institutions and development banks

AFD	Agence Francaise de Développement, France
JICA	Japan International Cooperation Agency, Japan
KfW	KfW Development Bank, Germany
BIO	Belgian Investment Company for Developing Countries, Belgium
CDC	CDC Group plc, UK
COFIDES	Compañía Española de Financiación del Desarrollo, Spain
DEG	Deutsche Investitions- und Entwicklungsgesellschaft, Germany
FINNFUND	Finnish Fund for Industrial Cooperation, Finland
FMO	Netherlands Development Finance Company, Netherlands
IFU	The Investment Fund for Developing Countries, Denmark

⁴ All following institutions took part in the pilot tracking, providing data on direct climate finance, while some institutions did not submit mobilized private finance data.

Norfund	Norwegian Investment Fund for Developing Countries, Norway
OeEB	The Development Bank of Austria, Austria
OPIC	Overseas Private Investment Corporation, US
Proparco	Société de Promotion et de Participation pour la Coopération Economique, France
SBI-BMI	Belgian Corporation for International Investment, Belgium
SIFEM	Swiss Investment Fund for Emerging Markets, Switzerland
SIMEST	Società Italiana per le Imprese all'Estero, Italy
SOFID	Sociedade para o Financiamento do Desenvolvimento, Portugal
SWEDFUND	Swedfund International AB, Sweden

To clearly and transparently communicate the details of the DFI approach, this methodological section is structured in line with the “framework and overview of decision points to estimate publicly mobilized private climate finance” developed by the OECD Research Collaborative on tracking private climate finance (OECD RC).⁵ Pursuant to the OECD RC framework the approach is broken down into a series of methodological “decision points” described over four broad stages. The OECD RC framework is summarized below in Table 2.

⁵ The OECD RC is a network of research organizations, international finance institutions, and governments that “aims to contribute to the development of methodologies for estimating private finance mobilized by developed countries’ public interventions towards low-carbon and climate-resilient activities in developing countries.”

Table 2: OECD Research Collaborative on Tracking Climate Finance framework

Stage 1: Define core concepts	
· Definition of climate change activities	· Classification of developed and developing countries
· Definition of public and private finance	· Determination of geographical origin of finance
Stage 2: Identify public interventions and instruments that can be credited for mobilising private climate finance	
· Types of public interventions	
· Specific instruments used for the interventions	
Stage 3: Value public interventions and account for total private finance involved	
· Choice and conversion of currency	· Boundaries and estimation of private finance involved
· Choice of point of measurement	· Availability of climate-specific private finance data or proxies
· Valuation of different public interventions	
Stage 4: Estimate mobilised private climate finance	
· Assessment of causality between public interventions and private finance	
· Attribution of mobilised private climate finance to public interventions and instruments	

Source: OECD RC Jachnik, R., R. Caruso and A. Srivastava (2015), "Estimating Mobilised Private Climate Finance: Methodological Approaches, Options and Trade-offs", OECD Environment Working Papers, No. 83, OECD Publishing, Paris. DOI: <http://dx.doi.org/10.1787/5js4x001rqf8-en>

In the Appendix A (Table 3) you can find another table that presents both the overview of the stages of the framework (see Table 2) and a short description of the methodology options used by the joint-DFI approach for each stage.

The following sections (3.1-3.4) use the OECD RC decision point framework as a mechanism to describe this methodology for tracking publicly mobilized private climate finance. For each decision point the approach is first outlined, followed by a technical rationale and a discussion of the decision point that touches on the below four key criteria outlined by the OECD RC:

- Accuracy
- Incentives
- Potential for standardization
- Practicality

3.1. Define core concepts (Stage 1)

The first stage of the OECD RC framework concerns fundamental questions pertaining to the coding of climate change activities, the provenance and geographic origin of finance, and the classification of developed and developing countries.

3.1.1. Definition of climate change activities

Approach: The methodology adapts the International Development Finance Club's (IDFC) definition⁶ of "climate change activities" for climate finance tracking. The IDFC's guidance defines three forms of "green finance":

- Clean energy and mitigation of greenhouse gas emissions
- adaptation to climate change impacts and
- "other" environmental objectives (not included in the present methodology).

Building on the conceptual approach of the Rio Markers system,⁷ the IDFC guidance matches broad definitional criteria with specific "positive lists" of project types under each of these three categories. These criteria and positive lists are used to categorize the climate relevance of specific interventions. (The IDFC definitional criteria and positive lists are included as a reference in Appendix B of this paper.) Only finance "tagged" in the former two categories (i. e., mitigation or adaptation) are considered climate finance. (The "other" environmental category is tracked for other purposes but not reported as climate finance.)

Justification: The IDFC approach was developed by and for a group of developed and developing country DFIs as an effort to optimize transparency, comparability, consistency, and flexibility. This approach has served as the basis for efforts to track green finance across a range of institutions since 2012. The IDFC approach was adopted for the methodology given its fit-for-purpose design for the target group (i. e., general appropriateness for DFIs and harmonization with existing DFI tracking efforts).

Discussion: The IDFC definitions and positive lists are one approach to classifying climate change activities. The IDFC's standardized approach was designed by the key actors of the development finance community to limit ambiguity and promote transparency while remaining practical and easy-to-use. The IDFC definitions and positive lists are part of a larger process that has, and will continue to, allow for the guidance to be iteratively updated and improved over time. The IDFC approach harmonizes with existing "green" finance tracking efforts across DFIs, usage that supports consistent reporting and minimizes risk of double counting.

The IDFC approach was chosen for its ease of use, buy-in across the DFI community (including tie-ins to other reporting initiatives and corresponding data comparability), and general accuracy.

⁶ The IDFC is a membership group of 19 national and sub-regional DFIs. The IDFC was established in 2011 as a forum for exchange and coordination on development finance. Since 2012, the IDFC has tracked its members' green finance flows using its own definition of green finance. In 2014 IDFC adapted this definition to climate finance tracking. This methodology can be found at: http://www.idfc.org/Downloads/Publications/01_green_finance_mappings/IDFC_Climate_Finance_Tracking_Methodology_07-10-14.pdf

⁷ The "Rio Markers" are a scoring system that originated in the 1992 Rio Conference. In this system, funders classify the target of development finance against specific pre-defined environmental objectives. A given environmental objective can be marked as the "principal" objective or a "significant" of a specific intervention. A more detailed overview of the Rio Markers can be found at: <http://www.oecd.org/dac/environment-development/rioconventions.htm>

3.1.2. Definition of public and private finance

Approach: The methodology defines public climate finance as finance committed by an institution which is at least 50 % owned by one or several governments or government controlled institution(s).

In the context of public mobilization of private climate finance, private finance is defined here as limited to financing of assets that are in majority private ownership (i. e., “private investment” (corresponding to equity)) or established or purchased with third party financing originating directly from the private sector (i. e., “private capital” (typically corresponding to debt)). Funds may only be reported as “mobilized private climate finance” if not already reported as “public climate finance.”

Justification: The definition of public finance reflects the reality of DFI operations. For government funds that pass through DFIs as intermediaries, the case for public classification is clear: in these instances, a DFI is a waypoint between a donor and recipient. The DFI uses these funds to tailor specific instruments for a given intervention.

The complexities of structured finance further support an accounting approach that treats both DFI's dedicated and own funds as public (see Box 1). That means that funding which DFIs provide and themselves have raised from the capital markets is considered as public finance. Uniformly accounting for all DFI finance as public finance is well justified and provides a pragmatic easy-to-use starting point for accounting for DFI interventions.⁸

The private finance definition employed by the methodology was selected for simplicity in assessment and alignment with common understanding of private capital and investment. Binary definitions of public and private finance are employed to safeguard against double-counting (i. e., it is important that the methodology clearly designates finance as either public or private). (The mobilizing link between public and private finance is further discussed in 3.3.4 in the context of defining private finance accounting boundaries and 3.4.1. in relation to the assessment of causality between public interventions and private finance).

⁸ This approach is consistent with the DAC definition: “Official transactions are those undertaken by central, state or local government agencies at their own risk and responsibility, regardless of whether these agencies have raised the funds through taxation or through borrowing from the private sector. This includes transactions by public corporations i. e. corporations over which the government secures control by owning more than half of the voting equity securities or otherwise controlling more than half of the equity holders' voting power; or through special legislation empowering the government to determine corporate policy or to appoint directors. Private transactions are those undertaken by firms and individuals resident in the reporting country from their own private funds.” OECD DAC (2013), Statistical Reporting Directive, Chapter 1-6, page 7:
[http://www.oecd.org/dac/stats/documentupload/DCD-DAC\(2013\)15-FINAL-ENG.pdf](http://www.oecd.org/dac/stats/documentupload/DCD-DAC(2013)15-FINAL-ENG.pdf)

Box 1: Public capital at KfW Development Bank

KfW is an example of a DFI that deploys both dedicated and own funds to finance climate change interventions.

KfW was founded by the German government. Its shares are held by a combination of the German federal government and Germany's federal states (16 Bundesländer). KfW develops and provides financial instruments on behalf of the German government and in more limited cases for the European Union and other European governments. For specific projects and programmes dedicated e. g. to climate adaptation or mitigation KfW receives governments funds ("dedicated funds") which are then channeled through to the respective partners in developing countries. Furthermore the German government supports KfW by paid-in capital as well as a guarantee for debt raised by KfW. This allows KfW to raise money ("own funds") on capital markets at favorable rates. Both of these funding sources are used to structure financial interventions that achieve KfW's mission and the demands of its stakeholders.

As a publicly-owned institution, KfW is mandated to serve the public interest. KfW Development Bank operates primarily to foster and mobilize private sector investment in developing countries to meet broader development objectives, such as poverty alleviation, peace and reconstruction, and environmental protection.

Discussion: The question of how to classify DFIs' own funds appeals to certain academic motivations of precision in accounting. Practically though, separating out this source would prove devilishly difficult to disentangle. These challenges are not just a barrier to uptake, however; less than a uniform application could give way to inconsistency and even unintentional double-counting. Serious caution and consideration to practicality and consistency should be weighed when looking at alternate approaches to classify DFI funds.

The private finance definition used in this methodology is intentionally conservative and straightforward. Practicality and ease-of-use were taken into consideration in balance with broader concerns over accuracy. This definition, based on generally agreed-upon principles, is a reflection of this balance. The methodology's approach is practical, easy-to-apply, and, if used consistently, should be accurate by minimizing the risk of double-counting.

3.1.3. Classification of developed and developing countries

Approach: The methodology relies on the official development assistance (ODA) recipient country list maintained by the OECD Development Assistance Committee (DAC) to classify countries as developing (i. e., the methodology categorizes countries allowed to receive ODA as developing).⁹

⁹ The DAC list subdivides eligible ODA recipient countries into four groups depending on their gross national income per capita: least developed countries, other low income countries, lower middle income countries and territories, and upper middle income countries and territories. List available at: <http://www.oecd.org/dac/stats/documentupload/DAC%20List%20of%20ODA%20Recipients%202014%20final.pdf>

Justification: The DAC recipient country list is the product of an inclusive international process and is the international standard for reporting aid flows against development finance commitments. This list was chosen for its legitimacy in development finance, as reflected in its wide-spread usage.

Discussion: Given the DAC's primacy in setting internationally agreed-upon rules for aid classification, listed recipient countries are the focus of DFIs. Using the DAC recipient list allows for harmonization with the mission and operations of DFIs.

3.1.4. Determination of geographical origin of finance

Approach: The methodology was designed for DFIs from developed countries.

Justification: Since the methodology is scoped for use by DFIs in developed countries, it is limited to public institutions headquartered in developed countries disbursing finance to developing countries (see discussion on classification of public capital in 3.1.2). By both measures, headquarters and source of public support finance from DFIs scoped for inclusion in this methodology (see 3.1.3) should be seen as geographically originating from developed countries. With regards to private finance the approach includes all sources irrespective of geographical origin in order to be neutral in respect to the type of players (domestic or international) involved in a developing country.

Discussion: Developed countries DFIs often have a presence in recipient countries, but their funding and ownership structure leave little ambiguity to the geographic origin of their finance.

3.2. Identify public interventions and instruments that can be credited for mobilizing private climate finance (Stage 2)

Stage 2 of the OECD RC framework is concerned with the types of public interventions that should be considered and the underlying instruments which should be tracked and credited for their effect in mobilizing private climate finance.

3.2.1. Types of public interventions

Approach: Official/public development finance interventions are the central focus of the methodology. In addition to traditional lending and investment instruments, the methodology also allows for DFI interventions in support of domestic policy interventions that will deliver targeted finance (e. g., renewable energy feed-in-tariffs). (Specific instruments are elaborated below in 3.2.2.)

Justification: Since the methodology is scoped for DFIs, the types of public finance interventions aimed at direct mobilization are accounted for are a reflection of DFI portfolios.

Discussion: While financial cooperation is the focus of the methodology, as noted above there is also public finance in support of policy developments, which are an important enabling condition for catalysing private finance at scale and over time. Further, given the broad IDFC definition of climate finance utilized (see 3.1.1 and Appendix B), there is scope for expansion of covered interventions if necessary to accommodate DFI activities. As it is, the methodology is best viewed as a snapshot of the main types of climate interventions DFIs are deploying.

3.2.2. Specific instruments used for the interventions

Approach: The methodology considers the following instruments:

- DFI loans
- DFI equity positions in projects, companies and funds
- DFI guarantees
- DFI grants (e. g., to cover costs of a renewable energy feed-in law or premium or emission reduction credits from the Clean Development Mechanism (CDM)¹⁰)
- Revolving use of credit lines or green funds (original loan must be subtracted to avoid double counting)

Justification: In line with the focus on financial cooperation (see 3.2.1), the noted instruments reflect the design of climate finance interventions DFIs are employing.

Discussion: The chosen instruments were selected to best capture climate financing activity across DFIs. This list may be updated as appropriate to better accommodate DFI activities.

3.3. Value public interventions and account for total private finance involved (Stage 3)

Decision points under Stage 3 touch on selection and conversion of currency, point of measurement, valuation of specific interventions, and boundaries of included finance. The availability of data proxies for validation/corroboration is also addressed, though this has not been thoroughly examined for the methodology.

3.3.1. Choice of and conversion of currency

Approach: The methodology tracks both already in the past committed and planned interventions. Committed funds from the past are calculated in US-Dollars using of the conversion rate from local currency on 1 July or the next following working day. For planned interventions (i. e., commitments) in an ongoing and subsequent year, local currency is converted to US-Dollars using the conversion rate of the first working day of the ongoing year.

Justification: US-Dollars is used as it is a standard reference currency for tracking development assistance flows. The methodology allows for both in the past committed and planned interventions to ensure that all flows are captured. 1 July, the year's midpoint, is used as a date of conversion for committed funds as a simple estimation measure to moderate the influence of currency fluctuation for commitments that may occur over the year. 1 January is used as a date of conversion for planned interventions in recognition of the value of the commitments at the outset of the year.

Discussion: The conversion dates for planned and already committed funds used were selected for their simplicity, easy of application, and reasonable approximation of the funds. As with many elements of this methodology, these dates were arrived at through a pragmatic process aiming to reduce the reporting burden,

¹⁰ The Clean Development Mechanism (CDM) is a "flexible mechanism" established under the Kyoto Protocol (Article 12). In the CDM sponsors of new emission-reducing projects in developing countries that meet certain criteria may earn tradable credits "Certified Emission Reductions" (CERs).

ensure consistent application, and tailor guidance to the operations of DFIs. More technically accurate approaches may be possible, but given the trade-off with administrative burden (and corresponding DFI uptake), these dates were chosen as a reasonable measure.

3.3.2. Choice of point of measurement

Approach: Amounts of private finance mobilized are measured ex-ante at commitment. New commitments are determined at financial close.

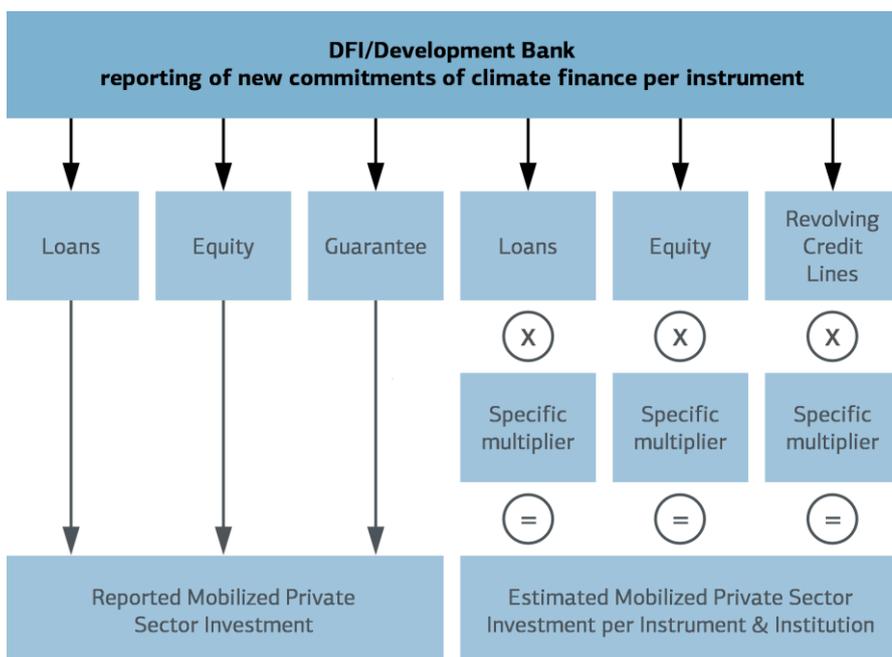
Justification: Financial close was chosen as a point of measurement for its alignment with the practice of DFIs and for its comparative simplicity. The intent of the methodology, in line with DFI focus on tracking commitments at financial closure, is to focus on “new business”.

Discussion: *Ex ante* measurement of commitments at financial close was chosen in light of considerations of how DFIs function (i. e., their accounting and operations). As the OECD RC suggests, it may be useful to compare this *ex ante* approach with *ex post* assessment of actual commitments after the fact to get a fuller sense of the veracity of data (i. e., match *ex ante* projections to *ex post* observations). However, for this tracking exercise the point of measurement is commitment.

3.3.3. Valuation of different public interventions

Approach: All public instruments included in the methodology (see 3.2.2 for list of instruments) are recorded according to their committed face value (see 3.3.2 for discussion of point of measurement). Mobilized private capital is estimated by a mix of: reported private investment (“reported mobilization”); and, when project-specific data is not available, representative mobilization factors (“estimated mobilization”) derived from sector-specific indicators. The following figure 1 illustrates how mobilization effects by some of the instruments covered in the methodology can be estimated either based on project specific data or on empirically based representative portfolio indicators.

Figure 1: Reporting mobilized private sector investment according to data availability



Justification: This dual-track approach allows for reported data to be used as available and, where not, an estimation (through conservative sector-specific mobilization factors) to serve as replacement. The methodology is designed to allow for both reporting and estimation methods to improve over time.

Discussion: The calculation of private finance mobilization is central to key methodological design questions.

Does the methodology accurately track mobilized private finance (i. e.: Does it reflect the “reality on the ground?”)? The flexibility built into this methodology allows for conservative assessment of publicly mobilized private climate finance that can evolve to accommodate data availability and better understanding of mobilization factors. Conservativeness is the key guiding principle here. At the crux of the methodology's conservativeness is a reliance on private finance mobilization estimation methods that are grounded in contextual instrument- or sector-specific indicators.

A more tricky issue related to the valuation of specific interventions is whether the methodology's treatment of specific instruments incentivizes (or disincentivizes) interventions of this type. The methodology intentionally sidesteps this issue of moral hazard. In an attempt to obtain reasonable estimates the methodology provides for the use of the best mobilization factors available while also allowing for the use of actual reported data. This dual track approach is broadly employed to enhance data quality, ameliorating the likelihood that interventions may under- or overestimate the mobilization impact of certain interventions, avoiding providing potentially distorting signals about their impact.

3.3.4. Boundaries and estimation of private finance involved

Approach: Accounting boundaries are defined as direct private co-financing at the level of activity, credit line or structured fund. The following list specifies the boundaries of publicly mobilized private finance foreseen in the methodology:

- Loans by private sector actors mobilized by DFI loans
- Loans by private sector actors mobilized by DFI equity positions
- Loans by private sector actor mobilized by DFI guarantees
- Equity from private sector mobilized by DFI loans
- Equity from the private sector actor mobilized by DFI equity positions
- Loans by private sector actor mobilized by DFI grants for financing (e. g., to cover costs of a renewable energy feed-in law or premium or emission reduction credits from the Clean Development Mechanism)
- Equity from private sector actor mobilized by DFI grants (e. g., to cover costs of a renewable energy feed-in law or premium or emission reduction credits from the Clean Development Mechanism)
- Loans to the private sector generated by the revolving use of credit lines or green funds (subtract original loan to avoid double counting)

This list is provided as guidance in the methodology along with the following definition of mobilized private sector investment.

As explained in 3.1.2 the methodology uses a dual definition of private (climate) finance:

- The asset financed is in private ownership ($\geq 50\%$) ("private investment" corresponding to equity) or
- The financial contribution comes from a third party private sector actor ("private capital" typically corresponding to loans).

In both cases there is a supporting ("mobilizing") link to a financial activity by a public sector actor. This public sector financial activity must be suitable to support a positive decision in favor of the specific investment. Funds may only be reported as "mobilized private climate finance" if not already reported as "public climate finance," in order to avoid double-counting. (Causality in the context of the "mobilizing link" is discussed in 3.4.1.)

Justification: The methodology provides DFIs both definitions and an accompanying list of specific types of "in scope" mobilizing interventions. The result is that DFIs are provided some degree of flexibility in interpretation with a "corridor" of the scoped interventions, definitions, and general norms of development finance practice.

Discussion: The question of boundaries can largely be seen as being driven by the practice of development finance. The chosen boundaries permit to implement the concept of direct mobilization in a pragmatic way avoiding subjective criteria to assess causality. While discretion is granted to DFIs in interpreting methodological guidance, it is important to qualify that development finance interventions typically only take a few forms and a consideration of the scoped types of public mobilization interventions listed in the methodological guidance further limits the possibilities.

This methodology is intended to iteratively evolve as it is tested. It is anticipated that additional guidance will provide additional and more elaborate guidance on boundaries drawn from reporting experience.

3.3.5. Availability of climate-specific private finance data or proxies

There are a number of private finance databases. However, many of the details of private financing deals are not made public. The availability of private finance data that may be used to verify, corroborate, or enhance reporting has not yet been thoroughly evaluated.

The methodology allows for the use of proxies to estimate private sector mobilization ("mobilization factors") when reported data is incomplete or unavailable. As discussed in 3.3.3, the methodological guidance calls for the use of conservative instrument- or sector-specific figures grounded in reality. In the methodology's current iteration, discretion on mobilization factors is ultimately left to the expert opinion of practitioners within DFIs.

3.4. Estimate mobilized private climate finance (Stage 4)

3.4.1. Assessment of causality between public interventions and private finance

Approach: The methodology is based on the assumption of volume-based blanket causality to private finance mobilization i. e. under the principle of subsidiarity of DFI financing activities; causality is assumed for the mobilization of private development finance by DFIs (within the accounting boundaries defined under 3.3.4).

For this there must be a supporting (“mobilizing”) link to a financial activity by a public sector actor. More specifically the public sector financial activity must be suitable to support a positive decision in favor of the specific investment (For more on this relationship see the discussion of boundaries and definitional guidance outlined in 3.3.4.). If this link is plausible for an instrument in the given boundaries, mobilization is assumed between private finance and the related public intervention.

Justification: Blanket causality is used in this methodology for both its alignment with the practice of its target group (DFIs) and its simplicity leading to low transaction costs and reducing the scope for negotiation.

As the methodology is designed for a target group of DFIs that share common standards of practice, there are opportunities to adopt accounting approaches that recognize these norms and how they may interact with guidance. In other words, operational commonalities may negate the need for specific methodological guidance or requirements (e. g., if across the group of reporters’ specific intervention-types are screened out). In the context of causality, it is important to note that DFIs definitionally operate under a subsidiarity mandate (i. e., a mission of building the private sector in host countries; “crowding in” investment rather than “crowding out” private capital).¹¹

Simplicity is critical, which means adopting a clear, easy-to-use measure for assessment that reduces the burden among reporters and allows for consistent tracking that minimizes the likelihood of double counting. These are key principles that have guided the development of this methodology and are particularly relevant as institutions begin their tracking efforts.

Discussion: The calculation of publicly mobilized private finance faces the challenge of striking a compromise between practicality, accuracy, incentives provided and standardization potential. In this context, the climate policy community has benefited from the recent experience of litigating the question of additionality and causality in debates over the structure of the CDM. The discourse on the CDM shed light on the challenge of cleanly and definitively assessing causality in real world interventions.

The issue of public mobilization of private finance may benefit from broad lessons learned in the CDM.¹² Developing an intricate system that makes best efforts to assess causality may have value in building trust in data. However, an over-engineered solution brings with it the risk that the cost and time burdens of implementation may limit uptake, or possibly worse, misinterpretation may lead to inconsistent results and give way to issues like double counting. This methodology was developed as a practical approach. In line with this philosophy, simplicity and opportunities to work “with the grain” were identified and operationalized. The homogeneity in the mission and methods of the methodology’s target audience (DFIs) offered opportunities to write guidance that complements existing standards

¹¹ The principle of subsidiarity is an important safeguard. Ideas like using leverage factors as key performance indicators or project selection criterion might introduce adverse incentives to subsidiarity and should therefore be avoided.

¹² For more on lessons learned from the CDM see the outputs of the 2012 CDM Policy Dialogue, online at: <http://www.cdmpolicydialogue.org/research>. Particularly relevant to the question of causality is the Policy Dialogue’s discussion of „additionality“. An introduction of key concerns pertaining to additionality can be found in Chapter 3 „A fundamental analysis of the concept of additionality“ of the Policy Dialogue’s research publication on CDM governance: http://www.cdmpolicydialogue.org/research/1030_governance.pdf

of practice. The use of blanket causality in light of the uniformity in DFIs' subsidiarity mandates is one such example.

The significance of causality in a mobilization methodology is not to be taken lightly. Overestimating the mobilizing effect of public interventions would not only present inaccuracies in the data (e. g., inflating total climate finance figures; misrepresenting the relative contributions of the public and private sectors), but could also create perverse incentives (e. g., unduly favor specific instruments, see discussion in 3.3.3). This methodology's identification of definitions, guidance, and practice are designed to work together to achieve accurate estimates at a practical level of effort. As with other elements of the methodology, the application of blanket causality will be closely monitored and is subject to iterative improvement.

3.4.2. Attribution of mobilized private climate finance to public interventions and instruments

Approach: This methodology uses a simple volume-based approach to attribute mobilized private climate finance to specific interventions on a pro-rata basis. In other words, private mobilized sums from DFIs of industrialized countries are divided according to the relative share of linked public capital without bias for seniority, risk, arranger status, etc.

Justification: The pro-rata approach was adopted for its ease of application and accuracy for the range of considered DFI interventions in the methodology's scope.

Discussion: There are arguments for favoring different forms of participation in structured finance (e. g., risk, facilitation, etc.). However, efforts to differentiate are plagued by complexity. Further, while there may be merit in incentivizing certain activities, methodologies also run the risk of creating well-intended yet perverse incentives. The simple pro-rata approach, which most closely reflects reality, sidesteps the incentives issue.¹³

¹³ See also the on-going work of the OECD DAC to measure private finance mobilised by official development finance based on instrument-specific approaches for accounting boundaries, causality and attribution. OECD, Mobilisation effect of public development finance, <http://www.oecd.org/dac/stats/mobilisation-effect-of-public-development-finance.htm>

4. Example calculation

This section steps through an example of a wind park sited in a developing country with a USD 100 million capital requirement to illustrate the methodology in action. For brevity and simplicity the wind park is assumed to meet all of the definitional questions described in the preceding sections of the methodology, in order for this example to focus on the core issues of accounting boundaries, causality and attribution.

Four institutions come together to structure USD 100m in financing for the wind park through a mix of debt (USD 70 million) and equity (USD 30 million). The financing across the participating institutions, two private banks and two DFIs, proceeds as follows:

Equity: USD 30 million

- Private A: USD 21 million
- DFI A: USD 9 million

Debt: USD 70 million

- Private B: USD 42 million
- DFI B: USD 28 million

In this example, it is assumed that a mobilizing link is established between the public and private finance. Under this blanket causality approach, it is therefore further assumed that the wind park saw a total of USD 37 million in public finance mobilize USD 63 million in private finance. But how is attribution for the USD 63m split between the two public interventions?

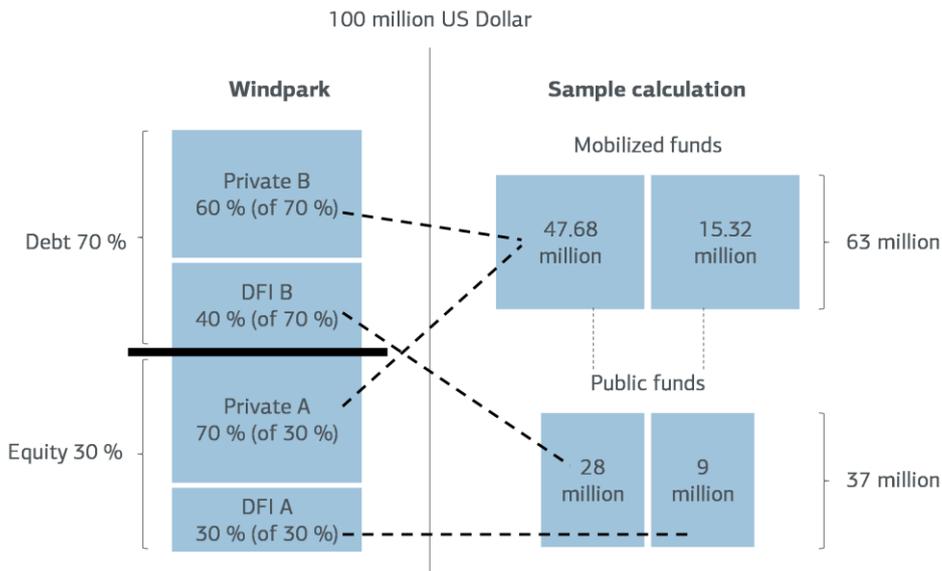
The methodology detailed in the previous section applies a project-level pro rata approach irrespective of instruments. In other words, attribution is split across the project based on the relative volume of public finance provided. For the total of USD 37 million of public finance provided, this breaks down to a (9/37) contribution from DFI A and (28/37) for DFI B. Attributing the total volume of private finance each DFI mobilized is simply a matter of multiplying this fraction and the total private finance provided.

DFI A: $(9/37) * \text{USD } 63 \text{ million} = \text{USD } 15.32 \text{ million}$

DFI B: $(28/37) * \text{USD } 63 \text{ million} = \text{USD } 47.68 \text{ million}$

Figure 2 below summarizes the example project's financing.

Figure 2: Example climate finance mobilization calculation



5. The 2015 pilot DFI climate finance mapping

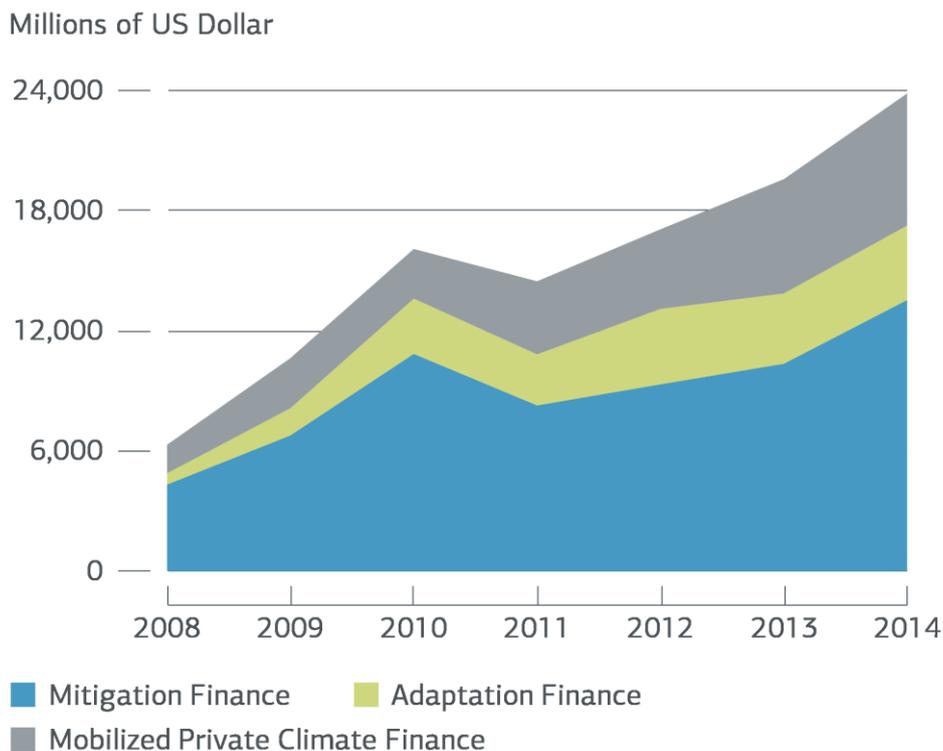
5.1. Background and methods

In January 2015, a group of 19 developed country DFIs jointly completed a climate finance mapping exercise (a full list of participating DFIs is detailed in Table 1 above in Section 3). The mapping, coordinated by KfW, was conducted through a survey instrument, which was distributed with accompanying guidance. The details of this methodology were described in the preceding sections of this paper. The mapping was completed and its results tabulated in early 2015.

5.2. Results

Figure 3 provides the aggregated annual results of the joint pilot DFI climate finance mapping, reporting annual results across three categories – public bilateral DFI mitigation finance, public bilateral DFI adaptation finance, and bilateral DFI mobilized private climate finance – for 2008 to 2014. These results are not final official data for the entire group, because of the differences in how participants have applied the method. These results are therefore indicative and neither official nor final.

Figure 3: Aggregate results from the DFI climate finance mapping pilot (commitments in current million USD)



The majority (> 90 %) of the mobilized private climate finance has been for mitigation activities and projects and only a small portion (< 10 %) for activities and projects in the field of adaptation. This is related to the current focus of climate finance in the energy sector and industry. Once definitions of adaptation finance are more widely appreciated and the sectoral focus of climate finance is expanded e. g. towards the agricultural sector, the building sector and urban or coastal infrastructure this pronounced imbalance is likely to disappear.

5.3. Lessons learned

The team at KfW that organized the pilot tracking expressed great thanks for the active participation across participating DFIs. They also identified a number of “lessons learned” that may be useful for future tracking initiatives.

- **Start small** - Begin with a core group of institutions and basic reporting indicators; expand as experience grows.
- **Improve as you go** - Continuously improve the methods during implementation.
- **Provide examples** - Offer simple practical examples to help reporters understand the methodology.
- **Maintain flexibility** - Ensure there is scope to adapt the methodology to the reporting systems of targeted institutions.
- **Keep it simple** - Be realistic about reporter capacity and avoid creating overly complex systems (“don’t let the perfect be the enemy of the good”).
- **Aggregate to increase reporters** - Aggregated, anonymous data disclosure can be instrumental in getting institutions involved quickly.
- **Use expert dialogues to maintain direction** - Periodic expert dialogue with think tanks (e. g., members of OECD RC) can keep the process on the right course.
- **Leverage high-level political events** - Political support under an event like the Climate Finance Ministerial can spur management attention, a critical success factor.

6. Conclusion and outlook

This paper reviewed a key technical challenge for climate finance: how to track the public mobilization of private climate finance. Addressing this issue head-on, the preceding sections introduced an easy-to-use tracking methodology. In an effort to elaborate the methodology's specific details, key "decision points" identified by the OECD RC were described and discussed. The paper concluded with an overview of the methodology's "road test," a pilot tracking across 19 DFIs that reported (in different ways and deepness) more than a combined USD 20 billion of public and publicly mobilized private climate finance in 2014. This approach provides a global framework focused on direct mobilization of private finance. The aim of the "road test" was to demonstrate the viability of a common approach for different institutions. The methodology makes use of the IDFC definitions of climate finance (see also Appendix B).

The methodology and findings this paper outlines represent an early effort to track publicly mobilized private climate finance. Currently the proposed methodology provides a starting point but as such does not ensure high accuracy and full comparability of data from all participating institutions. The methodology and findings in this paper are described in an effort to outline in practical detail how these figures were calculated and provide a foundation for further research and to participate in informing future tracking initiatives and reporting systems.

Table 3: Overview of options used to address each key decision point

Stages	Short description of methodological options used by the joint-DFI approach
1. Define core concepts	Climate change activities: Combines the conceptual approach of the Rio Markers system with IDFC guidance and specific “positive lists” of types of mitigation and adaptation activities.
	Public and private finance: Finance is considered public if originating from an institution which at least 50 % is owned by one or several governments or government controlled institution(s). Finance is considered private if the asset financed is in private ownership ($\geq 50\%$) (“private investment”) and/or the financial contribution comes from a private sector actor (“private capital”).
	Country classification: Recipient countries are classified as developed based on the official development assistance (ODA) recipient country list maintained by the OECD Development Assistance Committee (DAC).
	Geographical origin of private finance: Include private finance of all geographical origin without attempting to assign a geographical origin to it. Domestic private finance in the recipient country is eligible if causality (see below) with the intervention of a DFI can be established.
2. Identify public interventions and instruments	Type of public intervention and instruments: Public finance instruments used by DFIs.
	Specific instruments: All instruments used by participating DFIs i. e. grants, loans (concessional and non-concessional), equity positions, guarantees, credit lines. In order to avoid double counting, direct lending to or equity positions by DFIs in private entities as such are not counted as mobilized private finance.
3. Value public interventions and account for total private finance involved	Currency and conversion: Commitments in local currency are converted to USD using the conversion rate of the first working day of the ongoing year.
	Point of measurement: Amounts of private finance are measured ex-ante at commitment. New commitments are determined at financial close.
	Value of public interventions: All public instruments included in the methodology are recorded according to their face value at the point of commitment.
	Boundaries: Defined as direct private co-financing at the level of activity, credit line or structured fund.
4. Estimate private finance mobilisation	Causality: Assume blanket causality between public finance provided and direct private co-finance involved within the defined accounting boundaries where at least one financial activity (including guarantees) by a participating DFI is involved. There must be a link between the financial activity by the public actor and the private actor’s decision in favour of the specific investment.
	Attribution: Volume-based pro-rata among public sector actors involved, independent of the specific instruments used.

Appendix B: IDFC green finance project activity examples

A. Green energy and mitigation of greenhouse gas emissions

A.1 Renewable energy supply

- Electricity generation
 - Wind power
 - Geothermal power
 - Solar power (concentrated solar power, photovoltaic power)
 - Biomass or biogas power that does not decrease biomass and soil carbon pools
 - Ocean power (wave, tidal, ocean currents, salt gradient, etc.)
 - Hydropower plants, only if net emission reductions can be demonstrated
- Heat production
 - Solar water heating and other thermal applications of solar power in all sectors
 - Thermal applications of geothermal power in all sectors
 - Thermal applications of sustainably-produced bioenergy in all sectors, including efficient, improved biomass stoves

A.2 Lower-carbon and efficient energy generation

- Waste and wastewater
 - Waste management and waste-to-energy projects that reduce methane emissions and generate energy
- Transmission and distribution systems
 - Retrofit of transmission lines or substations and/or distribution systems to reduce energy use and/or technical losses, excluding capacity expansion
 - Improving existing systems to facilitate the integration of renewable energy sources into the grid
- Power plants
 - Renewable energy power plant retrofits
 - Energy-efficiency improvement in existing thermal power plant
 - Thermal power plant retrofit to fuel switch from a more GHG-intensive fuel to a different, less GHG-intensive fuel type
 - Waste heat recovery improvements
 - Fossil fuel based cogeneration technologies that generate electricity in addition to providing heating/cooling

A.3 Production of long-lived products or equipment for the generation of renewable energy

- Projects producing components, equipment or infrastructure dedicated to the renewable energy sector, e. g., blades for windmills, photovoltaic cells, boilers for co-generation projects

A.4 Energy efficiency in industry and buildings (projects dedicated to a significant energy efficiency improvement)

- Industry
 - Significant industrial energy-efficiency improvements through the installation of more efficient equipment, changes in processes, reduction of heat losses and/or increased waste heat recovery
 - Installation of cogeneration plants that generate electricity in addition to providing heating/cooling
 - More efficient facility replacement of an older facility (old facility retired)
- Commercial and residential sectors (buildings)
 - Energy-efficiency improvement in lighting, appliances and equipment
 - Substitution of existing heating/cooling systems for buildings by cogeneration plants that generate electricity in addition to providing heating/cooling
 - Waste heat recovery improvements
 - Retrofit of existing buildings: Architectural or building changes that enable reducing energy consumption
 - Efficiency of new buildings: Use of highly efficient architectural designs or building techniques that enable reducing energy consumption for heating and air conditioning, exceeding available standards and complying with high energy efficiency certification or rating schemes

A.5 Process emissions in industry and fugitive emissions

- Industrial processes
 - Reduction in GHG emissions resulting from industrial process improvements and cleaner production (e. g. cement, chemical), excl. carbon capture and storage
- Fugitive emissions
 - Reduction of gas flaring or methane fugitive emissions in the oil and gas industry
 - Coal mine methane capture
- Air conditioning and cooling
 - Retrofit of existing industrial, commercial and residential infrastructure to switch to cooling agent with lower global warming potential

A.6 Sustainable transport

- Vehicle energy efficiency fleet retrofit
 - Existing vehicles, rail or boat fleet retrofit or replacement (including the use of lower-carbon fuels, electric or hydrogen technologies, etc.)
- Urban transport modal change
 - Urban mass transit
 - Non-motorized transport (bicycles and pedestrian mobility)
- Urban development
 - Integration of transport and urban development planning (dense development, multiple land-use, walking communities, transit connectivity, etc.), leading to a reduction in the use of passenger cars
 - Transport demand management measures to reduce GHG emissions (e. g., speed limits, high-occupancy vehicle lanes, congestion charging/road pricing, parking management, restriction or auctioning of license plates, car-free city areas, low-emission zones)
- Inter-urban modal transport

- Railway transport ensuring a modal shift of freight and/or passenger transport from road to rail (improvement of existing lines or construction of new lines)
- Waterways transport ensuring a modal shift of freight and/or passenger transport from road to waterways (improvement of existing infrastructure or construction of new infrastructure)

A.7 Agriculture, forestry and land-use

- Afforestation and reforestation
 - Afforestation (plantations) on non-forested land
 - Reforestation on previously forested land
 - Reducing emissions from the deforestation or degradation of ecosystems
 - Biosphere conservation projects (including payments for ecosystem services)
 - Sustainable forest management
 - Forest management activities that increase carbon stocks or reduce the impact of forestry activities
- Agriculture
 - Agriculture projects that do not deplete and/or improve existing carbon pools (Reduction in fertilizer use, rangeland management, collection and use of bagasse, rice husks, or other agricultural waste, low tillage techniques that increase carbon contents of soil, rehabilitation of degraded lands, etc.)
 - Reduction in energy use in traction (e. g. efficient tillage), irrigation, and other agriculture processes
- Livestock
 - Livestock projects that reduce methane or other GHG emissions (manure management with biodigestors, etc.)
- Biofuels
 - Production of biofuels (including biodiesel and bioethanol)

A.8 Carbon capture and storage

- Projects for carbon capture and storage technology that attempts to prevent release of large quantities of CO₂ into the atmosphere from fossil fuel use in power generation and process emissions in other industries

A.9 Local, sectoral or national budget support to a climate change mitigation policy

- Dedicated budget support to a national or local authorities for climate change mitigation policy implementation

B. Adaptation to climate change

B.1 Water preservation

- Improvement in catchment management planning (to adapt to a reduction in river water levels due to reduced rainfall)
- Installation of domestic rainwater harvesting equipment and storage (to adapt to an increase in groundwater salinity due to sea level rise)
- Rehabilitation of water distribution networks to improve water resource management (to adapt to increased water scarcity caused by climate change)

B.2 Agriculture, natural resources and ecosystem based adaptation

- Conservation agriculture such as provision of information on crop diversification options (to adapt to an increased vulnerability in crop productivity)
- Increased production of fodder crops to supplement rangeland diet (to adapt to a loss in forage quality or quantity caused by climatic changes)
- Adoption of sustainable fishing techniques (to adapt to the loss of fish stocks due to changes in water flows or temperature)
- Identification of protected ecosystem areas (to adapt to a loss of species caused by sudden temperature changes)
- Improved management of slopes basins (to adapt to increased soil erosion caused by flooding due to excess rainfall)

B.3 Coastal protection

- Building of dykes to protect infrastructure (to adapt to the loss and damage caused by storms and coastal flooding, and sea level rise)
- Mangrove planting (to build a natural barrier to adapt to increased coastal erosion and to limit saltwater intrusion into soils caused by sea level rise)

B.4 Other disaster risk reduction

- Early warning systems for extreme weather events (to adapt to an increase in extreme weather events by improving natural disasters management and reduce related loss and damage)
- Improved drainage systems (to adapt to an increase in floods by draining off rainwaters)
- Insurance against natural disasters (to adapt better to extensive loss and damage caused by extreme weather events)
- Building resilient infrastructures such as a protection system for dams (to adapt to exposure and risk to extreme weather impacts, such as flooding, caused by climate change)
- Monitoring of disease outbreaks and development of a national response plan (to adapt to changing patterns of diseases that are caused by changing climatic conditions)

B.5 Local, sectoral, or national budget support to a climate change adaptation policy

- Dedicated budget support to a national or local authorities for climate change adaptation policy implementation

C. “Other environment”

C.1 Water supply

- Water supply - municipal/industrial/agricultural

C.2 Waste water treatment

- Waste water treatment - municipal/industrial/agricultural

C.3 Industrial pollution control

- Reduction of fluid and air pollutants from industry

C.4 Soil remediation and mine rehabilitation

- Clean up of hazardous waste sites

C.5 Waste management

- Solid waste collection and treatment, recycling

C.6 Biodiversity

- Forest species protection, biodiversity

C.7 Sustainable infrastructure

- Improvement of general transport logistics such as reduction of empty running

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