

# Raising the Game on Paris Alignment

SIX MEMOS ON THE MULTILATERAL DEVELOPMENT BANKS' PARIS ALIGNMENT APPROACH

David Ryfisch, Sophie Bartosch, Martin Voß, Jean Paul Brice Affana, Hanna Fekete, Aki Kachi, Markus Hagemann, Frauke Röser, Leonardo Nascimento, Michael Westphal and Lauren Sidner

## Imprint

---

This discussion paper series is the product of a partnership between Germanwatch, the NewClimate Institute and the World Resources Institute.

### Authors:

David Ryfisch, Sophie Bartosch, Martin Voß, Jean Paul Brice Affana, Hanna Fekete, Aki Kachi, Markus Hagemann, Frauke Röser, Leonardo Nascimento, Michael Westphal and Lauren Sidner.

### Acknowledgments:

The authors are very grateful for the many inputs, received on this discussion paper series. Staff and management of the following institutions have been consulted as part of the expert consultation process. Their review does not imply an endorsement of this discussion paper series and its findings. The contents of these working papers, as well as any errors, are the sole responsibility of the authors.

African Development Bank // Agence Française de Développement // Asian Development Bank // Asian Infrastructure Investment Bank // Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) // European Bank for Reconstruction and Development // European Investment Bank // Federal Ministry of Economic Cooperation and Development of Germany (BMZ) // IDB-Invest // Inter-American Development Bank // International Finance Cooperation // Islamic Development Bank // New Development Bank // Multilateral Investment Guarantee Agency // World Bank

We also want to thank our internal peer reviewers for their valuable input.

December 2019

This publication can be downloaded at: [www.germanwatch.org/en/17309](http://www.germanwatch.org/en/17309)

### Germanwatch e.V.

#### Office Bonn

Kaiserstr. 201  
D-53113 Bonn  
Phone +49 (0)228 / 60 492-0, Fax -19  
Website: [www.germanwatch.org](http://www.germanwatch.org)

#### Office Berlin

Stresemannstr. 72  
D-10963 Berlin  
Phone +49 (0)30 / 2888 356-0, Fax -1  
E-mail: [info@germanwatch.org](mailto:info@germanwatch.org)

### NewClimate Institute

#### Office Cologne

Clever Straße 13-1  
D-50668 Cologne  
Website: [www.newclimate.org](http://www.newclimate.org)

#### Office Berlin

Schönhauser Allee 10-11  
D-10119 Berlin

### World Resources Institute

10 G Street NE Suite 800  
Washington, DC 20002, USA  
Website: [www.wri.org](http://www.wri.org)



**Federal Ministry  
for Economic Cooperation  
and Development**

Financially supported by the German Federal Ministry for Economic Cooperation and Development. The authors are solely responsible for the content of this publication.

## CONTENTS

Memo 1:

**Aligning MDB Operations with the Paris Agreement’s Mitigation Objectives..... 1**

Authors: Hanna Fekete, Frauke Röser and Markus Hagemann (NewClimate Institute)

With contributions from Sophie Bartosch (Germanwatch) and Michael Westphal (WRI)

Memo 2:

**Enhancing Adaptation and Climate-Resilient Operations at the MDBs ..... 14**

Authors: Michael Westphal and Lauren Sidner

With contributions from Maik Winges (Germanwatch) and Hanna Fekete (NewClimate Institute)

Memo 3:

**Using Climate Finance to Accelerate the Transition to Carbon Neutrality and Climate Resilience ..... 30**

Authors: Jean Paul Brice Affana, Sophie Bartosch and David Ryfisch

With contributions from Lauren Sidner (WRI) and Hanna Fekete (NewClimate Institute)

Memo 4:

**Engagement and Policy Development Support..... 40**

Authors: Lauren Sidner and Michael Westphal

With contributions from Hanna Fekete (NewClimate Institute) and David Ryfisch (Germanwatch)

Memo 5:

**Paris-Aligned Reporting: Risks and Impacts ..... 49**

Authors: Martin Voß, Sophie Bartosch and David Ryfisch

With contributions from Hanna Fekete (NewClimate Institute) and Michael Westphal (WRI)

Memo 6:

**Aligning MDBs’ Internal Operations with the Paris Agreement..... 60**

Authors: Hanna Fekete, Leonardo Nascimento and Aki Kachi

With contributions from Sophie Bartosch (Germanwatch) and Lauren Sidner (WRI)



# Aligning MDB Operations with the Paris Agreement's Mitigation Objectives

Climate change mitigation is increasingly urgent. With every year of delayed action, the world runs out of options to be selective in its available mitigation options. The Paris Agreement recognises this urgency and calls on all countries undertake “ambitious efforts”, while keeping in mind the principle of respective responsibilities and capabilities.

This memo details several approaches Multilateral Development Banks (MDBs) could use to evaluate the alignment of their investments and other activities with the mitigation objectives of the Paris Agreement. It further investigates the need to contextualise this evaluation and suggests how MDBs can ensure an equitable approach to the mitigation requirements of the Paris Agreement.

In December 2018, the MDBs announced six building blocks for Paris alignment, including Building Block 1 on aligning with the mitigation goals of the Paris Agreement<sup>1</sup>: “Alignment with mitigation goals. Our operations will be consistent with the different countries’ low-emissions development pathways and compatible with the overall climate change mitigation objectives of the Paris Agreement. In line with Principle 2 of the “Mainstreaming Principles”, we will assess our operations against transition risks and opportunities related to climate change.”

In September 2019, the MDBs presented interim thoughts on their framework for Paris alignment. For mitigation, a central element is a flowchart that classifies projects as aligned or misaligned. The MDBs are in the process of detailing further the various blocks in the flowchart and this memo provides some suggestions as input to those discussions.

This work builds on results from previous research, which developed criteria for Paris alignment with a focus on transport and energy infrastructure.<sup>2</sup> It focuses on suggestions to develop criteria for Paris-aligned investing, and omits methods specifically targeted at assessing transition risks. However, we understand that by supporting only Paris-aligned activities, transition risks will be minimised, at least for new operations (see also Memo 5).

## OVERARCHING PRINCIPLES

To be aligned with the Paris Agreement mitigation objectives, MDBs enable countries to take mitigation measures beyond what they can equitably do on their own, to do what climate science says is required. A comprehensive approach by MDBs is required to respect all the objectives of the Paris Agreement, linking the different building blocks they have defined for Paris alignment. This memo begins with a number of overarching principles to guide implementation of Building Block 1:

- 1. Develop methods and tools, including sector strategies and targets, that support peaking global GHG emissions as soon possible and aim for net-zero CO<sub>2</sub> emissions by around 2050.** As part of a Paris-aligned framework, this overarching target provides a sense of direction and thus guides the development decision making for individual projects, as well as sector strategies and emissions targets.
- 2. If in doubt, assume misalignment. Take a conservative approach to activities where no clear judgement on their alignment is possible, and refine methods over time:** In some cases, it is difficult to determine to what

extent investing decisions are aligned. Approaches today may not provide a definite answer, results may vary based on the scenarios chosen, data may be lacking, or the additional effort required to reach a definite answer would not be feasible (e.g. in the case of financial intermediaries, where today, often little data are available to the financing institution). Under a comprehensive framework, assessment approaches will improve and more data will become available over time, decreasing the uncertainty. In the meantime, there is a risk of approving misaligned projects if they cannot be assessed. During this transition period, we advise a conservative approach: when Paris alignment is uncertain, the project should be labelled misaligned. If a bank chooses to label an activity “uncertain”, it should not call itself overall Paris aligned. Once methodologies are established, MDBs could move to labelling the few remaining “uncertain” projects as such, and explain why they still consider them to be aligned considering the overall portfolio of the organisation.

**Because uncertainty is currently high for investments in natural gas, we suggest assuming that all fossil fuel investments are misaligned unless proven otherwise.**

- 3. Go beyond current mitigation policies and targets to support Paris-aligned pathways:** Under a Paris-aligned approach, MDBs can continue to support NDC and long-term strategy implementation, while also increasing support for mitigation measures that help countries strengthen those and transition to low-carbon, Paris-aligned pathways. The NDCs and LTS submitted so far clearly exceed the Paris temperature limit and run the risk of locking countries into carbon-intensive pathways. Thus, alignment with NDCs and other national policies and strategies need to be considered so that their level of ambition is not undermined by MDB activities, but they alone cannot guarantee Paris alignment.

- 4. Stick to an ambitious interpretation of the Paris agreement temperature goal.** The Paris Agreement goal to limit temperature increase to well below 2°C and pursuing efforts to limit it to 1.5°C goes beyond the former 2°C limit of the Copenhagen Accord and Cancun Agreement. This means the MDBs should aim for 1.5°C, given their role as development cooperation providers and their influence on development finance more broadly and their role as good examples worldwide.

## IMPLEMENTING BUILDING BLOCK 1

### Approaches to define alignment with the mitigation objectives

This section examines various options for developing criteria to assess alignment of MDB investment activities with the mitigation goals of the Paris Agreement. The options discussed use global pathways, sectoral decarbonisation pathways, and more detailed benchmarks tailored to the specific circumstances of the country or project at issue. The memo focuses on quantitative approaches, but stresses that additional qualitative considerations will be required to come to a final judgement, particularly for investment areas where the project context determines alignment. The paper does not define benchmarks or criteria but explains how the different approaches can be useful for different types of analysis to inform investment decisions, and what potential limitations are.

Limiting warming to 1.5°C requires the highest possible mitigation efforts everywhere. As a result, these approaches do not differentiate between countries' responsibilities and capabilities. Section 3 discusses related issues of equity.

Table 1 provides guidance on what kind of approach to use, depending on the application. The Appendix gives an overview of the level of complexity, data availability and potential sources of information for the different approaches. Table 1 provides some additional considerations on natural gas investments.

**Table 1: Overview of Considerations for Paris Alignment and Approaches to Support the Analysis**

I want to...	Useful approaches/Inputs	Examples
<b>Define positive/negative lists</b>	<p>Global pathways</p> <p>Sector/technology pathways</p>	<p>Net CO<sub>2</sub> emissions need to be zero around 2050. This implies that coal is phased out quickly globally in all scenarios that align with the Paris Agreement temperature limit. Investments in coal should thus be on the negative list<sup>2</sup>.</p> <p>To get to net-zero, all scenarios aligned with the Paris Agreement foresee a strong increase in renewable energy. Investment in those technologies and related areas (e.g. distribution and storage) should be included on the positive list.</p> <p>Any investment area produces emissions or is at the risk of other sustainability concerns (e.g. gas, biomass, large hydro dams, nuclear) should not be on a positive list. For some technologies, pathways show that it depends on how they are deployed. E.g. transmission lines that do not connect a specific electricity source would require additional analysis to understand whether they support a transition to a zero-carbon electricity supply.</p>
<b>Develop sector-specific criteria for alignment</b>	<p>Sector/technology pathways</p> <p>Criteria that address project context</p>	<p>Paris-aligned pathways allow for natural gas investments under very limited circumstances. Determining whether a gas plant is aligned requires detailed consideration of plant specifications and context, including the plant's lifespan, any non-fossil fuel alternatives, and any additional fossil fuel infrastructure that the plant's construction would necessitate and potentially lock-in for the future (e.g. a gas pipeline made necessary by the plant).</p>
<b>Define objectives of policy-based lending</b>	<p>Sector/technology pathways</p>	<p>Sector pathways, such as the development of the share of renewable energy, can serve as an input for formulating policy objectives. Another example is agreeing that the programmes avoid finance flows to technologies that are not the best available technology.</p>
<b>Provide inputs to LTS processes with countries</b>	<p>Global pathways</p> <p>Sector/technology pathways</p>	<p>In developing an LTS, a country may need inputs on the adequate overall mitigation level, as well as sector pathways to achieve such a level.</p>

**Box 1: Considerations for Assessing Alignment of Natural Gas Infrastructure**

**Paris-aligned pathways only allow natural gas in exceptional circumstances,**

- where it is proven that no feasible technical alternative exists; or
- where it is proven that the facility can be repurposed for the use of low-carbon gas; or
- where it is proven that the installation will be equipped with carbon capture and storage technologies; and
- where there is no risk of a systemic lock-in as a result, e.g. of increased gas demand that will lead to further investments in gas infrastructure.

In many cases, energy efficiency and renewables combined with storage options (batteries/power to X) provide the economically more attractive solution, already limiting the role of natural gas today. MDBs should scrutinise every natural gas project, and if in doubt label it “misaligned”. Large-scale infrastructure that locks in natural gas use for many decades needs to receive particular attention. Upstream exploration and production of natural gas cannot be considered aligned with low-carbon, climate resilient development pathways.<sup>2</sup>

**This box describes various elements to consider when assessing investments related to natural gas, without trying to establish a complete assessment methodology:**

**Absolute emissions:** Although gas-fired power plants emit less CO<sub>2</sub> than other fossil fuels, the direct emission factor of 350 – 400 g/kWh is too high for Paris-aligned pathways in the long run. Leakage during the production and transportation of natural gas increases the emissions intensity further. If the gas plants are equipped with combined heat and power, their emissions factor would be lower. IPCC concludes that gas should only be used in the electricity sector in 2050 if it is equipped with CCS. Natural gas is also used as an energy carrier in industry, where less emissions intensive hydrogen replaces it in many processes in Paris-aligned scenarios. Another important use of natural gas today is the building sector, where Paris-aligned pathways project a

widespread electrification, renewable sources, as well as strong energy efficiency measures on the building envelope, minimising the role of natural gas in the long term and decreasing the emissions intensity of this sector.

The electricity sector will have to be at zero CO<sub>2</sub> emissions by 2050, or even be a net sink in scenarios that make use of Bioenergy Carbon Capture and Storage (BECCS). This means that if we use fossil power plants by then, those emissions will need to be abated by sinks. Even CCS plants emit, given incomplete capture rates.

**Potential role in electricity systems transition:**

Conventional power plants including gas turbines serve as a provider of system inertia and thus stabilise the grid. Some also see natural gas as a peak capacity for times when variable renewable resources are low and demand is high. However, costs for battery storage are dropping quickly towards cost-competitive levels.

**Relative improvement compared to other options and alternatives:**

Some countries currently rely heavily on coal, including for inefficient decentralised heating. At least in the short term, moving to efficient gas systems is an improvement in terms of emissions and energy efficiency, but also local air pollution. Wherever possible, zero-carbon options should be pursued to replace coal, however where renewable resources are lacking or cannot be deployed at the required speed to ensure a secure move away from coal, gas can be an alternative. Feasibility studies are required to rule out that no alternative exist. Such studies should include a comparison of longer-term infrastructure investments implied by the activities, including the risk of stranded assets.

**Lock-in risk:** The operation time of many investments in gas infrastructure exceeds by far the middle of this century. Gas pipelines have a technical lifetime of about 80 years. Investments in natural gas components risk cementing in a gas-heavy energy system. This is particularly the case where no gas infrastructure exists so far. Significantly expanding or even building up the complete system today will unavoidably lead to stranded assets when transitioning to a Paris-aligned pathway.



## Global pathways

Based on the mitigation objectives in the Paris Agreement and emissions scenario literature, we can estimate when various economies or entire sectors must be decarbonised and how other GHG emissions beyond CO<sub>2</sub> should develop. Staying within the Paris temperature limit requires globally:

- Reaching net-zero CO<sub>2</sub> emissions around 2050<sup>3</sup>
- Achieving a long-term balance of anthropogenic GHGs<sup>4</sup>
- Decarbonising the energy sector by around 2050<sup>5</sup>
- Reaching peak emissions as soon as possible<sup>4</sup>

The 2018 IPCC Special Report on 1.5°C, which is scientifically robust and vetted by governments, is a good source of information for global benchmarks.

Under a variety of scenarios that model emissions pathways that reach *net-zero* CO<sub>2</sub> by around 2050, including those used for the IPCC 1.5°C report, sectors for which *full* decarbonisation is possible with existing technology (e.g. energy supply) must do so by around 2050. Remaining emissions stem from processes or other sectors that are difficult to decarbonise (e.g. aviation). The scenarios require negative emissions in some sectors to make up for any remaining emissions in others.

IPCC bases its findings largely on cost-optimal pathways that distribute emissions cuts across geographical regions, independent of the level of development, based on where reductions are least expensive.<sup>3</sup> It is important to understand that net-zero does not primarily mean balancing emissions across regions or countries, but rather full decarbonisation where technically feasible, with flexibility for sectors or regions where reducing emissions to zero is currently not possible. Getting to net-zero CO<sub>2</sub> by mid-century means that every tonne of CO<sub>2</sub> that can be avoided with available technologies should be avoided by 2050.

One way to complement the approach of setting a decarbonisation target year is through a simple global emissions pathway towards that year,

namely 2050, for example, a linear path to 2050 or one that reduces emissions more rapidly now, with slower reductions later. The simple pathway can then be used to determine the compatibility of activities, projects or targets at different points in time.<sup>6,7</sup>

An advantage of this approach is its simplicity paired with a sound scientific basis: it defines a readily understandable target (0 by year x) that is nevertheless the result of a large body of scientific research (IPCC and others). The main drawback of using a global pathway for investment decisions, particularly for direct project finance, is of its limited detail and granularity. The goal of decarbonisation by 2050 alone does not define the precise global carbon budget available until then, but global warming is determined by cumulative emissions over time. Moreover, global models usually cover the electricity generation sector in considerable detail, while providing less guidance on the energy demand, industrial processes, and agricultural sectors. Further, banks' operations cover different sectors, some relying more heavily on difficult to decarbonise investment areas such as industry.

Though simplified, global pathways and comparing investments to globally required mitigation efforts can provide useful insights for technologies and – paired with considerations on equity – individual countries (see section “Differentiation between levels of development”). This approach could support the development of rough technology-based exclusion lists and identify investment opportunities in sectors or technologies that actively support Paris-aligned pathways (compare Table 1).

The objective of net-zero CO<sub>2</sub> emissions by 2050 should guide decisions made now for projects with lifespans beyond 2050. For example, building a gas-fired power plant in 2019 with an expected 40-year lifespan would not deliver zero emissions by 2050. The lifespan here is the technical operation time of the project, not the implementation phase nor the duration of the payback period for the MDB.

Further, global pathways can inform discussions with countries on mitigation plans, country programmes, or long-term low greenhouse gas emission development strategies (LTSS) (see also, the memo on BB4). Net-zero emissions by around 2050 could also serve as the basis for setting gross GHG emission targets at the MDB portfolio level. If a bank pursues a portfolio-level target, it needs to avoid that it simply moves out of emissive sectors such as industry. It thus makes sense to break down the net-zero target to different sectors, acknowledging that they decarbonise at different speeds.

### Sector and technology pathways

This approach uses information on a sector, sub-sector, or even technology level, to determine if different investments align with the Paris Agreement. These benchmarks describe development of sector indicators over time, for example the emissions intensity of the energy and heat supply, or requirements for certain efficiency standards for new buildings. In comparison to the global pathways described in the previous section, this approach zooms in to not only describe the required decrease of emissions globally or on a sector in aggregate, but lays out how the sector should achieve decarbonisation. Examples of such benchmarks from literature are<sup>8</sup>:

- ➔ Increase the share of renewable energy to 100% by 2050.
- ➔ All new buildings should be fossil-free and near-zero energy as of 2020.
- ➔ End fossil-fuelled vehicle sales after 2035.

Benchmarks can be derived in several ways:

From global emissions scenarios with sector detail: Most integrated assessment models cover the electricity sector in depth. Some global models represent the land use sector in more detail, while some provide intensity and activity indicators at the sector level, for example the development of GHG emissions intensity of electricity generation over time, or cement production and intensity.

Sector-specific scenarios or modelling exercises: Many bottom-up models cover the energy sector in some detail.<sup>9-11</sup> Other scenario exercises contain details on the industrial, transport, or buildings sectors.<sup>9,12</sup> There are studies which focus on mitigation opportunities assuming Paris-aligned pathways in specific sectors.<sup>13</sup> The Science-Based Targets initiative has developed approaches for a subset of sectors (e.g. chemicals, transport, financial institutions) to provide benchmarks for companies on how quickly they need to reduce greenhouse gas emissions.<sup>14</sup> The private sector association “We Mean Business” conducted a stakeholder process to agree on sector-specific benchmarks that can easily be used in practice.<sup>15,16</sup>

Through best available technology (BAT) or best practice policies: Particularly in sectors where no further guidance is available, the most efficient or least carbon-intensive solutions could be an indicator for Paris alignment. Avoiding carbon dioxide emissions means that every piece of new equipment and every renovation should be as efficient and low-carbon as possible. BAT or best practice policies offer viable solutions. Data sources for BAT include sector-specific research (e.g. for cement<sup>17</sup>) and databases (e.g. for energy efficiency<sup>18</sup>). Literature reviews for best practice policies can be found<sup>19,20</sup> for multiple sectors. BAT is not per default Paris-aligned, meaning that benchmarks resulting from this approach should be used with caution.

When drawing sector-specific benchmarks from scenario literature, the following considerations help inform a robust approach: First, the studies use their own interpretations of Paris-alignment, which may deviate from a robust 1.5°C scenario. Second, the studies may become outdated very quickly. For example, many studies, including the IEA reports, fail to reflect the actual progress of renewable energy technologies and prices.<sup>21</sup> Third, sector or technology-specific studies are not always integrated with global emissions scenarios. Hence, it is not always the case that aggregate emissions, together with all other sectors, are Paris aligned. Consequently, cross-checking individual study results with top-down models is advisable. Many existing data sources have a very

specific (sector) focus and will only support methods for a small subset of projects.

Sector-specific pathways provide detailed information about sectors, subsectors, and technology. This means that investment opportunities can often directly be compared to such benchmarks.

However, for some sectors, the level of detail is limited (e.g. industry). In some sectors, best available technology is Paris aligned (for example, renewable energy in the electricity and heat supply complies with a fully decarbonised pathway). In others, such as the industrial sector, BAT is not necessarily Paris aligned. Ideally, these indicators should be pegged to what the Paris Agreement says we need to do and not just what the best available technology can currently do. Where no other low-carbon alternative exists, BAT should be assessed for its lock-in risk: If the investment can later transition to a low-carbon pathway and there is no low-carbon alternative (including demand reductions), it can be considered aligned.

Further, sector and technology pathways often do not allow for differentiation based on project context. The benchmark of "All new buildings should be fossil-free and near-zero energy as of 2020" for example neglects the variation of capacity of the construction industry in different regions. It neither considers the geographical location of the building. For buildings where heating/cooling is needed only a few days a year it may be more cost-efficient to relax insulation standards, while the remaining required energy is low-carbon.

Sector decarbonisation pathways can support positive and negative investment lists. They can also influence the design of policy-based lending instruments, e.g. for formulating policy objectives for agreeing that the programmes avoid finance flows to technologies that are not the best available technology.

MDBs could work together to build a joint database with sector or technology-specific criteria from scenarios and other sources, either as background information or to develop benchmark levels or technologies to be used in the joint MDB approach to Paris alignment. Such a database could include intensity indicators and how they should

develop over time. It will be important to update this database regularly to reflect technology progress and new scientific insights. A well-equipped database requires efforts to set it up, however it would enable banks' staff and potentially other organisations to access the available information in the future.

#### Criteria that address project context and country circumstances

Analysis using the global or sectoral pathways described above may not be decisive for all activities. Instead, Paris alignment will often depend on the specific context of the investment. "Context" refers to national or local circumstances and development priorities and also the precise design of the investment and its environment. In terms of project design, often the relevant question is not "Is this project Paris aligned?" but "How should this project be designed so that it is Paris aligned?"

Project and context specific approaches are often necessary to reach a final decision on whether certain investment activities are aligned.

Examples for considering the context of an investment to derive criteria for Paris alignment are:

If a country already has a very high share of renewable energy in electricity, it should move to 100% RE in electricity earlier than 2050.

If the construction industry in a country has no experience with near-zero energy buildings, the year for only allowing near-zero energy buildings for new constructions could be moved to 2025 (rather than 2020).

If the project enables other economic activities that compromise alignment, it should be considered misaligned (see Box 2).

Few approaches exist that develop Paris-aligned criteria on this level of detail:

Germanwatch & NewClimate<sup>2</sup> illustrate approaches that consider the context of countries. The approach for the transport sector considers country circumstances in most detail.

Vivero et al.<sup>22</sup> formulate recommendations for different countries for the energy transition, based on the share of variable renewables in the country today (“phases of transition”) and country circumstances influencing the transition. The challenge of such a framework is the degree of complexity that arises from combining different circumstances. The authors therefore formulated country case studies but refrained from developing a framework with generic recommendations based on the phases and circumstances.

The advantage of such a concept is that it can be used directly for a very detailed assessment of the Paris alignment of projects. The concept is based on scientific and technically sound inputs, while it allows for flexibility to adjust to country-specific circumstances and the project context.

Limitations arise from limited availability of analysis and data to feed this concept. It takes thorough research and testing to understand well where and how global or sector pathways would need to be adjusted to reflect specific circumstances. Further, in sum the efforts still need to add up to a Paris-aligned pathway. This means that if too much flexibility is granted, the approach runs the risk of compromising the global pathways or climate goals.

Frameworks as described above could be a central piece of the MDBs’ approach to sector-specific criteria for Paris alignment. Once a robust method is developed, it can be easily deployed by project officers or climate change units supporting them.

### ***Box 2: Linking the Project to Other Economic Activities***

Even if an investment on its own is not misaligned with the Paris Agreement, it may enable activities that are misaligned. If an aligned investment results in diverting a country from its path towards decarbonisation through its economy-wide implications, by extension the investment becomes misaligned.

One example involves the construction of roads and related infrastructure. It is undisputed that rural roads provide remote areas with access to markets, education, health services, etc., and are thus important for rural development. However, for investments in rural roads to be Paris-aligned, it will be important to avoid lock-in of carbon-intensive infrastructure and increasing deforestation rates. This could mean allowing space for non-motorised traffic (e.g. pedestrian pathways, bicycle lanes) or public transportation and preserving opportunities for future decarbonisation (e.g. through investment in electric charging infrastructure).

Another example is an investment in district heating. Developing a heating network can avoid inefficient decentralised heat sources, such as coal or oil stoves. To ensure Paris alignment, the heat supply by mid-century needs to be fully decarbonised. In parallel, the heating demand of buildings will have to decrease. Under these circumstances, investments in a centralized heating system with a fossil fuel energy source could be Paris aligned if a) there is a clear, proven plan for decarbonising the energy source over time, b) the network design considers changes in the heating demand over time due to efficiency improvements of the building stock, and c) feasibility studies demonstrate that there is not yet a zero or low-carbon alternative available.

MDBs and other finance institutions striving for Paris alignment should avoid investments that enable misaligned activities directly or indirectly. Where the exact relationship is unclear, the most robust approach is to assume misalignment in case of doubt.

## Paris alignment, equity and country ownership

In addition to developing robust set of methodologies to define Paris alignment, the MDBs will also have to consider countries' priorities, responsibilities, and capabilities. This paper argues that MDBs should keep the methodologies separate from equity considerations. This chapter explains our rationale for that and describes how countries' national policies and strategies should still be considered in a framework for Paris alignment.

### Differentiation between levels of development

The Paris Agreement reiterates the UNFCCC principle **of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances**. The Agreement also implies that *all* countries need to undertake ambitious mitigation action to avoid the most severe impacts of a changing climate. This is a clear deviation from the Kyoto era, where mitigation responsibility was solely with developed countries.

The Paris Agreement does not provide guidance on the level of mitigation effort required from each country, but the IPCC Special Report on 1.5°C shows that all sectors globally must act to mitigate climate change. Every year of delayed action limits our freedom to prioritize mitigation measures. Under the circumstances, the issue of fairness shifts from a question of "who does how much" to one of "how fast" and, more importantly "who pays".<sup>23</sup>

Recent years have also shown promising developments for costs of some mitigation technologies, for example renewable electricity generation and battery storage<sup>24</sup>. This means, that particularly in the energy sector, 0-carbon solutions not only decrease emissions and foster other sustainable development benefits, they also in many cases provide the financially most attractive solution already today. Technology progress thus changes the equity debate and emphasises the need for MDBs to allow developing countries participate and profit from these developments.

In many sectors and regions, getting on a Paris-aligned pathway requires a departure from current trends. Countries may perceive this as disruptive and at odds with current government priorities. One essential role of MDBs is to enable developing countries to participate in mitigation efforts without putting an additional burden on them and ensuring whatever measures they take support the countries' development goals.

Mitigation actions can lead to other benefits. For instance, renewable energy development has fostered innovation and created new markets. Developing countries can benefit from opportunities to participate in new markets and may be able to take advantage of new technologies that allow them to avoid the risk of stranded assets. Still, not all mitigation investments will be financially viable for all countries. MDBs have tools to make these investments more attractive, such as concessional finance and grants. They can also improve the knowledge base and foster dialogue on the links between development objectives, mitigation activities, and the broader socio-economic context.

For the sector-specific criteria for Paris alignment, this means that the methods should not depend on responsibility or capability of the countries, while still considering local or country-specific circumstances.

### Considering countries' national policies and strategies

The bottom-up nature of NDCs allows countries flexibility to determine their own mitigation pathways. Considering countries' existing and updated mitigation objectives and activities is thus critical when assessing Paris alignment.

The mitigation component of the Paris Agreement consists of two main elements: The contributions determined and put forward by the countries (NDCs and LTS) and the overall goal to limit temperature increase to well below 2°C and pursue efforts to limit it to 1.5°C. At this point, the two elements do not fit together, where we know that countries' mitigation commitments on aggregate lead to about 3°C warming<sup>25</sup>, rather than 1.5°C.

The Paris Agreement does not prescribe individual countries' mitigation efforts to meet the 1.5°C limit, so any country might claim that it is aligned with Paris. It is a shared responsibility of all countries to update their targets to ensure that the temperature limit is not exceeded.

Approaches to assess Paris alignment thus cannot rely on NDCs or other short-term policies and targets. This would risk locking countries into a carbon intensive pathway over the long term or increase transition risks such as stranded assets. While LTSs have a longer time horizon, there is still no guarantee that all countries offer Paris-aligned strategies.

The MDB approach to Paris alignment needs to consider that if an activity is less ambitious than elements of a country's NDC, it would not be Paris-aligned. NDCs or other national mitigation efforts, should not be compromised by global mitigation scenarios in line with the temperature limit: The approach should reflect the most ambitious pathway, whether it originates as an NDC or a global mitigation scenario or additional considerations on the criteria for alignment that reflect the project context. In many cases global or sector decarbonisation pathways will not lead to a clear result on whether a specific activity is aligned or not. Where this is the case, this paper recommends developing alignment definitions based on project-specific circumstances, rather than attempting to break down global emissions scenarios to regions or countries using top-down approaches (e.g. least-cost or equity approaches). These definitions of alignment can also be an input to supporting countries in developing their LTS in a bottom-up manner.

When MDBs consider national policies and strategies in their framework for assessing alignment, they should, besides formally submitted NDCs, consider other sources such as long-term GHG development strategies, or other national or sectoral mitigation goals. Targets and policies beyond emissions targets (e.g. renewable energy targets, coal-phase out plans) can provide further orientation even on a sector or technology level.

In their work with countries, MDBs already consider the existing legislative framework that could

affect their planned projects. Considering all climate change policies could be an additional step to ensure reflecting the full picture. Understanding national mitigation efforts can also support the development of a Paris-aligned project pipeline, where over time, countries and MDBs can develop and prioritise projects that enable countries to transition to a low-carbon future. Various banks have projects that support NDC implementation, where such information could be generated and further used.

## RECOMMENDATIONS

To develop the MDB's classification criteria further, this paper recommends the steps outlined below. The first three refer directly to improvements or refinements of the MDB's interim classification criteria presented in September 2019.

- 1. Combine a clear target for net-zero carbon dioxide emissions around 2050 with sector and project specific considerations:** The overarching target to peak emissions as soon as possible and reach net-zero CO<sub>2</sub> around 2050 serves as a clear long-term reference for Paris alignment of all activities. If a global peak cannot be reached until 2020 the final year must – based on the limited CO<sub>2</sub>-budget - even be earlier than 2050. Additionally, more detailed approaches are needed for assessing alignment of technologies in the context of specific sectors, and further adapt them to the exact circumstances of the projects. A balance is required between the necessary level of detail and the complexity of the analysis.
- 2. Develop sector-specific criteria for Paris alignment *independent of countries' responsibilities and capabilities*:** The responsibilities and capability should reflect in differentiation of support, not mitigation outcome. To limit temperature increase to 1.5°C in line with the Paris Agreement, all countries have to implement ambitious mitigation efforts, and developed countries must support developing countries in those efforts. MDBs must enable developing countries to take mitigation action beyond what they could do

by themselves, to ensure rapid global GHG reductions.

- 3. Develop criteria for alignment that reflect the project context.** In many cases global or sector decarbonisation pathways will not lead to a clear result on whether a specific activity is aligned or not. Where this is the case, this paper recommends developing alignment definitions based on project-specific circumstances, rather than attempting a top-down break down of global emissions scenarios to regions or countries. Examples are resource availability, access to markets for mitigation technologies, or the status of the sectors today. These country and circumstance-specific definitions of alignment can also be an input to supporting countries in developing their LTS in a bottom-up manner.
- 4. Ensure consistency of a Paris-alignment definition across different approaches and banks:** While at the beginning, different approaches to define Paris alignment may originate from different starting points, it is important to ensure consistency, for example between a global pathway and all sector-specific pathways in sum. This will require coordination within each MDB, but also consistent integration of the different approaches in the joint MDB framework.
- 5. Ensure full consistency of the mitigation finance tracking methodology with the definition of Paris alignment.** This means moving from a definition of climate finance as activities that reduce emissions to activities that actively support the Paris Agreement (compare Memo on Building Block 3<sup>26</sup>)
- 6. Build up a joint database for available information on global, sector pathways and countries' circumstances.** This database could be jointly filled and reused by all, fostering efficient reuse of available information for the MDBs and robustness of the approaches. The database could also include NDCs and other mitigation policies as an input to checking whether activities are aligned with those. MDBs could also make the data available to other organisations.

## APPENDIX

**Table 2: Level of Effort and Example Data Sources of Different Approaches**

Approach	Data availability and robustness	Level of detail/complexity	Example sources of information
Global pathways	Very good	Low	IPCC Special report on 1.5°C and underlying scenario literature <sup>3</sup> . Paris Agreement Article 4.1 <sup>4</sup> .
Sectoral decarbonisation pathways	Varying by sector	Medium	Different global and sectoral scenarios <sup>(9,10,27)</sup> , Climate Action Tracker Decarbonisation Series <sup>13</sup> . Integrated Assessment models with sector level resolution: IMAGE Framework <sup>28</sup> , GLOBIOM <sup>29</sup> , GCAM <sup>30</sup> <sup>6</sup> for transport, buildings and electricity supply Subsector/technology level databases <sup>31</sup> .
Sector and circumstance specific benchmarks	Poor	High	Similar approaches available in <sup>2,22</sup> ,

## BIBLIOGRAPHY

<sup>1</sup>World Bank. *The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development*. <http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf> (accessed on 17 September 2019) (2018).

<sup>2</sup>Germanwatch & NewClimate Institute. *Aligning investments with the Paris Agreement temperature goal - Challenges and opportunities for Multilateral Development Banks*. [https://newclimate.org/wp-content/uploads/2018/09/MDB\\_WorkingPaper\\_2018-09.pdf](https://newclimate.org/wp-content/uploads/2018/09/MDB_WorkingPaper_2018-09.pdf) (2018).

<sup>3</sup>IPCC. *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change*. <https://www.ipcc.ch/sr15/download/#full> (2018).

<sup>4</sup>UNFCCC. *Report of the Conference of the Parties on its twenty-first session, held in Paris from 30 November to 13 (The Paris Agreement)*. (2016).

<sup>5</sup>Rogelj, J. *et al.* Energy system transformations for limiting end-of-century warming to below 1.5 °C. *Nat. Clim. Chang.* **5**, 519–527 (2015).

<sup>6</sup>Höhne, N. *et al.* *Developing criteria to align investments with 2 °C compatible pathways*. <https://newclimate.org/wp-content/uploads/2015/11/2criteria-final.pdf> (2015).

<sup>7</sup>Höhne, N., Emmrich, J., Fekete, H. & Kuramochi, T. *1,5°C: Was Deutschland tun muss*. <https://newclimate.org/2019/03/14/15c-what-germany-needs-to-do/> (2019).

<sup>8</sup>Kuramochi, T. *et al.* Ten key short-term sectoral benchmarks to limit warming to 1.5°C. *Clim. Policy* **18**, 287–305 (2018).

<sup>9</sup>IEA. *Energy Technology Perspectives 2017. Catalysing Energy Technology Transformations*. (International Energy Agency, 2017).

<sup>10</sup>Teske, S., Sawyer, S. & Schäfer, O. *Energy [R]Evolution. A Sustainable World Energy Outlook 2015*. *Energy [R]Evolution* (Greenpeace; SolarPower Europe; GWEC, 2015).

<sup>11</sup>Jacobson, M. Z. *et al.* 100% Clean and Renewable Wind, Water, and Sunlight All-Sector Energy Roadmaps for 139 Countries of the World. *Joule* **1**, 108–121 (2017).

<sup>12</sup>Jeffries, B., Deng, Y., Cornelissen, S., Wesselink, B. & Blok, K. *The Energy Report: 100% Renewable Energy by 2050*. (2011).

<sup>13</sup>Climate Action Tracker. *Climate Action Tracker Decarbonisation Memo Series*. Available at: <https://climateactiontracker.org/publications/decarbonisation-memo-series/>. (Accessed: 30th September 2019)

<sup>14</sup>Science Based Targets. *What is a Science Based Target?* Available at: <https://sciencebasedtargets.org/what-is-a-science-based-target/>. (Accessed: 30th September 2019)

<sup>15</sup>ClimateWorks Foundation, European Climate Foundation & We Mean Business. *Climate Ambition Benchmarks*. (2019).



- <sup>16</sup>Climate Action Tracker. *Climate Action Benchmarks : Mid-2018 analysis exploring the highest plausible ambition for countries and sectors*. (2018).
- <sup>17</sup>Favier, A., Wolf, C. de, Scrivener, K. & Habert, G. *A sustainable future for the European cement and concrete industry - Technology assessment for full decarbonisation of the industry by 2050*. (2019).
- <sup>18</sup>Enerdata. Odyssee Database. (2019). Available at: <https://www.indicators.odyssee-mure.eu/energy-efficiency-database.html>. (Accessed: 30th September 2019)
- <sup>19</sup>Kriegler, E. *et al.* Short term policies to keep the door open for Paris climate goals. *Environ. Res. Lett.* **13**, (2018).
- <sup>20</sup>Fekete, H. *et al.* *Impacts of good practice policies on regional and global greenhouse gas emissions*. (NewClimate Institute, PBL Netherlands Environmental Assessment Agency and International Institute for Applied Systems Analysis, 2015).
- <sup>21</sup>Metayer, M., Breyer, C. & Fell, H.-J. The projections for the future and quality in the past of the World Energy Outlook for solar PV and other renewable energy technologies. in (2015).
- <sup>22</sup>Vivero, G. De, Kurdziel, M.-J. & Hagemann, M. *Transition towards a decarbonised electricity sector - a framework of analysis for power system transformation*. (2019).
- <sup>23</sup>Roeser, F. The Role of Long-term Strategies in Aligning Near- and Midterm Plans with the Paris Agreement Goals. in *Climate Action With Tomorrow in Mind - Expert Perspectives on Long-term Climate and Development Strategies 2*, 166 (WRI; UNDP, 2018).
- <sup>24</sup>Wachsmuth, J. & Anatolitis, V. *Bringing climate policy up to date – decreasing cost projections for renewable energy and batteries and their implications*. (2018).
- <sup>25</sup>Climate Action Tracker. *Pledged action leads to 2.9° C - time to boost climate action*. (2019).
- <sup>26</sup>Affana, J. P. B., Bartosch, S. & Ryfisch, D. *Using Climate Finance to Accelerate the Transition to Carbon Neutrality and Climate Resilience*.
- <sup>27</sup>IEA. *World Energy Outlook 2018*. (International Energy Agency, 2018).
- <sup>28</sup>PBL. IMAGE - Land cover and land use. Available at: [https://models.pbl.nl/image/index.php/Land\\_cover\\_and\\_land\\_use](https://models.pbl.nl/image/index.php/Land_cover_and_land_use). (Accessed: 30th September 2019)
- <sup>29</sup>IIASA. Globiom. Available at: <http://globiom.org/>. (Accessed: 30th September 2019)
- <sup>30</sup>Joint Global Change Research Institute. Documentation - Global Change Assessment Model (GCAM). Available at: <http://jgcri.github.io/gcam-doc/>. (Accessed: 30th September 2019)
- <sup>31</sup>Global Cement and Concrete Association. GNR – GCCA in Numbers. (2019). Available at: <https://gccassociation.org/sustainability-innovation/gnr-gcca-in-numbers/>. (Accessed: 30th September 2019)

# Enhancing Adaptation and Climate-Resilient Operations at the MDBs

Adaptation is fundamental to the Paris Agreement. Article 2 calls on Parties to respond to climate change by “increasing the ability to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production” (2.1b) and “making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development (2.1c).”<sup>1</sup>

In order to operationalize the Paris Agreement’s 2.1c, the Multilateral Development Banks (MDBs) have identified six building blocks for alignment: mitigation, adaptation, reporting, policy support, reporting, and internal operations.<sup>2</sup> The second building block is concerned with adaptation and climate-resilient operations, including the management of physical climate risks in a manner consistent with climate-resilient development, identifying opportunities to make MDB operations more climate-resilient, and supporting a significant increase in their clients’ and their communities’ ability to adapt to the adverse impacts of climate change<sup>3</sup>.

Given that adaptation and mitigation are given equal weight in the Paris Agreement, it is imperative that the Multilateral Development Banks develop robust processes that put adaptation on equal footing when it comes to ensuring that investments are Paris aligned.

This issue brief builds on the landscape report, *Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement* by the World Resources Institute; Germanwatch and the NewClimate Institute, and provides more granular recommendations on adaptation. Additionally, it draws from our review of the Paris alignment literature, the MDBs’ existing efforts on adaptation, discussions with the MDBs on how they are beginning to conceptual-

ize the building block, and our own expert opinion on what is feasible and practical at these institutions.

## OVERARCHING PRINCIPLES

While all MDB investments need to be aligned with the Paris Agreement both in terms of mitigation and adaptation, there are fundamental differences between the two. While mitigation has a global impact, adaptation must be done on a local scale. Adaptation is arguably a more complex process: there is no adaptation analog of the temperature goal of the Paris and no single unit to measure like a ton of carbon dioxide. In contrast, resilience is multivariate, and the benefits of resilience must be measured differently across sectors.

The concept of climate-resilient pathways is integral to the question of Paris alignment of investment flows. The Intergovernmental Panel on Climate Change (IPCC) defines a climate-resilient pathway as a “continuing process for managing changes in the climate and other driving forces affecting development, combining flexibility, innovativeness, and participative problem solving with effectiveness in mitigating and adapting to climate change.”<sup>4</sup> They are development trajectories that combine mitigation and adaptation to realize the goal of sustainable development and help avoid dangerous anthropogenic interference with the climate system. The pursuit of climate-resilient pathways should identify vulnerabilities to climate change impacts, assess opportunities for reducing risk, and consider decisions over both short- and long-term time horizons.<sup>5</sup> Based on this conceptual formulation, we argue that the MDBs need to adhere to several fundamental principles.

**MDBs should consider both the *resilience of* and the *resilience through investments*.** These two dimensions of resilience have been articulated in the World Bank’s proposed resilience ratings system.<sup>6</sup> The Climate Bonds Initiative similarly refers to *asset-focused* and *system-focused resilience*.<sup>7</sup> Firstly, an asset or activity needs to be made climate-resilient over the course of its lifetime. In the case of infrastructure, this would be strengthening the assets to withstand projected changes in climate hazards (temperature, precipitation, sea-level rise, and severe precipitation events), and the associated impacts, such as flooding. For agriculture, this could mean adopting drought resistant varieties or employing water conservation measures. But it is also important that the investments themselves deliver system-wide benefits, such as building community or societal resilience by reducing the vulnerability of exposed populations, enhancing livelihoods, and protecting assets.

**MDB investments should consider climate risk across time scales, evaluate opportunities and adaptation options for reducing risk, and incorporate decision making under uncertainty.** The risks of climate change will intensify over time, given inertia and time lags in the climate system. Thus it is important to understand and, where possible, quantify the risk over many time scales. For infrastructure, this would mean over the entire lifetime of the asset (20 - 100 years), though often beyond, as the location of future infrastructure is highly dependent on the current built form. Given the uncertainty in the future climate projections in many places, especially at fine spatial or temporal scales, decision making should factor in uncertainty and adopt risk management approaches<sup>8</sup>, such as safety margins in adaptation planning<sup>9</sup>, low- or no-regrets options<sup>10</sup>, the inclusion of sensitivity analyses in cost-benefit or other economic analyses<sup>11</sup>, or robust decision making<sup>12</sup>, which identify adaptation strategies that perform well over a wide range of possible future climates.

**The MDBs should focus on adaptation effectiveness and track not only the quantity of adaptation investments, but also the quality.** To

date, the MDBs have focused on measuring adaptation volumes. While the current joint reporting framework on adaptation finance has been instrumental in scaling up adaptation finance at the MDBs (increasing from \$4.2 billion in 2011<sup>13</sup> to \$12.9 billion in 2018<sup>14</sup>), the current reporting does not gauge the effectiveness of adaptation finance.

**The benefits of resilience should be measurable across sectors.** . Given that climate change permeates all sectors and that there cannot be one measure of resilience, the use of sector-specific resilience metrics across sectors is necessary to measure the effectiveness of investments. Moreover, wherever possible, the investments should try to maximize co-benefits in line with the Sustainable Development Goals and complementarities with climate change mitigation (see Box 1 on next page).

Based on these principles, we argue that the MDBs need to:

1. **Ensure that all investments are climate-resilient by adopting robust quantitative processes that incorporate climate risks and adaptation options in project design and analysis, and**
2. **Enhance the quality of climate adaptation projects by adopting climate adaptation/resilience metrics.**

**Box 1: Trade-offs Between Adaptation and Mitigation**

Paris alignment refers to making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development. This leads to the question as to what extent mitigation and adaptation goals are mutually-reinforcing or whether there are tradeoffs between the two objectives. There are examples of adaptation and mitigation working against each other – increasing fossil fuel-based air conditioning in response to higher temperatures<sup>15</sup> – but choosing between the two is generally a false choice. Adaptation solutions that undermine mitigation efforts to a significant degree cannot support climate-resilient pathways.<sup>16</sup> When adaptation results in large associated emissions, it may not be the most appropriate course to take, so alternatives should be sought. And they typically exist. *Given the distributional impacts of climate change, including poverty, the focus of MDBs should be on enhancing resilience in the most low-carbon manner as possible.*

But in most cases, adaptation and mitigation will be complementary. Even with the most ambitious adaptation actions, there will be residual climate impacts. Thus, ambitious mitigation has been called as the best form of adaptation.<sup>17</sup> Some interventions provide both adaptation and mitigation benefits. For example, natural climate solutions (NCS), such as reforestation, avoided deforestation, coastal restoration and improved agricultural management, can provide more than one-third of the climate mitigation needed between now and 2030 to have a likely chance of keeping global warming below 2°C. And if effectively implemented, many also offer resilience benefits, such as flood buffering, improved soil health, and enhanced crop productivity.<sup>18</sup>

In terms of infrastructure, a core focus of MDBs' investments, resilience need not entail large associated emissions. There is evidence that integrating gray with green infrastructure can provide lower-cost and more resilient services than simply relying on gray infrastructure alone<sup>19</sup>. Where gray infrastructure needs to be made more resilient (e.g. elevating power plants, making water conveyance structures larger, enhancing drainage for roads), the additional costs may be only a few percent of the total project costs<sup>20</sup>, and, the associated embedded emissions from more construction materials may not be significant. And small additional GHG emissions would be justified with significant achievements in other SDG goals and strong resilience benefits, especially for vulnerable populations.

**IMPLEMENTING BUILDING BLOCK 2****Creating processes to ensure all investments are climate resilient**

MDB investments need to ensure the *resilience of investments*<sup>21</sup> through the adoption of quantitative processes that incorporate climate risk into analyses. The first step is to adopt climate risk screening early in the project design phase. This is what is currently done at most MDBs<sup>i</sup> now at the project identification or concept note stage.<sup>22</sup> The risk screening typically involves filtering the project into several qualitative risk categories, e.g. low-, medium- and high-risk, based on location-specific quantitative data on current climate and/or climate projections.<sup>ii</sup> The results of the screening are generally presented in project documents, but what comes after this screening varies across MDBs and is not standardized.<sup>23</sup> The IDB has a new disaster and climate change risk assessment methodology that calls for a detailed quantitative risk analysis<sup>24</sup>, while the ADB has begun to incorporate the costs of climate change adaptation measures in cost-benefit analyses and discloses the results in publicly-available project documents. For example, the ADB has quantified the impacts of climate change with and without adaptation measures for a gas-fired power plant in Bangladesh<sup>25</sup> and included the “climate proofing” costs in its calculation of the project's Net Present Value (NPV) (i.e. sum of the discounted benefits minus the costs).<sup>26</sup>

All the MDBs should go beyond a qualitative screening and systematize a multi-step quantitative process that incorporates climate risk and adaptation options in project financial and economic analysis (Figure 1) for all projects that are *screened to have a medium or high climate risk*. This process should include:

**I. Quantify climate risk.** This would be reported in *publicly-available* project documents. The climate hazard and impact variables would vary across sectors. For example, for an agriculture project this would mean how precipitation and

<sup>i</sup>AiIB and EIB do not currently screen projects. The IFC committed in FY18 to start screening climate vulnerable sectors for climate risks

<sup>ii</sup>The EBRD does not incorporate future climate projections into risk screening

temperature change would impact crop yields, while for a water resource project this would include how precipitation variability would impact water supply. An infrastructure project might be concerned with how the magnitude of extreme weather events, such as 100-year floods or maximum storm surge would change in the future. However, there would be a number of common characteristics:

**i. Include short-, medium-, and long-term climate risk.**

The analysis should consider current climate risk and the impacts of climate change over the short- (< 10 years), medium- (20 – 30 years) and long-term (30 – 50+ years). It is important to consider a longer-term perspective, beyond the project period, to encompass the lifetime of the asset. For example, many infrastructural assets can last 50 years or more.<sup>27</sup> But even for shorter-lived assets, this should apply. Even though roads may last 10 – 20 years, their future location is often constrained by the past.

**ii. Explore a range of scenarios and climate models.**

Analysis should employ a range of emissions scenarios (e.g. business-as-usual–Representative Concentration Pathway<sup>28</sup> (RCP) 8.5, 1.5 °C, 2 °C pathways) and climate models. (In the near-term, there is little divergence in projected climate impacts across emission scenarios, but in the long-term, differences become very pronounced.) It always preferable to use an ensemble of models that well-represent the distribution of projections (e.g. “dry” and “wet” climate models), plus the ensemble mean or median, rather than rely on one model in climate analyses.

**iii. Express uncertainty.** Where possible, the analyses would be presented in a probabilistic manner, e.g. percent chance that minimum runoff in a watershed management project would fall below *x* cubic meters per second or crop yield would fall by *x* kilograms per hectare.

Of course, not all climate risks can be easily quantified, and data gaps persist in many geographies. Nonetheless, this process is iterative, and with time, as data are more available and

models become more sophisticated, the ability to characterize climate risk will improve.

**II. Include climate risk in economic analyses.**

The projects should quantify how climate risk could affect the project economics, for example, how increased costs (e.g. infrastructure losses to higher probabilities of failure) or reduced benefits (e.g. crop yield reductions, decreases in hydropower generation) under different climate scenarios would reduce the NPV or Internal Rate Return (IRR) of the projects. Not all benefits can easily be quantified, so it is important to characterize at least qualitatively how climate risk would also impact non-monetary benefits, for example, loss of cultural heritage and non-market ecosystem values. This is in-line with the general recommendation that the MDBs should include the full climate costs and benefits in project economic analyses.<sup>29</sup>

**III. Elaborate adaptation options and include in project economic analyses (where possible).**

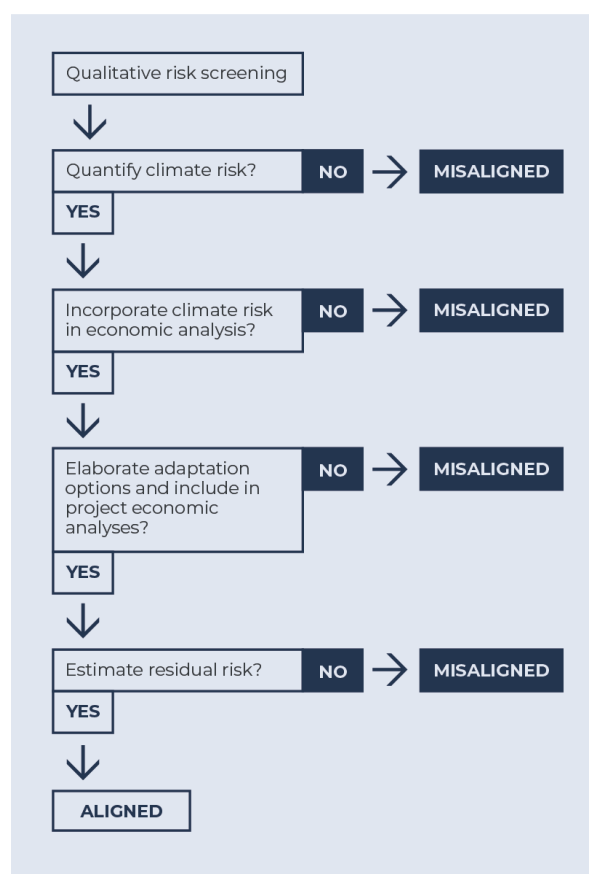
Adaptation options should be included in the project, and where possible, quantified in the project economic analyses (NPV, IRR). Here we are not referring to calculating the incremental cost of climate change adaptation, which is the additional cost of restoring welfare and benefits to the level it would have been without climate change, ignoring deficits to current climate.<sup>30</sup> The incremental cost of climate change adaptation is difficult to calculate outside of infrastructure and does not apply to many adaptation interventions, particularly “soft” measures such as capacity-building.<sup>31</sup> We are simply referring to the cost of building resilience in a project identified to have medium or high climate risks (see ADB’s power plant example above). As discussed, of course, not all adaptation benefits can be easily quantified and thus included in cost-benefit analyses.

Contingency plans should be described in case of failure of the adaptation intervention. Moreover, it is important that analyses extend beyond the project boundary in some cases, to guard against an adaptation measure being implemented that is maladaptive with regard to other communities outside the project, for example, downstream users in a water resource management project.

**IV. Quantify residual risk.** Adaptation options typically will not remove the climate risk completely. What remains is the residual risk. There may be other options that minimize climate risk, but they may not be feasible to implement or may have costs that exceed the benefits (e.g. avoided losses). Fundamentally, residual risk is dependent of the underlying climate risk and the opportunities identified to address that risk (adaptation options). In the ADB gas power plant example referenced above, the residual impact of climate change after the incorporation of adaptation measures is estimated in terms of the avoided lost power output (GWh). It may not always be possible to quantify the residual risk with great precision.

Ultimately, in order for a project to be aligned, it would have to disclose the results of all the above analyses. This is the end state for assessing alignment of investments (Figure 1). However, there could be a phased approach for the inclusion of these analyses in project preparation. The MDBs can start by quantifying climate risk in medium- and high-risk projects.

There is a very deep literature base on climate risk management<sup>32</sup>, and many organizations have presented some of the similar guidance. For example, the Climate Bonds Initiative's has articulated a series resilience principles and associated analyses for resilience bonds<sup>33</sup>, while the European Financing Institutions Working Group on Adaptation to Climate Change has produced guidance on incorporating climate information and risk into project planning and analyses.<sup>34</sup>



**Figure 1:** A decision tree for assessing alignment of medium- and high-risk investments in terms of climate resilience. Such a process should be the final goal for the MDBs for comprehensive physical climate risk assessment

The Task Force on Climate-related Financial Disclosures (TCFD) has outlined the importance of scenario analysis for physical risk.<sup>35</sup> The World Bank's proposed climate resilience ratings system includes variants of the analyses above.<sup>36</sup> However, in the ratings system, the implementation of progressively more sophisticated analyses allows projects to attain higher grades on a scale from R (unknown) to A+. One of the main purposes of the proposed ratings system is to provide risk-related information to private sector investors. We believe that all projects with medium to high climate risks should conduct all analyses and publicly disclose the results, if all investments are truly to be made resilient.

In March 2018, the EBRD became the first MDB to commit to the TCFD recommendations<sup>37</sup> and has outlined a series of recommendations for corporations consistent with the process we describe, including the need to: assess physical risks over

the lifetime of the asset, estimate potential financial impacts from climate, perform forward-looking analyses of climate risk, and adopt scenario analyses with multiple emissions scenarios and climate models.<sup>38</sup>

Aggregating the results of the analyses outlined above across projects would allow the MDBs to begin to report on physical risk of new investments, in accord with the TCFD.<sup>39</sup> The MDB TCFD reporting could include: the number and volume of projects exposed to the current and future climate risks, annual expected costs of climate impacts (expected loss), and the costs of adaptation measures (see also Memo 5).

### Adopting climate resilience metrics

MDB investments need to enhance the *resilience through* their investments<sup>40</sup> by moving beyond the current input-based approach to adaptation finance that does not measure effectiveness, i.e. the benefits per dollar of investment. The MDBs need to shift to an output, outcome and impact focus (see Figure 2)<sup>41</sup> and adopt resilience metrics that allow tracking and reporting of the effectiveness of adaptation projects.<sup>42</sup> Indeed, the need for adaptation metrics is one of the main lessons that the MDBs learned from the joint reporting on adaptation finance tracking.<sup>43</sup> We would assert that adaptation metrics should be reported for every project included in the joint reporting on adaptation finance. These metrics should also be included in the corporate results frameworks for each MDB.

Adaptation metrics include both *indicators* (usually single factor or variable measures) and *indices* (often composites of indicators). Various indicators can be formulated depending on whether they are trying to assess climate vulnerability, adaptive capacity, risk, resilience or climate impacts.<sup>44</sup> While adaptation and resilience are often used interchangeable, they are distinct concepts. The IPCC defines adaptation as “the process of adjustment to actual or expected climate and its effects”, while resilience is “the capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.”<sup>45</sup> Adaptation describes the process by which one seeks to minimize current and future risks, reduce vulnerability, and enhance resilience, while resilience describes a state or an outcome rather than a process.<sup>46</sup> Metrics also vary in terms of what they measure along the standard project results chain: inputs, outputs, outcomes, and impacts (Figure 2).

The MDBs corporate results frameworks generally include performance indicators across several levels or tiers: the larger country or regional development context; the banks’ contribution towards development through their projects, and its internal operational or organizational management (Annex 1). Currently while various social and human development indicators are

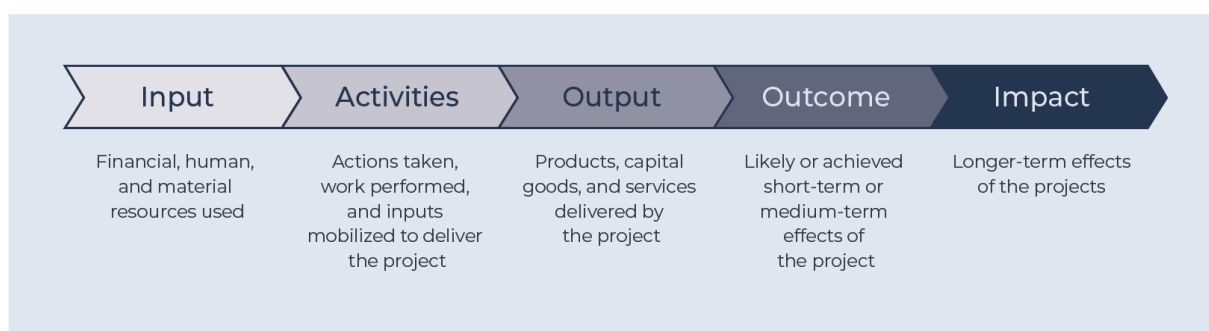


Figure 2: The project results chain

included in many MDBs results frameworks – and good development builds resilience<sup>47</sup> – overall, there is a dearth of explicit adaptation or climate resilience indicators included in their results frameworks.

The MDBs have developed a framework for climate resilience metrics in financing operations and have articulated a series of principles on the need for: “(1) a context-specific approach to climate resilience metrics, (2) compatibility with the variable and often long timescales associated with climate change impacts and climate resilience building, (3) an explicit understanding of the inherent uncertainties associated with future climate conditions, and (4) the ability to cope with the challenges associated with determining the boundaries of climate resilience projects.<sup>48</sup>” The framework calls for the use of metrics across the results chain and a diverse set of metrics, in part because of the diverse financing needs of the Paris Agreement and the variance across institutions in terms of structure, financial instruments, and business models.

However, we assert that there would be a valence in the MDBs adopting a common set of metrics across sectors and including them in their corporate reporting on the MDBs’ contribution to development through their projects (typically second tier). Common adaptation metrics could allow for enhanced adaptation effectiveness.<sup>49</sup> It would facilitate better comparability of effort across MDBs and could enhance ambition, as the joint reporting methodology has done for increasing the volumes of adaptation finance. The MDBs certainly have quite different regional contexts, sectoral foci, mandates, business models

and operating modalities when it comes to the use of instruments and concessionality. Some engage in policy-based lending, while others engage mostly in infrastructure projects on commercial terms. Arguments against standardization on these grounds could have easily been made before the adoption of the 3-step process for adaptation finance tracking. We argue that it is possible to come up with a set of adaptation indicators across sectors that acknowledge the different MDB circumstances.

The adaptation indicators used i.a. by the European Bank for Reconstruction and Development (EBRD) as part of its the Green Economy Transition approach<sup>50</sup> (Annex 1) and those of some of the multilateral climate funds could provide some guide to the indicators that could be employed by the MDBs (Annex 2). Most of these are output indicators. Of course, all metrics have some advantages and disadvantages. Perhaps the simplest metrics relate to the number of direct or indirect beneficiaries, which the Green Climate Fund (GCF) uses, or assets protected. However, they lack specificity and require detailed guidance for calculation. Purely economic metrics like avoided damages and the value of assets protected also only capture the adaptation benefits that can easily be monetized. Other more complex metrics include the saved wealth and saved health of projects.<sup>51</sup> All metrics would require additional methodological development by the MDBs. In Table 1 we provide list of some adaptation metrics that the MDBs could jointly adopt.

Regardless of the exact metrics, we argue that the MDBs should adopt a suite of harmonized output

**Table 1: Possible adaptation metrics that the MDBs could jointly adopt (incomplete list)**

<b>General</b>	<b>Sectoral</b> (all could have both economic and non-economic measures)
<ul style="list-style-type: none"> <li>- Number of direct and indirect beneficiaries</li> <li>- Assets protected/avoided damages/increased income</li> <li>- Increased human health &amp; productivity (quality-adjusted life years (QALYs))/ saved wealth and health</li> </ul>	<ul style="list-style-type: none"> <li>- Land area restored/protected</li> <li>- Land area employing climate-smart agricultural practices/ improved water management</li> <li>- Increased water availability in the face of increasing climatic variability</li> <li>- Increased energy availability in the face of increasing climatic variability</li> </ul>



and outcome adaptation metrics, and (eventually) impact metrics that are both non-economic and economic in nature and span sectors. This does not preclude the MDBs from also using other context-specific metrics. *While each sector would have a common basket of metrics, every metric would not be germane to each project in that sector. Every project included in the joint reporting on adaptation finance should also report on adaptation metrics.*

## RECOMMENDATIONS

In order for the MDBs to enhance adaptation and climate-resilient operations in accord with the Paris Agreement, all MDBs need to consider both the *resilience of* and *resilience through* their investments. While the MDBs have different operating circumstance and modalities, it is important that they harmonize as best as possible their approach to climate resilience. This is one of the key lessons of their joint reporting on climate finance: where there is standardization and a common basis of comparison, enhanced ambition follows.

To align their operations with the Paris Agreement on climate resilience, we recommend that the MDBs:

- 1. Adopt a harmonized multi-step quantitative process for new medium- and high-risk projects that incorporates climate risk and adaptation options in project financial and economic analysis and set a date by which all new projects will be analyzed.** As a start, each MDB can begin to quantify climate risk of projects and disclose them in project documents.
- 2. Adopt a common set of emission scenarios, timeframes and a set of climate models to be used in climate risk analyses.** The climate risk should be evaluated over the short (< 10 years), medium (20 – 30 years) and long term (30 – 50 years). The emission scenarios should include both a business-as-usual (e.g. RCP 8.5) and 1.5 °C/2 °C scenarios (e.g. RCP 2.6). The climate models would be

those that are part of the World Climate Research Program's Coupled Model Intercomparison Project<sup>52</sup>, whose outputs are used in the IPCC assessment reports.

- 3. Adopt a common suite of both non-economic and economic adaptation metrics** that measure project outputs, outcomes and impacts and include these in their corporate results frameworks, with all projects included in the joint reports on adaptation finance to also report on these adaptation metrics.

**APPENDIX 1. MDB CORPORATE RESULTS FRAMEWORKS.**

<b>Bank</b>	<b>Levels</b>	<b>Focus/Priorities</b>	<b>Explicit Adaptation/Climate Resilience Related Indicators<sup>iii</sup></b>
AfDB <sup>53</sup>	<ul style="list-style-type: none"> <li>- Level 1 tracks development progress across Africa</li> <li>- Level 2 measures the Bank's contributions towards development in all its operations.</li> <li>- Level 3 assesses the quality of the Bank's operations</li> <li>- Level 4 monitors the Bank's efficiency as an organization.</li> </ul>	<p>Level 1 and 2 indicators are for five priority areas ("the High 5s"):</p> <ul style="list-style-type: none"> <li>- Light up and power Africa,</li> <li>- Feed Africa,</li> <li>- Industrialise Africa,</li> <li>- Integrate Africa and</li> <li>- Improve the quality of life for the people of Africa.</li> </ul> <p>The Framework establishes indicators and goals for the five priority areas, as well as for cross-cutting strategic areas</p>	<ul style="list-style-type: none"> <li>- Land with improved water management (thousand ha) (Feed Africa)</li> <li>- People benefiting from improvements in agriculture (millions) (Feed Africa)</li> <li>- Rural population using improved farming technology (millions)</li> <li>- Resilience to water shocks (index)</li> </ul>
ADB <sup>54</sup>	<ul style="list-style-type: none"> <li>- Level 1: Development progress in Asia and the Pacific</li> <li>- Level 2: ADB's contributions to development results</li> <li>- Level 3: Operational management</li> <li>- Level 4: Organizational management</li> </ul>	<p>The Strategy 2020 lays out the main priorities: inclusive economic growth, environmentally sustainable growth, and regional Integration. Overarching goal is ending poverty.</p> <p>Level 1 indicators are focused on poverty and other development outcomes. Level 2 includes core operational areas: energy, transport, water, education, environment, regional Cooperation and Integration</p>	<ul style="list-style-type: none"> <li>- Land improved through irrigation, drainage, and/or flood management (hectares)</li> </ul>
EIB <sup>55</sup>	<p>Outside the EU, uses Results Measurement (ReM) Framework to track results of projects:</p> <ul style="list-style-type: none"> <li>- Pillar 1: Assesses consistency with EIB mandate objectives as well as contribution to EU priorities and country development objectives.</li> <li>- Pillar 2: Assesses results and the ability of the promoters to achieve these based on the soundness of the operation and the operating environment.</li> <li>- Pillar 3: Assesses the EIB contribution beyond what local markets can offer in terms of (i) financial contribution; (ii) technical advice; and (iii) facilitation.</li> </ul>	<p>Mobilize resources and expertise to achieve EU objectives</p>	<p>List of core and standard sectoral indicators at the project-level not publicly available.</p>
EBRD <sup>56,57</sup>	<p>Organized in five sections: (1) transition impact; (2) operational performance; (3) finan-</p>	<p>Competitive, green, inclusive, resilient, integrated and well-governed economies.</p>	<p>The EBRD has adopted the Green Economy Transition (GET) approach for assessing resilience benefits with these metrics:</p>

<sup>iii</sup> There is some subjectivity involved in determining what is and what is not an adaptation metric. We have excluded social and human development indicators, even though good development does build resilience. We have also excluded measures of energy/water access or simple agricultural production, unless they explicitly reference climate change.

	<p>cial performance; (4) organizational performance; (5) resource framework</p>		<ul style="list-style-type: none"> <li>-Increased water availability in the face of increasing climatic variability (m<sup>3</sup>/year; €)</li> <li>- Increased energy availability in the face of increasing climatic variability (MWh/year; €)</li> <li>-Increased agricultural potential in the face of increasing climatic variability (soil erosion: tones/hectare/year; €)</li> <li>-Increased human health &amp; productivity in the face of increasing climatic variability (quality-adjusted life years (QALYs))</li> <li>-Reduced weather-related disruption (days/year downtime; €)</li> <li>-Reduced weather-related damage (risk frequency of a damaging weather or climate event; service life; €)</li> </ul> <p>(Each both economic and non-economic)</p>
IDB <sup>58</sup>	<ul style="list-style-type: none"> <li>- Level 1: Regional context</li> <li>- Level 2: Country development results</li> <li>- Level 3: IDBG performance</li> </ul>	<p>Three challenges: (1) social inclusion and equality; (2) productivity and innovation; and (3) economic integration. Three cross-cutting themes: (1) climate change and environmental sustainability; (2) gender equality and diversity; and (3) institutional capacity and rule of law</p>	<p>Beneficiaries of improved management and sustainable use of natural capital</p>
IsDB <sup>59</sup>	<ul style="list-style-type: none"> <li>-Level 1: member countries' progress in addressing developmental challenges</li> <li>-Level 2: IsDB's contributions to development outcomes in member countries and Muslim communities</li> <li>-Level 3: IsDB's operational effectiveness and organizational efficiency</li> </ul>	<p>The 10-year strategic priorities include: (1) inclusiveness (IsDB as economic and social development partner), (2) connectivity (South-South cooperation), and (3) Islamic finance growth. Strategic pillars include: economic and social infrastructure, private sector development, inclusive social development, cooperation between member countries, and Islamic finance sector development</p>	<p>Area irrigated (ha)</p>
World Bank <sup>60</sup>	<ul style="list-style-type: none"> <li>- Tier 1: Development context</li> <li>- Tier 2: Client results</li> <li>- Tier 3: Performance (operational and organizational)</li> </ul>	<p>The overarching goals of the World Bank are around poverty and inclusive economic growth. Tiers 1 and 2 are focused on growth, sustainability and resilience, and inclusiveness.</p>	<ul style="list-style-type: none"> <li>- Farmers adopting improved agricultural technology</li> <li>-Area provided with irrigation services</li> <li>-Countries institutionalizing disaster risk reduction as a national priority</li> <li>-There are a number of broad, but not climate-specific, resilience indicators, e.g. number of countries with strengthened public management systems</li> </ul>

**APPENDIX 2. MDB CORPORATE RESULTS FRAMEWORKS.**

<b>Organization/Source</b>	<b>Indicators (Results Category)</b>
Adaptation Fund <sup>61</sup>	<p>Outcome 1: Reduced exposure at national level to climate-related hazards and threats</p> <ul style="list-style-type: none"> <li>-Relevant threat and hazard information generated and disseminated to stakeholders on a timely basis</li> </ul> <p>Output 1: Risk and vulnerability assessments conducted and updated at a national level</p> <ul style="list-style-type: none"> <li>-No. and type of projects that conduct and update risk and vulnerability assessments</li> <li>- Development of EWSs</li> </ul> <p>Outcome 2: Strengthened institutional capacity to reduce risks associated with climate-induced socio-economic and environmental losses</p> <ul style="list-style-type: none"> <li>-No. and type of targeted institutions with increased capacity to minimize exposure to climate variability risks</li> <li>-Number of people with reduced risk to extreme weather events</li> </ul> <p>Output 2.1: Strengthened capacity of national and regional centers and networks to respond rapidly to extreme weather events</p> <ul style="list-style-type: none"> <li>-No of staff trained to respond to, and mitigate impacts of, climate-related events</li> <li>-Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased</li> </ul> <p>Output 2.2: Targeted population groups covered by adequate risk reduction systems</p> <ul style="list-style-type: none"> <li>-Percentage of population covered by adequate risk-reduction systems</li> <li>-No. of people affected by climate variability</li> </ul> <p>Outcome 3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level</p> <ul style="list-style-type: none"> <li>-Percentage of targeted population aware of predicted adverse impacts of climate change, and of appropriate responses</li> <li>-Modification in behavior of targeted population</li> </ul> <p>Output 3: Targeted population groups participating in adaptation and risk reduction awareness activities</p> <ul style="list-style-type: none"> <li>-No. and type of risk reduction actions or strategies introduced at local level</li> <li>-No. of news outlets in the local press and media that have covered the topic</li> </ul> <p>Outcome 4: Increased adaptive capacity within relevant development and natural resource sectors</p> <ul style="list-style-type: none"> <li>-Development sectors' services responsive to evolving needs from changing and variable climate</li> <li>-Physical infrastructure improved to withstand climate change and variability-induced stress</li> </ul> <p>Output 4: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability</p> <ul style="list-style-type: none"> <li>-No. and type of health or social infrastructure developed or modified to respond to new conditions resulting from climate variability and change (by type)</li> <li>-No. of physical assets strengthened or constructed to withstand conditions resulting from climate variability and change (by asset types)</li> </ul> <p>Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress</p> <ul style="list-style-type: none"> <li>-Ecosystem services and natural assets maintained or improved under climate change and variability-induced stress</li> </ul> <p>Output 5: Vulnerable physical, natural, and social assets strengthened in response to climate change impacts, including variability</p> <ul style="list-style-type: none"> <li>-No. and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of assets)</li> </ul> <p>Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas</p> <ul style="list-style-type: none"> <li>-Percentage of households and communities having more secure (increased) access to livelihood assets</li> <li>-Percentage of targeted population with sustained climate-resilient livelihoods</li> </ul> <p>Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability</p> <ul style="list-style-type: none"> <li>-No. and type of adaptation assets (physical as well as knowledge) created in support of individual or community-livelihood strategies</li> <li>-Type of income sources for households generated under climate change scenario</li> </ul> <p>Outcome 7: Improved policies and regulations that promote and enforce resilience measures</p> <ul style="list-style-type: none"> <li>-Climate change priorities are integrated into national development strategy</li> </ul> <p>Output 7: Improved integration of climate-resilience strategies into country development plans</p>

	<ul style="list-style-type: none"> <li>-No., type, and sector of policies introduced or adjusted to address climate change risks</li> <li>-No. or targeted development strategies with incorporated climate change priorities enforced</li> </ul>
Green Climate Fund <sup>62</sup>	<ul style="list-style-type: none"> <li>-Expected total number of direct and indirect beneficiaries, (reduced vulnerability or increased resilience); number of beneficiaries relative to total population (output)</li> <li>-Degree to which the activity avoids lock-in of long-lived, climate-vulnerable infrastructure (output)</li> <li>-Expected reduction in vulnerability by enhancing adaptive capacity and resilience for populations affected by the proposed activity, focusing particularly on the most vulnerable population groups and applying a gender-sensitive approach (outcome)</li> <li>-Expected strengthening of institutional and regulatory systems for climate-responsive planning and development (output)</li> <li>-Expected increase in generation and use of climate information in decision-making (PMF-A 6.0 and related indicator(s)) (output)</li> <li>-Expected strengthening of adaptive capacity and reduced exposure to climate risks (outcome)</li> <li>-Expected strengthening of awareness of climate threats and risk-reduction processes (outcome)</li> <li>-Other relevant indicative assessment factors, taking into account the Fund's objectives, priorities and result areas, as appropriate on a case-by-case basis</li> </ul>
GEF LDCF/SCCF <sup>63</sup>	<p>Objective 1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change (outcome)</p> <ul style="list-style-type: none"> <li>- Number of beneficiaries (output)</li> <li>- Type and extent of assets strengthened and/or better managed to withstand the effects of climate change (output)</li> <li>- Population benefiting from the adoption of diversified, climate-resilient livelihood options (output)</li> <li>- Extent of adoption of climate-resilient technologies/practices (output)</li> </ul> <p>Objective 2: Strengthen institutional and technical capacities for effective climate change adaptation (outcome)</p> <ul style="list-style-type: none"> <li>-Public awareness activities carried out and population reached (output)</li> <li>-Risk and vulnerability assessments, and other relevant scientific and technical assessments carried out and updated (output)</li> <li>-Number of people/ geographical area with access to improved climate information services (output)</li> <li>-Number of people/ geographical area with access to improved, climate-related early-warning information (output)</li> <li>-Number of people trained to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures (output)</li> <li>-Capacities of regional, national and sub-national institutions to identify, prioritize, implement, monitor and evaluate adaptation strategies and measures (output)</li> </ul> <p>Objective 3: Integrate climate change adaptation into relevant policies, plans and associated processes (outcome)</p> <ul style="list-style-type: none"> <li>-Institutional arrangements to lead, coordinate and support the integration of climate change adaptation into relevant policies, plans and associated processes (output)</li> <li>-Regional, national and sector-wide policies, plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures (output)</li> <li>-Sub-national plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures (output)</li> <li>-Countries with systems and frameworks for the continuous monitoring, reporting and review of adaptation (output)</li> </ul>
Pilot Program for Climate Resilience <sup>64</sup>	<ul style="list-style-type: none"> <li>-Degree of integration of climate change in national, including sector, planning (output)</li> <li>-Evidence of strengthened government capacity and coordination mechanism to mainstream climate resilience (output)</li> <li>-Quality and extent to which climate responsive instruments/ investment models are developed and tested (optional) (output)</li> <li>-Extent to which vulnerable households, communities, businesses, and public-sector services use improved PPCR-supported tools, instruments, strategies, and activities to respond to climate variability or climate change (output)</li> <li>-Number of people supported by PPCR to cope with the effects of climate change (output)</li> </ul>

---

## BIBLIOGRAPHY

- <sup>1</sup> UNFCCC (United Nations Framework Convention on Climate Change). 2015. Paris Agreement. [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf).
- <sup>2</sup> AfDB, ADB, AIIB, EBRD, EIB, IDB, ISDB, and WBG. 2018. The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development. <http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf>
- <sup>3</sup> AfDB, ADB, AIIB, EBRD, EIB, IDB, ISDB, and WBG. 2018. The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development. <http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf>
- <sup>4</sup> Denton, F., T.J. Wilbanks, A.C. Abeysinghe, I. Burton, Q. Gao, M.C. Lemos, T. Masui, K.L. O'Brien, and K. Warner, 2014: Climate-resilient pathways: adaptation, mitigation, and sustainable development. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1101-1131.
- <sup>5</sup> Denton, F., T.J. Wilbanks, A.C. Abeysinghe, I. Burton, Q. Gao, M.C. Lemos, T. Masui, K.L. O'Brien, and K. Warner, 2014: Climate-resilient pathways: adaptation, mitigation, and sustainable development. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1101-1131.
- <sup>6</sup> World Bank. 2019. The resilience (or disaster and climate risk) transparency rating
- <sup>7</sup> Climate Bonds Initiative, World Resources Institute, Climate Resilience Consulting. 2019. Climate Resilience Principles: A framework for assessing climate resilience investments. <https://www.climatebonds.net/files/page/files/climate-resilience-principles-climate-bonds-initiative-20190917-.pdf>
- <sup>8</sup> Sidner, L and M.I. Westphal. Agriculture and Rural Development Sectors Climate Change Adaptation Guidance Note. Islamic Development Bank. <https://books.isdb.org/view/183219/>
- <sup>9</sup> Hallegatte, S., A. Shah, R. Lempert, C. Brown, and S. Gill. 2012. Investment Decision Making under Deep Uncertainty—Application to Climate Change. Policy Research Working Paper No. WPS 6193. World Bank Group
- <sup>10</sup> Hallegatte, S., A. Shah, R. Lempert, C. Brown, and S. Gill. 2012. Investment Decision Making under Deep Uncertainty—Application to Climate Change. Policy Research Working Paper No. WPS 6193. World Bank Group
- <sup>11</sup> Penning-Rowsell, Edmund, N. Haigh, S. Lavery, and L. McFadden. 2013. A Threatened World City: The Benefits of Protecting London from the Sea. *Natural Hazards* 66 (3): 1383–404.
- <sup>12</sup> Lempert, R., D. Groves, S. Popper, and S. Bankes. 2006. A General, Analytic Method for Generating Robust Strategies and Narrative Scenarios. *Management Science* 52 (4), 514–28
- <sup>13</sup> AfDB, ADB, EBRD, EIB, IDB, and WBG. 2019. Joint MDB Report on Adaptation Finance 2011. <https://publications.iadb.org/publications/english/document/Joint-MDB-Report-on-Adaptation-Finance-2011.pdf>
- <sup>14</sup> AfDB, ADB, EBRD, EIB, IDB, and WBG. 2019. 2018 Joint Report on Multilateral Development Banks' Climate Finance.
- <sup>15</sup> Denton, F., T.J. Wilbanks, A.C. Abeysinghe, I. Burton, Q. Gao, M.C. Lemos, T. Masui, K.L. O'Brien, and K. Warner, 2014: Climate-resilient pathways: adaptation, mitigation, and sustainable development. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1101-1131.

- 
- <sup>16</sup> Denton, F., T.J. Wilbanks, A.C. Abeysinghe, I. Burton, Q. Gao, M.C. Lemos, T. Masui, K.L. O'Brien, and K. Warner, 2014: Climate-resilient pathways: adaptation, mitigation, and sustainable development. In: *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Field, C.B., V.R. Barros, D.J. Dokken, K.J. Mach, M.D. Mastrandrea, T.E. Bilir, M. Chatterjee, K.L. Ebi, Y.O. Estrada, R.C. Genova, B. Girma, E.S. Kissel, A.N. Levy, S. MacCracken, P.R. Mastrandrea, and L.L. White (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 1101-1131.
- <sup>17</sup> Global Commission on Adaptation. 2019. *Adapt Now: a Global Call for Leadership on Climate Resilience*. Global Center on Adaptation, World Resources Institute
- <sup>18</sup> Griscom, B.W., Adams, J., Ellis, P.W., Houghton, R.A., Lomax, G., Miteva, D.A., Schlesinger, W.H., et al. 2017. Natural Climate Solutions. *Proceedings of the National Academy of Sciences of the United States of America* 114(44): 11645–11650.
- <sup>19</sup> Browder, Greg; Ozment, Suzanne; Rehberger Bescos, Irene; Gartner, Todd; Lange, Glenn-Marie. 2019. *Integrating Green and Gray : Creating Next Generation Infrastructure*. Washington, DC: World Bank and World Resources Institute. <https://openknowledge.worldbank.org/handle/10986/31430> License: CC BY 4.0."
- <sup>20</sup> Hallegatte, Stéphane, Jun Rentschler, and Julie Rozenberg. 2019. *Lifelines: The Resilient Infrastructure Opportunity*. Sustainable Infrastructure Series. Washington, DC: World Bank. doi:10.1596/978-1-4648-1430-3.
- <sup>21</sup> World Bank. 2019. *The resilience (or disaster and climate risk) transparency rating*
- <sup>22</sup> Larsen, G., Smith, C., Krishnan, N., Weischler, L., Bartosch, S., Fekete, H.. 2018. *Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement*. World Resources Institute, New Climate Institute, Germanwatch, Fundacion Avina
- <sup>23</sup> Larsen, G., Smith, C., Krishnan, N., Weischler, L., Bartosch, S., Fekete, H.. 2018. *Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement*. World Resources Institute, New Climate Institute, Germanwatch, Fundacion Avina
- <sup>24</sup> Inter-American Development Bank. 2018. *Executive Summary of the Disaster and Climate Change Risk Assessment Methodology for IDB Projects*. Technical Note IDB-TN-01583.
- <sup>25</sup> Asian Development Bank. 2019. *Climate Risk Vulnerability Assessment. Rupsha 800-Megawatt Combined Cycle Power Plant Project (RRP BAN 50161)*. <https://www.adb.org/sites/default/files/linked-documents/50161-003-sd-07.pdf>
- <sup>26</sup> Asian Development Bank. 2019. *Economic Analysis of Climate-Proofing Investment. Rupsha 800-Megawatt Combined Cycle Power Plant Project (RRP BAN 50161)*. <https://www.adb.org/sites/default/files/linked-documents/50161-003-sd-03.pdf>
- <sup>27</sup> Union of Concerned Scientists. 2017. *Built to Last: Challenges and Opportunities for Climate-Smart Infrastructure in California*. <https://www.ucsusa.org/sites/default/files/attach/2017/11/gw-whitepaper-smart-infrastructure.pdf>
- <sup>28</sup> IPCC 2014: *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp.
- <sup>29</sup> Westphal, M., and I. Masullo. 2018. *Aligning Electricity Transmission and Distribution Investments with a Paris Agreement Pathway*. Working Paper. Washington, DC: World Resources Institute. <http://www.wri.org/publication/paris-alignment-electricity-transmission-anddistribution>
- <sup>30</sup> Westphal M, Hughes G, and Brömmelhörster J. 2013. *Economics of Climate Change in East Asia*. Asian Development Bank. <https://www.adb.org/sites/default/files/publication/30434/economics-climate-change-east-asia.pdf>
- <sup>31</sup> Green Climate Fund. 2018. *GCF/B.21/Inf.03/Add.01, The Green Climate Fund's Approach to Adaptation*. Prepared by World Resources Institute. [https://www.greenclimate.fund/documents/20182/1270184/GCF\\_B.21\\_Inf.03\\_Add.01\\_-\\_Approach\\_and\\_scope\\_for\\_providing\\_support\\_to\\_adaptation\\_activities\\_\\_Addendum\\_I\\_The\\_GCF\\_s\\_approach\\_to\\_adaptation\\_analysis\\_and\\_implications\\_for\\_the\\_Fund.pdf/d178b4f3-412c-29b6-2530-f7792e2114fb](https://www.greenclimate.fund/documents/20182/1270184/GCF_B.21_Inf.03_Add.01_-_Approach_and_scope_for_providing_support_to_adaptation_activities__Addendum_I_The_GCF_s_approach_to_adaptation_analysis_and_implications_for_the_Fund.pdf/d178b4f3-412c-29b6-2530-f7792e2114fb)
- <sup>32</sup> Adger, W. N., Brown, I., & Surminski, S. 2018. *Advances in risk assessment for climate change adaptation policy*. *Philosophical transactions. Series A, Mathematical, physical, and engineering sciences*, 376(2121), 20180106. doi:10.1098/rsta.2018.0106

- 
- <sup>33</sup> Climate Bonds Initiative, World Resources Institute, Climate Resilience Consulting. 2019. Climate Resilience Principles: A framework for assessing climate resilience investments. <https://www.climatebonds.net/files/page/files/climate-resilience-principles-climate-bonds-initiative-20190917-.pdf>
- <sup>34</sup> European Financing Institutions Working Group on Adaptation to Climate Change. 2016. Integrating Climate Change Information and Adaptation in Project Development Emerging Experience from Practitioners. <https://www.ebrd.com/documents/climate-finance/integrating-climate-change-adaptation-in-project-development.pdf?blobnocache=true>
- <sup>35</sup> Task Force on Climate-related Financial Disclosures. 2017. The Use of Scenario Analysis in Disclosure of Climate-Related Risks and Opportunities. Technical Supplement. <https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Technical-Supplement-062917.pdf>
- <sup>36</sup> World Bank. 2019. The resilience (or disaster and climate risk) transparency rating
- <sup>37</sup> European Bank for Reconstruction and Development. 2018. EBRD joins major initiative to promote financial stability in the face of climate change uncertainty. <https://www.ebrd.com/news/2018/ebrd-joins-major-initiative-to-promote-financial-stability-in-the-face-of-climate-change-uncertainty.html>
- <sup>38</sup> Mazzacurati, E., Firth, J. Venturini, S. 2018. Advancing TCFD guidance on physical risks and opportunities. EBRD and Global Center on Adaptation. [https://www.physicalclimaterisk.com/EBRD-GCA\\_TCFD\\_physical\\_climate\\_final\\_report.pdf](https://www.physicalclimaterisk.com/EBRD-GCA_TCFD_physical_climate_final_report.pdf)
- <sup>39</sup> Task Force on Climate-related Financial Disclosures. 2017. Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures. <https://www.fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf>
- <sup>40</sup> World Bank. 2019. The resilience (or disaster and climate risk) transparency rating
- <sup>41</sup> OECD 2013. Development Results: An Overview of Results Measurement and Management. Briefing Note. <https://www.oecd.org/dac/peer-reviews/Development-Results-Note.pdf>.
- <sup>42</sup> Larsen, G., Smith, C., Krishnan, N., Weischler, L., Bartosch, S., Fekete, H.. 2018. Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement. World Resources Institute, NewClimate Institute, Germanwatch, Fundacion Avina
- <sup>43</sup> MDB Climate Finance Tracking Working Group and the IDFC Climate Finance Working Group. 2018. Lessons Learned from Three Years of Implementing the MDB-IDFC Common Principles for Climate Change Adaptation Finance Tracking. [https://www.idfc.org/wp-content/uploads/2018/12/mdb\\_idfc\\_lessonslearned-full-report.pdf](https://www.idfc.org/wp-content/uploads/2018/12/mdb_idfc_lessonslearned-full-report.pdf)
- <sup>44</sup> Leiter, T., Olhoff, A., Al Azar, R., Barmby, V., Bours, D., Clement, V.W.C., Dale, T.W., Davies, C., and Jacobs, H. 2019. Adaptation metrics: Current landscape and evolving practices. Background Paper for the Global Commission on Adaptation. UNEP DTU Partnership. Rotterdam and Washington, DC. <https://cdn.gca.org/assets/2019-09/AdaptationMetrics.pdf>
- <sup>45</sup> IPCC, 2014: Annex II: Glossary [Mach, K.J., S. Planton and C. von Stechow (eds.)]. In: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, pp. 117-130.
- <sup>46</sup> Leiter, T., Olhoff, A., Al Azar, R., Barmby, V., Bours, D., Clement, V.W.C., Dale, T.W., Davies, C., and Jacobs, H. 2019. Adaptation metrics: Current landscape and evolving practices. Rotterdam and Washington, DC. Available online at [www.gca.org](http://www.gca.org)
- <sup>47</sup> Global Commission on Adaptation. 2019. Adapt Now: a Global Call for Leadership on climate Resilience. Global Center on Adaptation and World Resources Institute. [https://cdn.gca.org/assets/2019-09/GlobalCommission\\_Report\\_FINAL.pdf](https://cdn.gca.org/assets/2019-09/GlobalCommission_Report_FINAL.pdf)
- <sup>48</sup> MDBs and IDFC. 2019. A Framework for Climate Resilience Metrics in Financing Operations: Joint MDB IDFC technical paper. Consultation Draft for Presentation at UNCAS. New York, September 2019. <https://www.ebrd.com/documents/climate-finance/a-framework-for-climate-resilience-metrics-in-financing-operations.pdf>
- <sup>49</sup> Michaelowa, A., Stadelmann, M. 2018. Development of universal metrics for adaptation effectiveness. In Christiansen, L., Martinez, G., Naswa, P. Adaptation metrics: perspectives on measuring, aggregating and comparing adaptation results. UNEP DTU Partnership. See also: GIZ. 2013. Saved health, saved wealth: an approach to quantifying the benefits of climate change adaptation: practical application in coastal protection projects in Viet Nam. [https://www.adaptationcommunity.net/?wpfb\\_dl=139](https://www.adaptationcommunity.net/?wpfb_dl=139)



- 
- <sup>50</sup> European Bank for Reconstruction and Development. 2018. Implementing the EBRD Green Economy Transition. Technical Guide for Consultants: Reporting on projects performance against the Green Economy Transition Approach. Version 2. EIB and Climate Policy Initiative. <http://www.ebrd.com/cs/Satellite?c=Content&cid=1395274396321&pagename=EBRD%2FContent%2FDownloadDocument>
- <sup>51</sup> Michaelowa, A., Stadelmann, M. 2018. Development of universal metrics for adaptation effectiveness. In Christiansen, L., Martinez, G., Naswa, P. Adaptation metrics: perspectives on measuring, aggregating and comparing adaptation results. UNEP DTU Partnership. See also: GIZ. 2013. Saved health, saved wealth: an approach to quantifying the benefits of climate change adaptation: practical application in coastal protection projects in Viet Nam. [https://www.adaptationcommunity.net/?wpfb\\_dl=139](https://www.adaptationcommunity.net/?wpfb_dl=139)
- <sup>52</sup> World Climate Research Program. Coupled Model Intercomparison Project Phase 6. <https://www.wcrp-climate.org/wgcm-cmip/wgcm-cmip6>
- <sup>53</sup> African Development Bank. The Bank Group Results Measurement Framework 2016-2025. [https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Final\\_-\\_RMF\\_-\\_Rev.2\\_Final\\_.pdf](https://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Final_-_RMF_-_Rev.2_Final_.pdf)
- <sup>54</sup> Asian Development Bank. 2017. The Asian Development Bank's Transitional Results Framework, 2017-2020. <https://www.adb.org/sites/default/files/linked-documents/transitional-results-framework-2017-2020.pdf>
- <sup>55</sup> European Investment Bank. 2017. The Results Measurement (ReM) framework methodology. <https://www.eib.org/en/projects/cycle/monitoring/rem.htm>
- <sup>56</sup> European Bank for Reconstruction and Development. Strategy Implementation Plan 2019 – 2021. <https://www.ebrd.com/documents/corporate-strategy/strategy-implementation-plan-sip.pdf>
- <sup>57</sup> European Bank for Reconstruction and Development. 2018. Implementing the EBRD Green Economy Transition. Technical Guide for Consultants: Reporting on projects performance against the Green Economy Transition Approach. Version 2. EIB and Climate Policy Initiative. <http://www.ebrd.com/cs/Satellite?c=Content&cid=1395274396321&pagename=EBRD%2FContent%2FDownloadDocument>
- <sup>58</sup> Inter-American Development Bank. 2016. Corporate Results Framework 2016-2019. Revised Version. <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=39981281>
- <sup>59</sup> Islamic Development Bank. 2018. Realizing Sustainable Development: Development Effectiveness Report 2017. <https://www.isdb.org/sites/default/files/media/documents/2018-12/Final%20ADER%202017-compressed.pdf>
- <sup>60</sup> World Bank. 2017. WBG Corporate Scorecards. <http://pub-docs.worldbank.org/en/708101514916144314/Scorecard-October-2017.pdf>
- <sup>61</sup> Adaptation Fund. 2015. Results Framework and Baseline Guidance: Project-level. <https://www.adaptation-fund.org/wp-content/uploads/2015/01/Results%20Framework%20and%20Baseline%20Guidance%20final%20compressed.pdf>
- <sup>62</sup> Leiter, T., Olhoff, A., Al Azar, R., Barmby, V., Bours, D., Clement, V.W.C., Dale, T.W., Davies, C., and Jacobs, H. 2019. Adaptation metrics: Current landscape and evolving practices. Rotterdam and Washington, DC. Available online at [www.gca.org](http://www.gca.org)
- <sup>63</sup> Global Environment Facility. 2014. Updated Results-Based Management Framework for Adaptation to Climate Change under the Least Developed Countries Fund and the Special Climate Change Fund. [http://www.thegef.org/sites/default/files/council-meeting-documents/GEF-LDCF.SCCF\\_17-05%2C\\_Updated\\_RBM\\_Framework\\_for\\_Adaptation\\_to\\_Climate\\_Change%2C\\_2014-10-08\\_4.pdf](http://www.thegef.org/sites/default/files/council-meeting-documents/GEF-LDCF.SCCF_17-05%2C_Updated_RBM_Framework_for_Adaptation_to_Climate_Change%2C_2014-10-08_4.pdf)
- <sup>64</sup> Pilot Program for Climate Resilience. 2018. PPCR Monitoring and Reporting Toolkit. [https://www.climateinvestmentfunds.org/sites/cif\\_enc/files/ppcr\\_mr\\_toolkit\\_july\\_2018\\_1.pdf](https://www.climateinvestmentfunds.org/sites/cif_enc/files/ppcr_mr_toolkit_july_2018_1.pdf)

# Using Climate Finance to Accelerate the Transition to Carbon Neutrality and Climate Resilience

Following the announcement made at COP24 on their vision to align financial flows with the objectives of the Paris Agreement based on six building blocks that have been identified as the core areas for such an alignment, the multilateral development banks (MDBs) further announced at the margins of the United Nations Climate Action Summit (UNCAS) 2019, that they will raise collectively at least \$65 billion annually in climate finance by 2025. Within this amount, they intend to double their adaptation finance to \$18 billion annually. Further, they aim to mobilize an additional \$40 billion in climate investments annually from private sector investors.

Through these commitments, the MDBs provide important signals to other public and commercial investors. Mitigation and adaptation finance will need to increase significantly and, in many cases, will need to be provided on concessional terms, in order to enable all countries to champion a transition to net zero CO<sub>2</sub> emitting, climate resilient pathways.

## OVERARCHING PRINCIPLES

To use climate finance to accelerate the transition to climate resilience and actively support low-emissions development pathways, the MDBs will need to align their climate finance investments and climate co-finance with the Paris Agreement objectives. The following overarching principles lay the groundwork for successful implementation of Building Block 3:

- 1. Not everything that is Paris-aligned will be climate finance, but everything that is climate finance should also be Paris-aligned.** Activities that will continue to be part of a decarbonized economy, should be eligible for climate finance thereby sending a clear signal to markets. CO<sub>2</sub>-emitting activities that can only be part of the pathway to decarbonization for a limited remaining timespan between now and 2050, should not be eligible for climate finance under a Paris-aligned framework.
- 2. Accountability on climate finance requires that it is traceable, comparable and not at risk of double-counting in accordance with the Paris Agreement's objective of increased transparency.** Data should be reported at aggregate and activity level. Methodologies across MDBs, across their different reports, and with respect to other relevant actors need to be standardized to avoid double-counting and increase the level of disaggregation to increase comparability to build trust with the public and private sector.
- 3. Article 9.4 of the Paris Agreement calls for a balance between adaptation and mitigation** through the provision of scaled-up financial resources when addressing climate change. Achieving adaptation finance is key to ensure a climate-resilient development pathway, especially for the most vulnerable. This does not necessarily mean that MDB mitigation and adaptation finance need to reach a 50:50 share, as MDBs use two different accounting approaches for mitigation finance (total project cost) and adaptation finance (incremental cost). Nevertheless, the overall share of adaptation finance in all climate finance needs to grow.

4. **Incentive structures should accommodate the nature of Paris-aligned projects.** Internal incentive structures and key performance indicators must accommodate and favor the nature of climate finance projects, which might differ from MDBs' traditional portfolio. Staff compensation should be based on Paris-aligned, climate-finance-related performance indicators.
5. **All commitments related to the Convention and the Paris Agreement should be honored.** International financial institutions that serve as international Accredited Entities (AEs) of the operating entities of the UNFCCC's Financial Mechanism need to comply with the obligations as set out under the UNFCCC's Financial Mechanism.

help mobilize, and in this context developed joint eligibility criteria. The eligibility criteria do not yet reflect recent scientific findings of investment needed to achieve the Paris goals. The joint MDB Climate Finance Tracking Group has adjusted the method over time, increasing its stringency and, in 2015, harmonizing criteria with the International Development Finance Club – a group of national and sub-regional development banks. Since 2016, MDBs have directly referred to compatibility with low-emissions pathways as mentioned in the Paris Agreement as a criterion for eligibility for mitigation climate finance.

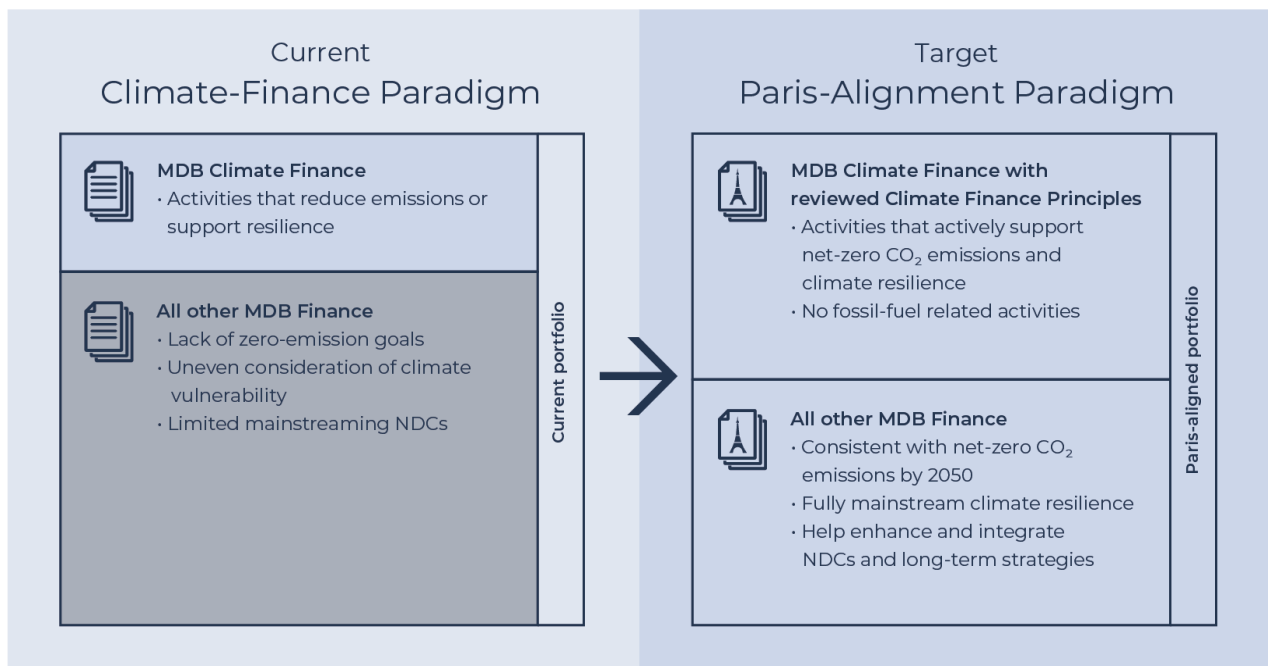
Yet, no clear definition of low-carbon or climate-resilient pathways or of criteria in line with net-zero CO<sub>2</sub> emissions and fostered climate resilience is included in the joint climate finance report. The MDBs have thus started a review process to strengthen the Common Principles for mitigation finance<sup>1</sup> tracking, which is expected to be completed in mid-2020. The MDBs also published a paper on lessons learned from the Common Principles for adaptation finance tracking, but have not yet announced further steps on the review of these.<sup>2</sup>

### IMPLEMENTING BUILDING BLOCK 3

#### Aligning the MDBs' approach to prioritize, target and report on climate finance with the Paris Agreement

Review of the MDBs eligibility criteria for climate finance

Since 2012 a growing group of MDBs are jointly reporting on the climate finance they invest and



**Figure 1:** New definition of climate finance under a Paris Alignment Paradigm (Own figure based on Larsen et al. 2018)

Under a Paris Alignment Paradigm, mitigation finance must go beyond the principles of reducing GHG emissions or enhancing GHG sequestration, towards financing the activities that actively support the Paris Agreement and thus a net-zero emissions and climate-resilient world.

In the power supply sector, climate finance that actively supports net-zero CO<sub>2</sub> emissions include power generation from solar, wind, small hydro, tidal, wave and ocean or electricity system flexibility options<sup>3</sup>. Transport infrastructure that actively supports this goal include zero-carbon transport fueling infrastructure, non-motorized transport infrastructure, integration of transport and urban development planning, electric rail and rolling stock, electric public transport, transport and travel demand management measures<sup>4</sup>. An updated eligibility list for mitigation finance would send a strong signal to markets about the activities that will continue to be part of a net-zero CO<sub>2</sub> economy<sup>1</sup>. Limiting climate finance to these activities, therefore, will add value towards Paris alignment efforts.

Bridge technologies and CO<sub>2</sub>-emitting activities that can only be part of the pathway to decarbonization for a limited remaining timespan between now and 2050 should not be eligible for climate finance. MDBs might nevertheless decide to continue to finance these for the remaining timespan using specific assessment criteria to assess alignment.

For adaptation finance, the existing qualitative approach for eligibility appears to be adequate also under a Paris Alignment paradigm. In this area it is of most importance to integrate impact indicators into corporate results frameworks and climate finance reporting (see next section). Particularly not only resilience of investments but also

resilience through investments needs to be strengthened (see Memo 2).

1. MDBs should use the **update of climate finance eligibility criteria** to focus resources on those activities that **actively support net-zero CO<sub>2</sub> emissions and climate resilience, excluding any fossil-fuel-related investments**.

#### Revising climate finance reporting metrics

Transparency is a substantial requirement of the Paris Agreement and thus of Paris alignment. The current methodologies focus on harmonized reporting on aggregate volumes of finance invested in either climate change mitigation, climate change adaptation or cross-cutting sectors – covering each of the banks, source of funds, type of instruments used, covered regions, sectors grouping and recipient or borrower types.

It will be a key task for MDBs to develop indicators that also reflect impacts and to report on these. Finance volumes provide relevant information in the light of tracking progress in meeting investment needs. However, there can be a conflict of objectives between increasing volumes of climate finance and investing in projects where fossil-free and climate-resilient options are hardest to achieve but potentially most needed. The latter represent the investment areas where MDBs can bring in the most additionality and transformational impacts. The banks have announced that they will develop impact indicators during the review of the climate finance methodology.

Accountability can only be ensured if climate finance is traceable at aggregate levels as well as at activity levels. The joint report currently does not reference project databases and individual banks' annual reports where further information

<sup>1</sup> To reflect innovation that cannot be anticipated the eligibility list could in addition generally include activities that neither generate direct emissions nor induce significant indirect emissions (no significant emissions generated), but do reduce emissions as compared to a realistic project alternative (avoided emissions). To provide the best possible guidance, the eligibility list should be regularly updated and reflect scientific findings on activities in line with a decarbonized economy. In addition, the eligibility lists should be updated regularly to reflect innovation.

on climate finance projects can be found. Providing these links and ensuring that individual databases contain the standardized possibility to filter for (i) mitigation finance (ii) adaptation finance and (iii) climate co-finance as well as for (iv) country, (v) harmonized sector categories and (vi) year of commitment would now be desirable if this was to happen.

The MDBs methodology to track climate co-finance (public and private direct and indirect mobilization for climate finance activities) differs from the OECD methodology to account for private finance mobilization. For example, in cases where several public actors (for example, MDBs and DFIs) are involved in the same transaction mobilizing private finance, the MDB approach attributes all private finance mobilization to the MDB that is the official arranger of the transaction, whereas the OECD approach attributes private finance mobilization proportionally to all public institutions in the transaction.<sup>5</sup> Since MDBs as well as other public institutions are requested to report their private finance mobilization to the OECD DAC, this can lead to double counting and attribution issues with other investors. Standardizing the two approaches would “help inform policies, ensure credibility [...] and build trust with the public but also the private sector <sup>6</sup>”. Alternatively, MDBs could use both approaches in parallel: the MDB approach in MDB reporting to ensure comparability with historic reports, and the OECD approach when reporting to OECD to avoid double counting and support international processes, such as tracing progress on

the \$100 billion climate finance goal of the Paris Agreement.

1. MDBs should include a set of harmonized mitigation and adaptation impact metrics into the joint report on climate finance, including indicators that reflect transformational impacts of projects.
2. The MDBs should also ensure comparability and traceability of data back to the activity level, linking aggregate data of the joint report to individual project databases by including references and links to the databases and project documents into the joint report.
3. MDBs should consider harmonizing their reporting on private climate finance mobilization with the OECD and reporting harmonized information to the OECD DAC to avoid risks of double counting and to reduce internal and external transaction costs.

#### Aligning by better prioritizing and targeting climate finance investments

The common reporting coupled with individual climate finance targets have helped prioritize and thus increase climate finance volumes over time. So far, not all the banks have announced post-2020 targets, and some do not have an individual climate finance target at all<sup>ii,iii</sup>.

While absolute volumes of climate finance have increased for the six MDBs that have jointly reported on climate finance since 2011, this increase has not been constant over the years for all banks. Some banks have substantially increased their climate finance commitments, while others

<sup>ii</sup> The following post-2020 climate finance targets have been set so far: The ADB has set the target to cumulatively invest \$80 billion in climate finance in the period from 2019 until 2030. The World Bank has announced the target of \$200 billion of climate finance between 2021 and 2025 (from own funds and mobilized climate finance). The AfDB has set the target to double its commitments to climate finance by investing \$25 billion for the period 2020-2025.

<sup>iii</sup> As climate finance eligibility criteria will need to be updated and thus become stricter to reflect Paris Alignment, there could be a concern that targets that are based on the old methodology could become harder to achieve. However, although the climate finance eligibility criteria have already improved in the past, climate finance has increased substantially over time. If desired nevertheless, an option to overcome potential concerns could be to continue reporting also on the old methodology until the target year. The MDBs that set new climate finance targets should take the new methodologies into account.

are significantly delayed in approaching their 2020 targets.<sup>7</sup>

Targets signal bank priorities to project managers, but more instruments are needed to achieve them. Internal incentives can have a strong impact on the probability of reaching climate finance targets, as the decisions of project managers significantly influence the activities of MDBs. Some MDBs already pay bonuses depending on the achievement of climate-related indicators within individual project managers' portfolios. Indicators could reflect climate finance volumes or impacts of climate finance. For these incentives to work, they should be ambitious yet realistic. Monetary incentives could be considered either for all staff, for teams active in sectors with high climate-relevance or for climate teams that consult sector teams with regard to their project decisions.<sup>8</sup>

Article 9.4 of the Paris Agreement calls for: a balance between adaptation and mitigation through the provision of scaled-up financial resources when addressing climate change. . At UNCAS the group of MDBs has announced that they expect their joint adaptation finance to reach USD 18 billion annually by 2025 or around 27% of all climate finance. Note that the MDBs adaptation methodology is based on the principle of incremental costs, whereas the mitigation methodology captures the full value of the activities. Therefore, it can be misleading to directly compare the two numbers. Nevertheless, all MDBs see the need to scale up adaptation climate finance.<sup>9</sup>

In 2018, the MDBs' collective climate change adaptation finance was around 30% of all climate finance.<sup>10</sup> This share ranged widely between the MDBs (8 % to 49%). Arguably, different focus regions and business models can make it challenging for some MDBs to reach a

balance between adaptation and mitigation finance. A number of MDBs is working on building resilience markets, but currently, particularly private sector clients focus much more on mitigation than on adaptation. An adaptation finance target set by each individual MDBs could help strengthening the focus on adaptation finance in each institution.

Starting with concessional funds, dedicated and ambitious climate change adaptation finance targets by individual institutions as implemented so far only by the World Bank and the AfDB, can ensure that funding is directed towards adaptation. AfDB and World Bank also happened to be the two banks with highest shares of climate adaptation finance in total finance in 2018.<sup>11</sup>

1. **MDBs should define a post-2020 climate finance target, ideally containing an absolute as well as a relative (share-in-total-commitments) target.** If previous targets exist, new ones should go beyond previous efforts, taking into account an updated climate finance eligibility methodology. New MDBs could start with adopting the necessary processes for tracking and with reporting on climate finance in line with the joint MDB methodology as a first step; setting absolute rather than relative targets as a second step<sup>iv</sup>; and adopting both relative and absolute targets as a third step.
2. To effectively incentivize implementation of climate finance targets, **MDBs should provide internal incentives (e.g. bonuses) related to climate finance** (including for adaptation finance).
3. **MDBs should also include climate finance volume and impact indicators** into results measuring frameworks.

<sup>iv</sup> As new MDBs start with a small but growing portfolio, any additional project could change the percentage share of climate finance in total commitments significantly, making it challenging to predict ambitious yet reachable relative targets. The likelihood of achieving absolute targets can be easier to predict for these banks.

**4. Beyond a joint MDB target<sup>v,12</sup>, we recommend for MDBs to set their individual adaptation finance targets that would complement current climate finance targets in areas where finance goals are not yet achieved.** To start with, MDBs should set an adaptation target at least for concessional funds available to the MDBs.

**5. A new target for private capital mobilization for climate finance** could also help prioritize de-risking instruments to crowd-in private investments and create markets for climate business.

#### Aligning climate co-finance and private sector investments

##### How can MDBs better align private climate co-finance with the Paris Agreement

The OECD estimates that \$6.9 trillion in infrastructure investments are needed annually to meet the climate and development objectives, with \$600 billion of it needed to make the investments compatible with the Paris goals.<sup>13</sup> Seventy percent of these investments are expected to go to low- and medium-income countries. These needs for investment vastly exceed the available public climate finance and require therefore active participation of the private sector.

The MDBs play a critical role in guiding private investments towards Paris alignment through de-risking of investments, such as anchor investors and the provision of knowledge among others. To this end, the MDBs have a large set of instruments at their availability: grants, equity, guarantees, loans, line of credits, etc. While all MDBs have different business models, loans are the predominant instrument for climate finance.

In 2018, the MDBs mobilized \$28.2 billion in private climate finance through private direct mobilization and private indirect mobilization.<sup>14</sup> It is unclear how the different instruments contrib-

uted to the mobilization as the MDBs do not disclose this information in accordance to each instrument. Comparing the MDBs' own data suggests that the MDBs' private direct mobilization only has a small share originated from climate-relevant projects, while its private indirect climate mobilization includes a larger share.<sup>15</sup>

Meanwhile, according to the OECD, bilateral and multilateral providers mobilized private climate finance by using the following instruments: 52% investments in special purpose vehicles and companies; 21% guarantees, 12% credit lines and 9% loan syndications; remaining through investments in funds and simple co-financing schemes.<sup>16</sup>

It has been particularly challenging to mobilize the private sector on adaptation. The OECD reports that only 3% in private finance mobilized is directed at adaptation, and another 3% at cross-cutting investments that contribute to mitigation and adaptation. Similarly, the MDBs co-finance indicates that just slightly over 10% are directed at adaptation (no figures are reported on private adaptation finance mobilized). Meanwhile, recent research suggests that a mere 3% in additional upfront costs, on average, could make investments climate-resilient and that every dollar invested in resilient infrastructure generates four dollars in benefit.<sup>17</sup>

At the same time, trillions of dollars are invested in low-yield and money-losing investments, as investors have to prioritize investment-grade projects, while many projects in emerging markets are below investment grades. At the September 2019 UNCAS, institutional investors worth over \$2.4 trillion in investments announced that they plan to align their portfolios with net-zero emissions by 2050. Furthermore, banks with assets worth \$47 trillion agreed on the Principles for Responsible Banking, as part of which they pledge to align with the Paris Agreement.

<sup>v</sup> At the UN SG MDBs have jointly announced that their joint adaptation finance by 2025 will amount to US\$ 18 billion.

The main risks for investors to finance long-term infrastructure investments are regulatory uncertainty, in particular changes in the legal framework, exchange rate risks and risks associated with construction,<sup>18,19</sup> Further challenges constitute the lack in bankable projects, the absence of reliable data of corporate performance and track records in emerging markets. While MDBs could ease these issues through risk-mitigation instruments, less than 5% of all of MDBs' infrastructure projects make use of the available risk mitigation instruments.<sup>20</sup>

Similarly, local financing institutions also face regulatory uncertainty and often suffer from asset-liability mismatches along with a general lack of understanding in climate investments, resulting in a mismatch of perceived and real risk.<sup>21</sup> MDBs could help circumvent these issues by providing long-term financing in local currency, as well as by building knowledge on climate investments, which would have the added benefit of helping their clients make the transition towards Paris alignment.

- 1. MDBs should provide data on private climate finance mobilization on a more disaggregated level** by providing information on instruments, mitigation and adaptation, and region by bank and in a comparable manner with other MDB publications on private finance mobilization.<sup>vi</sup>
- 2. MDBs should strengthen their support institutional investors in aligning their investments with the Paris Agreement** (in accordance with Article 2.1.c of the Paris Agreement) by partnering directly with the investors, de-risking investments through an increased application of risk-mitigation instruments, and eliminating bottlenecks (e.g. the lack of a Paris-aligned infrastructure asset class, a pipeline of investable projects,

and high quality performance data of national companies).

- 3. MDBs should scale up and standardize innovative climate finance instruments that have been piloted**, including through other initiatives such as the Climate Finance Lab.<sup>vii</sup> These instruments include insurances, risk mitigation facilities and securitization. A particular focus should be on enhancing local currency lending and guarantees for climate investments to local financial institutions, both public and commercial, to build local capacity in financing climate investments. As translating innovative instruments takes time and often seed capital, shareholders should consider increasing concessional sources for this purpose.
- 4. MDBs can facilitate private adaptation finance by supporting the collection and provision of high-quality data and information that demonstrate how private climate finance contributes to climate change adaptation.** Moreover, the banks can work towards establishing pilot projects in this regard to increase and disseminate knowledge of the positive return of adaptation projects, and systematically including adaptation and resilience in their exchanges with the private sector.

---

<sup>vi</sup>The default option should be to disclose this information. A definite list could define exclusions, e.g. what kind of disclosure cannot be undertaken due to confidentiality constrains providing a concrete explanation why this information is confidential. Data that typically is publicly available, e.g. when searching for the project online, should not be labelled as confidential.

<sup>vii</sup>Some MDBs already cooperate with the climate finance lab.



## Aligning technical assistance with the Paris Agreement

### How can MDBs better align technical assistance with the Paris Agreement

Technical assistance is a major instrument MDBs can use to build their clients' capacities to design and implement bankable mitigation and adaptation projects, put in place enabling policy frameworks, gain access to the necessary finance and/or conduct climate change-related research all in line with the Paris Agreement goals.

As financial institutions and knowledge hubs, the banks have a competitive advantage in delivering high-quality technical assistance, particularly in the area of sustainable finance and fiscal policies as well as in risk and opportunity assessments.

Ministries in charge of the policy dialogues with MDBs are, in many cases, finance, economic or development ministries. Naturally, staff of these ministries are often less aware of climate change risks and opportunities than staff of the respective national environment ministries. If finance ministries do not include climate change action into budgetary planning, fiscal policies and regulation for sustainable finance, targets set by environment ministries cannot be reached. There is thus a major role for MDBs to bring the different ministries together and to provide technical assistance on climate change and its integration into different policies.

In addition, many MDBs are international Accredited Entities (AEs) of the Green Climate Fund (GCF) serving the Paris Agreement. As part of compliance with the GCF, all international entities are requested to "indicate how they intend to strengthen capacities of, or otherwise support, potential subnational, national and regional entities to meet, at the earliest opportunity, the accreditation requirements of the Fund in order to enhance country ownership and that they report annually on these actions". (GCF decision B.10/06). In 2018 the National Designated Au-

thorities (NDAs) however expressed that "international AEs do not engage sufficiently with partners" (GCF/B.20/04).

1. Non-environment ministries play a major role in implementing climate-related activities when implementing NDCs and LTS and in their capacities as client governments of MDBs. **MDBs should provide them with technical assistance to strengthen their understanding of climate change and the Paris Alignment, especially for finance ministries on budgetary planning, fiscal policies and sustainable finance.** The MDBs should focus on providing technical assistance to demonstrate economic gains and commercial viability of low-carbon alternatives as well as the capacity to conduct feasibility studies on these.
2. **MDBs should support their clients with technical assistance to analyze the feasibility and potential economic and financial risks and opportunities of Paris-aligned alternatives.** Prior to sending any fossil fuel project to the Board for approval, it should be shown that no non-carbon project is feasible and a decarbonisation plan needs to be developed as well.
3. **MDBs should support the principle of direct access to international climate finance funds by providing technical assistance to Direct Access Entities of these funds.** For example, the MDBs can support National Accredited Entities to align their environmental and social safeguards (ESS) with those established within operating entities under the UNFCCC's Financial Mechanism serving the Paris Agreement (AF, GEF, GCF, LDCs Fund and SCCC). Support needs also include fiduciary standards and project development capacities.

## RECOMMENDATIONS

- 1. The MDBs should update their eligibility criteria to exclude fossil-fuel related investments from being labelled as climate finance.** Fossil-fuel related, but potentially transformational projects in high-emissive sectors could be considered for Paris Alignment under Building Block 1 and Building Block 2. In addition, we recommend for MDBs to develop indicators to reflect transformational outcomes for climate finance as well as for all other finance.
- 2. The MDBs should ensure joint reporting on aggregate volumes and impacts as well as provide links to their individual databases** to ensure traceability of climate finance comparable climate impact and risks information at the activity-level. Exclusions where links cannot be reported due to confidentiality should be clearly defined.
- 3. The MDBs should consider setting additional climate finance targets, such as a climate relevance target, an adaptation finance target, a post-2020 climate finance target and a target for private capital mobilization for climate finance,** which would help strengthening the current targets.
- 4. The banks could additionally increase private climate finance mobilization by partnering directly with institutional investors,** expanding the use of policy-based lending to strengthen supporting environments and ensuring all (or most) prior actions focus on climate mitigation or adaptation, and by scaling up innovative climate finance instruments, such as local currency lending. Private climate finance mobilization data should be provided on a more disaggregated level
- 5. MDBs should allocate sufficient technical assistance to non-environment ministries to increase their understanding of climate change and Paris-aligned solutions**

through budgetary planning, fiscal policies, sustainable finance and direct access to existing climate funds. They should also provide technical assistance to their clients to understand economic and financial risks and opportunities as well as feasibility of no and low-carbon alternatives.

---

## BIBLIOGRAPHY

- <sup>1</sup> 2018 MDB Joint Climate Finance Report. Online: <https://www.eib.org/attachments/2018-joint-report-on-multilateral-development-banks-climate-finance.pdf>
- <sup>2</sup> EBRD - The lessons learned from tracking climate change adaptation finance. Online: <https://www.ebrd.com/news/2018/the-lessons-learned-from-tracking-climate-change-adaptation-finance.html>
- <sup>3</sup> Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement. Online: <https://germanwatch.org/sites/germanwatch.org/files/MDBs%20and%20Paris%20Report.pdf>
- <sup>4</sup> Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement. Online: <https://germanwatch.org/sites/germanwatch.org/files/MDBs%20and%20Paris%20Report.pdf>
- <sup>5</sup> MDBs Reference Guide. Online: <http://documents.worldbank.org/curated/en/495061492543870701/pdf/114403-REVISED-June25-DocumentsPrivInvestMob-Draft-Ref-Guide-Master-June2018-v4.pdf>
- <sup>6</sup> Measuring Mobilization - Briefing on efforts to harmonise OECD and MDB measurement methodologies. Online: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC\(2018\)25&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DCD/DAC(2018)25&docLanguage=En)
- <sup>7</sup> 2018 MDB Joint Climate Finance Report. Online: <https://www.eib.org/attachments/2018-joint-report-on-multilateral-development-banks-climate-finance.pdf>
- <sup>8</sup> CFAS Policy Brief: Predictability of International Climate Finance under the Paris Agreement. Online: <https://germanwatch.org/de/16056>
- <sup>9</sup> MDBs and IDFC (2018): Lessons Learned From Three Years of Implementing the MDB-IDFC Common Principles for Climate Change Adaptation Finance Tracking. Online: <https://www.ebrd.com/news/2018/the-lessons-learned-from-tracking-climate-change-adaptation-finance.html>
- <sup>10</sup> 2018 MDB Joint Climate Finance Report. Online: <https://www.ebrd.com/news/2019/mdb-climate-finance-hit-record-high-of-us-431-billion-in-2018.html>
- <sup>11</sup> <https://www.ebrd.com/news/2019/mdb-climate-finance-hit-record-high-of-us-431-billion-in-2018.html>
- <sup>12</sup> MDBs (2019): MDBs pledge to join forces to raise annual climate finance to \$175 bn by 2025. Online: <https://www.ebrd.com/news/2019/-mdb-pledge-to-join-forces-to-raise-annual-climate-finance-to-175-bn-by-2025.html>
- <sup>13</sup> OECD, Financing Climate Futures. Online: <https://www.oecd.org/environment/cc/climate-futures/>
- <sup>14</sup> 2018 MDB Joint Climate Finance Report. Online: <https://www.ebrd.com/news/2019/mdb-climate-finance-hit-record-high-of-us-431-billion-in-2018.html>
- <sup>15</sup> Own evaluation comparing the MDBs Joint Climate Finance Report for 2018 data and the Mobilization of Private Finance Report based on 2018 data
- <sup>16</sup> OECD Climate Finance 2013-2017. Online: <https://www.oecd.org/environment/climate-finance-for-developing-countries-reached-usd-71-billion-in-2017.htm>
- <sup>17</sup> Global Commission on Adaptation, 2019 Report. Online: [https://cdn.gca.org/assets/2019-09/GlobalCommission\\_Report\\_FINAL.pdf](https://cdn.gca.org/assets/2019-09/GlobalCommission_Report_FINAL.pdf)
- <sup>18</sup> WEF survey
- <sup>19</sup> IFC Crowding-In Capital Attracts Institutional Investors to Emerging Market Infrastructure Through Co-Lending Platform. Online: [https://www.ifc.org/wps/wcm/connect/industry\\_ext\\_content/ifc\\_external\\_corporate\\_site/financial+institutions/resources/crowding-in+capital+attracts+institutional+investors+to+emerging+market+infrastructure+through+co-lending+platform](https://www.ifc.org/wps/wcm/connect/industry_ext_content/ifc_external_corporate_site/financial+institutions/resources/crowding-in+capital+attracts+institutional+investors+to+emerging+market+infrastructure+through+co-lending+platform)
- <sup>20</sup> Crowding-in Private Finance Principles. Online: [https://www.bundesfinanzministerium.de/Content/DE/Downloads/G20-Dokumente/principles-on-crowding-in-private-sector-finance-april-20.pdf?\\_\\_blob=publicationFile&v=2](https://www.bundesfinanzministerium.de/Content/DE/Downloads/G20-Dokumente/principles-on-crowding-in-private-sector-finance-april-20.pdf?__blob=publicationFile&v=2)
- <sup>21</sup> GCF – Review of the initial modalities of the Private Sector Facility. Online: [https://www.greenclimate.fund/documents/20182/1674504/GCF\\_B.23\\_12\\_-\\_Review\\_of\\_the\\_initial\\_modalities\\_for\\_the\\_Private\\_Sector\\_Facility.pdf/2be1cc0c-82d2-b91e-e206-afd5bd3b2838](https://www.greenclimate.fund/documents/20182/1674504/GCF_B.23_12_-_Review_of_the_initial_modalities_for_the_Private_Sector_Facility.pdf/2be1cc0c-82d2-b91e-e206-afd5bd3b2838)

# Engagement and Policy Development Support

In a December 2018 statement, multilateral development banks (MDBs)<sup>1</sup> jointly reiterated their commitment to align financial flows with Paris Agreement goals and announced that they were developing an approach to realize that commitment. In that statement, MDBs identified six areas, termed “building blocks,” that form the core of their Paris Alignment approach. They are: (1) Alignment with mitigation goals; (2) Adaptation and climate-resilient operations; (3) Accelerated contribution to the transition through climate finance; (4) Engagement and policy development support; (5) Reporting; and (6) Aligning internal activities. The MDBs are working to define what Paris alignment requires in each of these areas.

This memo focuses in on engagement and policy development support, or “Building Block 4.” Under Building Block 4, the MDBs commit to “build on existing efforts to support the [nationally determined contributions] revision cycle and develop services for countries and other clients to put in place long-term strategies and accelerate the transition to low-emissions and climate-resilient development pathways.”<sup>1</sup>

Building Block 4 is important for several reasons. First, nationally determined contributions (NDCs) and long-term low-emissions development strategies (long-term strategies or LTSs) are the primary tools through which countries plan for and communicate their climate change plans and pathways under the Paris Agreement. Consequently, they are central to the Paris Agreement’s success.

The second reason relates to timing: the 26<sup>th</sup> Conference of the Parties (COP26) at the end of 2020 is a critical milestone for these climate plans. The Paris Agreement establishes a process—the “NDC revision cycle”—whereby countries submit

progressively more ambitious NDCs every five years.<sup>2</sup> Under the NDC revision cycle, countries are asked to submit new or updated NDCs by 2020.<sup>3</sup> Parties to the Agreement are also invited to communicate LTSs to the United Nations Framework Convention on Climate Change (UNFCCC) by 2020.<sup>4</sup> As a result, developing countries around the world will likely require increased support to develop LTSs and enhance their NDCs in the lead up to COP26.

Finally, helping countries adopt ambitious LTSs and NDCs could support the MDBs’ overall alignment efforts. Having more countries with Paris-aligned national climate plans could foster stronger pipelines of projects that are Paris aligned under the mitigation and adaptation building blocks (Building Blocks 1 and 2). It could support development of Paris-aligned policy-based finance operations, and it could increase demand for projects that qualify as climate finance under Building Block 3.

This memo first sets out overarching principles that should guide implementation of Building Block 4. It then discusses implementation in greater detail. It concludes with recommendations for the MDBs as they advance this element of their Paris Alignment approach.

## OVERARCHING PRINCIPLES

- 1. The MDBs should strive to help more countries adopt ambitious, Paris-aligned LTSs that they can then use as a guide for their enhanced NDCs. Ambitious LTSs are those that put countries on low-carbon, climate-resilient development pathways that align with Paris Agreement goals.** The 2018 IPCC Special Report on 1.5°C establishes global benchmarks necessary to limit warming

---

<sup>1</sup> They include: African Development Bank (AfDB), Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB), European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), InterAmerican Development Bank (IADB), Islamic Development Bank (IDB), New Development Bank, and World Bank Group.

to 1.5°C. Namely, global net CO<sub>2</sub> emissions must fall by 45 percent (relative to 2010 levels) by 2030 and reach net zero by around 2050.<sup>5</sup> Translating global benchmarks into national-level targets raises challenging issues of equity. However, as the above benchmarks suggest, limiting warming to 1.5°C will require deep emissions reductions everywhere and across all sectors. As development finance institutions, the MDBs should strive to make this level of ambition possible for their member countries, and in all cases, LTSs should lay out plans to peak and reduce emissions as rapidly as possible. Ambitious LTSs can also lay out goals to increase resilience and adaptive capacity and reduce vulnerability across sectors.

- 2. MDBs can best support countries by empowering them to develop and assess Paris-aligned development pathways that they can use to inform policy decisions.** Through their research and technical capacities, MDBs can help countries and other clients build the evidence base they need to develop and foster support for low-carbon, climate-resilient pathways. Wherever possible, the MDBs should design technical assistance initiatives to build internal capacities to formulate and implement climate commitments.
- 3. Policy-based lending could be an important tool in helping countries transition towards Paris-aligned pathways.** To be Paris-aligned, policy-based lending cannot benefit or promote any activities that are misaligned according to the mitigation and adaptation building blocks of the MDBs' Paris Alignment approach, but MDBs could also go beyond this minimum threshold and use policy-based lending to actively promote reforms that help countries transition to Paris-aligned pathways.
- 4. To fulfil their Paris-alignment commitments, financial intermediary lending and equity investments must also be aligned.** Consequently, encouraging and supporting financial intermediaries to adopt decarbonization targets and to outline plans to achieve those targets is an important component of Building Block 4.

## IMPLEMENTING BUILDING BLOCK 4

A shared understanding of what constitutes an ambitious long-term strategy could serve as a useful starting point in operationalizing Building Block 4. And in fact, the MDBs have drafted a set of key principles for economy-wide long-term strategies.

This section first describes and responds to these draft principles. It then details additional steps we believe the MDBs should take to fully implement Building Block 4. In particular, implementing Building Block 4 requires the MDBs to persuade more countries to develop ambitious climate plans. It requires the MDBs to scale up technical and financial support to help countries develop and implement those plans. And it requires them to help other clients, including financial intermediaries, to put LTSs in place. Each is discussed in greater detail below.

### What Constitutes an Ambitious Long-Term Strategy?

As noted above, the MDBs have drafted a set of principles for economy-wide LTSs. These principles could guide the technical support MDBs provide countries and thereby help ensure the quality and ambition of the climate plans that result. However, the principles need to be further elaborated to guarantee their effectiveness. The MDBs' draft principles and several suggested considerations on each are summarized in the Table 1 below.

**Table 1: Response to the MDBs' Draft Principles for Economy-Wide LTS**

Draft Principle	Additional Considerations
<b>Principle #1:</b> Cover long-term timeframe and intermediate milestones	Principle #1 should specify acceptable timeframes. A mid-century target with intermediate milestones—in 2030 and 2040, at a minimum—is a sound approach. Additionally, the principles should more clearly articulate the relationship between LTSs and NDCs and processes for using LTSs to inform the ambition of NDCs through backcasting.
<b>Principle #2:</b> Be based on broad stakeholder engagement through an inclusive and iterative engagement process	Broad stakeholder engagement is not all that is needed for effective governance of national climate planning. Other governance considerations, including the necessary legal frameworks, institutional arrangements, and technical capacities, should be included under Principle #2 or incorporated as additional principles. <sup>6</sup> For instance, LTSs should spell out the roles and responsibilities of different government actors and create channels for coordination across government and with non-governmental stakeholders. <sup>7</sup>
<b>Principle #3:</b> Be developed in consideration of or linked to other Sustainable Development Goals and local adaptation needs	Linkages to national development priorities and plans are also a critical component of LTSs. Economy-wide LTSs can “identify and integrate national development considerations, including environmental, social, and economic objectives, supporting the country’s long-term vision.” <sup>8</sup> In line with this, the MDBs should use LTS development processes to help countries plan for a just transition for workers whose livelihoods are linked to emissions-intensive industries or whose skill-sets may be less relevant in the future. <sup>9</sup>
<b>Principle #4:</b> Be based on a decarbonization target in line with the Paris Agreement	A clear explanation of how “in line with the Paris Agreement” is defined is indispensable. Global benchmarks suggest that global CO <sub>2</sub> emissions need to reach net zero by around 2050 and the electricity sector needs to be fully decarbonized by 2050. Principle #4 should reflect these and other scientific findings. In addition to mitigation targets, LTSs can also include targets to strengthen resilience and adaptive capacity. All targets should be tailored to the specific country context. In addition to setting long-term targets, LTSs should also define pathways or a vision for achieving those targets. <sup>10</sup>
<b>Principle #5:</b> Include all key emissive sectors / systems	A clear definition of “key emissive sectors” is also needed. Principle #5 should specify that LTSs will define mitigation targets, pathways, and key areas of action for those sectors that are driving a country’s emissions.
<b>Principle #6:</b> Ensure country/client ownership with a clear mandate	Principle #6 notes that the strength and eventual implementation of climate plans depends on country ownership and political will, but it could also reinforce principle #2 by highlighting the need to generate broad ownership through public engagement.
<b>Principle #7:</b> be updated regularly based on the monitored and evaluated progress towards meeting the long-term objectives and considering the changes in cost and availability of new technologies	Revising LTSs as circumstances change can serve to strengthen LTSs. In addition to identifying the need for regular revision and review, Principle #7 could elaborate on certain key considerations in establishing the governance arrangements associated with LTSs review and revision. <sup>11</sup>

## How Can MDBs Persuade More Countries to Adopt Ambitious Climate Plans?

Long-term planning is critical to avoid locking in unsustainable, emissions-intensive assets, to avoid maladaptation, and to develop policy and financing strategies that support a just transition. It can inform near-term decision-making and ensure that near-term targets are aligned with the Paris Agreement goals. Although many countries are in the process of developing LTSs, only four developing countries—Fiji, Republic of the Marshall Islands, Benin, and Mexico—have formally communicated LTSs to the UNFCCC to date.<sup>12</sup> As such, it is critical that the MDBs encourage countries that are not already doing so to adopt ambitious LTS.

While the MDBs cannot impose LTSs on countries, the MDBs have two potential avenues to encourage and support countries to develop and implement ambitious LTSs. First, they could use the country engagement process and MDB country strategies to champion LTSs and NDC enhancement. Second, for those banks that offer policy-based finance,<sup>ii</sup> Paris-aligned policy-based lending could be a powerful tool to promote Paris-aligned pathways.

### 1. Country Engagement

In engaging with country clients, the MDBs could highlight the relevance of NDCs and LTSs to development planning processes and make the case for integrating near- and long-term climate objectives into MDB country strategies. Specifically, the MDBs could integrate climate objectives into country strategy results frameworks to make plain how MDBs' in-country activities will advance climate objectives.

Country strategies are institutional documents that guide the MDBs' in-country work. They are the product of joint dialogue between MDBs and governments, especially finance and planning ministries. These ministries are not always heavily involved in developing climate plans but are crucial to their eventual implementation. Drawing attention to NDCs and highlighting the connections between these plans and MDB country strategies "helps ensure that finance ministries, which typically lead

country engagement with multilateral banks, are fully informed and supportive of the NDC."<sup>13</sup> Moreover, "NDC enhancement and LTS development will require political support, ideally from a head of state and planning or finance ministry, to ensure buy-in and steer coordination efforts."<sup>14</sup> By elevating LTSs and NDCs in the country engagement process and engaging finance ministries on the topic, the MDBs could help to build the required political support for NDC enhancement or LTS formulation.

### 2. Paris-Aligned Policy-Based Finance

Several of the MDBs, including the World Bank, ADB, AfDB, and IDB, offer policy-based lending, whereby they condition disbursement of funding on implementation of certain policy reforms. In policy-based lending operations, countries pursue particular policy programs or institutional actions, and the MDBs provide technical support to design and implement the related reforms. The proceeds of these loans then provide countries with general budget support. Historically, this type of lending has made up a significant share (20 to 30 percent) of these banks' portfolios, making policy-based lending an important piece of the Paris alignment puzzle.<sup>15</sup>

Policy-based lending could help or hinder adoption of Paris-aligned pathways, depending on how it is deployed. On the one hand, the Banks have used policy-based finance to promote climate-related objectives. For instance, several have used policy-based finance to spur energy sector reforms and promote renewable energy. The ADB also recently added a new financing mechanism to its policy-based lending toolkit that aims to strengthen countries' disaster resilience.<sup>16</sup> On the other hand, the banks have also used policy-based lending to encourage policy reforms that could substantially increase GHG emissions. For example, a World Bank policy-based loan in Mozambique aims to help the country develop its oil and gas industry.<sup>17</sup>

To be Paris-aligned, policy-based lending cannot benefit or promote any activities that are misaligned according to Building Blocks 1 and 2—on mitigation and adaptation—of their Paris Alignment approach. It is especially critical that the MDBs strengthen

<sup>ii</sup> The World Bank, the Asian Development Bank (ADB), the African Development Bank (AfDB), and the Inter-American Development Bank (IDB) offer policy-based finance.

mechanisms for anticipating indirect or unintended climate-related impacts of their policy-based loans.

MDBs could also go beyond this minimum threshold and use policy-based lending to actively promote reforms that help countries transition to Paris-aligned pathways. For instance, they could use policy-based lending to help countries adopt mitigation plans for sectors, such as the energy and transport sectors, that are critical to long-term decarbonization. Reforms in key emissive sectors could make up an important piece of an eventual economy-wide long-term strategy; they could even make economy-wide long-term planning seem more feasible. Additionally, MDBs could consider developing a dedicated climate-related policy-based lending instrument that would offer funds to countries' adopting ambitious LTSs or enhancing their NDCs.

### How Can MDBs Help Countries Formulate Ambitious Climate Plans?

Once countries decide to develop LTSs and enhance their NDCs, they may need technical and financial support from the MDBs to do so. Several of the MDBs already provide dedicated support to member countries for NDC implementation, NDC enhancement, and long-term strategy formulation. However, at present, these efforts are limited.<sup>18</sup> Some are financed through relatively small pots of grant funding. For example, the ADB's NDC Advance is funded through a \$4.55 million grant.<sup>19</sup> Others cover only a small number of countries; the EBRD's NDC Support Programme, for example, provides direct technical support to only a select set of countries.<sup>20</sup> Additionally, the bulk of the support provided to date has focused on NDC implementation.<sup>21</sup> While NDC implementation support is and will continue to be crucial, developing countries also require assistance in formulating and increasing the ambition of their near-term and long-term national climate plans, particularly in the lead up to COP26.

To effectively implement Building Block 4, the MDBs need to scale up their dedicated support platforms to provide more support to more countries. Scaled-up platforms could provide a range of technical

support. Several indicative examples are discussed below.<sup>iii</sup>

*Process:* Dedicated support platforms could provide technical assistance to develop broadly inclusive and iterative stakeholder engagement processes for developing national climate plans. Dedicated support platforms could also offer concessional funds to support policy development but condition access to those funds on development of inclusive and iterative engagement processes.

*Policy Development:* Dedicated support platforms could support a variety of analytical assessments to help countries define their climate commitments. For example, MDBs could help undertake modelling exercises to identify viable and cost-effective decarbonization pathways, or they could help countries design adaptation plans using robust decision-making exercises. They could complement these assessments with cost-benefit analyses of specific interventions. Together, these kinds of assessments could help countries understand the implications of different development pathways for emissions, climate risk, economic growth, or other indicators of interest. They would thereby allow countries to make informed policy decisions. In providing this type of support, the dedicated support platforms could build on and collaborate with other existing initiatives, including the Deep Decarbonization Pathways (DDP) initiative, the 2050 Pathways Platform, and NDC Partnership.

Ideally, MDB technical support would build internal capacity—within government ministries and within academic and other research institutions—to develop or adapt existing models and to formulate policies based on the results of modelling exercises. Doing so could help countries build the evidence base they need to bolster internal support for low-carbon, climate-resilient pathways. The IDB's innovative *Deep Decarbonization Pathways in Latin America and Caribbean (DDPLAC)* project provides a concrete example (see *Box 1*).<sup>22</sup>

*Implementation and Financing:* Some countries may require support to develop the governance and institutional structures needed to implement climate plans. The MDBs could provide technical

<sup>iii</sup> These examples are informed by requests submitted by developing countries in a new NDC Partnership initiative, the Climate Action Enhancement Package (CAEP). Under CAEP, countries are invited to submit requests for support related to NDC enhancement and long-term strategy formulation. NDC Partnership. n.d. "Climate Action Enhancement Package (CAEP)." <https://ndcpartnership.org/caep>.



assistance to help countries strengthen institutional capacity and adopt policies that support plan implementation. In designing related technical assistance or policy-based lending operations, the MDBs could consider NDC Partnership Plans, in which member country governments identify their NDC implementation needs.<sup>23</sup>

Other countries may need guidance in developing plans to finance implementation. The MDBs are, of course, well-equipped to help countries develop financing and investment plans. They could help countries conduct cost-benefit analyses of different interventions. They could also help countries evaluate financing gaps and identify potential sources of funding, including potential private investment.

### How Can MDBs Encourage Other Clients to Adopt Ambitious Climate Plans?

In Building Block 4, the MDBs commit to help “other clients” to develop LTSs and accelerate their transition to Paris-aligned pathways.<sup>24</sup> The MDBs have indicated that they are initially focusing on the country level. While this is a sensible starting point, it is important to note that a complete implementation plan for Building Block 4 will also need to include plans and processes for supporting actors, such as subnational governments, financial intermediaries, and private sector actors. In parallel

with the critical support MDBs provide member countries, the MDBs should begin to develop methodologies for supporting other clients.

It is especially important that they work with financial intermediaries to formulate long-term decarbonization plans. Since the MDBs provide significant shares of their funding through financial intermediaries<sup>25</sup>, they cannot fulfil their commitment to align their operations with the Paris Agreement without the cooperation of financial intermediaries. The banks could develop policies and strategies to convince actors that they lend to or invest in to define their own long-term decarbonization targets. For instance, the MDBs could condition lending to or equity investment in financial intermediaries on the recipient’s willingness to adopt decarbonization targets over a specified time period.

The IFC’s proposed Green Equity Strategy provides a useful example. The IFC began to discuss a “green equity investment approach” in October 2018.<sup>26</sup> Under the proposed Green Equity Strategy, financial intermediary clients, including commercial banks, would have to commit to reduce or eliminate their coal investments over a defined period of time in order to receive IFC equity investment.

In addition to financial intermediaries, MDBs could also help other clients, including subnational

#### **Box 1: IDB’s Deep Decarbonization Pathways in Latin-America and Caribbean (DDPLAC) project**

Recognizing the importance of modelling exercises in the formulation of effective climate policies, the IDB is working to develop in-country capacity in Argentina, Colombia, Costa Rica, Mexico, and Ecuador to research long-term emissions reduction pathways and develop modelling expertise to help inform national climate policies. The project has several key components:

- Training for academic teams and/or think tanks within the target countries (trainee teams) on the use of modelling tools to inform policy making: Trainers will work with trainee teams to gather the necessary data and design and calibrate models that are suited to the local context.
- Dialogue with government stakeholders: trainee teams will begin a dialogue with government stakeholders to demonstrate the value of modelling tools for informing policy decisions.
- Develop decarbonization pathways: trainee teams will develop decarbonization pathways that they will compare with targets set out in the NDCs and any long-term national goals. They will share the outcomes of the analysis with policymakers to support ongoing public debate on NDC planning.

The project also aims to collect and exchange lessons learned and build a regional community of practice. This innovative project has the potential to increase the pool of available models, create more fit-for-purpose models, and build up local expertise. This, in turn, could increase local buy-in for the results of modelling exercises and any policies that follow from those exercises.

governments and private sector actors, accelerate the transition to low-emissions and climate-resilient development pathways. Helping them do so would reinforce efforts at the national level. The MDBs could, for example, encourage other clients to adopt long-term decarbonization targets and connect them with relevant initiatives and resources that could help them formulate such targets. One example is the Science-Based Targets Initiative, which has developed methodologies for private companies to set emissions reduction targets based on their share of global emissions.<sup>27</sup>

Additionally, as the MDBs support national governments in developing ambitious climate plans, they could, where appropriate, encourage engagement with subnational governments or the private sector. Actively engaging subnational governments and the private sector in national government efforts to develop LTSs could increase awareness, build capacities, and create opportunities for other actors to identify their own needs for support.

## RECOMMENDATIONS

**We recommend that the MDBs further elaborate their shared principles for economy-wide LTS, as detailed in Table 1 above.**

- 1. MDBs should champion LTSs and NDC enhancement in country engagement and particularly in the development of MDB country strategies.** Country strategy results frameworks should make plain how the strategy will promote countries' climate objectives. Where countries have yet to articulate long-term plans, the MDBs should emphasize the importance of long-term planning and make countries aware of the types of support available for the development and implementation of LTSs.
- 2. The MDBs should consistently use policy-based finance in ways that help countries transition to low-carbon, climate resilient development pathways.** At a minimum, they should ensure that policy-based lending does not benefit or promote misaligned activities. Going beyond this minimum threshold, the MDBs could consider developing a climate-related policy-based lending instrument to promote ambitious climate policies that actively advance Paris Agreement goals.
- 3. We recommend that the MDBs scale up dedicated support platforms to provide more support to more countries,** with an eye toward supporting NDC enhancement and LTS development in 2020. Wherever possible, the MDBs should design technical assistance initiatives to build in-country capacities to formulate and implement climate commitments.
- 4. The MDBs should develop policies and strategies to convince actors that they lend to or invest in to define their own long-term decarbonization targets.** Paris alignment requires the MDBs to ensure their financial intermediaries are also aligning their operations with the objectives of the Paris Agreement by formulating long-term decarbonization plans.
- 5. We recommend that the MDBs encourage and support other clients to adopt science-based decarbonization targets** and help connect them with relevant resources and initiatives, including the Science-Based Targets Initiative for private companies that can help them formulate such targets.

---

## BIBLIOGRAPHY

- <sup>1</sup> Joint MDB Working Group. 2018. "The MDBs' Alignment Approach to the Objectives of the Paris Agreement: Working Together to Catalyse Low-Emissions and Climate-Resilient Development." <http://pub-docs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf>.
- <sup>2</sup> United Nations. 2015. "Paris Agreement." [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf).
- <sup>3</sup> Fransen, T., I. Sato, K. Levin, D. Waskow, D. Rich, S. Ndoko, and J. Teng. 2019. "Enhancing NDCs: A Guide to Strengthening National Climate Plans." World Resources Institute. <https://www.wri.org/publication/enhancing-ndcs>.
- <sup>4</sup> UNFCCC Conference of the Parties. 2016. "Decision 1/CP.21." <https://unfccc.int/resource/docs/2015/cop21/eng/10a01.pdf#page=2>.
- <sup>5</sup> Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.). 2018. Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty. Geneva: United Nations Intergovernmental Panel on Climate Change.
- <sup>6</sup> Elliott, C., J. Worker, K. Levin, and K. Ross. 2019. "Good Governance for Long-Term Low-Emissions Development Strategies." World Resources Institute. <https://www.wri.org/publication/good-governance-long-term-low-emissions-development-strategies>.
- <sup>7</sup> Duarte, M. 2019. "Marching Toward 2050: Purpose and Elements of Long-Term Low Greenhouse Gas Emission Development Strategies: Paris Agreement and Long-Term Strategies." World Resources Institute. <https://www.wri.org/climate/expert-perspective/marching-toward-2050-purpose-and-elements-long-term-low-greenhouse-gas>.
- <sup>8</sup> Levin, K., T. Fransen, K. Ross, C. Elliot, M. Manion, R. Waite, E. Northrop, and J. Worker. 2018. "Long-Term Low Greenhouse Gas Emission Development Strategies: Input Document for the G20 Climate Sustainability Working Group." World Resources Institute. <https://www.wri.org/publication/designing-G20-long-term-strategies>.
- <sup>9</sup> Vener, J., T. Fransen, K. Levin, J. Baumwoll, C. Elliot, and K. Ross. 2019. "Scaling Up Ambition: Leveraging Nationally Determined Contributions and Long-Term Strategies to Achieve the Paris Agreement Goals." World Resources Institute. <https://www.wri.org/publication/scaling-up-ambition>.
- <sup>10</sup> Duarte, M. 2019. "Marching Toward 2050: Purpose and Elements of Long-Term Low Greenhouse Gas Emission Development Strategies: Paris Agreement and Long-Term Strategies." World Resources Institute. <https://www.wri.org/climate/expert-perspective/marching-toward-2050-purpose-and-elements-long-term-low-greenhouse-gas>.
- <sup>11</sup> Elliott, C., J. Worker, K. Levin, and K. Ross. 2019. "Good Governance for Long-Term Low-Emissions Development Strategies." World Resources Institute. <https://www.wri.org/publication/good-governance-long-term-low-emissions-development-strategies>.
- <sup>12</sup> UNFCCC. n.d. "Communication of Long-Term Strategies." <https://unfccc.int/process/the-paris-agreement/long-term-strategies>.
- <sup>13</sup> Larsen, G., C. Smith, N. Krishnan, L. Weischer, S. Bartosch, and H. Fekete. 2018. "Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement." World Resources Institute. <https://www.wri.org/publication/toward-paris-alignment>.
- <sup>14</sup> Levin, K., and T. Fransen. 2019. "Climate Action for Today and Tomorrow: The Relationship between NDCs and LTSS." World Resources Institute. <https://wriorg.s3.amazonaws.com/s3fs-public/wri-commentary-climate-action-today.pdf>.
- <sup>15</sup> Larsen, G., C. Smith, N. Krishnan, L. Weischer, S. Bartosch, and H. Fekete. 2018. "Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement." World Resources Institute. <https://www.wri.org/publication/toward-paris-alignment>.
- <sup>16</sup> ADB. 2019. "ADB Introduces Contingent Disaster Financing for Natural Disasters." <https://www.adb.org/news/adb-introduces-contingent-disaster-financing-natural-disasters>.
- <sup>17</sup> World Bank. 2017. "Mozambique Technical Assistance for Mining and Gas: Project Paper." <http://documents.worldbank.org/curated/en/467111509760839917/pdf/MOZAMBIQUE-PP-10132017.pdf>.

---

<sup>18</sup> Larsen, G., C. Smith, N. Krishnan, L. Weischer, S. Bartosch, and H. Fekete. 2018. "Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement." World Resources Institute. <https://www.wri.org/publication/toward-paris-alignment>.

<sup>19</sup> ADB. 2018. "New ADB Platform to Help Boost Financing for Climate Action." <https://www.adb.org/news/new-adb-platform-help-boost-financing-climate-action>.

<sup>20</sup> Larsen, G., C. Smith, N. Krishnan, L. Weischer, S. Bartosch, and H. Fekete. 2018. "Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement." World Resources Institute. <https://www.wri.org/publication/toward-paris-alignment>.

<sup>21</sup> "Joint Expert Workshop on Paris Alignment." 2019. New York, NY, September 24.

<sup>22</sup> IDB. 2017. "Deep Decarbonization Pathways in Latin-American and Caribbean: TC Document." <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=EZSHARE-600781248-10>.

<sup>23</sup> NDC Partnership. 2018. "Partnership Plan for NDC Implementation: Connecting the Dots." <http://ndcpartnership.org/news/partnership-plan-ndc-implementation-connecting-dots>.

<sup>24</sup> Joint MDB Working Group. 2018. "The MDBs' Alignment Approach to the Objectives of the Paris Agreement: Working Together to Catalyse Low-Emissions and Climate-Resilient Development." <http://pubdocs.worldbank.org/en/784141543806348331/Joint-Declaration-MDBs-Alignment-Approach-to-Paris-Agreement-COP24-Final.pdf>.

<sup>25</sup> Larsen, G., C. Smith, N. Krishnan, L. Weischer, S. Bartosch, and H. Fekete. 2018. "Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement." World Resources Institute. <https://www.wri.org/publication/toward-paris-alignment>.

<sup>26</sup> Le Houérou, P. 2018. "Opinion: A New IFC Vision for Greening Banks in Emerging Markets." <https://www.devex.com/news/opinion-a-new-ifc-vision-for-greening-banks-in-emerging-markets-93599>.

<sup>27</sup> Science Based Targets. n.d. "About Science Based Targets Initiative." <https://sciencebasedtargets.org/about-the-science-based-targets-initiative/>.

# Paris-Aligned Reporting: Risks and Impacts

The Multilateral Development Banks (MDBs) have helped to improve transparency around climate finance over the last decade. The goal of Article 2.1c, making financial flows consistent with low-greenhouse gas emissions and climate-resilient development, is an important impetus behind MDBs' ambitions to improve their tracking and reporting.<sup>1</sup> So far MDBs have harmonized reporting in climate finance, focusing on input metrics and targets, such as finance volumes. Moving on from a Climate Finance Paradigm to a Paris Alignment Paradigm requires harmonized disclosure standards on all activities as well as transparency regarding the climate impacts of all MDB financing and the potential risks climate change poses to investments<sup>2</sup> and the development goals MDBs aim to achieve.

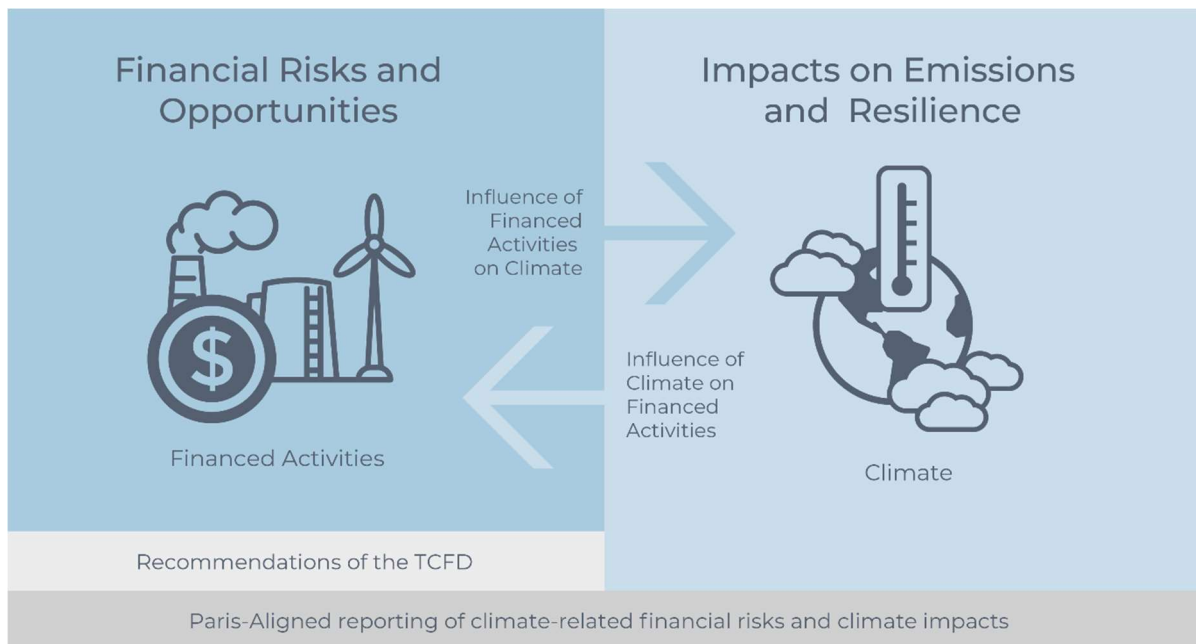
In December 2018, the MDBs announced six building blocks for Paris alignment: for alignment: Mitigation (Building Block 1), Adaptation (Building Block 2), Climate Finance (Building Block 3), Policy Support (Building Block 4), Reporting (Building Block 5), and Internal Operations (Building Block 6). Building Block 5 is concerned with improved reporting on and in consequence of the MDBs' Paris alignment approach. This memo discusses central avenues through which MDBs can report on the compatibility of their annual project commitments, past commitments on their portfolios, and internal activities with the Paris objectives as well as their Paris-alignment processes more comprehensively, while fostering and advocating for harmonized financial practices conducive to low-carbon, climate-resilient development.<sup>3</sup>

## OVERARCHING PRINCIPLES

To become Paris aligned, MDBs will need to not only report on the results of their Paris-alignment activities<sup>4</sup> but also to what extent their portfolios and commitments are aligned and how

and when they will be aligned with climate-resilient, low-carbon development pathways. The following overarching principles can lay the groundwork for a successful implementation of Building Block 5:

- 1. All Financial flows of an institution are Paris-aligned if and only if all investments and their impacts are Paris-aligned. Reporting on Paris Alignment of financial flows thus entails reporting on all investments,** including climate finance and non-climate finance, direct and indirect lending, equity investments, technical assistance and policy support. Paris alignment requires not only aligning direct project investments but also supporting existing and potential clients in aligning activities with the Paris agreement. MDBs' responsibility does not end with the disbursement of funds but involves the supporting of clients' transition to a low-carbon, climate-resilient development.
- 2. For all climate finance, Paris aligned reporting should expand to include reporting on harmonized impact indicators.** Harmonized principles exist already in the case of climate finance, but they should be updated to reflect the goals of the Paris Agreement. All MDBs now report on climate finance volumes, based on the common Principles for Climate Change Mitigation and Adaptation Finance Tracking.<sup>5</sup> A continued improvement of the common reporting on climate finance should reflect the temperature goal of the Paris Agreement and ambitions to ramp up adaptation finance volumes.
- 3. For all projects of the portfolio, Paris aligned reporting should entail reporting on climate-related financial risks and on impacts on emissions and resilience.** On



**Figure 1:** Dimensions of Paris-aligned Reporting (adapted from European Commission 2019)<sup>23</sup>

the one hand, financed assets are exposed to financial risks that stem from and are aggravated by a warming climate and transforming economies (see Figure 1). As part of their Paris Alignment approach, the MDBs have thus committed to assess their investments for transition risks (under Building Block 1) and for physical risks under (Building Block 2). Financing decisions made by banks, on the other hand, have the potential to induce climate impacts relevant to the achievability of the Paris objectives (in this memo the term “climate impacts” refers to impacts on emissions and resilience). Reporting on progress towards Paris alignment needs to include reporting on misaligned activities – for example via a ratio of misaligned-to-total-assets or a brown-to-green energy ratio.

**4. The dimension of climate impacts on emissions and resilience and the dimension of financial risk and opportunity are interlinked and reinforce each other (see Figure 1).** For example, minimizing financial assets’ exposure to physical damage through adaptation (risk dimension) can also improve the resilience of communities and development pathways (impact dimension). Minimizing transition risks, e.g. by avoiding fossil fuel-related investments that risk to become stranded assets, also has an impact on financed emissions. However, minimizing risks will not always be sufficient to ensure Paris-aligned project impacts on emissions and resilience. It is thus vital that MDBs report on both dimensions.

**Box 1: The TCFD Framework**

The **Task Force of Climate Related Financial Disclosures** was established in 2015 by the Financial Stability Board in response to the financial crisis of 2007-08 and in anticipation of a transformation towards lower-carbon economies. It was called upon to develop climate-related disclosures “that could promote more informed investment, credit [or lending], and insurance underwriting decisions” that would “enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system’s exposure to climate-related risks”.<sup>6</sup>

The task force developed recommendations that are applicable to organizations across sectors, and provided supplementary guidance for financial institutions. It found a need for comprehensive, forward-looking management and disclosure of climate risks and opportunities with respect to banks’ governance, strategy and risk management, in addition to metrics and targets that guide operations. This new vantage point could expand MDBs’ reporting focus from inputs (finance volumes) in climate-related activities to also include the assessment, management and communication of financial risks due to climate change and climate policies.

**5. Rigorous and harmonized Paris-aligned disclosures would help MDBs in building mutual trust and confidence among financial actors.** Some MDBs are incorporating the recommendations of the Task Force on Climate-Related Financial Disclosure into their annual financial reports – a trend that can play a valuable part in MDBs’ Paris-alignment process (see Box 1).

## IMPLEMENTING BUILDING BLOCK 5

This memo is structured thematically around TCFD’s four pillars of action – governance, strategy, risk management, and metrics and targets –

which were developed to assist financial sector participants to use and understand the materiality of climate change-related financial risks and opportunities and thus helping corporate disclosure to converge around certain terminology and practice.

While focusing on financial risk-related disclosures, the TCFD’s framework can provide a powerful starting point for MDBs to demonstrate leadership in disclosing climate-related information in a clear, comprehensive and harmonized fashion.<sup>7</sup> Moreover, this should be complemented by detailed reporting of climate impacts, targets and underlying metrics and tools.

### **Box 2: Risk Categories of the TCFD and why they are relevant to the MDB’s Paris Alignment Approach**

The **two major categories**<sup>8</sup> of climate risks are transition risk (the financial risk which could result from the process of adjustment towards a lower-carbon economy) and physical risk (effects on the value of financial assets that may arise from climate- and weather-related events and via insurance liabilities). Transition risks include the potential for increasing exposure to litigation revolving around financial assets and their negative climate impacts.

Considering these risk categories as part of their Paris Alignment approach, the MDBs have committed to assess their investments for transition risks (under Building Block 1) and for physical risks under (Building Block 2).<sup>9</sup>

It is tempting to think that development banks’ portfolios are not likely to be affected by climate-related financial risks as a significant part of their lending is guaranteed by sovereign clients.

Particularly for transition risks it is argued that countries that give the necessary guarantees, for example, for a fossil fuel power plant, are not likely to undertake policy measures that will not allow this plant to produce electricity until the end of its economic lifetime. Yet, transition risks depend not only on national policy measures, but also on (international) demand, technology development and other factors. In addition, countries might increase climate policy measures despite guarantees taken for individual projects, as climate impacts become more evident and severe. Indeed, new research by academia and central banks stresses that “transition risks, could affect in a relevant and negative way the value of sovereign bonds in

countries where revenues from economic activities and GDP growth are still carbon-intensive”.<sup>10</sup>

The idea that countries will be able to pay back loans, may thus not always hold true. First, because there have been cases of country insolvencies or inability to pay back loans in the past. Second, because in the future, particularly countries that rely on carbon-intensive exports and are highly indebted may be severely affected by the low-carbon transformation. Similarly, the risk of insolvency increases for countries most vulnerable to the physical impacts of climate change.

Beyond portfolio risks to MDBs, assessing and mitigating transition and physical climate risks of their clients is also well in line with the development mandate of banks.

For transition risks, the reliance on governments to either (i) pay back loans for stranded assets or (ii) hold back climate policy measures to minimize transition risks, would be at odds with broader sustainable development goals and supporting the temperature goal of the Paris Agreement (Building Block 1). Neglecting physical risks, on the other hand, would be at odds with strengthening the client’s climate resilience (Building Block 2).

Most MDBs are currently further advanced in assessing and reporting physical climate risks of projects, as a significant and increasing number of clients is already affected by these. Research commissioned by UNEP finds that vulnerability to physical climate risks already raised the average cost of debt of developing countries.<sup>11</sup>

## Governance

The need for a definition of Paris alignment has emerged as a considerable challenge that requires the commitment of senior leadership and dedicated management capacities with a focus on climate spanning relevant departments.

Providing information on how climate-related issues are overseen throughout institutions allows the evaluation of whether material risks and impacts receive the appropriate attention at the appropriate levels. This is a core prerequisite for successfully identifying climate risks and impacts and taking appropriate measures on strategy and risk management.

1. **MDBs should disclose whether and how Paris alignment is incorporated into their mandates**, to what extent it is a priority of senior management and how this priority is reflected in incentive structures. This should include information on how senior managers have advocated for addressing climate risks and impacts within the institution.
2. **MDBs should report on how responsibilities to include climate risks and climate impacts are assumed throughout the organization**, including the managing board, corporate strategy, risk management and at the projects level (such as dedicated climate divisions or project managers).

## Strategy (Scenario Analysis)

Climate-related considerations, including risks and impacts associated with mitigation and adaptation actions, need to be clearly articulated in banks' overall strategies. It is notable that individual banks have implemented climate strategies to emphasize and facilitate climate action.

However, commendable as past strategy innovations may be, they currently fall short of the ambition to incorporate the goal of Paris alignment across all MDB operations.

MDBs and other financial institutions have faced challenges in assessing the compatibility of annual commitments with climate scenarios<sup>i</sup>, citing data availability and ambiguity about methodological approaches.<sup>12</sup> The variety of available scenarios and stress testing<sup>ii</sup> approaches, makes comparisons of analyses difficult. It is, thus, important that banks report transparently on chosen scenarios, underlying assumptions and analysis approaches.<sup>13</sup> Aside from the comparability aspect, a joint framework could provide guidance for common practice where data gaps exist and establish best practices for necessary assumptions. Moreover, climate-related risks and impacts are sure to evolve and have different implications as conditions change, making a vigilant and concerted use of scenario analysis supremely relevant to ensure progress towards Paris alignment. This is a crucial point: even if risks of default are not borne by MDBs due to the sovereign backing of projects, the incidence of a stranded asset results in wasted resources and failed development goals.

1. **MDBs should commit to a timeline to implement comprehensive climate scenario analyses, common time-frames (short: <10 years; medium: 20-30 years; long term: 30-50 years) and stress test approaches to assess climate risks.** Distinct methodologies will need to be developed to assess transition risk (including litigation

<sup>i</sup> According to the International Actuarial Association (2013) a **scenario is a projection of a possible future environment either at a specific point in time or over a certain time horizon**. Complex scenarios may include interaction between numerous variables over several time periods. Due to uncertainty about future developments a number of possible scenarios exist. For example, 'future emissions scenarios' model the effect that developments in supply and demand, climate policy, technology and consumer preferences have on future emission levels and, in a next step, on temperature levels. Some scenarios back cast what kind of developments will be necessary to limit global warming to a defined temperature target with a defined probability. From these it can be derived what kind of projects and activities are in line with the temperature goal, but also what kind of transition risks may arise (policy changes, technology changes, changes in consumer preferences etc.). Other climate scenarios model plausible effects of climate change (such as rainfall, likeliness of storms, temperature etc.) in certain regions in dependence of the development of global emissions. These scenarios can be useful to derive physical risks.

<sup>ii</sup> **Stress testing** has become a frequently used technique in the finance domain, where it is used to assess the resilience of financial institutions and portfolios or whole economies under a stress scenario. Four basic elements are part of any financial stress test: (i) a scenario describes an external shock, (ii) risk exposures affected are identified and quantified, (iii) a model explains the impact of the shock on the exposures (iv) an evaluation defines or describes which outcome a financial institution is able to absorb (Borio, Drehman and Tsatsaronis 2014)



risk) under Building Block 1 and to assess physical risk under Building Block 2.

2. **MDBs should aim to harmonize their approaches to help comparability of results and foster mutual learning.** This could be achieved by MDBs agreeing on the climate scenarios (or at least criteria for the establishment of those scenarios) used for assessing different risk and impact types under Building Block 1 and 2, a joint methodology for scenario analysis and stress testing, and a joint reporting format (such as regarding assumptions and results of quantitative climate risk analyses).
3. **Banks should utilize at least one scenario in line with a temperature increase of no more than 1.5°C to analyse transition risks, including litigation risks,** under Building Block 1. For physical risk analysis assessed under Building Block 2, various scenarios that model a range of possible pathways should be included – both pessimistic and optimistic – for example 1.5, 2, 3 and 4°C. Utilized scenario characteristic and assumptions should be disclosed.

## Risk and Impact Management

### Risk Management

Transition and physical climate risks have increasing potential to result in a significant deterioration in portfolios – both for private and sovereign lending (see box 2) - and threaten successful implementation of new commitments. MDBs have thus committed to assess transition risks and physical risks under Building Block 1 and 2 of their Paris Alignment approach. Adequate management of these risks and opportunities is highly relevant to MDBs' strategies, business models, and financial planning. Disclosure of how risk management following the risk assessment is also necessary for accountability reasons, and can help shareholders, clients, financial actors, civil society and other stakeholders to advance their understanding of climate-related risks and potential means to manage these. The analysis should be done at the borrower level (for new commitments) and at the portfolio level (to assess the exposure of credit loan portfolios).

In a warming world, the management of climate risks may imply a decrease in commitments and financed activities exposed to physical climate risks. Yet, it is a part of MDBs' mandates to take on a certain risk profile in line with their development mandates. MDBs can use information from risk assessments to better identify the most vulnerable borrowers and provide them with adapted financing solutions.

According to the section "Reporting under the TCFD"<sup>14</sup> in the IFC's annual report for 2018, climate risks have been recognized as material to financial returns, which has led the bank to heed implications that result from climate change and investing in a business-as-usual scenario. Updates to risk management have resulted in a more careful consideration of climate impacts and climate risks in IFC's new investments.

### Impact management

As public finance institutions with a development mandate and in line with their Paris alignment commitment, MDBs should also report on the negative and positive impacts of their projects on emissions and resilience. This includes reporting on measurable direct impacts of projects (such as gross GHG emissions, resilience impact metrics or volume of transformational projects, see next section "Metrics and Targets") and impacts through climate finance under Building Block 3 (see also Memo 3) as well as through policy support and engagement with clients under Building Block 4 of the Paris Alignment approach.

1. Building on existing environmental and social safeguard practices and risk management frameworks, **MDBs should disclose how they manage transition risks (under Building Block 1) and physical climate risks (under Building Block 2)** identified by means of scenario analysis and stress testing. Climate risks should be characterized in the context of traditional banking industry risk categories, such as credit risk, market risk, liquidity risk and operational risk.<sup>15</sup> Risk management should include milestones every five years – for example in step with the UNFCCC's common time frames.

**2. To manage portfolio risks identified through risk assessments under Building Block 1 or 2, MDBs should explore risk management strategies as alternatives to divestment** from non-aligned assets that bring about real-economy impacts, for example, through their modification or early retirement.<sup>16</sup> MDBs could also propose de-risking solutions to mobilize the private sector to finance risk mitigation (physical or transition) for the most vulnerable borrowers identified.

**3. MDBs should disclose the impacts of their operations** (see next section “Metrics and Targets”) and **how they will manage these impacts to align all operations with the goals of the Paris Agreement.** Impacts of project investments on emissions and resilience as well as impacts on the client’s climate resilient, decarbonisation strategy can at the same time also be part of an effective risk management.

For example, reporting on impact management of **policy support under Building Block 4** could include reporting on how policy support is strategically used to **(i) reduce climate-related risks for the client or (ii) help to build a Paris aligned project pipeline (over time).** For **equity investments and financial intermediary financing, impact management could be achieved through binding targets and financing conditional on the implementation of Paris alignment strategies** (such as the successive reduction of carbon-intensive assets as a share of the client’s portfolio).

### Metrics and Targets

MDBs’ Climate Finance Tracking is a strong example of collaboration between banks and an important cornerstone of their effort to mobilize climate finance. However, projects tagged under the MDBs’ methodologies for mitigation and adaptation finance tracking are not explicitly aligned with the Paris Agreement and climate impacts are so far not consistently accounted for in the remaining investments and bank operations. Similarly, a harmonized GHG accounting methodology

has increasingly served as a basis for climate-related decision-making tools among the MDBs (see Box 2). Still, MDBs have not commonly defined Paris-aligned benchmarks. In spite of the progress made, banks and stakeholders stand to benefit from a more rigorous harmonization and disclosure of science-based benchmarks and targets used to ensure Paris alignment.

### Reporting on Climate Impacts

MDBs have individually committed to support increased climate finance levels, resulting in a collective effort totalling at least \$65 billion annually by 2025.<sup>17</sup> These ambitions are well-regarded but only focus on a relatively small – if growing – part of overall Bank activities. ‘MDB Climate Finance’, as reported by Banks in the joint annual report, refers to those financial resources committed to “development operations and components thereof, which enable activities that mitigate climate change and support adaptation to climate change”.<sup>18</sup> This focus of reporting on financial inputs is not enough to enable a comprehensive understanding of the climate impact of MDB investments. Furthermore, MDBs have yet to agree on a harmonized reporting methodology for investments that are not categorized as climate finance.

Assessing impacts that result from MDBs’ financing is important to judge overall progress in aligning with the Paris Agreement. Furthermore, including projects not eligible for mitigation and adaptation finance would allow for an easier understanding of and comparison between MDB investments, raising awareness on those activities that could potentially have negative impacts on climate goals.

Greenhouse gas accounting metrics are already used to reflect climate impacts of projects and can inform a Paris Alignment assessment that works with emission benchmarks or emission targets. The effectiveness of tools that are based on the GHG footprint of projects crucially depend on the methodology used for GHG accounting, which should thus be disclosed (see Box 3).

An overwhelming share of MDBs climate finance flows towards mitigation activities due to their

impact in terms of net GHG emission reductions. Given the urgency of climate change mitigation and a shrinking space to settle for options that are impactful only on a relative basis, dedicated efforts to align with the Paris temperature goals and striving for net zero emissions by 2050 need to make gross GHG emissions the core metric.

1. **MDBs should start to report on Paris alignment of the entire portfolio in a harmonized manner.** This could be done, for example, by defining indicators such as “aligned” or “misaligned with Paris Agreement”. It should be disclosed how the indicators are defined and under which category existing and new projects fall. Thusly generated transparency on MDBs activities and their impacts could be evaluated in terms of Paris alignment against countries’ long term strategies and climate-resilient, low-carbon development pathways.
2. **MDBs should report on positive and negative climate impacts of projects building on the joint GHG accounting approach (see Box 3) and on resilience metrics developed under Building Block 2 (see Memo 2) for all projects.** Harmonized impact metrics should be reported for climate finance (see Memo 3). MDBs should make it mandatory to report on actual annual and expected future (lifetime) gross emissions and disclose (global/sector/country) benchmarks used in the Paris alignment assessment of investments as well as their scientific basis (see Memo 1). At sector level, we recommend that MDBs report on sector indicators of their portfolio: for example the average emissions intensity of the power generation projects (TCO<sub>2</sub>/MWh), the average energy efficiency for new buildings (kgCO<sub>2</sub>/m<sup>2</sup> yr.) as well as on indicators to follow how projects financed contribute to sector decarbonization. In addition, we recommend for MDBs to develop indicators to reflect transformational outcomes for climate finance (under Building Block 3) as well as for all other finance.
3. **MDBs should also report their support and engagement activities under Building**

**Block 4.** This may include metrics and qualitative risk and impact management strategies (see previous section). Lastly, MDBs should report on key indicators that measure alignment of internal operations under Building Block 6, such as total distance travelled by plane, modal split of employees’ commute, share of electric vehicles in company fleet, transport emissions per full time employee etc. (see Memo 6).

4. When disclosing the methodologies for GHG accounting, **MDBs should provide information on GHG scopes and thresholds used**, sectors to which GHG accounting is applied, over which period GHG emissions are accounted for and – in the case of net emissions – how counterfactual scenarios are designed. MDBs should work to harmonize each of these components of the GHG accounting methodology (see Box 3).
5. **MDBs should disclose impacts annually at aggregate levels (e.g. in climate finance reporting and in financial, such as TCFD, reporting) and at the project level in the relevant public data bases.**

#### Reporting on Climate Risks: Scenarios, Assumptions, Results

MDBs finance projects in a wide range of geographies and sectors that are subject to varying degrees of climate risk. As they hold a mandate to support sustainable development, it is imperative that climate risks are incorporated into strategic planning and project appraisal to ensure long term viability of projects and their mitigation or adaptation impact. By adopting a rigorous and harmonized framework for climate-related financial disclosure, MDBs also provide important signals for other financial actors and affiliated entities.

1. **Banks should disclose (i) metrics and tools used to assess climate-related financial risks under Building Block 1 and Building Block 2 as well as (ii) results from risk assessments and (iii) strategies to address the risks** identified by the scenario analysis, including stress tests.

2. **MDBs should disclose which scenarios and stress tests are used to assess climate-related financial (transition and physical) risks** in the short, medium, and long run. This should include main assumptions.
3. **MDBs should derive and disclose which investments would be affected under these scenarios.** Metrics provided may relate to credit exposure, equity and debt holdings, or trading positions. They could be further broken down by (i) industry, (ii) geography, (iii) credit quality (e.g. investment grade or non-investment grade, internal rating system) and (iv) average tenor. The TCFD also recommends provision of the amount and percentage of carbon-related assets relative to total assets as well as the amount of

lending and other financing connected with climate-related opportunities.<sup>19</sup> **In a Paris alignment context this can be done by reporting ratios of misaligned-to-total-assets or brown-to-green energy.**

4. **MDBs should disclose the results of scenario analysis and stress tests in publicly available documents. Metrics provided could be “expected loss” or “net present value” of investments when (stress) scenarios are applied.** This should include the results of stress tests of critically large investments to show their sustainability in low-carbon scenarios in line with NDCs and 1,5°C-oriented scenarios as well as in >2°C scenarios.

### **Box 3: Disclosure Requirements in Greenhouse Gas Accounting**

A framework developed by a technical working group of international financial institutions – among them six MDBs – stipulates a methodology to account for **gross (absolute) and net (relative)** emissions from direct investments and asks members to disclose net emissions of projects to “capture their development and mitigation contribution”.<sup>20</sup> Accordingly, GHG emissions shall be accounted for as tonnes of CO<sub>2</sub>e that the project is expected to produce on an annual basis.

Regarding disclosure, the minimum requirement of the framework is to disclose net emission reductions for mitigation projects at the project level. However, emission reductions do not paint the full picture of climate impacts. For example, improvements in energy efficiency of fossil-fuel related investments that reduce annual emissions may still lead to a **lock-in of emissions by extending asset lifetimes** – a possible conflict with national sector strategies and decarbonisation pathways. For accountability purposes with regard to the Paris commitments and national decarbonisation pathways, reporting of gross emissions is crucially important.

When using gross emission targets, budgets, and benchmarks, lifetime emissions of financed projects will need to be taken into account and should be disclosed. The Netherlands Development Finance Company (FMO) was the first international finance institution **setting a target pathway for gross portfolio emissions** in order to align with the 1.5°C temperature goal of the Paris Agreement.

**It accounts for financed annual emissions as long as the investment is part of the bank’s portfolio (economic life).**<sup>21</sup> This reflects an approach that looks at financial risks. From the impact point of view, it should be considered that the technical lives of assets are often conceivably longer than the periods for which they remain on portfolios. Projects continue to emit after leaving the banks’ books. **To ensure that climate impacts of projects are in line with the temperature goal, estimated technical lifetimes could be taken into account.** A third approach would be **to trace emissions ex-post** until the project closes down. This would require significant monitoring capacities but would ensure the most accurate reporting of financed emissions. Banks need to agree on a common methodology to transparently account for these legacy emissions.

**Additional reporting** on baselines, portfolio-wide emissions, lifetime GHG emissions and disaggregate GHG data by sector, country or project is currently voluntary under the joint framework. While including scope 1 and 2 emissions (direct emissions and emissions from electricity use as defined in the GHG accounting protocol) is mandatory, inclusion of scope 3 emission (upstream and downstream emissions) is voluntary. Making **disclosure of these metrics mandatory** and achieving a harmonized framework to account for these metrics would greatly increase transparency and enable comparability of data, for example against Paris aligned benchmarks.

- 5. Lastly, MDBs should describe strategies to address identified risks at activity level (describing risk managing activities in project documents) as well as at portfolio level (in annual financial reporting, for example under TCFD).** This could include disclosure of cost and expected impacts of mitigation and adaptation measures. As part of these strategies, MDBs can implement and should also disclose targets and tools to assess whether new commitments or entire portfolios are Paris aligned.

#### Reporting on Tools and Targets

#### Tools, Benchmarks and Assumptions used in Paris Alignment Assessment

Project-level climate tools applied during the approval process, can have a critical influence on financing decisions, ultimately shaping the banks' portfolios.<sup>22</sup> Apart from the harmonized approach to GHG accounting, to date MDBs have not developed methodologies that could govern the concerted implementation of climate tools and support Paris-aligned decision-making. Taking GHG accounting as the underlying metric, the application of benchmarks, such as emission performance standards, or shadow carbon price<sup>iii</sup>, could inform best practice debates and allow for the analysis of trends across the financial sector. Their implementation and disclosure are, moreover, important prerequisites for rigorous, science-based and believable targets to advance Paris alignment.

- 1. MDBs should report all tools/benchmarks and underlying assumptions used in Paris alignment assessment** as part of their annual reporting. They should disclose whether and how they use GHG accounting, sectoral benchmarks or shadow carbon prices and reference to the documents where the methodologies can be found
- 2. MDBs should disclose levels and future increases of shadow carbon prices,** to which sectors and for which scopes they are

applied and which thresholds are used. Those levels of future shadow carbon prices should be correlated with 1.5°C-related scenarios. MDBs should also disclose levels and decreases over time of emission performance standards and other benchmarks, as well as to which sectors or activities and for which scopes they are applied.

#### Targets used in Paris Alignment Assessment

Metrics and tools for climate impacts – negative and positive – enable the use of targets to track progress in aligning MDBs operations with the Paris agreement. They can guide investment decisions and incentives on the bank strategy level or at the country/sector level. If targets are science-based, the use of targets can ensure that near-term actions contribute to long-term goals. Not least, their disclosure establishes benchmarks and best practices, and facilitates Paris alignment among MDBs and other financial institutions.

- 1. MDBs should utilize impact metrics to create targets, e.g. aligned projects as a share of portfolio/sector.** Similarly they could use these metrics to assess the shares of those projects counterproductive/harmful to the goals of the Paris Agreement (such as fossil fuel finance) and set targets to reduce them. Targets could also include gross GHG emission targets at the country, sector or portfolio level. MDBs could, for example, set the target that absolute emissions of project financed by MDBs (in tCO<sub>2</sub>/million \$) in the infrastructure sectors (electricity, building, transport.) should progressively decrease towards 0 around 2050.
- 2. MDBs should also disclose and describe key climate-related targets concerning all operations,** including information on the progression towards a Paris-aligned project pipeline and portfolio by 2050. They should also disclose how the target aligns with the goals as set out in the Paris Agreement.

<sup>iii</sup> Shadow carbon prices are applied internally, generally during the economic and/or financial analysis of projects, to internalize the negative externality of GHG pollution or to indicate the mitigation costs of each avoided metric ton of carbon. By reflecting the cost of mitigating emissions to Paris-aligned levels where no pricing mechanism exists, can crucially inform investment decisions.

## RECOMMENDATIONS:

1. **MDBs should disclose their assessment of climate-related risks and opportunities as well as climate impacts of all activities.** The TCFD provides a useful structure to disclose climate-related financial risks and opportunities. It recommends reporting on climate-related financial risks with regard to thematic areas (governance, strategy, risk management and metrics). Similarly, climate impact reporting should address governance, strategy and management of negative climate impacts and metrics.
  2. **Scenario analysis and strategy: MDBs should conduct scenario assessments and stress tests using 1.5°C climate scenarios as well as >2°C climate scenarios to identify individual activities and entire portfolios that could be financially affected by a changing climate and transforming economies.** To establish best practices, facilitate mutual learning and comparability of results, the scenarios used and assumptions made should be successively harmonized between MDBs. (see section 2.2.)
  3. **Risk and impact management: From scenarios, banks can derive which investments could be affected from physical and transition risks and disclose the volume of assets exposed to risks.** They should further **disclose the results of stress tests**, such as expected loss under given scenarios. Lastly, MDBs should **disclose how they aim to address and mitigate these risks and how they manage the impacts of their projects** (see section 2.3. and 2.4)
  4. Section 2.4 provides detailed recommendations on metrics to disclose in addition to the scenarios used. **In sum, MDBs should report on the activity level:**
    - a. Metrics that reflect climate impacts, such as gross GHG emissions per year and over the assets lifetime (and methodologies used for GHG accounting) and indicators of alignment under Building Block 1, 2, 3 or 4 (including disclosure of assessment results) as well as indicators that reflect transformational impacts for example on the decarbonisation of a sector.
  - b. Financial risks (physical risks and transition risks) relevant to the project.
  - c. Tools applied to address and mitigate risks and manage impacts (e.g. Paris Alignment assessment criteria, emission benchmarks, adaptation options applied)
- And at the portfolio level:**
- a. Portfolio-level impacts, such as gross portfolio emissions, average sector emissions and average energy intensity and the ratios of misaligned-to-total-assets or brown-to-green energy investments
  - b. Portfolio-level exposure to transition and physical risks derived from scenario analysis
  - c. Expected loss under different scenarios
  - d. How aggregate financial risks are managed and mitigated. MDBs should disclose strategies and tools to address and mitigate risks. This could, for example include portfolio or sector wide targets including 5-year milestones.
  - e. Portfolio-level tools, such as a sector or portfolio-level GHG target, net-zero-CO2-by-latest-2050 target or portfolio emissions pathway; a climate finance target or a target to reduce misaligned activities in the portfolio.
5. In addition, MDBs should report on key indicators that measure alignment of internal operations (e.g. transport emissions per full time employee) under Building Block 6.<sup>23</sup>

---

## BIBLIOGRAPHY

- <sup>1</sup> AfDB, ADB, EBRD, EIB, IDB, and WBG. 2019. 2018 Joint Report on Multilateral Development Banks' Climate Finance.
- <sup>2</sup> Larsen, G., Smith, C., Krishnan, N., Weischler, L., Bartosch, S., Fekete, H.. 2018. *Toward Paris Alignment: How the Multilateral Development Banks Can Better Support the Paris Agreement*. World Resources Institute, New Climate Institute, Germanwatch, Fundacion Avina
- <sup>3</sup> AfDB, ADB, AIIB, EBRD, EIB, IDB, ISDB, and WBG 2018. *The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development*. [https://www.eib.org/attachments/press/20181203-joint-declaration-mdbs-alignment-approach-to-paris-agreement\\_cop24.pdf](https://www.eib.org/attachments/press/20181203-joint-declaration-mdbs-alignment-approach-to-paris-agreement_cop24.pdf)
- <sup>4</sup> *ibid*
- <sup>5</sup> AfDB, ADB, AIIB, EBRD, EIB, IDB, ISDB, and WBG *Common Principles for Mitigation and Adaptation Finance Tracking*
- <sup>6</sup> TCFD 2017. *Recommendations of the Task Force on Climate-Related Financial Disclosures*
- <sup>7</sup> Various organizations and initiatives are currently working to standardize robust guidelines for climate disclosures, including the Sustainability Accounting Standards Board and the Principles for Responsible Investment.
- <sup>8</sup> *ibid*, p. 5.
- <sup>9</sup> AfDB, ADB, AIIB, EBRD, EIB, IDB, ISDB, and WBG (2018). *The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development*. [https://www.eib.org/attachments/press/20181203-joint-declaration-mdbs-alignment-approach-to-paris-agreement\\_cop24.pdf](https://www.eib.org/attachments/press/20181203-joint-declaration-mdbs-alignment-approach-to-paris-agreement_cop24.pdf)
- <sup>10</sup> Battiston, S., & Monasterolo, I. (2019). *A carbon risk assessment of central banks portfolios under a 2°C aligned climate scenarios: Working paper presented at the Bundesbank workshop Scaling-up Green Finance: The Role of Central Banks, Nov. 8-9 2018*. OeNB working paper. [https://ec.europa.eu/jrc/sites/jrcsh/files/paper\\_irene\\_monasterolo.pdf](https://ec.europa.eu/jrc/sites/jrcsh/files/paper_irene_monasterolo.pdf)
- <sup>11</sup> Buhr et al. (2018). *Climate Change and the Cost of Capital in Developing Countries*. Report prepared by Imperial College Business School and SOAS University of London, commissioned by UN Environment. [http://unepinquiry.org/wp-content/uploads/2018/07/Climate\\_Change\\_and\\_the\\_Cost\\_of\\_Capital\\_in\\_Developing\\_Countries.pdf](http://unepinquiry.org/wp-content/uploads/2018/07/Climate_Change_and_the_Cost_of_Capital_in_Developing_Countries.pdf)
- <sup>12</sup> IFC 2019. *Annual Report 2018*
- <sup>13</sup> Global Compact Network Germany 2019. *Evaluating Corporate Climate Risks*
- <sup>14</sup> IFC 2019. *Annual Report 2018*
- <sup>15</sup> For detailed information on different risk types refer to: Enhanced Disclosure Task Force 2012; *Enhancing the Risk Disclosures of Banks*, [https://www.fsb.org/wp-content/uploads/r\\_121029.pdf](https://www.fsb.org/wp-content/uploads/r_121029.pdf)
- <sup>16</sup> I4CE 2019. *A Framework for Alignment with the Paris Agreement: Why, What and How for Financial Institutions?*
- <sup>17</sup> High level MDB Statement – For publication at the UNSG Climate Action Summit, 22 September 2019
- <sup>18</sup> AfDB, ADB, EBRD, EIB, IDB, and WBG. 2019. 2018 Joint Report on Multilateral Development Banks' Climate Finance
- <sup>19</sup> TCFD (2017): *Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures*. <https://www.fsb-tcf.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf>
- <sup>20</sup> IFIs Framework to harmonized approach to greenhouse gas accounting 2015, [https://unfccc.int/sites/default/files/resource/International%20Financial%20Institution%20Framework%20for%20a%20Harmonised\\_rev.pdf](https://unfccc.int/sites/default/files/resource/International%20Financial%20Institution%20Framework%20for%20a%20Harmonised_rev.pdf)
- <sup>21</sup> FMO 2018. *Absolute GHG Accounting Approach for Financed Emissions*. FMO Technical Paper 2
- <sup>22</sup> NewClimate & Germanwatch 2018. *Aligning Investments with the Paris Agreement Temperature Goal*
- <sup>23</sup> European Union 2019. *European Commission: Guidelines on reporting climate-related information*. Online: [https://ec.europa.eu/info/publications/non-financial-reporting-guidelines\\_en#climate](https://ec.europa.eu/info/publications/non-financial-reporting-guidelines_en#climate)

# Aligning MDBs' Internal Operations with the Paris Agreement

In December 2018, the Multilateral Development Banks (MDBs) announced six building blocks for Paris alignment, including Building Block 6 on aligning internal operations with the Paris Agreement<sup>i</sup>: “We will progressively ensure that our internal operations, including facilities and other internal policies, are also in line with the objectives of the Paris Agreement.”

While the footprint of internal activities is much smaller than the footprint of the banks' portfolios, internal alignment with Paris has three essential functions:

**Signalling:** Because MDBs are important global players, particularly in the developing world, they serve as role models and should also lead ambition on climate change mitigation. This also holds for approaches to align internal activities and policies.

**Impact:** While GHG emissions from the banks' internal activities are small compared to other MDB activities, alignment with Paris means cutting these emissions to a minimum.

**Consistency:** If the MDBs' portfolios are aligned with Paris their internal operations should be too. For example, if a coal project is considered misaligned on mitigation, MDBs should ensure that internal activities do not rely on coal-fired electricity. Failure to do so works counter to climate efforts and presents a reputational risk to the institution.

This memo explores and provides recommendations on how Paris alignment should be reflected

in MDB's internal operations, focused on mitigation of climate change. The analysis aims to consolidate best practices while framing measures in the context of the Paris Agreement. It also aims to foster knowledge sharing among MDBs to create a common comprehensive and stringent approach to internal operations alignment.

Internal incentive structures to support a Paris-aligned portfolio do not affect banks' non-portfolio GHG footprints however are a critical part of internal policy making. MDBs are developing methods for assessing the alignment of the banks' portfolios with mitigation and adaptation objectives of the Paris Agreement under the Building Blocks 1 and 2 of their framework. For those methods to be smoothly implemented and used in a robust manner, it will be required to motivate project staff to support such approaches. On the one hand they might need training to understand elements of the methodologies that affect their projects, on the other hand, internal incentive structures at the banks can support acceptance and use of the methods, as well as favouring projects that are Paris aligned. This paper focuses on the non-portfolio footprint and does not discuss internal incentives further. We recommend to carefully consider this issue during the design and the implementation of the methods in Building Blocks 1 and 2.

## OVERARCHING PRINCIPLES

This paper suggests the following key principles for aligning internal operations with the Paris Agreement:

- 1. Set a strategy to make MDB internal operations zero-carbon as soon as possible but**

---

<sup>i</sup> World Bank. *The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development.* (2018).



**latest by 2050 with milestones every five-years:** The IPCC special report on 1.5°C states that global CO<sub>2</sub> emissions need to be at net-zero around 2050. Considering MDBs' role model function, we suggest turning the ambitious decarbonisation target into a benchmark for internal operations.

- 2. Specify targets for key performance indicators to define a concrete pathway for decarbonisation:** Indicators need to be measured and reported periodically to assess progress towards the overall decarbonisation target.
- 3. Aim for ambitious mitigation efforts internally and limit the role of offsetting:** To limit temperature increase to 1.5°C in line with the Paris Agreement, global emissions need to decrease rapidly, which means that every tonne of CO<sub>2</sub> that can be avoided, should be avoided.

## IMPLEMENTING BUILDING BLOCK 6

### DEFINING MDBS' NON-PORTFOLIO GHG FOOTPRINT

A bank's non-portfolio GHG footprint includes GHG emissions caused by the MDB's internal operations, either directly or indirectly. Direct or scope 1 emissions are those emitted at bank facilities or through other bank property, such as vehicles. For most MDBs, direct emissions are limited and mostly consist of emissions from fossil-fuelled systems for heating/cooling and bank-owned vehicles. Scope 2 and 3 are indirect emissions. Scope 2 emissions are associated with energy use such as electricity but are emitted off site. Scope 3 emissions are those associated with internal operations that increase emissions elsewhere such as through business travel or in the supply chain, such as through equipment procurement. Since MDBs operate in multiple countries, it is critical to not only focus only on headquarters but take into account regional offices for the Paris alignment of internal operations.

**Table 1: Definition and examples for different "scopes" of GHG emissions**

GHG emissions	Definition and examples
<b>Scope 1</b>	GHG emissions on-site for example due to fossil fuel combustion for heating purposes or caused by the banks' own vehicles
<b>Scope 2</b>	Indirect GHG emissions associated with the offsite generation of electricity, heating/ cooling, or steam purchased for own consumption
<b>Scope 3</b>	Indirect GHG emissions other than those covered in scope 2, usually refers to transport fuel and power used for transport; emissions from waste management; emissions from energy consumption in external data centres; and, emissions generated in the production of office supplies. We also count emissions from MDBs' pension funds as scope 3 emissions.

Source: authors' own compilation based on Greenhouse Gas Protocol<sup>ii</sup>

<sup>ii</sup> Greenhouse Gas Protocol. <http://ghgprotocol.org/>

## ACTIONS TO ALIGN INTERNAL ACTIVITIES

MDBs already account for emissions of their internal activities and take actions to reduce them. The European Investment Bank (EIB), for example, has been tracking its internal carbon footprint for 10 years and, as of 2019, it reports internal emissions according to the European Union's Eco-Management and Audit Scheme (EMAS).<sup>2,3</sup> The Asian Development Bank (ADB) has conducted carbon footprinting every year since 2013 with information available in its Sustainability report<sup>4</sup>. The World Bank provides detailed methodologies for the quantification of emissions to be applied to its headquarters and country offices for every year since 2012.<sup>5</sup>

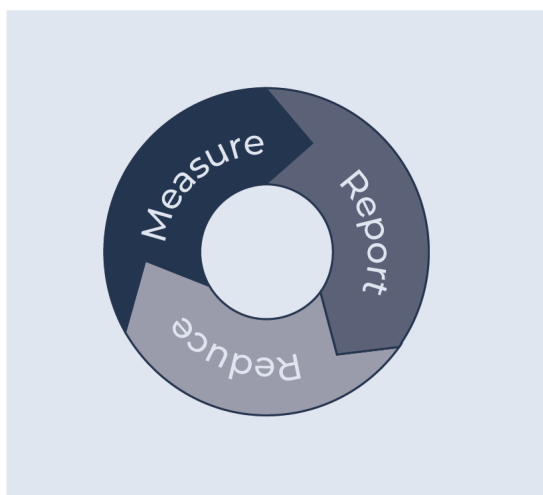


Figure 1: Measure-Report-Reduce

MDBs play an important role on climate and Paris-aligned finance discussions. Considering MDBs' leading role in climate action, significant resources available, and the widespread availability of tools and strategies, MDBs could use this opportunity, not only to ramp up efforts but, to align their internal processes with the most ambitious goals of the Paris Agreement.

Electricity consumption, business travel and employee commuting are MDBs' main sources of non-portfolio GHG footprint. As an example, in the EIB GHG footprint, these main groups caused 95% of the bank's non-portfolio emissions in 2018.

The following sections describe what activities might lead to Paris-aligned internal operations. The first section presents overarching tools, the following sections look at specific sectors, namely

transport and buildings. For each of these, the memo recommends the formulation of key performance indicators to measure progress of alignment and lists important action points to support progress.

### Overarching Standards and Tools to Support Internal Alignment

MDBs already have tools at their disposal that could support internal alignment with the Paris Agreement. However in their current form, they lack the clarity required to lead to decarbonisation. To improve, banks should:

1. Create and disclose the **GHG footprints** of their headquarters and country offices;
2. Establish mechanisms to **report emissions** that are not only robust and comprehensive but also transparent to internal and external stakeholders, e.g. civil society, shareholders, and employees; and
3. Set clear strategies to reduce emissions by establishing **ambitious targets** in line with the decarbonisation required under Paris Agreement compatible pathways.

Various standards and certification schemes can support improving the GHG footprint of internal activities. The different standards under ISO 14000 provide a framework for environmental management, also considering GHG footprints. ISO 14064, for example, provides a separate standard on monitoring and reporting of GHG footprints.<sup>6</sup> At the EU level, European Union's Eco-Management and Audit Scheme is the most commonly used standard and also includes GHG emissions.<sup>7</sup>

Standards focus on monitoring and reporting GHG emissions. Those activities support internal alignment by providing information to the banks identifying relevant internal activities or by fostering environmental responsibility but there is no guarantee that they would lead to emissions reductions aligned with the Paris Agreement. Standards provide a robust structure and starting point, but MDBs need to go further by ensuring emissions reductions go beyond the levels suggest by current standards.

Table 2 illustrates examples of tools and standards that some MDBs are already using, that could also be used at other financial institutions. The methods vary, depending on each MDB's choice regarding which standard is most practical for it, its business model and location (e.g. EIB uses a European Standard). This makes a direct performance comparison difficult and should be considered when setting targets under a joint MDB approach.

MDBs' strategies and action points to reduce emissions from their internal operation do not yet set clear benchmarks in line with the Paris Agreement. The first step to more steep emissions reductions is to set ambitious targets on main emission sources. This approach would provide a clear set of benchmarks that could be evaluated over time by the current measuring and reporting tools.

**Table 2: Examples of standards and tools across MDB internal activities. Refer to the references for more insights on methods.**

Principle	Tool	MDB examples
<b>Measure</b>	GHG footprinting	<p>The EIB has tracked its internal carbon footprint for 10 years and has published a detailed <a href="#">emissions inventory</a> in April 2019.</p> <p>The ADB <a href="#">published</a> its historical emissions series from 2013 to 2017 based on the <a href="#">Greenhouse Gas Protocol</a>.</p> <p>The World Bank has published its <a href="#">approach</a> to calculate GHG footprint for headquarters and country offices in 2012.</p> <p>The EBRD engaged consultants in 2018 to review and assess its footprint.</p>
<b>Report</b>	<p>Environmental Management Systems</p> <p>Sustainability reports</p> <p>Corporate Responsibility reports</p>	<p>The EIB uses European Union's Eco-Management and Audit Scheme (EMAS)</p> <p>The ADB, the IDB and the <a href="#">EBRD</a> present their footprint exercises in their yearly sustainability reports</p> <p>The World Bank reports on their emissions in their <a href="#">GRI Index report</a>.</p> <p>At COP24, the EIB, the EBRD, the ADB, the World Bank, and the IDB, together with other financial institutions, jointly announced a commitment to make their internal operations climate neutral.</p>
<b>Reduce</b>	<p>Action plans</p> <p>Environmental strategies</p>	<p>The ADB has a 10-Point Sustainability in Action Plan</p> <p>The Islamic Development Bank have set targets to significantly reduce electricity consumption.</p>

## Reducing Emissions from Mobility

**Key performance indicators:** total distance travelled by plane, modal split of employees' commute, share of electric vehicles in company fleet, transport emissions per full time employee.

**Key action points:** Provide alternatives and incentives to reduce number of flights, promote shift to low-emissions road transportation methods among employees, invest in company-owned electric fleet.

Emissions from MDB mobility are mostly related to long-distance business trips, which can represent over 50% of yearly emissions due to flying being the most carbon intensive transport mode, the large number of flights, and employee commuting.<sup>3</sup>

The starting point for banks could be setting targets for the electrification of their own vehicle fleets. Even though this only represents a small share of emissions, it is important to ensure alignment with decarbonisation of transport required to reach the goals of the Paris Agreement. MDBs should also set targets for the share of low-emission commuting but the most important area is to make progress towards reducing the number of business flights since this is the single activity with the highest impact in non-portfolio emissions. Below we outline options to support the achievement of such targets.

### STRATEGIES FOR REACHING AMBITIOUS, PARIS-ALIGNED TARGETS ON SHORT-DISTANCE TRIPS AND EMPLOYEE COMMUTING

**Promote the use of bikes, walking or public transport for commuting** through:

1. Improved infrastructure such as secure bicycle parking and on-site showers;
2. Motivational measures such as company competitions on sustainable commuting;
3. Financial incentives, including contributions to public transportation passes;

4. Promotion of carpooling initiatives;
5. Offer home office options to allow employees to work remotely.

**Transition to company-owned electric vehicles.**

### STRATEGIES FOR REACHING AMBITIOUS, PARIS-ALIGNED TARGETS ON LONG-DISTANCE BUSINESS TRAVELS

**Incentivise staff to use public transport to and from airports or train stations**, e.g. through developing criteria for reimbursement for the costs of taxis or private cars under certain circumstances.

**Invest in and promote the use of high-quality video conference systems.**

**Incentivise staff to use trains rather than flights wherever feasible**, e.g. through compensation for additional hours spent on travel and/or by defining distances that appear feasible by train (e.g. 600 km depending on the destination of travel), where an employee would need to apply for approval for specific reasons if a plane is used instead of a train.

**When long-distance air travel cannot be avoided, provide incentives for staff to fly economy class** instead of business class, for example, by giving additional days off, and use direct flights to avoid changing aeroplanes wherever possible.

### Reducing Emissions from MDB Buildings

**Key performance indicators:** total energy consumption (electricity and heat) and share of renewables in energy consumption, emissions per full-time employee

**Key action points:** Invest on energy-efficient buildings and appliances, create initiatives to improve user behaviour, and investigate renewable options for electricity and heating

Emissions from MDB facilities are mostly related to buildings, either direct emissions from space and water heating or emissions from electricity and used for cooling, heating, and appliances. In some cases, like the use of air conditioning, fugitive emissions from refrigerants are also included in the building's emissions footprint.

There are various approaches to reduce emissions: First, decrease energy consumption as much as possible through energy efficient buildings and appliances and improving user behaviour. Second, switch to zero-emission energy sources. Third, where appropriate, install on site PV such as on the roof of facilities. MDBs should set targets each year as they move to 100% energy from renewables and by how much they aim to reduce energy consumption each year. The level of ambition of these targets should take into account what is required under the Paris Agreement and the leading role MDBs play in climate action discussions (see memo on BB1<sup>8</sup>). We outline options to support the achievement of these targets.

#### STRATEGIES FOR REACHING AMBITIOUS, PARIS-ALIGNED TARGETS ON ENERGY EFFICIENCY

- 1. Strive for maximum energy efficiency of the building envelope when purchasing, constructing or renovating facilities.** For long-term decarbonisation in line with a 1.5°C pathway, all new buildings should be fossil-free and near-zero energy as of 2020, and that the renovation rate needs to increase to 5% on average globally<sup>9</sup>. Near-zero energy in this context means that the building envelope should be highly efficient, so that almost no heating or cooling is required. The banks could set an internal standard to only build or rent zero-energy buildings and/or reduce the construction area restoring and repopulating the remaining area with native tree species whenever possible;
- 2. Purchase efficient appliances,** e.g. IT infrastructure incl. servers, lighting systems and air conditioning that include energy labels

with the highest energy efficiency possible. Determine whether an early phase-out of inefficient appliances is possible;

- 3. Install on site PV,** to provide electricity directly to the banks facilities. Paired with battery storage, MDBs can contribute to local grid stability and increase electricity supply security in places with less reliable electricity supply.
- 4. Create an environment that supports less energy-intensive user behaviour.** MDBs can organise staff trainings or implement other measures to foster behavioural change within the organisation. It is important that these measures focus on facilitating action and engaging the staff instead of creating additional tasks for employees. For example, MDBs could:

**Organise trainings** about heating and cooling energy-saving opportunities, such as opening or closing windows only in specific situations;

**Raise awareness,** e.g. through campaigns that aim to reduce energy use or collect suggestions from employees on how the bank can reduce energy consumption;

**Establish processes or systems to ensure computers and other appliances are turned off** when the staff leaves the office, and

**Offer incentives to reduce electricity use,** e.g. half the savings from reduced power of a facility could pay for an activity of choice of the employees at that facility, or by offering prizes to facilities with highest reductions.

#### STRATEGIES FOR REACHING AMBITIOUS, PARIS-ALIGNED TARGETS ON ENERGY SOURCES

**Paris aligned banks should move to a zero-carbon electricity supplier.** When onsite PV is not an option or insufficient, MDBs should procure their electricity from renewable energy suppliers, ideally through a purchase Power Agreement (PPA). If PPAs are not an option, general electricity providers that offer green electricity may be

considered. In such cases, certification of authenticity must be thoroughly vetted to ensure the bank is supporting the development of aligned technologies, e.g. wind, solar and small hydro.

**MDBs can increase the share of renewable energy used for heating or cooling** by using solar thermal water heating and heat pumps powered by renewable electricity. If an MDB finds and supports a pilot project that increases zero-carbon energy supply in the country, this model could be replicated by others in the country or region.

### Reducing Greenhouse Gas Emissions in other areas

Setting targets for buildings' and mobility' key performance indicators can lead to significant emissions reductions due to the high contribution these sectors have in overall non-portfolio emissions. Nonetheless, there may be a variety of other scope 3 emissions associated with the banks' internal activities that require a comprehensive response. Below are some key elements of such a response:

**Cafeteria food options and catering of events:** Sustainable nutrition will be a central part of a Paris-aligned future since roughly a quarter of global greenhouse gas emissions are directly or indirectly associated with food. To achieve Paris alignment in this area, it is important to:

1. Offer vegetarian options and limit meat in the menu. Change the default option: Catering at events can be vegetarian per default with the option for the attendees to request for a meal containing meat upfront if preferred;
2. Minimise food waste by, for example, ensuring a complete cold chain in the kitchen and sales area or establishing incentives to reduce waste in the cafeteria, e.g. donation of leftover food;
3. Move to seasonal, locally produced and organic products where possible; and

4. Provide adequate disposal facilities for food waste, separating waste well and composting where possible.

**Sustainable pension funds:** Banks and their staff invest in pension funds for staff retirement. Avoiding fossil fuel financial assets in staff pension funds may be considered within the fiduciary duty of Banks in their pension providing role. For Paris alignment it is required to either:

1. Direct finance flows to pension funds that exclusively invest in Paris-aligned activities. Some guidance exists in literature on how to approach such a task.<sup>10,11</sup>
2. Engage with pension funds that MDBs invest in and support them in aligning the portfolio with the Paris Agreement, rather than switching from one fund to another. If MDBs continue to invest in funds that are "in the process of aligning", there should be a clear target year for when the portfolios of the funds are completely aligned.

**Purchase and disposal of office supplies and equipment:**

1. Buy recycled paper, and ensure paper recycling in offices;
1. Responsible disposal of air conditioning to avoid fugitive emissions; and other office equipment to ensure responsible e-waste handling;
2. Ensure suppliers of other office materials aim to reduce emissions by demanding supply certification.

### The role of offsetting emissions in a Paris-aligned bank

Even if MDBs meet all targets set for the areas described in previous sections, the measures taken may not lead to zero emissions, given that it will be difficult to avoid all emissions at least in the short term, for example from long-distance flights. The question is what banks should do with the remaining emissions that cannot be avoided.

One approach to this question is offsetting, where the emitter claims to have supported the reduction of the same amount of GHG emissions elsewhere, typically through a cash payment. These emissions should be reported separately from the GHG inventory.

Article 6 of the Paris Agreement provides a placeholder for a mechanism that may facilitate international transfer of mitigation outcomes (ITMOs), but the details of that mechanism remain undefined, partly due to uncertainties related to the risks and opportunities that different constructions may entail. This mechanism needs to include strong and effective safeguards to ensure that it can support, rather than undermine, efforts for ambition raising under the Paris Agreement. Among other safeguards, this requires that the mechanism exclusively targets mitigation options which are otherwise inaccessible to unilateral action from the host country, and which can support countries to adopt transformational technologies that facilitate long-term decarbonisation. Without such restrictions, host country governments may be presented with perverse incentives for restricting the ambition of their own domestic agenda.<sup>12</sup>

MDBs that want to pursue traditional offsetting should make sure that offsetting projects are conducted with social and environmental safeguards comparable to those of the bank's operations. Further, they should ensure and be able to prove that they select mitigation projects that are extremely ambitious and therefore inaccessible to the host country with any other means, both at the point of project initiation and over the duration of the crediting period (concept of "high-hanging fruits" as opposed to the CDM's approach to cover "low-hanging fruit"). In this regard, the scope of actions and targets in a country's current NDC is not the relevant consideration, but rather an assessment of what actions could reasonably be accessible to a country in current or future NDC cycles. This may be difficult to objectively assess and prove. Although offsetting approaches have been traditionally favoured by those who wish to claim that their emissions have been fully compensated to

an equivalent level, often described as carbon neutrality, such a compensation claim will be difficult to substantiate and will always entail a degree of uncertainty in the context of the Paris Agreement.

Another option, which is gaining traction as a more transparent alternative to offsetting is the **contribution claim approach**, in which emitters forego a carbon neutrality claim in favour of a transparent communication that includes a recognition of their unavoidable emissions as well as reporting of contributions made to supporting climate change projects elsewhere. A key difference is that the emitter claims only to have contributed to those mitigation activities, rather than assuming ownership of their outcomes and counting this against their own emissions.

In practice, the contribution claim approach could be operationalised by setting a sufficiently high internal carbon price through contributing a certain amount for each tonne emitted, with the sum then used to support external projects for climate change action. The carbon price should be set in a way that it effectively steers decision making in the organisation. Since the objective of this approach is not to create and use emission reduction credits, there is a much greater degree of flexibility in the type of activities that can be supported: for example, climate change mitigation activities that may not yet be mature enough to produce quantifiable emission reduction outcomes, yet have high transformational potential, could be supported, as could projects that support adaptation or resilience. At the moment, there is no "database" of activities that would be worth supporting, so it will be a potential challenge to select them. If more emitting organisations support this approach, such a database or even certification scheme for activities could be built up.

A key component of the contribution claim approach is that the emitter regularly provides full transparency on the choices made and the uncertainties involved, with an aim to jointly learn and improve upon these choices and uncertainties over time.

For those MDBs, that still want to offset (unavoidable) emissions, it is critical to aim for “high-quality offsets”. Broekhoff et al.<sup>13</sup> describe what is required for such an approach:

First, an organisation needs to reduce emissions as far as possible, to avoid that offsetting is detrimental to any own climate action. Second, the purchasing organisation needs to have full confidence in the quality of the credits in terms of their additionality, quantification, permanence, leakage avoidance, exclusive claim to emission reductions and avoidance of social and environmental harms. According to Broekhoff et al., existing certification programmes do not necessarily guarantee the required quality. In their report, Broekhoff et al. provide detailed tables for different project types that indicate potential concerns for the quality criteria. Finally, Broekhoff et al. also stress that claiming carbon neutrality based on offsetting may distract from climate action at the purchasing organisation.

Under the standards that MDBs use for reporting emissions from internal operations, they report offsets separately from the GHG emissions of internal operations. This means that the reporting standards are already in line with the idea of refraining from claiming carbon neutrality.

## RECOMMENDATIONS

MDBs should build on existing tools and processes where they exist (e.g. environmental standards and GHG footprint exercises) but also acknowledge that those alone are insufficient for Paris alignment, as they do not prescribe a Paris-aligned level of effort.

Banks need to set a strategy to make their internal operations zero carbon as soon as possible but at the latest by 2050 with milestones every five years. This strategy should ideally specify key performance indicators that should be tracked periodically to assess progress towards the overall decarbonisation target. To bring internal operations in line with the Paris Agreement, we suggest that as of today MDBs:

- 1. Only invest in best available technologies** for appliances and buildings;
- 2. Replace carbon-intensive or inefficient infrastructure and appliances**, e.g. fossil fuelled cars and inefficient buildings;
- 3. Invest in onsite renewable energy and where insufficient, procure it from elsewhere;**
- 4. Create an enabling environment for the staff** to shift towards less emission-intensive behaviours;
- 5. Develop an approach for Paris aligned investments for the pension funds;**
- 6. Move from an offsetting approach to a “contribution claim approach”;**
- 7. A tool that can support these elements is a shadow carbon price for purchasing decisions and other internal processes.**



## BIBLIOGRAPHY

- <sup>1</sup>World Bank. *The MDBs' alignment approach to the objectives of the Paris Agreement: working together to catalyse low-emissions and climate-resilient development*. (2018).
- <sup>2</sup>EIB. *Environmental Statement 2019*. (2019).
- <sup>3</sup>EIB. *EIB Group Carbon Footprint Report 2018*. (European Investment Bank, 2019).
- <sup>4</sup>ADB. ADB sustainability reports. Available at: <https://www.adb.org/documents/series/adb-sustainability-reports>. (Accessed: 11th November 2019)
- <sup>5</sup>The World Bank. *The World Bank Group Greenhouse Gas Emissions Inventory Management Plan for Internal Business Operations*. (2016).
- <sup>6</sup>ISO. ISO/TC 207 Environmental management. (2019). Available at: <https://www.iso.org/committee/54808.html>. (Accessed: 22nd October 2019)
- <sup>7</sup>European Commission. Eco-Management and Audit Scheme. Available at: [https://ec.europa.eu/environment/emas/index\\_en.htm](https://ec.europa.eu/environment/emas/index_en.htm). (Accessed: 22nd October 2019)
- <sup>8</sup>Fekete, H., Röser, F. & Hagemann, M. *Aligning MDB Operations with the Paris Agreement's Mitigation Objectives*. (2019).
- <sup>9</sup>Kuramochi, T. *et al.* Ten key short-term sectoral benchmarks to limit warming to 1.5°C. *Clim. Policy* **18**, 287–305 (2018).
- <sup>10</sup>Christianson, G. & Pinchot, A. *Commentary learning by doing: Lessons from WRI 's Sustainable Investing Journey*. (2018).
- <sup>11</sup>Lewis, E., Pinchot, A. & Christianson, G. *Navigating the Sustainable Investment Landscape*. (2016).
- <sup>12</sup>NewClimate Institute. Opportunities and safeguards for ambition raising through Article 6. (2018).





