



# Aligning Multilateral Development Banks' Operations with the Paris Agreement's Mitigation Objectives

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March 2020

- » The Multilateral Development Banks (MDBs) have committed to align all their operations with the mitigation and the adaptation goals of the Paris Agreement.
- » This memo describes how alignment with the mitigation goal can be assessed and implemented.
- » We recommend that banks develop methods and tools that support countries peaking global greenhouse gas (GHG) emissions as soon as possible and aim for net-zero CO<sub>2</sub> emissions by around 2050.
- » Any decision on individual investments and strategies should be taken with these targets in mind. Where an investment cannot be clearly categorised as aligned or misaligned, for example because of a lack of data, we recommend a conservative approach and assume misalignment, notably for gas infrastructure.
- » MDBs need to support countries to go beyond their current mitigation policies and targets to develop a project pipeline that enables countries to transition to a low-carbon future and meet the mitigation objectives of the Paris Agreement.
- » It is important that MDBs interpret the Paris Agreement temperature goal ambitiously. 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 Copenhagen Accord and Cancun Agreement targets. MDBs influence on development finance more broadly provides them with a special opportunity and responsibility to promote ambition.

## Introduction

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 recognizes this urgency and calls on all countries to 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 contextualize 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 further detailing 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 minimized, at least for new operations (see also Memo 5).

## Overarching Principles

To be aligned with the Paris Agreement mitigation objectives, MDBs need to enable countries to take mitigation measures beyond what they can equitably do on their own in order to do what climate science says is required:

### **1 | Develop methods and tools, including sector strategies and targets, that support peaking global greenhouse gas (GHG) emissions as soon as 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 decision making for individual projects, as well as the development 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. Under a comprehensive framework, assessment approaches will improve and more data will become available over time, lessening 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 refer to itself as overall Paris aligned.

**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 Nationally Determined Contribution (NDC) and long-term strategy (LTS) implementation, while also increasing support for mitigation measures that help countries strengthen those and transition to low-carbon, Paris-aligned pathways. The NDCs and LTSs 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 needs to be considered so that their level of ambition is not undermined by MDB activities, although 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 that MDBs should aim for 1.5°C, given their role as development cooperation providers, 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 decarbonization 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 could be useful for different types of analysis to inform investment decisions and determine the potential limitations.

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 type of approach to take, 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.

### 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 decarbonized 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 by around 2050<sup>3</sup>
- » Achieving a long-term balance of anthropogenic GHGs<sup>4</sup>
- » Decarbonizing 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 decarbonization is possible with existing technology (eg, energy supply) must do so by around 2050. Remaining emissions stem from processes or other sectors that are difficult to decarbonize (eg, 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 decarbonization 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 ton 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 decarbonization target year is through creation of 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 (zero 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 its limited detail and granularity. The goal of decarbonization 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 energy demand, industrial processes and agricultural sectors. Furthermore, banks' operations cover different sectors, some relying more heavily on investment areas that are difficult to decarbonize such as industry.

**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>	Global pathways  Sector/technology pathways	<p>Net CO<sub>2</sub> emissions need to be zero around 2050. This implies that coal is quickly phased out 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 (eg, distribution and storage) should be included on the positive list.</p> <p>Any investment area that produces emissions or is at risk of other sustainability concerns (eg, 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. For example, 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>	Sector/technology pathways  Criteria that address project context	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 (eg, a gas pipeline made necessary by the plant).
<b>Define objectives of policy-based lending</b>	Sector/technology pathways	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 programs avoid finance flows to technologies that are not the best available technology.
<b>Provide inputs to LTS processes with countries</b>	Global pathways  Sector/technology pathways	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.

## 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, eg, 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 scrutinize 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. The Intergovernmental Panel on Climate Change (IPCC) concludes that gas should only be used in the electricity sector in 2050 if it is equipped with Carbon Capture and Storage (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 in the building sector, where Paris-aligned pathways project a widespread electrification, renewable sources and strong energy efficiency measures on the building envelope, minimizing the role of natural gas in the long term and reducing the emissions intensity of this sector.

The electricity sector will need 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 still use fossil power plants by then, those emissions will need to be abated by sinks. Even CCS plants emit, given their incomplete capture rates.

### Potential role in electricity systems transition:

Conventional power plants including gas turbines serve as a provider of system inertia and thus stabilize the grid. Some also see a value in peak capacity use of natural gas 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 decentralized heating. At least in the short term, moving to efficient gas systems is an improvement in terms of emissions and energy efficiency and 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 prove that no alternative exists. 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 yet exists. Significantly expanding or even building up the complete system today will unavoidably lead to stranded assets when transitioning to a Paris-aligned pathway.

Although 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 with 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.

Furthermore, global pathways can inform discussions with countries on mitigation plans, country programs, or long-term low greenhouse gas emission development strategies (LTSS) (see also, the memo on Building Block 4). Net-zero emissions by around 2050 could also serve as the basis for setting gross GHG emission targets at MDB portfolio level. If a bank pursues a portfolio-level target, it needs to avoid simply moving out of emissive sectors such as industry. It thus makes sense to break down the net-zero target to different sectors, acknowledging that they decarbonize 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 reduction of emissions globally or on a sector in aggregate, but also lay out how the sector should achieve decarbonization. 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-fueled 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 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 (eg, 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 could 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 (eg, for cement<sup>17</sup>) and databases (eg, 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 Paris-aligned by default, 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 International Energy Agency (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 be compared directly to such benchmarks.

However, for some sectors, the level of detail is limited (eg, industry). In some sectors, best available technology is Paris aligned (eg, renewable energy in the electricity and heat supply complies with a fully decarbonized 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.

Furthermore, 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; neither does it consider 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 decarbonization pathways can support positive and negative investment lists. They can also influence the design of policy-based lending instruments, for

example in formulating policy objectives for agreeing that programs 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. Efforts are required to set up a well-equipped database, but it would enable bank staff and potentially other organizations 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 to 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 include:

- » If a country already has a very high share of renewable energy in electricity, it should move to 100% renewable energy in electricity earlier than 2050.
- » If the construction industry in a country has no experience of near-zero energy buildings, the year for allowing only 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).

## 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 decarbonization 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-motorized traffic (eg, pedestrian pathways, bicycle lanes) or public transportation and preserving opportunities for future decarbonization (eg, through investment in electric charging infrastructure).

Another example is an investment in district heating. Developing a heating network can avoid inefficient decentralized heat sources, such as coal or oil stoves. To ensure Paris alignment, the heat supply by mid-century needs to be fully decarbonized. 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 decarbonizing 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, whether directly or indirectly. Where the exact relationship is unclear, the most robust approach is to assume misalignment in case of doubt.

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

- » Germanwatch and NewClimate<sup>2</sup> illustrate approaches that consider the context of countries. The approach for the transport sector considers country circumstances in the 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 the 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. Furthermore, 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.

### Paris alignment, equity and country ownership

In addition to developing a robust set of methodologies to define Paris alignment, MDBs will also have to consider countries’ priorities, responsibilities and capabilities. This paper argues that MDBs should keep 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 lay 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, zero-carbon solutions not only reduce emissions and foster other sustainable development benefits, they also in many cases already provide the most attractive financial solution today. Technology progress thus changes the equity debate and emphasizes the need for MDBs to allow developing countries to 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 that whatever measures they take support 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, but should nevertheless consider local or country-specific circumstances.

### **Considering countries’ national policies and strategies**

The bottom-up nature of NDCs allows countries the 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 LTSs); and the overall goal to limit temperature rise 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 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 decarbonization 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 (eg, 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 (eg, 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 reflection of the full picture. Understanding national mitigation efforts could also support the development of a Paris-aligned project pipeline where, over time, countries and MDBs can develop and prioritize 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 MDBs' classification criteria further, this paper recommends the steps outlined below. The first three steps refer directly to improvements or refinements of the MDBs' 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> by 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 – be even earlier than 2050. Additionally, more detailed approaches are needed for assessing alignment of technologies in the context of specific sectors, and for further adapting 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.** Responsibilities and capability should result in differentiation of support, not mitigation outcome. To limit temperature increase to 1.5°C in line with the Paris Agreement, all countries must implement ambitious mitigation efforts, and developed countries must support developing countries in those efforts. To ensure rapid global GHG reductions, MDBs must enable developing countries to take mitigation action beyond what they could do by themselves.
- 3. Develop criteria for alignment that reflect the project context.** In many cases, global or sector decarbonization 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 breakdown 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 could 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 and 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 them. MDBs could also make the data available to other organizations.

**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
<b>Global pathways</b>	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> .
<b>Sectoral decarbonisation pathways</b>	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>30,6</sup> for transport, buildings and electricity supply. Subsector/technology level databases. <sup>31</sup>
<b>Sector and Circumstance specific benchmarks</b>	Poor	High	Similar approaches available in literature <sup>2,21</sup>

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This memo series was developed in collaboration by Germanwatch, NewClimate Institute and the World Resources Institute as part of the project Alignment of development finance with the Paris Agreement funded by BMZ

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2

Enhancing Adaptation and Climate-Resilient Operations within Multilateral Development Banks

3

Climate Finance: Accelerating the Transition to Carbon Neutrality and Climate Resilience

4

Advancing Paris Alignment through Multilateral Development Banks' Engagement and Policy Development Support

5

Paris-Aligned Reporting by Multilateral Development Banks

6

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This report received financial support from the Federal Ministry for Economic Cooperation and Development (BMZ). The authors are solely responsible for the content of this publication.

With financial support from the



Federal Ministry  
for Economic Cooperation  
and Development