WORLD BANK GROUP

FROM KNOWLEDGE TO ACTION:

Lessons from early operationalization of Country Climate and Development Reports

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Contents

Acronyms

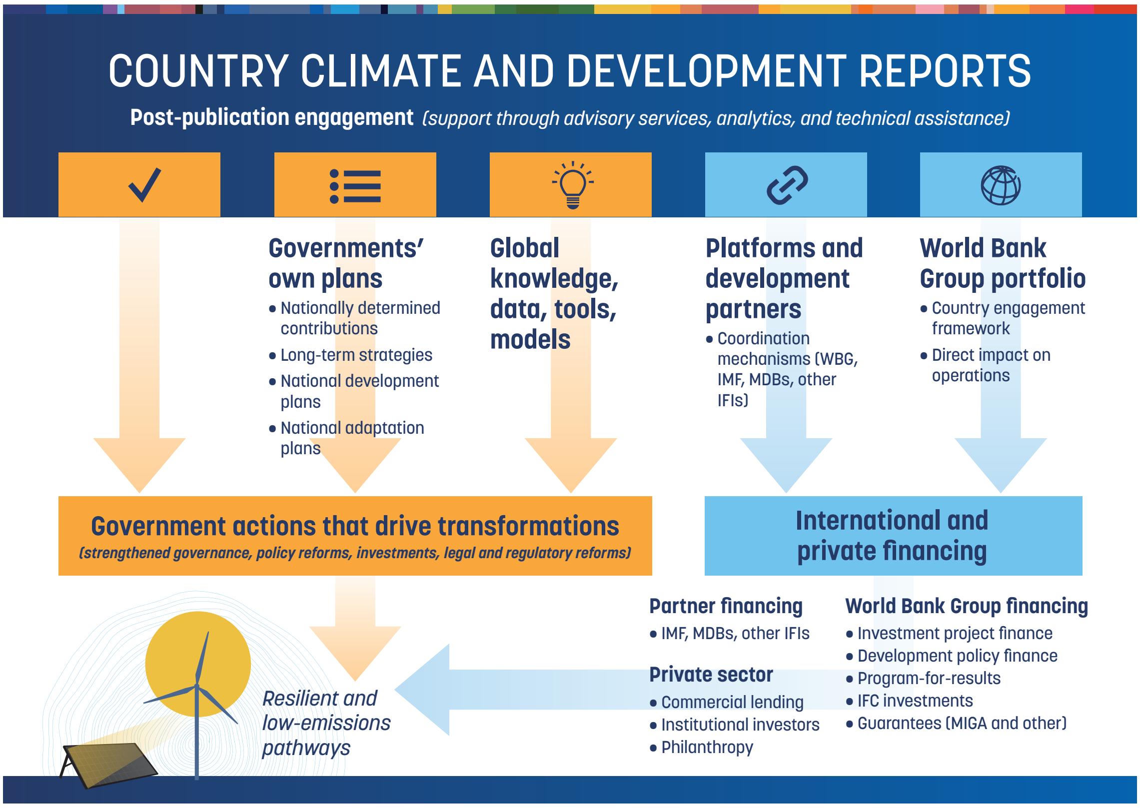
A&R	adaptation and resilience
Cat-DDO	Catastrophe Deferred Drawdown Option
CCDR	Country Climate and Development Report
COP	Conference of the Parties (UN climate change conference)
CPF	Country Partnership Framework
EU	European Union
GRID	Green, Resilient and Inclusive Development
IFC	International Finance Corporation
IMF	International Monetary Fund
MIGA	Multilateral Investment Guarantee Agency
LTS	long-term strategy
NDC	nationally determined contribution
RSF	Resilience and Sustainability Facility
RST	Resilience and Sustainability Trust

Summary

The World Bank Group's Country Climate and Development Reports (CCDRs) integrate climate change and development. They help countries identify and prioritize the most impactful investment and reform actions that can reduce greenhouse gas emissions and boost adaptation and resilience, while delivering on broader development goals. As of October 2024, the World Bank Group has published CCDRs for 60 countries and economies.

This note identifies five key channels through which CCDRs have had an impact in countries. The diversity of operationalization modalities (figure S1) is driven by each country's unique needs and political context, and many countries combine multiple modalities (figure S2). This tailored approach is crucial for an effective implementation of CCDR recommendations, especially in challenging contexts.

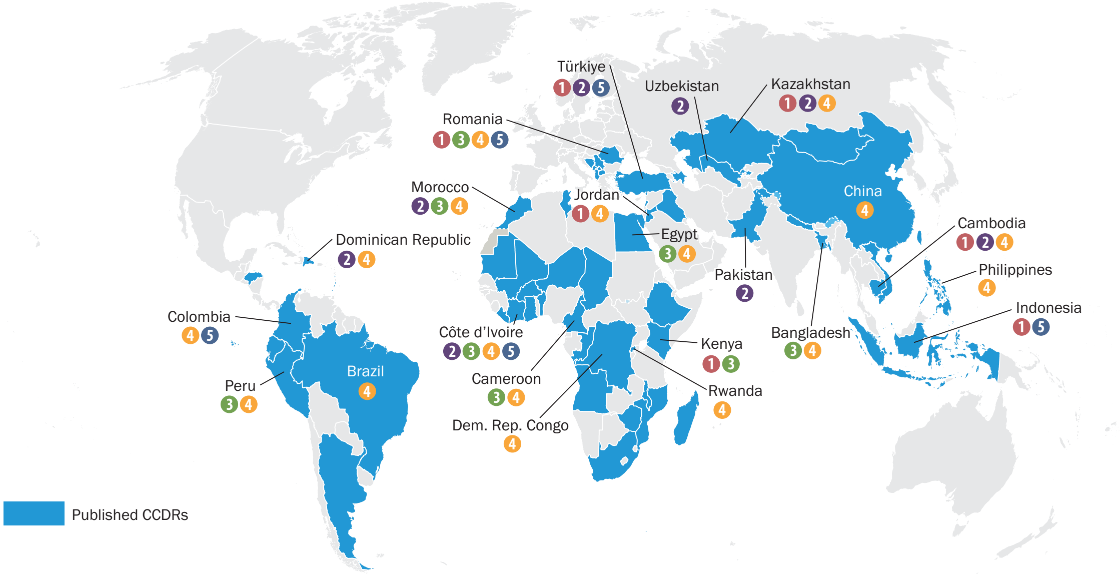
Figure S1: The five modalities of CCDR operationalization



Notes: WBG = World Bank Group; IMF = International Monetary Fund; MDBs = multilateral development banks; IFIs = international financial institutions; IFC = International Finance Corporation; MIGA = Multilateral Investment Guarantee Agency.

MODALITY 1 Direct influence on government policies and action, with or without World Bank Group support: CCDRs have supported country climate agendas by engaging governments in the writing process and pre-publication discussions on CCDR content and recommendations, and through the (often high-level) event and outreach around their publication. For example, the Cambodian government embraced several CCDR recommendations, such as raising the renewable energy target and enhancing the capacity and flexibility of transmission networks. Of course, such actions result from a combination of factors and cannot and should not be solely or directly attributed to any CCDR.

Figure S2: CCDR operationalization examples identified in this report



Examples of CCDR operationalization

1. Through a direct influence on government policies and action
2. Through national or sector development plans
3. Through platforms or development partner instruments
4. Through the World Bank Group's Country Partnership Framework and operations
5. Through innovation, knowledge, modeling tools and analytical evidence

MODALITY 2 **National or sector development plans:** Including CCDR strategies or recommendations in national plans ensures they receive the required ownership, improves coordination with other decisions and policies, and creates opportunities for further engagement with governments and stakeholders. The most obvious national-level entry points are through nationally determined contributions (NDCs), national adaptation plans, and long-term strategies (LTSs). And since CCDRs aim at integrating climate and development, CCDR recommendations can be used to mainstream climate action into national development plans and strategies. For example, in the **Central African Republic**, the forthcoming CCDR is playing an important role in shaping the new national development plan, with a clear influence in natural resource management, human capital development, infrastructure, governance, and other areas. **Côte d'Ivoire's** Council of Ministers endorsed the CCDR at their meeting in November 2023, charging the Prime Minister's office with moving it forward. The **Uzbekistan** government has prepared a CCDR Roadmap, outlining key recommendations and proposing responsibilities for implementation. **Kazakhstan**, **Uzbekistan**, and the **Dominican Republic** are using their CCDR recommendations to inform the development of NDC and LTS roadmaps, and **Morocco** is using its CCDR to set or adjust targets in its updates. CCDRs can also inform the design of national frameworks with climate goals and key performance indicators, which countries can then use to access further World Bank Group blended lending or environmental, social and governance finance.

MODALITY 3 **Dedicated cooperation platforms or development partner instruments:** CCDRs have been used as a key input when creating country-led platforms to support coordinated engagements on policy reform and climate action financing, such as the **Arab Republic of Egypt's** Nexus of Water, Food and Energy Platform and the **Bangladesh** Climate and Development Platform. Even in the absence of formal platforms, countries can use CCDRs as an instrument for coordination, as seen in **Peru** and **Côte d'Ivoire**. They can also be useful at regional level, as seen in the partnership on electricity access between the World Bank and the African Development Bank. CCDR recommendations have been key inputs in the IMF's Resilience and Sustainability Facility program in all the countries where CCDRs are available. As a result of the strong synergies between the CCDRs and the World Bank's and IMF's policy finance, the two institutions launched the Enhanced Cooperation Framework on Climate Action in June 2024.[1]

MODALITY 4 **World Bank Group Country Engagement Framework (CPF) and other World Bank, IFC, and MIGA operations:** All CPFs, Performance and Learning Reviews, and Completion and Learning Reviews developed after a CCDR has been published (such as in **Brazil**, **Egypt**, or **Colombia**) have included the key CCDR recommendations. Integrating the CCDR recommendations into a CPF means they can be directly prioritized in the World Bank portfolio and operations. But operationalization does not have to go through the CPF—as seen in **Morocco**, the **Philippines**, **Cambodia**, **China**, and many other countries—where CCDR recommendations are operationalized directly through Investment Project Financing, Development Policy Financing, Program-for-Results, IFC investments, MIGA guarantees, and other instruments.

MODALITY 5 **Innovation, knowledge, modeling tools, and analytical evidence:** Developing the CCDRs has also contributed to global debates and knowledge on the link between climate and development, and the advancement of new tools and methodological approaches. The two CCDR summary reports have been widely shared and inform global debates,[2] and tools and models developed for CCDRs have been transferred to governments. For example, **Côte d'Ivoire** is now using the World Bank's adaptation and resilience assessment tool. And the World Bank's macroeconomic models used in CCDRs have been transferred to officials in many countries, including **Bangladesh**, **Ethiopia**, **Indonesia**, and **Viet Nam**. The knowledge created through CCDRs is also being deployed through academic and policy publications and new data platforms.

An analysis of countries where CCDRs are having a particularly significant impact suggests the following key factors of success:

1. Strong relationships on climate and development and appropriate timing: Successful CCDRs have built on a solid foundation of existing analytical work and strong engagement between the country's government and the World Bank Group. And timing the CCDR for delivery in advance of the CPF helps create an opportunity to integrate the recommendations of the CCDR into the operational pipeline.

2. Close links with the government and other stakeholders during preparation and explicit connection with country development priorities and climate objectives: Success is more likely when ministries are included in the early stages of the CCDR design, the CCDR is anchored in the country's higher-level objectives, and there is agreement on the key underlying assumptions in modeling and analytical work.

3. Strong post-CCDR engagement, with dedicated resources, including the CCDR team: Publishing the CCDR is not an end in itself; rather, it is an opportunity to operationalize the recommendations or close essential knowledge gaps. But doing so requires access to resources and the availability of the CCDR team. Tracking the operationalization of CCDR recommendations can also inform World Bank Group priorities and post-publication engagement.

4. Availability of climate finance and synergies with other programs, especially the IMF's Resilience and Sustainability Trust: Countries will often request support to access concessional or nonconcessional financing as they seek to implement CCDR recommendations. A more coordinated approach to such resources, and the availability of additional resources for implementing climate action, would help accelerate decarbonization and resilience.

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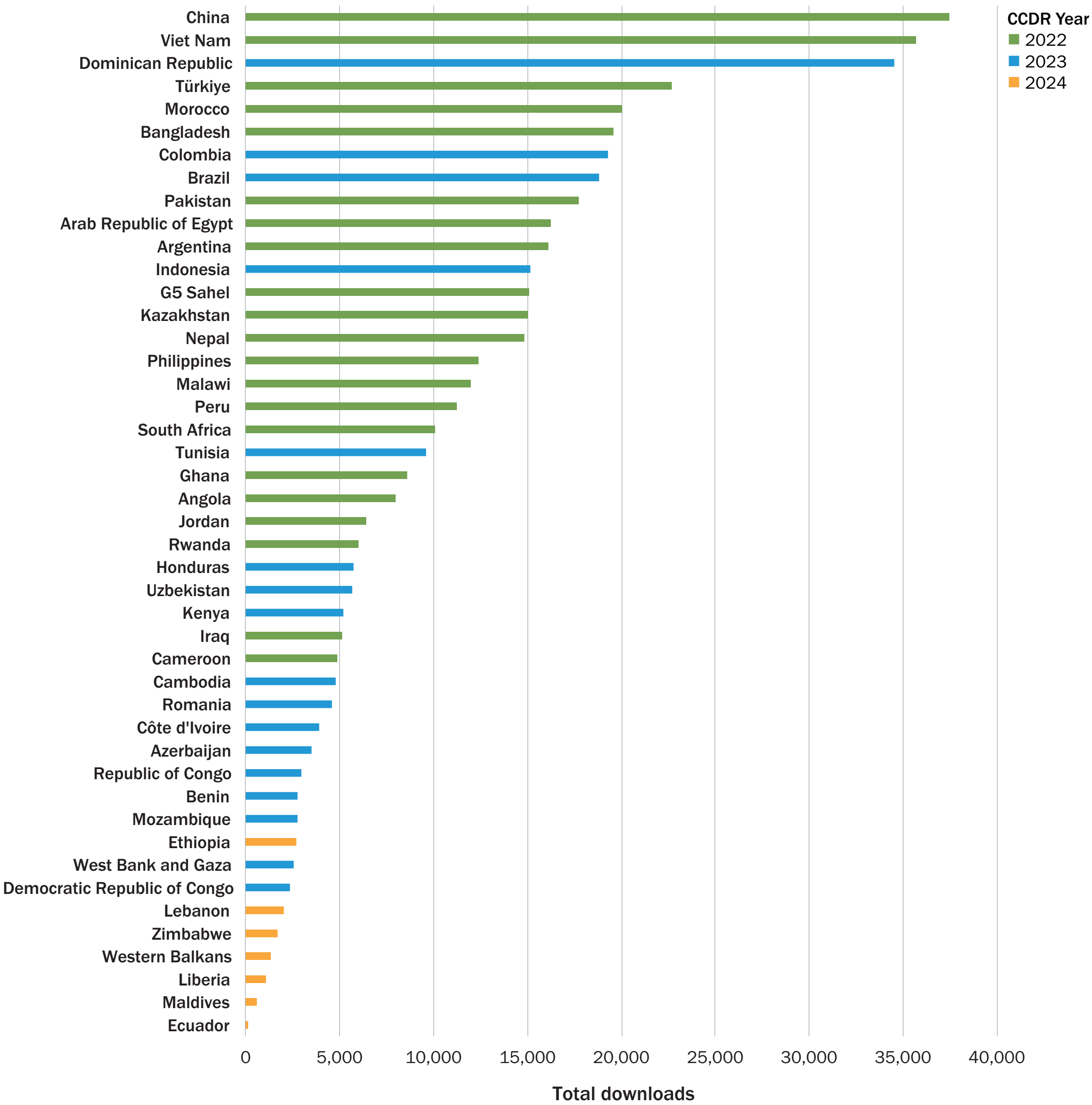
1 https://www.worldbank.org/en/news/press-release/2024/06/21/international-monetary-fund-and-world-bank-group-announce-the-first-country-benefitting-from-the-enhanced-cooperation-fr.
2 https://www.worldbank.org/en/topic/climatechange/publication/climate-and-development-an-agenda-for-action; https://www.worldbank.org/en/topic/climatechange/publication/the-development-climate-and-nature-crisis.

5. Integrated and innovative analyses delivering a whole-of-economy diagnostic and prioritization: Based on the comparative advantage of the World Bank Group, which has experts at sector, macro, and micro levels, the value added of CCDRs is in producing a consistent and integrated set of scenarios and recommendations, to provide a whole-of-economy picture.

1. Introduction

The World Bank Group's Country Climate and Development Reports (CCDRs) integrate climate change and development. They help countries identify and prioritize the most impactful investment and reform actions that can reduce greenhouse gas emissions and boost adaptation and resilience, while delivering on broader development goals. As of October 2024, the World Bank Group has published CCDRs for 60 countries and economies.[3]

Figure 1: Download statistics for CCDRs



Note: Total downloads consist of all language versions across World Bank repositories. Downloads of related background papers are not included in the totals.

3 https://www.worldbank.org/en/publication/country-climate-development-reports.

While an imperfect metric, CCDR downloads offer some insight on the influence of the reports. The summary statistics from the Open Knowledge Repository and the World Bank's Documents & Reports pages show significant attention to CCDRs (figure 1). Between the publication of the first CCDR (Türkiye) on June 1, 2022 and September 16, 2024, 45 CCDRs had been downloaded 468,663 times—that is more than 10,000 downloads, on average, in around two years. The most downloaded CCDRs—China, Viet Nam, and the Dominican Republic—have each been downloaded more than 30,000 times.

With the first set of CCDRs published in 2022, it is an opportune time to look at how the reports have been received and how the recommendations are leading to change. This note is based on a compilation of experiences from CCDRs published in 2022–23 and an analysis of how these reports have influenced not only World Bank operations and pipelines, but also the World Bank Group's broader engagement with counterparts, the priorities of development partners, such as the International Monetary Fund (IMF) and other multilateral development banks, and actions and policies implemented in client countries. Some of these experiences highlight the key role that CCDRs can play in broadening or reorienting the dialogue on crucial issues where the current dialogue is limited.

There are two important things to keep in mind: the ownership of the report, and the complementarity of other analytical products, from the World Bank Group, other development institutions, the academic community, think tanks, and nongovernmental organizations. CCDRs are World Bank Group analyses, and even when local authorities and partners are closely involved in the production of these reports, they do not have ownership of them. The post-publication process—both internal and with governments and development partners—is therefore crucial, as it helps determine whether and how countries implement the CCDR recommendations. A CCDR is never the World Bank Group's first climate change-related publication on a country, and will certainly not be the last. All CCDRs rely on existing analytical work and often provide the impetus for follow-up analysis at sectoral or policy level. They also frequently rely on analytical work by others, including local and international think tanks, development partners, and the national and international academic community. But where CCDRs add value is in their ability to effectively synthesize insights across sectors and sources, providing a comprehensive, whole-of-economy perspective.

It is impossible (and undesirable) to claim a unique and direct causal link between CCDR publication and the operationalization of its recommendations. CCDRs sometimes open new ground and provide new recommendations and ideas. But they also often expand, reinforce, or confirm existing knowledge; and it is the combined effects of reinforcing analyses that sometimes trigger action. Finally, while impacts can be large, they may also take time to materialize or be hardly visible.

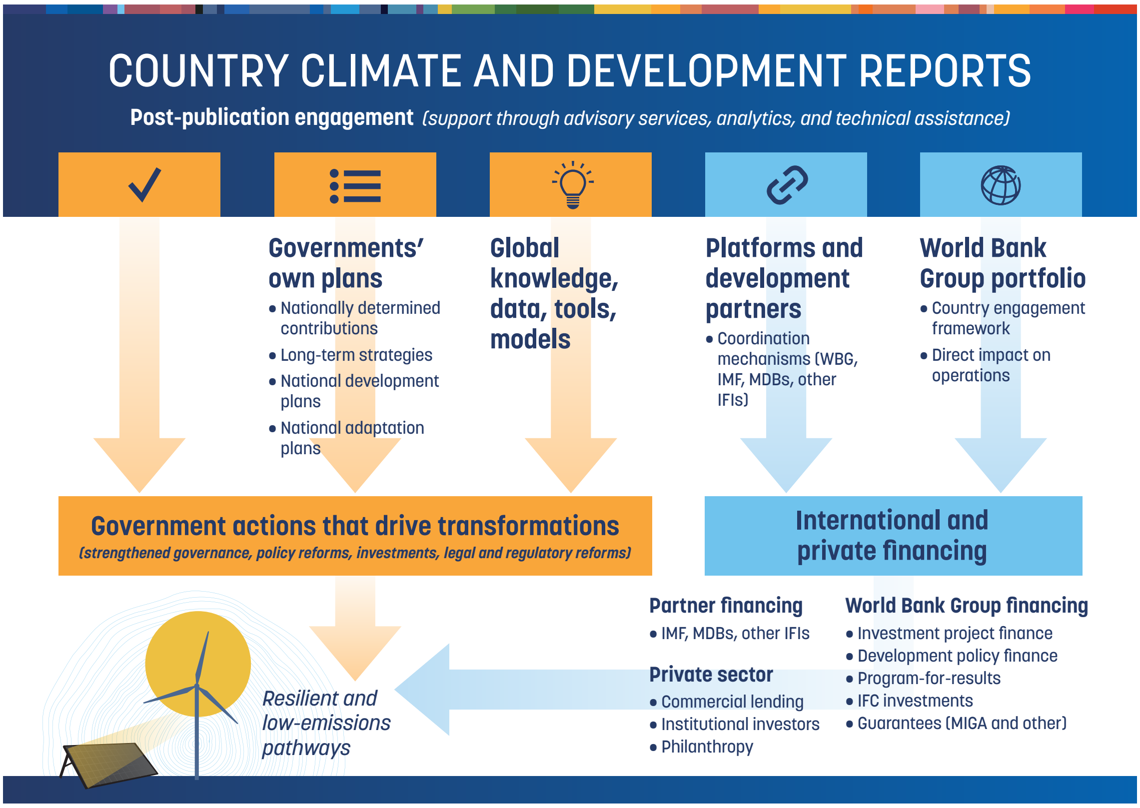
This note identifies five key channels through which CCDRs have impacted countries at subnational, national, or regional levels. One important finding is the diversity of these channels and how the local context drives the way CCDRs can support climate and development action. Far from a one-size-fits-all and simple operationalization approach, this note emphasizes the need for context-specific, government-led operationalization.

2. Options for operationalizing CCDRs

While all CCDRs have influenced the policy dialogue and World Bank Group operations and interventions, an internal review of implementation experiences reveals that this influence operates through a range of channels and modalities. Far from being a problem, this diversity of operationalization modalities, which are adapted to country needs and political context, is a strength, demonstrated by the ability to implement some CCDR recommendations, even in challenging contexts. This analysis identifies five operational modalities (figure 2), which are then discussed in turn. Figure 3 shows the CCDR countries and economies where these modalities have been identified. Given their focus on identifying and prioritizing the most impactful investments, CCDRs are also expected to influence private sector decisions, but there are still limited data to measure this impact.

Although this note presents each modality individually, in practice, implementing CCDR recommendations often involves a combination of channels working in tandem (figure 3). For example, a World Bank-supported reform program on green fiscal management and private financing and a recently-approved Catastrophe Deferred Drawdown Option (Cat DDO) are helping **Romania** implement several recommendations from its CCDR. The reform program is closely coordinated with development partners, including the European Commission, and incorporates measures to increase the absorption of European Union (EU) funds. These efforts are further supported by follow-up analytical work and engagement, such as in-depth analysis of opportunities in green value chains, as part of the EU Regular Economic Report.

Figure 2: The five modalities of CCDR operationalization



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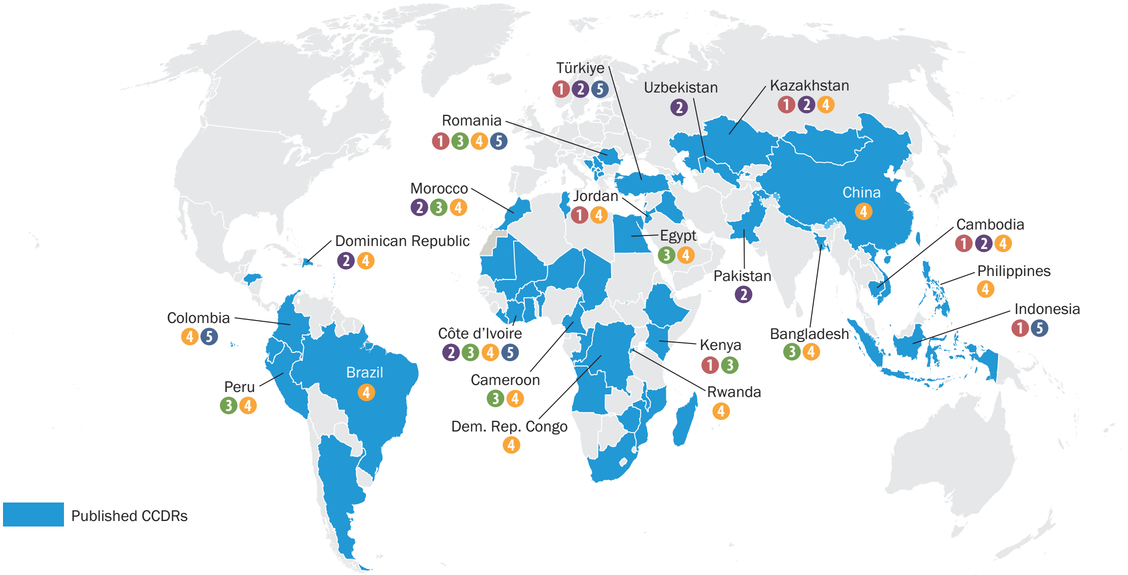
2.1. Direct influence on government policies and action

CCDRs have supported country climate agendas in countries by engaging governments in the writing process and pre-publication discussions on CCDR content and recommendations, and through the (often high-level) event and outreach around their publication. CCDRs are typically developed in collaboration with governments to reflect their priorities and the ongoing policy dialogue. And while they often include recommendations that go beyond country plans and policies, these are always closely connected with country objectives or challenges.

Figure 3: CCDR operationalization examples identified in this report



Examples of CCDR operationalization

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Like with other core World Bank Group advisory services and analytics (ASAs), teams systematically collect feedback and comments from government and other stakeholders before publication. Experience shows that this step adds value to the report—for example, by identifying recent reforms that may not have been properly captured or different data sources. It also provides an important opportunity to engage on what the World Bank Group identifies as key priorities and opportunities, and compare these with government positions and priorities. This step has often had a major influence on the policy dialogue, especially when the CCDR identifies new recommendations or controversial or sensitive challenges.

As a result of these discussions, CCDRs sometimes push the level of ambition or help unlock access to greater financing. For example, following the release of the **Cambodia** CCDR, the government announced a renewed commitment to raise the renewable energy target to 70 percent by 2030 and substantially scale up solar and pumped storage capacity. In **Kazakhstan**, the CCDR has helped make progress on some difficult but important areas, as shown by the government's decision to develop a roadmap on how the country can achieve its nationally determined contribution (NDC) commitments. In **Kenya**, the government has approved a sovereign green bond framework—identified as an area for further engagement in the CCDR and developed with World Bank support—providing a mechanism for accessing green, blue, social, and sustainability bonds to finance green economic growth. In **Indonesia**, the policy dialogue around the CCDR and complementary engagements have contributed to renewable energy pricing reform, carbon pricing regulations, advice on a taxonomy of sustainable government regulation, a new partnership on green trade, and green job targets and measurements in its five-year plan. One of the main outcomes of the **Jordan** CCDR has been the emphasis on adopting whole-of-government and nexus approaches, which emerged from the CCDR analysis, in contrast with independent sectoral analysis. Similarly, the World Bank Group has supported the **Dominican Republic** to develop its green taxonomy, a priority identified in the CCDR. Building on this work, with World Bank support, the government established a framework for sustainable bonds to issue sovereign debt. Joint IFC-World Bank teams are working on pilot projects with banks in the country, with $5 million already mobilized through new bonds that are aligned with the taxonomy.

These actions do not necessarily involve direct support from the World Bank Group or other development partners, nor can these government actions be solely attributed to the CCDRs. Rather, they are usually the result of a conjunction of factors as well as the accumulation of evidence and the build-up of coalitions supporting the reform. But the CCDRs are often one of the factors that support the reforms. For example, the **Kazakhstan** CCDR encouraged new and high-potential engagement on heat and electricity tariff reform—a difficult topic that is essential for reducing emissions and attracting private investment in the energy sector—and discussions within the Ministry of Environment on reducing caps in the country's emissions trading system to align it with the NDC. During the preparation stage of the **Azerbaijan** CCDR, government engagement on implementing the Central Bank's Sustainable Finance Roadmap focused on strengthening the financial sector's regulatory and supervisory framework, enhancing collaboration among financial sector regulators and line ministries, and supporting enabling policies to mobilize private capital, thereby improving the foundation for implementing the CCDR recommendations.

2.2. National or sector development plans

Including CCDR strategies or recommendations in national plans ensures they receive the required ownership, improves coordination with other decisions and policies, and creates opportunities for further government and stakeholder engagement. For example, the government of **Côte d'Ivoire** made the CCDR an official government-owned document, endorsing it at the Council of Ministers meeting in November 2023 and charging the Prime Minister's office with moving it forward. This offers an ideal foundation for implementing the recommendations—including at sectoral level, with a series of operations under preparation—and for coordinating development partners. Similarly, the **Cambodian** government took on board the CCDR recommendation to raise the ambition of its renewable energy targets, raising it and revising its planned power development plan to substantially increase reliance on renewables and lower reliance on coal. The government of **Uzbekistan** has prepared a CCDR Roadmap, which outlines key recommendations and proposes responsibilities for implementation. The government is expected to include its CCDR roadmap in a presidential resolution on implementation of its long-term strategy (LTS), with support from the World Bank as part of its post-CCDR work.

The most obvious entry points for operationalizing a CCDR is through a country's national plans, including NDCs, national adaptation plans (NAPs), LTSs, and national development plans. Countries are using CCDR recommendations to develop their NDC and LTS roadmaps (**Kazakhstan**) or set or adjust targets in their updates (**Morocco**). **Uzbekistan** and the **Dominican Republic** are using CCDR analyses of country-beneficial low-emissions development pathways for key sectors as critical inputs into their LTSs, which in turn will inform their NDCs. The **Pakistan** CCDR informed its first NAP, which focuses on the agriculture-water nexus, human capital development, and disaster risk management—all key areas in its CCDR. In 2023, the government of Pakistan requested World Bank advice on a national climate finance strategy, as recommended by the CCDR, and the subnational government of Khyber Pakhtunkhwa has requested World Bank support to operationalize its Climate Change Policy and Climate Change Action Plan and align them with CCDR priorities.

Since the CCDRs aim to integrate climate and development, the ideal is for their recommendations to be mainstreamed into development, as well as climate-related, plans and strategies. In the **Central African Republic**, the forthcoming CCDR is playing an important role in shaping the country's new national development plan, and has clear influence in several areas, including natural resource management, human capital development, infrastructure, and governance.

CCDRs can also inform national framework designs with climate goals and key performance indicators, which countries can then use to access further World Bank Group blended lending or environmental,

social and governance finance. These frameworks, indicators, and targets can serve as a basis for the World Bank Group and other multilateral development banks to connect concessional and nonconcessional finance, supporting the development of sovereign sustainability-linked bonds similar to **Uruguay's** Sustainability-Linked Bond, which is based on its sustainability performance targets.

2.3. Dedicated cooperation platforms or development partner instruments

Some countries have used their CCDR as a key input for creating a country-led platform to support coordinated engagements on policy reform and climate action financing. CCDRs can be integral inputs in these processes and help highlight the synergies and tradeoffs (or costs and benefits) of climate action, as shown in the following examples.

- **Nexus of Water, Food and Energy Platform, Arab Republic of Egypt:** Launched at the 27th United Nations climate change conference (COP27) in Sharm El Sheikh, the flagship program identifies priority projects that connect the dots between the food, water, and energy sectors. The platform design and objectives include priorities set out in the Egypt CCDR, which identified opportunities to reduce inefficiencies, manage risk, and strengthen the foundation for increased private-sector participation and recommended policy options and investment opportunities that, if implemented within five years, could deliver short-term benefits in selected sectors and create momentum for important long-term benefits.

- **Climate and Development Platform, Bangladesh:** Announced at COP28, the platform combines climate projects with a financing strategy to integrate climate risks into the country's economic planning, and bolster climate-related risk management for financial institutions. The CCDR recommendations—which include integrating climate and green dimensions into public procurement and public planning, improving air quality management across productive sectors, and enhancing locally-led planning and financing of priority investments supporting climate resilience—directly informed the $1 billion programmatic series of Green and Climate Resilient Development Policy Credits supported by the World Bank.

- **Green, Resilient and Inclusive Development (GRID) Platform, Nepal:** This homegrown platform operationalizes the CCDR and is anchored on several types of support, including the International Development Association-financed GRID Development Policy Credit series of investments and new Cat DDO, the country's GRID Strategic Action Plan 2024–34, which prioritizes 10 transitions over 10 years with $10 billion of financing from diverse sources, and its last two five-year plans. The GRID platform includes 16 development partners that coordinate on sectors and themes, with climate risk management a key focus of a greener, more resilient, and more inclusive economy. The CCDR preparation process was key to identifying several priorities featured in the GRID platform.

Even in the absence of formal platforms, countries can use the CCDRs as an instrument for coordinating information. In **Peru**, close coordination with development partners is strengthening CCDR operationalization—with the Development Bank of Latin America and the Inter-American Development Bank, for transport and discussions on engagements in the Amazon, and with the Swiss Agency for Development and Cooperation, for disaster risk management and urban resilience. In **Côte d'Ivoire**, a CCDR implementation week in May 2024 offered an opportunity for discussions between the government, development partners, and private sector stakeholders on prioritizing actions to help operationalize the CCDR.

CCDRs also inform global or regional partnerships and initiatives, by addressing transboundary climate risks, promoting low-carbon development, and managing natural capital. For example, the

World Bank Group and African Development Bank Group are partnering on an ambitious effort to provide electricity access to at least 300 million people in Africa by 2030. Driven by strong country demand, this initiative addresses the lack of access to electricity as a key driver of climate vulnerability, as identified in many African CCDRs, and builds on the opportunity to enhance energy access by leveraging low-cost renewable power, including through decentralized solar power and mini-grids, as identified in the **Sahel** and **Malawi** CCDRs. CCDR recommendations in **Cameroon**, **Congo**, and the **Democratic Republic of Congo** are helping to shape regional strategies around natural capital, underpinning activities such as the Global Climate Partnership Fund in the region, while the **Ghana** and **Niger** CCDRs are influencing the West Africa Power Pool by promoting regional cooperation and recommending policy reforms that enhance cross-border power trade and investment.

One key channel for operationalizing the CCDRs is the IMF's Resilience and Sustainability Trust (RST). Like the World Bank's development policy operations (DPOs)—which are built on ASAs and analytical diagnostics, including CCDRs—the RST, through Resilience and Sustainability Facility (RSF) programs, helps low-income and vulnerable middle-income countries build resilience to external shocks and ensure sustainable growth, contributing to their longer-term balance of payments stability. CCDRs enhance the complementarities and synergies between the World Bank's and IMF's respective climate programs, facilitated by IMF staff involvement in preparing the CCDR macroeconomic sections and their systematic engagement at every stage of the CCDR preparation process, and reinforced by the World Bank's involvement in the RST process through the preparation of assessment letters.

Where they are available, RSF programs use CCDR recommendations as reform measures. In **Cameroon**, eight RSF measures are directly drawn from the CCDR table of recommendations, demonstrating its practical use in guiding reforms and mobilizing resources. In **Bangladesh**, the first in Asia to access the RST, the CCDR informed the creation of the IMF's $1.4 billion RSF.[4] In **Morocco**, the CCDR analysis underpinned the $1.3 billion RSF program, approved in October 2023, while the RSF reform program in **Kenya** includes a subset of the whole-of-economy recommendations from the CCDR, such as developing a green taxonomy and climate change budget tagging. In **Moldova**, close collaboration between the World Bank and IMF—which carried out their CCDR and Climate Public Investment Management Assessment in parallel—informed the World Bank's Growth and Resilience DPO ($55.5 million) and the IMF's RSF ($175 million). This included, among other actions, introducing Moldova's Law on Climate Actions, with support from both the DPO and RSF.

Strong synergies between the CCDRs and the World Bank's and IMF's policy finance led the two institutions to launch their Enhanced Cooperation Framework on Climate Action.[5] This framework will initially be piloted in four countries—including **Madagascar**, which has a forthcoming CCDR and RST program. The framework will include a common set of policy priorities—informed by CCDRs, IMF diagnostics, and others—that can be used to coordinate action and support across institutions. This will provide a more formal basis for synergies between CCDRs, World Bank policy lending, and RSF programs.

2.4. Country Engagement Framework (CPF) and World Bank, IFC, and MIGA operations

As a core diagnostic, the CCDR feeds directly into the Country Partnership Framework (CPF), the entire country engagement cycle—which includes Performance and Learning Reviews and Completion and Learning Reviews—and the World Bank Group portfolio. CCDRs help define country engagement, typically for the next five years, because, despite taking a longer-term view, CCDRs systematically identify climate actions that can be implemented immediately and can generate benefits from development and climate perspectives.

4 https://www.imf.org/en/News/Articles/2023/01/30/pr2325-bangladesh-imf-executive-board-approves-usd-ecf-eff-and-usd-under-rsf.
5 https://www.worldbank.org/en/news/press-release/2024/06/21/international-monetary-fund-and-world-bank-group-announce-the-first-country-benefitting-from-the-enhanced-cooperation-fr.

All CPFs developed after a CCDR has been published—and those are developed in parallel with CCDRs—have taken the key CCDR recommendations into account. For example, the **Brazil** CPF built on findings from the CCDR and the recent Amazon Economic Memorandum to focus on the need for renewed and broader efforts toward a much greener economy, for the country to achieve its own deforestation and climate objectives. The **Colombia** CPF incorporated a new high-level outcome to strengthen resilience to climate change and promote low-carbon transitions, and prioritized areas for World Bank engagement by defining three outcomes and associated indicators that are directly linked to the CCDR: developing resilient and low-carbon infrastructure, mobilizing and deploying climate finance, and enhancing capacity for disaster risk management. As well as incorporating specific high-level outcomes, the Colombia CPF included CCDR-linked objectives—for example, in its objective to promote territorial equity and inclusion and to drive the sustainable and inclusive transformation of the economy. The **Egypt** CCDR and CPF have been prepared in parallel, with overlap and close collaboration between the teams, and both documents are strongly aligned. Building on the government's strong commitment to climate change and the CCDR recommendations, the Egypt CPF provides a framework and strengthens capacity for mainstreaming adaptation into national, regional, and local planning and investments.

When integrated into the CPF, CCDR recommendations can be directly prioritized and reflected in the World Bank portfolio and operations, but CCDR operationalization does not have to go through the CPF. Due to their timing, it was not possible to sequence the first generation of CCDRs with CPFs, and countries with recent CPFs cannot retrofit these based on their CCDR. In those countries, which include **Morocco** or **China**, operations can still consider the CCDR findings, as its publication influences engagement, and World Bank teams and counterparts need not wait for a revised CPF to implement recommendations. Whether through the CPFs or direct influence on the policy dialogue, CCDRs have influenced the World Bank portfolio across multiple sectors, including agriculture, energy, transport, and water, and a range of instruments—including Investment Project Financing, DPOs, Programs-for-Results, IFC, and MIGA investments and operations—as outlined in the examples that follow.

Examples of CCDR influence on Investment Project Financing operations:

- **Türkiye:** *The Socially Inclusive Green Transition Project* (P180173, $400 million) is aligned with several CCDR recommendations, including adopting regional and community-based targeting approaches. It will finance various initiatives—such as incubating support for women and youth entrepreneurs and building capacity at national and local levels—to strengthen local capacity for an inclusive transition, with a specific focus on generating positive social impacts for women, youth, lower-skilled workers, unemployed people, and other vulnerable groups.

- **Lebanon:** The CCDR aligns climate actions with short-term recovery needs and longer-term development outcomes. CCDR modeling shows that decarbonizing the power sector offers a triple dividend, cutting economic costs, lowering emissions, and reducing fuel imports. Leveraging these findings, the *Renewable Energy and System Reinforcement Project* (P180501, $250 million) aims to increase the share of utility-scale solar energy. Part of the project will use public financing to pilot a utility-scale solar plant, paving the way for future private investments in the sector.

- **Cameroon:** The *Local Governance and Resilient Communities Project* (P175846, $300 million), which emphasizes decentralized decision-making and sustainable resource management, fully aligns with the CCDR recommendations on territorial engagement for resilience. It also exemplifies how CCDR recommendations, when tailored to the country context, can be effectively operationalized, even in areas facing significant challenges due to fragility, conflict, and violence.

Examples of CCDR influence on Development Policy Operations

- **Cambodia:** Several CCDR recommendations have been incorporated into the *Second Growth and Resilience DPF* (P180749, $275 million), with some—related to shock-responsive social protection, energy efficiency, and disaster risk financing—completed as prior actions.

- **Kazakhstan:** In line with the CCDR, the *Inclusive and Sustainable Economic Growth DPF* (P178303, $600 million) includes policy actions on energy reforms and energy efficiency.

- **Jordan:** The *Human Capital Program* (P505118, $300 million) aligns with the CCDR in two key areas, supporting resilient services in vital sectors—such as health and education—to safeguard human capital from climate shocks, and leveraging the country's social protection system to mitigate impacts on the most vulnerable.

- **Dominican Republic:** The *Sustainable Development Policy Loan* (P500557, $400 million) builds on the CCDR and aims to operationalize some of its key findings, promoting institutional reforms for climate resilience, reduced water, soil, and air pollution, and enhanced natural resource protection, tackling the sargassum seaweed issue, and supporting a regulatory framework to issue green, social, and sustainable bonds.

Examples of CCDR influence on Program-for-Results operations

- **Morocco:** *The Water Security and Resilience Program* (P179192, $350 million) addresses key governance issues related to sustainable water management. This is fully aligned with the CCDR, which identifies water scarcity and drought as one of three priority areas and emphasizes that setting the right governance model in the water sector is crucial to help manage competing demands.

- **Bangladesh:** The CCDR identifies the impact of climate change on food and nutrition security as a critical issue and points to the need to diversify agricultural production, increase commercialization, and adopt climate-smart agriculture practices. In line with these recommendations, the *Program on Agricultural and Rural Transformation for Nutrition, Entrepreneurship, and Resilience* (P176374, $1,480 million) supports key policy actions that enable resilient production and marketing of high-value, safe, nutritious food.

Examples of CCDR influence on IFC investments

- **Brazil:** In the forestry sector, IFC has provided a $1.7 billion financing package to fund the construction of a greenfield pulp mill and the development of related forestry plantations. This investment also supports the company's commitment to connect 500,000 hectares of priority areas for biodiversity conservation in the Cerrado, Atlantic Forest, and Amazon by 2030.

- **Romania:** The CCDR makes boosting renewable energy a priority to enable the exit from coal in 2032, noting that Romania has southeast Europe's greatest potential for wind generation, estimated at around 14,000 megawatts or 23 terrawatt hours per year. IFC is now providing long-term debt financing for the 461-megawatt Vifor Wind Power Plant, to boost the supply of competitively priced renewable energy in the country. It will be one of Romania's first large-scale greenfield renewable energy projects financed without public support.

- **Peru:** IFC is supporting banks to strengthen their green finance portfolio, with a focus on green buildings, energy efficiency, and climate-smart agribusiness. In 2023, IFC approved a $200 million loan to expand green residential mortgages and green real estate developer financing, a project that will also involve advisory services to provide technical support to real estate developers on green building certifications (Excellence in Design for Greater Efficiencies and Leadership in Energy and Environmental Design) for residential and commercial buildings.

- **Rwanda:** All African CCDRs include electrifying urban transportation as a priority—especially with electric 2- and 3-wheelers—and the Rwanda CCDR noted the country's potential role in manufacturing and developing home-grown solutions to address this challenge. In late 2023, the Africa Go Green Fund, with IFC support, provided $7.5 million in debt financing to Ampersand to expand battery production and research and development, and help develop the electrified mobility solution African countries need.

Examples of CCDR influence on MIGA operations

- **Rwanda:** MIGA has issued guarantees for investments that will help connect approximately 118,000 people to the national grid and build solar photovoltaic generation facilities that provide electricity directly to around 25 productive user customers (such as schools, health centers, local government offices, small and medium enterprises, commercial centers, and business parks). This is fully aligned with one of the three priority areas identified in the CCDR.

- **DRC:** Like many others, the DRC CCDR identifies off-grid solar power as a promising technology to bridge the electricity access gap in rural areas without grid-connected power, without increasing GHG emissions. To this end, MIGA provided guarantees amounting to US$50.3 million that will enable implementation of three new solar hybrid metro-grid projects.

- **Brazil:** In 2024, MIGA deployed approximately $1.2 billion in guarantees to Banco do Brasil, aimed at mobilizing private sector capital to support conservation agriculture by micro, small, and medium-sized farmers, a key sector identified in the CCDR. This was the first MIGA-covered loan that was compliant with the green loan principles making it a green loan for both lenders and Banco do Brasil.[6]

2.5. Innovation, knowledge, modeling tools, and analytical evidence

Developing the CCDRs and the tools and guidance needed to support them has contributed to global debates and knowledge on the link between climate and development, as well as the development of new tools and methodological approaches. The two CCDR summary reports have been widely shared and discussed, and have served as the basis for the World Bank Group's position on climate and development. Key results—such as the finding that lower-income countries need much larger incremental investment as a share of GDP than their richer peers—inform global discussions on climate change.

In some cases, the tools and models developed for the CCDR or their supportive analytical works, often supported by the Climate Support Facility and other trust funds, have been transferred to country governments. For example, the **Côte d'Ivoire** government made a direct request to use two CCDR tools for its own planning purposes: MFMod-CC, the World Bank's macroeconomic model modified to capture the effect of climate change, and the Excel-based adaptation and resilience (A&R) assessment tool, which identifies key gaps in countries' preparedness for adaptation and resilience. The World Bank's macroeconomic models have attracted particular interest from many clients and partners, with MFMod-CC transferred to officials in **Bangladesh**, the **Dominican Republic**, **Indonesia**, **Nepal**, and **Uganda** and the MANAGE model, a climate-aware computable general equilibrium framework, transferred to **China**, **Ethiopia**, **Mauritania**, **Rwanda**, **Türkiye**, and **Viet Nam**.

6 https://www.worldbank.org/en/news/feature/2021/10/04/what-you-need-to-know-about-green-loans

The knowledge created through CCDRs continues to be deployed through academic publications or data platforms. For example, the World Bank Energy Global Unit is creating the Power Sector Decarbonization Dashboard, which will collect all the power sector scenarios developed for CCDRs and make them available to all. Another two portals to showcase A&R assessment tool results and the low-emissions development pathways from CCDRs are also under development. These are key innovations, as no other dashboards propose similar country-level scenarios for all countries, and other tools often aggregate countries into regions. These new pieces of analytical work are expected to influence the policy dialogue beyond the direct impact of the CCDRs themselves.

CCDRs often provide the impetus for follow-up analysis, especially in areas where client countries express interest. The influence of CCDRs on CPFs is discussed in section 2.4, but CCDRs also increasingly influence (and are influenced by) other World Bank Group diagnostics, such as Country Economic Memorandums, Performance and Financial Reviews, Financial Sector Assessment Programs, and Country Private Sector Diagnostics. These instruments, along with follow-up ASAs and technical assistance, offer important platforms for engaging and implementing CCDR recommendations. In **Cambodia**, for example, a programmatic ASA on green growth has been initiated to explore areas identified in the CCDR as important but not sufficiently covered, and to support the implementation of some of its recommendations, while in **Egypt**, CCDR recommendations for the energy sector are being operationalized through multiple analytical deep dives, including by developing recommendations on improving operational and financial performance in the sector.

3. Factors of success and key takeaways

An analysis of countries where CCDRs are having significant impact in at least one of the operationalization channels or modalities suggests that there are five key factors of success and several important takeaways. These are summarized here.

3.1. Strong existing engagements on climate and development and appropriate timing

The most successful CCDRs are built on a solid foundation of existing analytical work and strong engagement between the government and the World Bank Group. CCDRs are easier to prepare and more impactful when they can build on existing sector-level work, and focus on integrating into a consistent strategy and prioritizing actions. Early buy-in by high-level officials is essential for implementing CCDR recommendations, but it is not possible to establish trust and a deep relationship by preparing a single document; rather, these are the result of a much longer relationship that involves both analytics and financing. This shows the positive externality of analytical work: as well as having a value in itself, each successful analytical engagement strengthens the relationships that make future engagements more likely to succeed. Timing the CCDR for delivery in advance of the CPF and other country engagement products, including performance, learning, and completion reviews, also helps create an opportunity to integrate CCDR recommendations into the World Bank Group operational pipeline. In **Peru** and **Colombia**, this sequencing enabled the direct inclusion of CCDR themes and indicators into their CPFs, integrating the monitoring of CCDR operationalization into the CPF structure.

3.2. Close links with government and other stakeholders during preparation and explicit connection with country development priorities and climate objectives

Success appears more likely when relevant ministries are included in the early stages of CCDR design, the CCDR is anchored in the country's higher-level objectives, and there is agreement on the key underlying assumptions in modeling and analytical work. This includes agreement on expected annual growth and structure change, emissions reduction targets, and the future of green and non-green technologies. This was a lesson learnt from the first generation of CCDRs; and the second generation reports were prepared with closer and stronger coordination with governments, local think tanks, academics, civil society leaders, local governments, development partners, and other stakeholders. In **Colombia**, for example, discussions with the government on climate and development issues at the concept stage of the CCDR, strong alignment with government objectives, and multistakeholder dissemination contributed to strong country engagement across sectoral ministries and relevant agencies, while in **Brazil**, aligning the CCDR with the country's broader development objectives—particularly around climate resilience, sustainable development, and promoting sustainable agriculture and economic inclusion—were key factors of success. Consulting with civil society actors, donors, the private sector, and other stakeholders is also important, as they are key to local buy-in. In **Côte d'Ivoire**, a series of consultations with key stakeholders, including on preliminary findings, helped build trust.

3.3. Strong post-CCDR engagement

Publishing the CCDR is not the end of the process; rather, it is an opportunity to start implementing the recommendations or closing essential knowledge gaps. In **Côte d'Ivoire**, where the CCDR team led the post-CCDR engagement, the government endorsed the report, the modeling tools have been transferred to the government, and lending operations have been established. In **Jordan**, the preparation of follow-up operations on water efficiency and the dialogue on climate-smart urban service and solid waste management have enabled a continued dialogue to operationalize the CCDR. Moving forward, monitoring of government and other actors' actions and priorities, including by tracking the operationalization of CCDR recommendations, will inform World Bank Group priorities and post-publication engagement. Such monitoring can build on dedicated tools and country engagement products, or mobilize new technologies, such as global policy databases and artificial intelligence tools, to track action in countries.

3.4. Availability of climate finance, synergies with other programs, especially the IMF's RST

Countries will often request support to access concessional or nonconcessional financing as they seek to implement CCDR recommendations. Because there is limited international climate finance, it is important for countries to use it a targeted manner. For example, as IMF RST program design can rely heavily on CCDR analytics and recommendations, RST programs and associated resources also provide a strong incentive to implement some of the difficult reforms suggested in the CCDRs, as seen in **Morocco** and **Côte d'Ivoire**. CCDRs can also identify indicators and targets for key performance indicators to support countries' access to environmental, social, and governance finance or help the World Bank Group and other multilateral development banks connect concessional and nonconcessional finance. These synergies suggest that a more coordinated approach to concessional and nonconcessional resources, and access to additional resources for implementing climate action, could accelerate countries' action on decarbonization and resilience.

3.5. Integrated and innovative analyses delivering a whole-of-economy diagnostic

Based on the comparative advantage of the World Bank Group, which has experts at sector, macro, and micro levels, the value added of CCDRs lies in their ability to produce a consistent and integrated set of scenarios and recommendations to provide a whole-of-economy picture. In **Peru**, for example, close collaboration across sectoral teams created an opportunity to develop a strategic approach to operationalizing the CCDR recommendations by ensuring portfolio alignment. As well as being better coordinated, "new" analyses gain traction within countries, strengthening their impact. For example, the first climate stress test for the financial sector in **Indonesia** paved the way for further analysis on climate, the environment, and opportunities under the ongoing Financial Sector Assessment Program, and the **Philippines** CCDR, which included the country's first assessment of the energy transition, showed not only that it could justify the costs purely in terms of national benefits due to reduced damages from air pollution, but also that it would reduce average electricity prices—a major concern for the country's authorities.