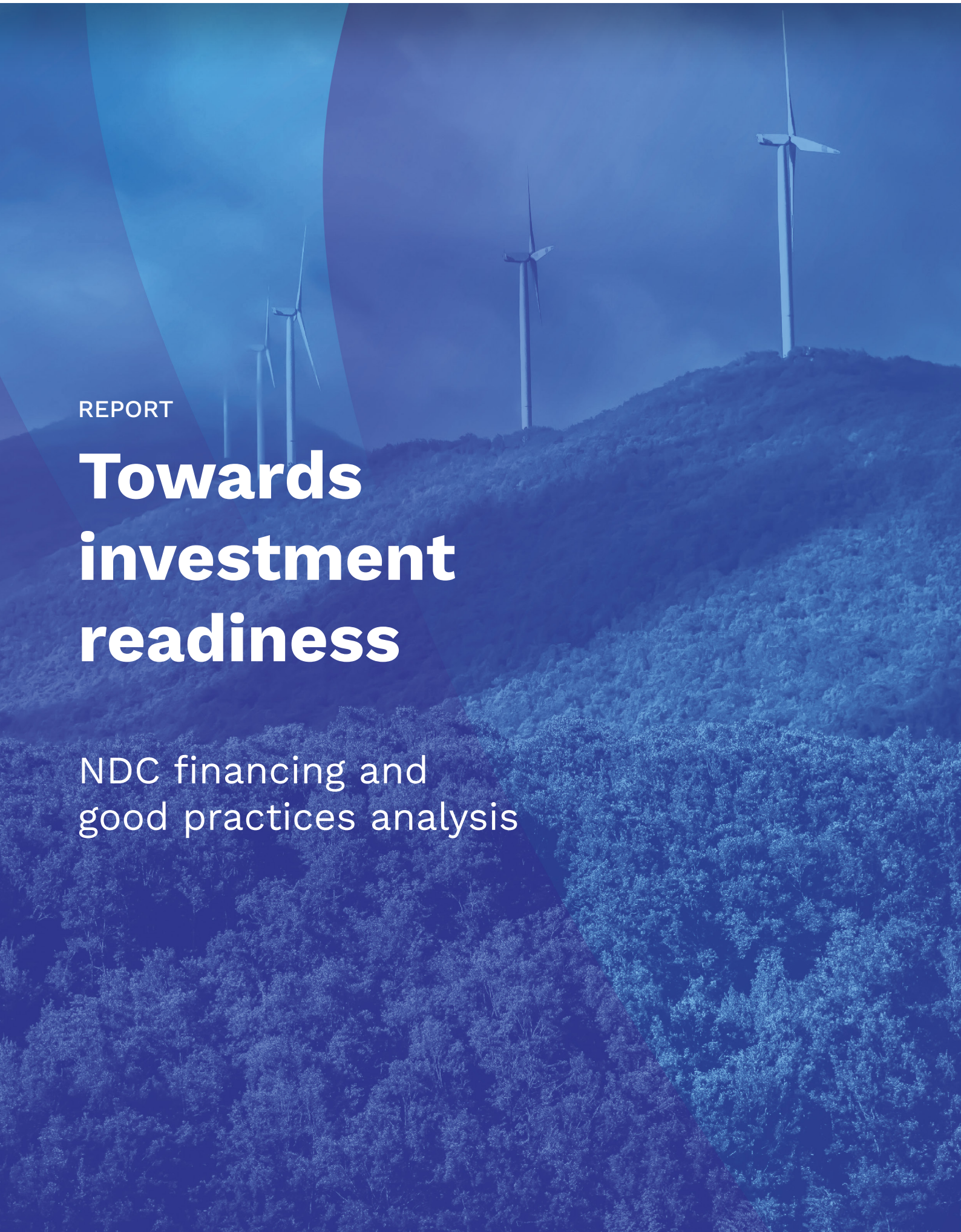
giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

adelphi



REPORT

Towards investment readiness

NDC financing and good practices analysis

Towards investment readiness

NDC financing and good practices analysis

Maria Apergi,
Tobias Bernstein,
Daria Ivleva,
Marta Kifleab,
Dennis Tänzler,
Emily Wright O'Kelly

Implemented by GIZ – Supported by IKI: BMWK / AA

Implemented by:

giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Supported by:

Federal Ministry for Economic Affairs and Climate Action

Federal Foreign Office

IKI INTERNATIONAL CLIMATE INITIATIVE

on the basis of a decision by the German Bundestag

Imprint

Publisher:

adelphi consult GmbH
Alt-Moabit 91
10559 Berlin
T: +49 (030) 8900068-0
E: office@adelphi.de
I: www.adelphi.de

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)
GmbH Friedrich-Ebert-Allee 40
53113 Bonn, Deutschland
T: +49 228 4460 - 0
E: info@giz.de
I: www.giz.de

Authors: Maria Apergi, Tobias Bernstein, Daria Ivleva, Marta Kifleab, Dennis Tänzler, Emily Wright O'Kelly

Overall project responsibility: Julian Zimmermann, Achim Deuchert (GIZ)

Layout: Tilman Zastrow, adelphi

Citation: Apergi, Maria, Tobias Bernstein, Daria Ivleva, Marta Kifleab, Dennis Tänzler, Emily Wright O'Kelly (2025): Towards investment readiness. NDC financing and good practices analysis. Report implemented by GIZ and supported by the German International Climate Initiative (IKI): Federal Ministry for Economic Affairs and Climate Action and Federal Foreign Office. Berlin: adelphi consult GmbH.

Status: May 2025

Contents

1. Introduction 13

2. Methods 19

2.1 Country case study selection 19

2.2 Interviews 20

3. Theoretical and conceptual analysis 22

3.1 The climate finance landscape 22

3.2 Addressing barriers to climate finance 22

3.3 Elements shaping the design of NDC investment plans 26

3.4 Challenges and solutions for designing and implementing NDC investment plans 31

3.5 Synthesis: Key phases and building blocks fordesigning NDC investment plans 32

4. Georgia 37

4.1 General country background 37

4.2 Status of climate finance 37

4.3 Selected strategic documents in place 38

4.3.1 The Climate Change Strategy and Action Plan 38

4.3.2 The NDC Financing Strategy and Investment Plan 39

4.4 Main barriers for climate finance mobilisation to meet NDC goals 39

4.5 Main lessons learned for the design of NDC investment plans 40

5. Rwanda 43

5.1 General country climate policy background 43

5.2 Status of climate finance 44

5.3 Selected strategic documents in place 44

5.3.1 Climate and Nature Finance Strategy 45

5.3.2 Green Taxonomy 45

5.4 Main barriers for climate finance mobilisation to meet NDC goals 45

5.5 Main lessons learned for the design and implementation of NDC investment plans 46

6. Jordan 49

6.1 General country background 49

6.2 Climate finance status 50

6.3 Selected strategic documents in place 51

6.3.1 Green Growth Action Plans 51
6.3.2 NDC Action Plan 52
6.3.3 Green Finance Strategy (2023) 53

6.4 Main barriers for climate finance mobilisation to meet NDC goals 53

6.5 Main lessons learned for the design of NDC investment plans 55

7. Chile 57

7.1 Climate policy background 57

7.2 Status of climate finance 58

7.2.1 Status sustainable financial instruments 58

7.3 Relevant policies and initiatives 59

7.3.1 Finance Strategy on Climate Change 59
7.3.2 Draft Taxonomy of Environmentally Sustainable Economic Activities 60
7.3.3 Tracking methodology for public climate spending and investment 61
7.3.4 Green Finance Public-Private Roundtable 61
7.3.5 Team Europe Renewable Hydrogen Funding Platform for Chile 61

7.4 Main barriers for climate finance mobilisation to meet NDC goals 62

7.5 Main lessons learned for the design of NDC investment plans 63

8. Germany 65

8.1 General country background on climate policy 65

8.2 National climate policy and finance milestones 66

8.1.1 Introduction and evolution of feed-in tariffs 66
8.1.2 The Coal Commission as a consensus building process 67
8.1.3 Carbon contracts for difference 68

8.3 Main barriers for climate finance mobilisation in Germany 68

8.4 Main lessons learned for the design of NDC investment plans 69

9. Conclusions and recommendations 71

9.1 Summary of key insights from the country case studies 71

9.1.1 Overall observations 76

9.2 Recommendations for the design and implementation of NDC investment plans based on the best practices and case studies 77

Bibliography 80

Annex 90

List of Figures

Figure 1
Phases for the design of effective NDC investment plans. 30

Figure 2
Main building blocks for NDC investment plans with accompanying limitations and proposed actions. 34

Figure 3
Building blocks of NDC investment plans and suggested indicators of promoting success. 35

Figure 4
Institutional setup for green growth in Jordan. 52

Figure 5
Five pillars of the Central Bank of Jordan's engagement in facilitating green finance mobilisation. 54

List of Tables

Table 1
Justification of country case study selection. 19

Table 2
Examples of financing instruments. 23

Table 3
The planning phase – summary of key insights from the country case studies. 71

Table 4
The implementation phase – summary of key insights from the country case studies. 73

Table 5
The learning phase – summary of key insights from the country case studies. 74

Table 6
Affiliations of interviewed experts. 90

List of Abbreviations

ADB	Asian Development Bank
BIP	Integrated Project Bank
CAEP	Climate Action Enhancement Package
CCfDs	Carbon Contracts for Difference
CBJ	Central Bank of Jordan
CDKN	Climate and Development Knowledge Network
CPI	Climate Policy Initiative
CNFS	Climate and Nature Finance Strategy
DIW	German Institute of Economic Research
EAC	East African Community
ECLP	Chile's Long-Term Climate Strategy
EFSD	European Fund for Sustainable Development
EFCC	Chile's Finance Strategy on Climate Change
EnFG	Energy Financing Law
EIB	European Investment Bank
ESG	Environmental, Social, and Governance
ETS	(EU) Emissions Trading System
EU	European Union
E5P	Eastern Europe Energy Efficiency and Environment Partnership Fund
FAO	Food and Agriculture Organisation
FCDO	Foreign, Commonwealth & Development Office
Fraunhofer ISE	Fraunhofer-Institut für Solare Energiesysteme

GCF	Green Climate Fund
GDP	Gross Domestic product
GEF	Global Environment Facility
GEL	Georgian Lari
GG-NAP	Green Growth National Action Plan
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GoJ	Government of Jordan
GW	Gigawatt
IDB	Inter-American Development Bank
IIGCC	Institutional Investors Group on Climate Change
IKI	International Climate Initiative
IFAD	International Fund for Agricultural Development
IFC	International Finance Corporation
ILO	International Labour Organisation
IMF	International Monetary Fund
IsDB	Islamic Development Bank
KfW	Kreditanstalt für Wiederaufbau
KTF	Climate and Transformation Fund
LDC	Least Developed Country
LMCC	Climate Change Framework Law
LTD	Limited
LT-LEDS	Long-term Low Emission Development Strategy

MENA	Middle East and North Africa
MINECOFIN	Ministry of Finance and Economic Planning
MRV	Monitoring Reporting and Verification
$MtCo_2eq$	Million Tonnes of Carbon Dioxide Equivalent
MW	Megawatt
NAP	National Climate Change Adaptation Plan
NCCC	National Climate Change Committee
NDB	National Development Bank
NDC	Nationally Determined Contribution
NDCP	NDC Partnership
NDC-SF	NDC Support Facility
NGGP	National Green Growth Plan
Nox	Nitrogen Oxides
OECD	Organisation for Economic Co-operation and Development
PA	Paris Agreement
PM	Particulate Matter
PSMP-CA	Private Sector Mobilisation Plan for Climate Action
SDG	Sustainable Development Goal
SLB	Sustainability-Linked Bond
SME	Small and Mid-sized Enterprises
SNI	National Investment System
SPA	Support Project for the Implementation of the Paris Agreement
SO_2	Sulfur Dioxide

REMA	Rwanda Environment Management Authority
USD	US-Dollar
UN	United Nations
UNEP	United Nations Environment Programme
UNFPA	United Nations Population Fund
UNICEF	United Nations International Children's Emergency Fund
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

Introduction 01

1 Introduction

The Paris Agreement (PA) was adopted in 2015 and has been signed by 194 states and the European Union (EU). It seeks to galvanise the international community to address climate change and to hold the rise in global temperature to significantly below 2°C (ideally to 1.5°C) compared to pre-industrial levels. To achieve this, countries will have to enhance their capacity to adapt to the negative effects of climate change and shift to development paths that lower greenhouse gas (GHG) emissions (UN, n.d.). The PA calls on each Party to prepare, communicate, and maintain successive nationally determined contributions (NDCs). These NDCs are crucial to achieving the objectives of the PA, as they outline countries' targets and initiatives to both mitigate climate change and adapt to its effects. Countries are also requested to regularly supply the information needed to monitor their progress in implementing their NDC (UNFCCC, n.d.-b).

Aligning financial resources with both adaptation and mitigation goals will be fundamental to fulfilling the commitments in countries' NDCs. Such financial flows concern domestic and international as well as public and private finance. To achieve this alignment, strategies putting in place investment frameworks outlining appropriate policies and financial instruments will be required (see Text box 1).

NDCs themselves are not investment plans as there is no official requirement to discuss how to attract the necessary investment. Presently, the quality and level of granularity in NDCs differs markedly among countries, reflecting the wide range of approaches and standards. While some NDCs already include components related to investments in mitigation and adaptation strategies many do not have important elements for informing investment decisions (IIGCC, 2024). For example, fewer than 50% of NDCs at present contain specific, quantified estimates for the financial support they require (Jeudy-Hugo et al., 2024). Nevertheless, NDCs are a valuable resource for investors, enabling them to evaluate countries' climate goals and decarbonisation objectives (IIGCC, 2024). This can provide guidance to investors regarding investment opportunities in priority sectors of different countries (IIGCC, 2024). Moreover, setting ambitious goals can send powerful market signals and offer assurance to investors at the national and international levels regarding a country's commitment in decarbonisation plans (Jeudy-Hugo et al., 2024).

TEXT BOX 1 GLOSSARY ON KEY TERMINOLOGIES

As each country context varies, climate action plans, policies and strategies can differ significantly with regards to content, resulting in distinctive synergies and overlaps. Moreover, resulting plans and strategic documents are often referred to by different names across countries.

NDCs are the nationally determined contributions of each country towards mitigating global greenhouse gas emissions, as required by the Paris Agreement. Although the structure and content of NDCs varies strongly from country to country, the *2024 NDC Synthesis Report* released by the United Nations Framework Convention on Climate Change (UNFCCC, 2024), finds that there are key elements that appear in the majority of NDCs – for example, NDC preparation and implementation, and linking NDCs to commitments to transitioning to a sustainable, low-carbon and/or resilient economy, taking into account social, environmental and economic factors, as well as the sustainable development goals. NDCs are pre-sented to the UNFCCC secretariat on a five-year cycle, with the upcoming submission deadline scheduled for 2025 (UNFCCC, 2024; UNFCCC, n.d.-b).

TEXT BOX 1 GLOSSARY ON KEY TERMINOLOGIES

NDC implementation plans focus on the ongoing monitoring and reporting of progress, which helps guide any necessary revisions to the climate strategies. According to UNEP'S report on *implementing nationally determined contributions (NDCs)*, the successful implementation of NDCs requires a thorough assessment of the financial needs for various implementation options, the development of effective strategies to secure funding for NDC commitments, and a substantial increase in climate finance. This process must be carried out in a way that fosters greater integration across sectors and ensures long-term sustainability in achieving climate objectives (UNEP, 2020).

NDC investment plans outline the institutional frameworks, procedures, and outcomes necessary to identify and obtain the investments required for meeting NDC goals. (NDCP, 2023b). This can also include an NDC financing plan or finance roadmap that outlines how a country plans to mobilise and manage financial resources to support its NDC commitments. While identifying potential investments and engaging directly with investors is the central focus for the NDC investment plan, the finance roadmap gives an overview on overall financial strategies and involves policymakers and financial institutions (Global Climate Action Partnership, n.d.). Hence the NDC investment plan connects climate goals with the funding, strategies, and partnerships needed for their realisation – mapping out priority investment areas, the scale of funding required, and potential stakeholders or partners to facilitate implementation, all while driving a more resilient and low-carbon future.

Climate finance strategies refer to plans and policies designed to mobilise, allocate, and manage financial resources to support efforts in mitigating and adapting to climate change not necessarily linked to the NDCs. These strategies involve identifying funding sources, prioritising investments, and implementing mechanisms to ensure effective utilisation of funds for climate-related activities (UNFCCC, n.d.-c; ISO, n.d.).

Long-term low emission development strategies (LT-LEDS) serve as strategic frameworks for transforming national economies into sustainable, low-carbon systems by the middle of the century, combining climate action with economic and social development planning. Their purpose is to assist countries in aligning their development objectives with the Paris Agreement's goal of keeping global temperature increases well below 2°C (UNDP, 2024b).

National adaptation plans (NAPs) are strategic frameworks developed by countries to address the impacts of climate change. These plans help nations identify their medium and long-term priorities for adapting to climate change by assessing vulnerabilities and implementing strategies to enhance resilience. The NAP process, initiated under the UNFCCC, aims to integrate climate adaptation into national policies and development planning, ensuring that adaptation becomes a standard practice rather than a separate initiative. The NAP process and its outcomes can also be used by countries to strengthen and improve the adaptation aspects of their NDC (UNEP, n.d.; DGAP, n.d.).

To obtain the necessary financing, many countries are developing climate finance strategies and investment plans for NDC implementation. These often include an assessment of the investments required for the different actions outlined in the NDCs, information on funding sources and financial instruments, and a strategy and framework for implementation (e.g. plans for national budgeting, monitoring reporting and verification (MRV), and private sector engagement). As of 2024, only a limited number of countries had produced NDC investment plans, including Barbados, Belize, Ghana, Namibia and Rwanda (Jeudy-Hugo et al., 2024).

The international community is increasingly recognising the importance of NDC investment plans in ensuring countries successfully meet their climate goals. Such plans can clarify how different financial stakeholders can support a country's low-carbon transition as they outline financing options tailored to diverse groups of investors. Moreover, they identify other requirements like needs for capacity building, technology transfer, and international cooperation (IIGCC, 2024).

This increasing recognition of NDC investment plans' value is evident not only in the growing number of countries planning to put such strategies in place, but also in the international community's active support to Parties to develop them.

Various institutions, including international organisations, development agencies, development banks and private sector networks, provide support to Parties to produce both NDCs and NDC investment plans (see Text box 2). A full list can be found on the UNFCCC website. Several programmes offer significant support in this area, such as the United Nations Development Programme's (UNDP) Climate Promise, the World Bank NDC Support Facility (NDC-SF), the Asian Development Bank's (ADB) NDC Advance programme, the Inter-American Development Bank's (IDB) NDC Invest programme and the NDC Partnership (NDCP). The latter has published a number of guidance and best practice documents (NDCP, n.d.-a; NDCP, 2023b) to guide countries through the process of designing NDC investment plans. Germany has also provided support to develop guidance on how climate activities can be financed more systematically, with several projects funded via the International Climate Initiative (IKI). One notable example is the Support Project for the Implementation of the PA (SPA), implemented by GIZ (Haber et al., 2024).

Despite the existence of some empirical evidence from countries that have already developed NDC investment plans along with a number of online tools and resources, there remains a significant gap in understanding as to what constitutes a successful NDC investment plan. This knowledge gap encompasses both the design process and the identification of effective financial instruments.

This study aims to address this gap by examining empirical practice for successfully establishing and implementing NDC investment plans. We conduct an empirical analysis and review of good practices on NDC financing and NDC investment plans, covering both theoretical and practical aspects. Our methodology combined a literature review, expert interviews and case study analysis of five countries. Building on these findings the study develops several policy recommendations for creating successful NDC investment plans and overcoming different challenges.

TEXT BOX 2 SELECTED SUPPORT INITIATIVES ON PREPARING NATIONALLY DETERMINED CONTRIBUTIONS (NDCS) AND NDC INVESTMENT PLANS

This text box provides a non-exhaustive overview on available support for NDC design processes, offered by international organisations, development agencies, development banks, and private sector networks.

The NDC Partnership (NDCP) is a key international initiative providing comprehensive support through its ***Global Call for NDCs 3.0 & Long-Term Low Emission Development Strategies (LT-LEDS)***. This support encompasses data collection for NDCs, NDC investment plans, NDC implementation plans, and NDC/long-term Vision/LT-LEDS development. NDC Partnership provides assistance in assessing needs, planning and developing NDCs 3.0 and LT-LEDS, and in mobilising technical assistance that matches country needs (NDCP, n.d.-b).

According to the Centre for Climate and Energy Solutions (Haber et al., 2024), the **NDC Partnership** utilises the expertise of over 200 members and more than 80

TEXT BOX 2 SELECTED SUPPORT INITIATIVES ON PREPARING NATIONALLY DETERMINED CONTRIBUTIONS (NDCS) AND NDC INVESTMENT PLANS

institutions to support countries in converting NDC implementation priorities into practical policies and programmes. To assist countries in enhancing their NDCs through developing climate investment plans based on best practices, the NDC Partnership has created the *NDC Investment Planning Guide and Checklist* (NDCP, n.d.-a). This guide provides a framework for countries to design and execute their NDC investment planning in three distinct stages (Haber et al., 2024).

In December 2024, the **NDC Partnership** and the **Green Climate Fund (GCF)** introduced the ***Climate Investment Planning and Mobilisation Framework***. This framework serves as a unified guide for countries and climate finance providers, facilitating the transition from planning and establishing climate commitments (such as NDCs, national adaptation plans (NAPs), and LT-LEDS) to identifying, prioritising, and securing funding necessary for executing the transformative climate actions required to fulfil these commitments (GCF, 2024).

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), the German development agency, provides global support on NDC investment plans, NDC implementation plans, NDC financing plans / finance roadmaps, and capacity building. GIZs ***IKI Support Project for the Implementation of the Paris Agreement (SPA)*** helps partner countries develop their NDCs and LT-LEDS. It also ensures that NDCs and LT-LEDS are aligned for policy coherence. Furthermore, SPA supports investment planning and strengthens institutional arrangements for effective implementation. Additionally, GIZ's NDC Assist II initiative offers assistance with NDCs and Article 6, the adaptation component of NDCs, and subnational engagement (GIZ, 2024).

The Asian Development Bank (ADB) is a development bank offering extensive regional support for Asia and the Pacific. The ADB manages five initiatives on NDC implementation and NDC investment plans, NDC finance roadmaps, strengthening institutional arrangements, data collection, adaptation components in NDCs, capacity-building needs, and alignment of NDCs with LT-LEDS (UNFCCC, n.d.-d).

The ADB's *NDC Advance programme* offers targeted technical assistance to support the implementation of NDCs, with a strong emphasis on mobilising funding and building institutional capacity. This initiative aids developing member countries in several key areas. Firstly, it translates NDC commitments into actionable investment plans, identifying priority projects suitable for ADB involvement. Secondly, it facilitates access to increased public and private financing for NDC implementation by leveraging innovative financial instruments. Thirdly, the programme enhances tools and methodologies for tracking, monitoring, and reporting on NDC progress. Lastly, it focuses on attracting investments for climate adaptation while identifying and promoting policies and reforms that enable effective implementation (Haber et al., 2024).

The United Nations Development Programme (UNDP) launched the ***Climate Promise initiative*** to leverage its global presence and networks to provide comprehensive support for the development and implementation of NDCs. Through this initiative, UNDP assists countries in reducing greenhouse gas emissions, strengthening their resilience to climate change, and advancing progress on the sustainable development goals. Building on its collaboration with more than 125 countries, the Climate Promise 2025, introduced in April 2024, supports with aligning the upcoming iteration of their national climate commitments with the objectives set under the Paris Agreement. A central component of this initiative is climate finance, where UNDP works closely with governments to enhance the tracking of public and private climate-related expenditures and supports Ministries of Finance in accessing additional funding sources. The programme also aids countries in identifying, planning, and securing the financial resources needed to meet their climate commitments, using tools such as green bonds and carbon market mechanisms (Haber et al., 2024).

TEXT BOX 2 SELECTED SUPPORT INITIATIVES ON PREPARING NATIONALLY DETERMINED CONTRIBUTIONS (NDCS) AND NDC INVESTMENT PLANS

NDC and Long-Term Strategies (LTS) Support programme under **the World Bank's Climate Support Facility (CSF)** was created to aid in the execution of NDCs. It aims to assist countries in advancing their climate ambitions by implementing NDCs and developing LTSs. This programme focuses on integrating climate goals into national development plans, strengthening institutional capacities, and providing the tools necessary for effective policymaking and implementation. The programme focuses on the following support: facilitating NDC implementation, developing LTSs, enhancing policy and institutional capacity, mobilising climate finance, and promoting monitoring and accountability (World Bank, 2024; World Bank Group, 2021). Support for NDC enhancement will address country requests through the NDC Partnership's Global Call on NDCs 3.0 and LT-LEDS. The CSF works closely with the NDC Partnership Support Unit and regional colleagues to define the scope of assistance and manage a global support pipeline. World Bank country teams are also coordinating with NDC Partnership focal points to ensure effective delivery (World Bank, 2024).

The Inter-American Development Bank's (IDB) ***NDC Invest programme*** assists countries in transforming their NDCs into actionable investment plans. It achieves this by coordinating efforts between public and private sector stakeholders, facilitating the creation of investment plans, and mobilising funds from both internal and external sources. The programme also leverages both non-reimbursable and reimbursable grants to support innovative business models and conducts studies to enhance the technical and financial viability of projects (Haber et al., 2024).

Methods 02

2 Methods

Methodologically, the study was developed using literature review, expert interviews and case study analysis. The first part of the analysis focuses on the identification of key building blocks for designing effective NDC investment plans (Section 3). The case study analysis that follows was conducted to validate the importance of the building blocks identified and to provide successful examples of how and to what extent these have been applied so far.

2.1 Country case study selection

The country case study selection, detailed further in Table 1, was designed to ensure that the countries selected are diverse in terms of geographic location and level of economic development. Moreover, a balance between two broad categories of countries was considered:

1. Countries with a track record of successful implementation, at least in part, of NDC investment plans or of similar plans to guide NDC action (Jordan, Rwanda, Georgia).

2. Countries with no comprehensive NDC investment plan in place that have at the same time applied a successful climate policy approach to attract climate finance (Germany, Chile).

This clustering approach makes it possible to identify successful elements of the NDC investment planning process, while also drawing lessons from a more diverse group of countries in terms of effective policies and financial instruments. Chile and Germany serve as examples with particularly successful instruments and approaches.

Table 1
Justification of country case study selection.

Building blocks	Selection justification
Jordan	Jordan is a country case study representing the **Middle East** and **North Africa (MENA) region**. The country followed a robust methodology to define a list of priority **investment requirements** to meet its NDC. Prioritisation criteria included effects to climate mitigation and adaptation as well as economic and social development considerations such as gender and vulnerability. The country has also demonstrated a strong focus on **stakeholder engagement** (NDCP, 2023b).
Rwanda	Rwanda is a country case study representing **Sub-Saharan Africa**. Rwanda has exhibited strong **country ownership** in its NDC investment planning. The country's investment planning is conducted **within its NDC implementation framework** — the **Climate and Nature Finance Strategy** serves as the NDC investment plan. Rwanda has followed a robust process to define priority **investment requirements** to meet its NDC. This process involved climate but also social and economic considerations. The country has put in place **innovative finance facilities** (IREME Invest, INTEGO) (NDCP, 2023b).
Georgia	Georgia is a country case study representing **Eastern Europe** and **West Asia**. Georgia has followed a structured methodology to design relevant strategies namely the Climate Change Strategy and Action Plan and the NDC Financing Strategy and Investment Plan. These also included **stakeholder engagement**.

Table 1
Justification of country case study selection.

Building blocks	Selection justification
Chile	Chile is a country case study representing **Latin America**. The country is a pioneer in climate policy and other sustainability topics. Chile has a sustainable investment strategy in place, and it explores the use of **innovative finance** to incentivise climate investments (e.g. green bonds and results-based finance). This offers significant potential for financing the NDC progress.
Germany	Germany is a country case study representing **Europe**. Germany is promoting a **climate strategy** as an overall contribution of the **EU NDC** and has significant experience in designing ambitious national climate action. This case study provides us with an opportunity to study **innovative components** to finance an NDC including carbon pricing and revenues from auctioning as well as **stakeholder engagement** processes.

2.2 Interviews

We interviewed experts in climate finance, climate policy and NDC investment planning representing a range of stakeholders including private sector representatives. This included both international experts and individuals with expertise in the different country case studies, with a focus mainly on the first cluster of countries (countries with NDC or similar investment plans in place). We identified these experts via background research/literature review and from existing partner networks. The interviews with experts were semi-structured with questions adjusted based on the received inputs. Questions were also adjusted based on whether the interviewee was an international expert, an in-country expert of a country with an NDC investment plan in place or an in-country expert of a country without an NDC investment plan in place. All interviews covered the following broad themes:

- Main opportunities and barriers for private capital mobilisation to meet NDC goals
- Main policies and financial instruments in place to attract NDC related investments also identified in a country's NDC investment planning (if relevant)
- Most important elements in structuring the NDC investment process
- Initial evidence on suggested building blocks as important elements of NDC investment plans
- Important guiding principles or elements of the investment plan
- How easy has it been so far for countries to follow the key recommendations on how to structure the NDC investment process
- Initial evidence of impact of NDC investment plans in attracting finance needed to achieve NDCs

21 expert interviews were conducted between 25/11/2024 and 21/01/2025. Each interview took between 30 to 45 minutes to complete. Experts from various sectors participated: national/international consultancies, financial institutions, industry associations, regional development banks, development agencies, and international partnerships. To ensure respondent anonymity interviews have been assigned a random number, which is used for citing purposes in the sections that follow. An overview of the interviews is provided in the Annex to this study.

Theoretical and conceptual analysis 03

3 Theoretical and conceptual analysis

3.1 The climate finance landscape

According to the Climate Policy Initiative (CPI), global climate finance has experienced remarkable expansion, exceeding USD 1 trillion in 2021/22 and reaching approximately USD 1.5 -1.6 trillion in 2023. This expansion has continued unabated, even in the face of global crises such as the COVID-19 pandemic and geopolitical conflicts. The primary sectors behind this growth are renewable energy, buildings and infrastructure, and low-carbon transport. These sectors have also attracted substantial volumes of private finance via market-rate loans and equity instruments. This reflects the technological maturity that has been reached particularly in the clean energy sector and the subsequent reduction of technology costs. However, despite this progress, overall investment levels remain well below one fifth of the estimated USD 7.4 trillion that needs to be invested annually until 2030 to remain within the 1.5°C target. Moreover, investments and subsidies for fossil fuels continue to grow (CPI, 2024a).

The expansion of climate finance has varied significantly across different sectors and countries (CPI, 2024a). Other mitigation sectors have received much lower investment (agriculture, forestry, and other land uses, industry, waste and wastewater) and adaptation finance, while essential, continues to be more limited (UNFCCC, 2022; UN, 2024; CPI, 2024a). The geographical distribution of these finance flows is also unequal, with poorer countries and especially least developed countries (LDCs) only receiving a small share of the total investment. Considerably more investment is needed to achieve global climate objectives, particularly in developing countries and in sectors beyond energy, transport, and buildings (CPI, 2024a).

Multiple barriers have been found to discourage the involvement of the private sector in green investments. Risks may be perceived to be higher due to the market, commercial and technological risks associated with less mature technologies with high implementation costs, lower financial feasibility and limited supply chains (UNEP, 2023; NDCP, n.d.-a). In addition, there may be implementation barriers (political uncertainty, bureaucratic barriers, lack of local capacity, lack of investor familiarity) and regulatory barriers (unclear policies, absence of standards, insufficient incentives, obstructive regulation, regulatory uncertainty, absence of MRV of climate finance flows) (NDCP, n.d.-a; UNFCCC, 2023; CPI, 2023; Transparency International, 2023). Developing countries in particular encounter greater obstacles in raising climate finance due to complicated bureaucracies, limited technical capacity and higher overall investment risks (OECD, 2022c).

3.2 Addressing barriers to climate finance

Considering the challenges associated with raising private finance, international concessional finance will play a key role to addressing investment barriers, particularly for developing countries (CPI, 2024a). A key recommendation to policymakers (governments and implementing organisations) to reach the necessary levels of climate finance is therefore to use **innovative finance mechanisms** like concessional finance and risk-sharing instruments (See Text box 3 for more details). Blended finance is a strategy that combines public and private finance to reduce investment risks and make projects more feasible (OECD, 2020; 2022a; 2022b). This can serve as a catalyst for attracting additional private sector investment, thereby expanding and amplifying the overall financial resources available (OECD, 2023). Insurance products designed for climate resilience will also be important in this respect (World Economic Forum, 2024; NAP Global Network, 2024).

Several actors can play a key role in offering such products and supporting blended finance agreements and frameworks. These include multilateral and bilateral climate funds like the Green Climate Fund (GCF), but also development assistance agencies, multilateral and bilateral finance institutions, and national governments (via line ministries and national development banks). Private institutional and commercial sources (commercial banks, equity and debt funds, pension and insurance funds) also have a role to play in offering relevant financial instruments (e.g. bonds) apart from commercial loans and direct equity investments. According to the CPI, it is important to ensure that financial instruments and investment products are as straightforward and replicable as possible. The CPI recommends to focus on proven approaches (e.g. in de-risking) rather than creating novel approaches that might be more complex and less effective (CPI, 2024a).

When it comes to NDC investment planning in particular, certain climate finance instruments have been proven to be effective (Strand, 2019; Choi & Seiger, 2020; Choi & In, 2021). Blended finance has been particularly successful in attracting private capital to sectors focused on mitigation – for example, renewable energy and infrastructure projects, which frequently serve as key pillars of NDCs (Choi & Seiger, 2020; Choi & In, 2021; Bhandary, 2024). However, blended finance has exhibited limited scalability when applied to adaptation projects (Mohieldin, 2022; Mohan, 2022). The work of climate funds and multilateral development banks is also central to catalysing private sector investment for high priority NDC projects. National development banks (NDBs) play an essential role in ensuring that domestic activities align with NDCs, particularly in developing countries. Table 2 presents a list of financing instruments provided by the NDC Partnership (NDCP, n.d). The optimal instrument depends on the unique context of each country's NDC, the specific priority areas, and the respective economic and political conditions (World Bank, 2017; Banga, 2018; Ngwenya & Simatele, 2020; Sheriffdeen et al., 2020).

Table 2
Examples of financing instruments.

Source
NDCP, n.d.-a, p. 33

Standard investment instruments	De-risking and catalytic instruments
Direct investments	Guarantees
Project finance	Grants
Blue bonds	Adaptation benefits mechanism
Climate (resilience) bonds	Results-based incentives
Green bonds	Green securitisation
Sustainability bonds	Insurance
Social bonds	First loss/junior equity
Environmental impact bond	Public-private partnerships

Table 2
Examples of financing instruments.

Source
NDCP, n.d.-a, p. 33

Standard investment instruments	De-risking and catalytic instruments
Mezzanine finance	Pooled investment funds
Listed and private equity	Debt-for-nature/climate swaps

To address regulatory barriers, it will be essential for policymakers to ensure that **transparent regulatory frameworks** are in place. In addition, governments should also consider implementing policies like **tax breaks** and **financial subsidies** that will incentivise the private sector and reduce implementation barriers (OECD, 2023; 2024). **Capacity building** can also address potential limitations emanating from a lack of local capacities. Importantly, such capacity building activities can be targeted towards increasing a country's ability to manage and access relevant climate funds (GCF, 2022; Swedish Presidency of the Council of the European Union, 2023). Designing **project preparation activities** to create a project pipeline will also help to attract investors and ensure sound project implementation (CPI, 2024a).

Another important intervention to address investment barriers is to put in place a robust **MRV** system. This can maintain accountability and increase stakeholder trust in the management and distribution of climate finance (UNFCCC, 2023), while also promoting greater cohesion within the often disconnected climate finance sector. As the CPI notes, the success of an MRV system will rest on the country's ability to ensure the supply of high-quality **data and put in place disclosure obligations** that abide to clear standards (CPI, 2024a).

Finally, **decarbonisation strategies and investment plans, like NDC investment plans**, are important to communicate to investors both the investment opportunities and the potential risks and how they can be mitigated. To be effective, these plans should contain detailed information on planned policies and regulations, finance needs, costs and sectoral targets. It is also important to put a detailed financing strategy in place outlining potential sources of finance and the use of different financial instruments. Such plans also help to achieve more effective implementation as well as national ownership of financing climate action (CPI, 2024a; IIGCC, 2024). The latter is important to assure investors that decarbonisation plans will actually be implemented. While maintaining ambition is important, it is equally crucial that these plans are **anchored in realistic targets** and bolstered by comprehensive investment roadmaps (CPI 2024a).

TEXT BOX 3 EXAMPLES OF CLIMATE FINANCE INSTRUMENTS TO INCREASE PRIVATE SECTOR INVESTMENT

Examples of climate finance instruments to increase private sector investment include:

Non-refundable grants: Funding offered by international donors and governments to enhance the financial feasibility of projects that do not require repayment. These are commonly channelled to initiatives focused on capacity building and adaptation in least-developed countries.

Concessional loans: Loans at interest rates lower than the market standard or offering other concessions (e.g. longer grace periods). These are usually provided by multilateral development banks like the World Bank, but also by national governments and other development financial institutions. They enhance the viability of projects, particularly in addressing high upfront costs (World Bank, 2021a).

TEXT BOX 3 EXAMPLES OF CLIMATE FINANCE INSTRUMENTS TO INCREASE PRIVATE SECTOR INVESTMENT

Risk mitigation instruments: These are instruments designed to mitigate investment risks and include policy risk insurance, government or donor-backed partial credit guarantees (UNEP, 2023; UNDP, 2020), and first-loss mechanisms. They can play an especially important role in countries with high overall risk profiles.

Green bonds: Financial mechanisms that utilise debt to generate significant capital for environmental projects. These bonds are gaining popularity among governments and institutions aiming to match their investments with sustainability objectives (Climate Bonds Initiative, 2025). They have proven to be scalable and highly effective for mitigation efforts, yet the potential applications in adaptation-related initiatives are more limited (World Bank, 2017; Banga, 2018; Ngwenya & Simatele, 2020).

Results-based finance: Financial support connected to achieving specific outcomes, such as expanding renewable energy use. International donors are progressively embracing this tool (World Bank, 2018; World Bank, 2019; KfW, 2023). It can be especially effective for forestry and land-use projects, but its implementation can be complicated as it requires robust results verification processes (World Bank, 2017; Mohieldin, 2022).

Other common ways to mobilise private sector investment include:

Public-private partnerships: Partnerships between governments and private enterprises to execute large infrastructure projects, such as solar power facilities or the establishment of water management systems (World Economic Forum, 2022).

Feed-in tariffs: Long-term agreements on pricing with energy producers to boost investment in renewable energy technologies (CDKN, n.d.).

Carbon pricing instruments: Instruments such as carbon taxes and carbon markets (such as cap-and-trade or carbon offset programmes) which create incentives for lowering emissions (European Commission, 2023).

Overall, no one-size-fits-all-solution exists. Determining the types of barriers present in each case is important, as these will dictate the suitability of the interventions to address them (NDCP, n.d.-a). For example, high investment risks (or high perceived risks) can be addressed via the introduction of risk mitigation instruments (e.g. insurance products, guarantees, and public-private partnerships). The limited financial feasibility of an investment can be addressed via grants and concessional lending options. Lack of access to capital can be addressed via lending, equity investments and public-private partnerships. Capacity building and technical assistance are suitable to address capacity limitations, and targeted policies and regulations can address regulatory and policy-related risk perceptions (Global Climate Action Partnership, 2015).

Challenges in attracting finance and relevant interventions depend on the characteristics of each project, host country and investor profile. Grants, concessional loans and technical assistance are relevant for derisking in LDCs while debt and equity can work effectively especially for the financing of mitigation activities (Global Climate Action Partnership 2015). Moreover, the characteristics of investors can vary greatly as these can range from commercial financial institutions (e.g. banks, insurance companies, investment companies) to private companies (e.g. large multinationals, mid-sized enterprises) and households (CPI, 2024a). The type of investor will therefore also determine the type of challenges faced to a certain extent.

Despite the critical role played by policy makers, private sector investors can also play a proactive role through advocating for continuous support for climate action, building alliances and first mover coalitions and taking pioneering action in climate investments and in establishing requirements to green their investment portfolios. There is a central role for the insurance and finance industry to play in addressing the climate crisis as a risk and large corporations can have direct influence in the sustainability of supply chains via the alignment of their operations with sustainability goals (CPI 2024b).

3.3 Elements shaping the design of NDC investment plans

This section explores key phases and building blocks for effective NDC investment plans that lead to investment readiness, using information from existing planning guides, best practice documents and expert interviews.

As the NDC Partnership states:

(NDCP, 2022a).

> *"With the revised NDCs in place, and as countries scale up NDC implementation, NDC investment planning is a critical area that will benefit from further technical assistance, sharing of best practices, and strengthening of knowledge. NDC investment planning processes will be unique to each country, dependent on country status, capacity, and ambition of their NDC targets."*

The NDC Partnership therefore recognises the need for capacity building and technical assistance to design effective NDC investment plans while also acknowledging that the exact processes followed will depend on the **unique characteristics of each country**. Countries are encouraged to customise the guidance offered according to their specific context by modifying the scope or choosing pertinent components (NDCP, n.d.-a).

The NDC Investment Planning Guide and Checklist (NDCP, n.d.-a) outlines several general stages and components, including an investment planning capacity stage, an investment needs identification and prioritisation stage, and an investment mobilisation stage (NDCP, n.d.-a) (See Text box 4 for more details).

The expectation is that countries will not necessarily need to implement all the suggested components and stages to design a good investment plan, as this could be expensive and time consuming. NDC investment plans should not become an additional burdensome requirement for countries (Interview 15). Rather, countries can selectively assess their priorities and key gaps to determine where to focus their efforts. Countries may also already have completed some of these steps when designing other strategies (Interview 15; 17).

TEXT BOX 4 SUGGESTED STAGES AND COMPONENTS FOR NDC INVESTMENT PLANNING AS OUTLINED IN THE NDC INVESTMENT PLANNING GUIDE AND CHECKLIST (NDCP, N.D.-A)

The investment planning capacity stage: This stage concentrates on setting up institutional frameworks, delineating roles, involving stakeholders, and developing monitoring systems. It clarifies roles and mandates, along with stakeholder mapping, which countries can utilise to formulate NDC investment planning and begin identifying NDC investment requirements. It is a crucial stage that fosters transparency and accountability, as well as country ownership, as it creates a solid plan and puts in place institutional structures to involve local actors (local governments and subnational actors) in the design of the NDC investment planning process. Multi-stakeholder engagement is also required at this stage. This stage includes the following key components:

TEXT BOX 4 SUGGESTED STAGES AND COMPONENTS FOR NDC INVESTMENT PLANNING AS OUTLINED IN THE NDC INVESTMENT PLANNING GUIDE AND CHECKLIST (NDCP, N.D.-A)

- **Institutional arrangements:** Defining the roles and responsibilities of relevant entities promotes cross-sectoral collaboration. Partnering with global financial institutions like the GCF and the World Bank aligns efforts with international funding strategies. Including gender, youth and specialists in social inclusion ensures inclusivity and engagement.

- **Monitoring and reporting:** This component identifies key stakeholders to collect data and creates tools for tracking climate finance. Iterative reviews improve transparency and accountability, addressing data limitations and facilitating future investment planning updates.

The investment needs identification and prioritisation stage: This stage determines the gap in financing and identifies priority projects and activities. The latter provides countries with a framework to assess the required type and amount of funding and to align these with suitable financial sources. Overall, alignment with national strategies and inclusive stakeholder engagement enhances the credibility of project prioritisation and of the other activities in this stage. This stage includes the following key components:

- **Identifying investment needs:** The targets outlined in NDCs and other national strategies are assessed to ensure coherence and strategic focus in determining investment needs. Consultations with stakeholders are also key to verify any discrepancies in the planned financial resources and to address these gaps effectively.

- **Costing and financing gap analysis:** An assessment of the costs required to meet NDC targets and respective activities and projects, as well as current and planned financial flows and funding gaps.

- **Prioritisation:** Project prioritisation takes place with criteria that are produced through stakeholder engagement processes. Incorporating development priorities and identifying social and economic co-benefits is crucial. Strategic objectives, like incorporation of gender, addressing climate vulnerability, and achieving sustainable development goals, can also serve as criteria for project prioritisation (NDCP, 2023b).

The investment mobilisation stage: This stage focuses on identifying investment barriers as well as policies and funding sources to overcome them, aligning projects with specific funding sources, and creating implementation plans for monitoring and reporting. Multi-stakeholder engagement is also essential in this stage. Some key components include:

- **Barriers to investment:** Conducting an analysis to identify the barriers to investment for the different actions (e.g., market failures, high costs etc.) is crucial to determine which measures will be necessary to overcome them.

- **Policy and financial instruments:** A key step is to identify and strengthen policies, regulatory reforms, and financial instruments that can address investment barriers.

- **Pipeline development:** This involves the design of an implementation strategy (including a financing plan) for identified projects and actions.

Each stage builds upon the previous one, **providing a structured approach** to pinpoint and mobilise funding for activities related to NDCs. Thus, the NDC Partnership highlights the importance of a well-defined and organised strategy that **strengthens institutional capacity**, identifies investment requirements, and secures resources to meet NDC goals, all while **promoting transparency** and **engaging stakeholders**. The NDC Partnership also highlights the importance of publicly communicating the outputs of each stage to relevant stakeholders (NDCP, n.d.-a). Strong engagement of relevant actors from the government and beyond is essential to ensure **country ownership and buy-in** and a key element to ensure effective NDC investment plans (NDCP, n.d.-a; NDCP, 2023b).

The NDC Partnership emphasises that NDC investment plans need to be **"anchored in a country's NDC commitments** and climate ambition". Therefore, NDC investment planning will need to be steered by a country's mitigation and adaptation goals. It moreover needs to be a **"dynamic and iterative process"** (NDCP, n.d.-a p. 4). The NDC investment plan should be regularly updated as new NDC targets and commitments are put in place. However, it is important to note that investment plans should not be entirely dependent on new NDC updates; rather, they should have their own adaptive mechanisms to ensure continuous progress. At the same time, the NDC investment plan should inform the next rounds of NDC updates, potentially revealing new opportunities and pathways for climate action and sectoral strategies. Processes to ensure future updates therefore need to be put in place (NDCP, n.d.-a), and countries and development partners should be provided with guidance on how to continue in this iterative process. Some of the guidelines for successful NDC investment plan design can also inform NDC updates (Interview 15). Although to increase efficiency, it would be helpful if implementation and investment plans were developed in parallel to every NDC update, this is often not possible due to a lack of resources and the institutional coordination required (Interview 17).

Clearly defined NDC targets are crucial to the design of NDC investment plans, therefore having a solid foundation of clearly articulated climate priorities and strategies is important (NDCP n.d.-a). The **alignment** of the investment plan and NDCs **with national development plans** and other types of sectoral planning is also important. If there is no alignment, it will be difficult for the Ministry of Finance and the other relevant stakeholders, including from the private sector, to ensure implementation of the planned climate investments (Interview 15).

MRV is critical to promote transparency and track the implementation of NDC investment plans. Knowledge concerning impact is important as it can also inform similar activities in other countries (Interview 17). There is currently little evidence on the impact of NDC investment plans and climate strategies in general (Jaramillo, et al. 2024). Going forward, it will be useful to establish **a system for evaluating the impact of NDC investment plans** and other strategies aiming to mobilise investments. However, it will take some time to see the results as the process of rolling out NDC investment plans is still in its early stages (Interview 15).

The NDC Partnership highlights the importance of **capacity building** (NDCP, n.d.-a). This can concern relevant stakeholders from both the public and the private sectors involved in designing NDC investment plans but also in climate financing more broadly. The Climate and Development Knowledge Network (CDKN) stresses that capacity building should specifically focus on engaging the private sector to ensure financial mobilisation for NDC implementation. This type of capacity building will include elements that build skills in financial literacy, financial modelling and in enhancing knowledge on different tools (e.g. policies and financial instruments). Public-private dialogues and investor forums can also play a central role in planning climate goals with the engagement and contribution of the private sector (CDKN, n.d.).

The GCF and the NDC Partnership recently launched the Climate and Investment Planning and Mobilisation Framework (NDCP & GCF, 2024). This framework draws from NDC Partnership's NDC Investment Planning Guide and the GCF's Investment Planning Framework and outlines the main steps for designing climate investment strategies, though not necessarily linked to NDCs. The two main pillars of this framework are investment planning and finance mobilisation (NDCP & GCF, 2024). The finance mobilisation side comprises the following elements: development of projects and programmes, project and programme implementation, and engagement of finance partners at the programming level (NDCP & GCF, 2024). The transition from having a strategy in place to making it an actionable document and mobilising the necessary finance has proven to be the hardest part (Interview 15). The framework recognises the need to take the discussion forward and ensure the **meaningful and early engagement of financiers throughout the process** of developing the investment plan. As such, investment plans should be co-developed with private sector representatives to effectively identify the barriers to investment and chart a clear pathway towards the mobilisation of finance (Interview 15). Engaging the private sector at an early stage in the design process supports the design of appropriate **policies and financial instruments** but also assures investors on the prospects of their investments (IIGCC, 2024). Moreover, the Ministry of Finance should be engaged as a key stakeholder and co-developer in the process, as it is typically the entity responsible for the planning and mobilisation of finance (Interview 15; 17). Engaging the Ministry of Finance also guarantees better access to the data required for sound investment planning (Interview 17).

To summarise, from the discussion above, we identify these key building blocks for the design of NDC investment plans:

1. Tailor to the unique characteristics of each country.
2. Promote country ownership and buy-in.
3. Follow a structured approach to identify investment requirements and funding sources to meet NDC goals.
4. Anchor in a country's NDC targets.
5. Strengthen institutional capacities and undertake capacity building targeting relevant stakeholders.
6. Engage relevant actors (e.g. Ministry of Finance, private sector).
7. Introduce appropriate policies and instruments.
8. Align with national development plans.
9. Collect and use learnings on impact.
10. Conduct MRV and promote transparency.
11. Put in place a dynamic and iterative process for future updates.

We identify three distinct phases for the design of NDC investment plans that are necessary to create an enabling environment that leads to investment readiness. These phases are **planning, implementation** and **learning**. The different building blocks correspond to different phases.

Planning refers to the preparation and design of an NDC investment plan outlining **investment requirements and funding sources to meet NDC goals**. The success of this phase depends on adapting the approach to each country's characteristics, ensuring

country ownership, strengthening institutional capacity with relevant capacity building activities, and following a structured approach to analyse the investment needs that is anchored in the respective country's NDC targets.

Implementation refers to ensuring that the NDC investment plan is **realised**, and that the required finance is **mobilised**. To achieve this, it is important to put in place appropriate policies and financial instruments to attract private sector investment. Other key components to make an NDC investment plan implementable are engaging as co-developers actors that are key to investment decisions, like the private sector and the Ministry of Finance, and ensuring that the plan is aligned with other national development plans.

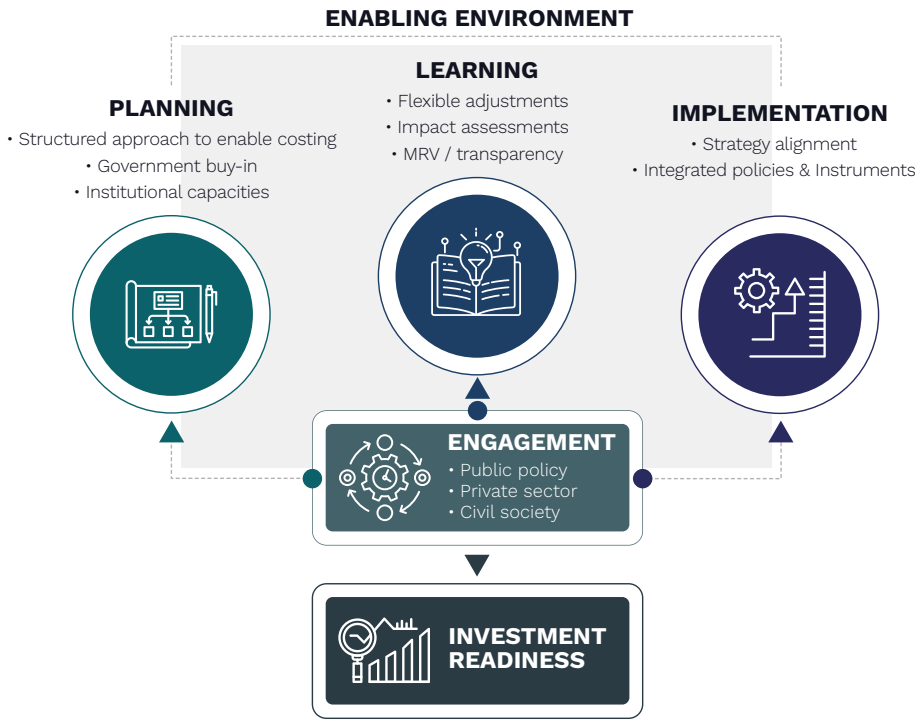
Finally, **learning** occurs when the NDC investment plan design process leads to the generation of knowledge that can feed into future iterations of NDC investment plans and into other climate action plans and processes. This learning can also inform NDC investment planning in other settings. Key elements include collecting and using learnings on impact, conducting robust MRV, and putting in place a dynamic and iterative process that mutually informs NDC target setting and future NDC investment plan updates.

The different phases and corresponding key elements are summarised in Figure 1, which demonstrates how they all form part of an enabling environment that leads to investment readiness. Figure 1 also highlights that while co-development with certain stakeholders is acknowledged as a key component of the implementation phase, broader stakeholder engagement is an important element in all phases.

While the identified phases have some parallels with the stages outlined in the NDC Investment Planning Guide and Checklist (NDCP, n.d.-a) and the Climate Investment Planning and Mobilisation Framework (NDCP & GCF, 2024), they do not fully align. Drawing from the Climate and Investment Planning and Mobilisation Framework approach (NDCP & GCF, 2024), our analysis acknowledges that investment planning alone is insufficient to achieve finance mobilisation and that there is a need for clear, actionable steps to successfully mobilise finance. This is reflected in the implementation phase. At the same time, we identify learning as a distinct phase of an NDC investment plan to highlight the importance of planning for review and learning.

Figure 1
Phases for the design of effective NDC investment plans.

Source:
Own illustration (adelphi)



Overall, categorising the different elements of sound NDC investment plan design into distinct phases and building blocks is useful to support our analysis and to guide NDC investment planning. However, it is important to emphasise that the different phases and building blocks cannot be achieved in isolation from one another. There are often overlaps and links between them and the successful implementation of one element can be key in ensuring the successful implementation of other elements. Such links are discussed in more detail in Section 3.4.

3.4 Challenges and solutions for designing and implementing NDC investment plans

The design and implementation of NDC investment plans can face a range of challenges. First and foremost, **NDCs differ greatly in terms of quality and granularity among countries and frequently lack adequate guidance on implementation** (IIGCC, 2024). This weakens their ability to guide NDC investment planning. Common limitations can include the absence of detailed sectoral targets (NDCP, 2023b), incomplete coverage across all sectors, and insufficient information on sector-specific policies (IIGCC, 2024). Further challenges may also arise as a result of insufficient strategies to mitigate the risks of climate change and of the transition to a low-carbon economy, as well as unclear assumptions (e.g. on choice of baselines) and metrics used for the choice of targets (IIGCC, 2024). Moreover, there can be a lack of alignment with other strategies and plans (e.g. LT-LEDS, NAPs) or an absence of such strategies and plans (IIGCC, 2024).

While the NDC Partnership emphasises that NDC investment plans should be based on a country's specific context, objectives, needs and resources (NDCP, n.d.-a), limitations in the quality of NDCs can impair the ability of NDC investment plans to communicate clear messages to investors. By contrast, **enhancing the quality of NDCs** helps to assure investors regarding implementation. Actions to improve NDCs can include increasing the level of detail with regard to sector-specific pathways and providing more comprehensive explanations of the broader macroeconomic context within a country (IIGCC, 2024). In the absence of clear, granular targets for all sectors, countries may consider creating **NDC investment plans for more advanced sectors**, as a first step while more specific targets and pathways are developed for other sectors (IIGCC, 2024).

A further challenge may also be **resource limitations with regard to designing NDC investment plans**. These may relate to a lack of local capacity and resources to design the NDC investment plan. For example, many governments face challenges due to limited involvement of experts who can incorporate gender considerations. This may be due to lack of capacity or an absence of political will (NDCP, 2023b).

Capacity constraints in terms of **limited technological expertise** and **innovation capacity** may result in **unrealistic or inaccurate assumptions in models and projections**. A lack of standardised monitoring and evaluation systems can also lead to limited data availability and difficulties in obtaining data (Interview 17). This may delay the submission of NDC investment plans, reducing their impact to guide investments in a timely manner (NDCP, 2023b).

Overall, countries should evaluate the adequacy of local capacities and resources before initiating the process of designing an NDC investment plan. This **early evaluation** establishes a feasible scope for the investment plan and serves as preparation for requests for external assistance if required (NDCP, 2023b). Further **standardisation of NDCs** could also help to ensure the quality of the information provided (IIGCC, 2024). While data limitations should be overcome to the extent possible, NDC investment plans and other strategies can help to address data gaps going forward, as they often shed light on existing limitations and required improvements (e.g. on the need for budget tagging) (Interview 17).

Government adoption and required governmental approvals of NDC investment plans can be compromised due to **coordination challenges** and diverging priorities between the different institutions, as well as **political instability**. More guidance is needed on the process (e.g. in the form of a checklist), for example regarding country requirements and developer needs (Interview 17). It is also important for countries to align their different national strategies and ensure effective collaboration to achieve the NDC objectives (IIGCC, 2024).

The **impact of NDC investment plans is difficult to determine**. This is especially complicated in the case of external actors that assist in the development of investment plans, as technical assistance has a limited timeframe and often does not include a long-term monitoring component. The responsibility for monitoring the impact of investment plans therefore should be with the government and other local actors (Interview 17).

Finally, ambitious and well-crafted **NDC investment plans might not always be implementable**. This may be due to an absence of policies and limited availability of financial instruments to incentivise the private sector, limited stakeholder engagement, or a lack of social acceptance (e.g. regarding the adoption of new technologies). **Stakeholder engagement** is indispensable to ensure an NDC investment plan is impactful and responds to needs on the ground. However, achieving this necessitates coordination across society, which can be challenging . Bringing all the relevant actors on board is difficult and private sector involvement is often limited. Using different engagement formats can help to ensure more diverse representation (e.g. a mix of workshops, roundtables, bilateral discussions and inception workshops) (Interview 17). Further, enhancing the stakeholder engagement process to ensure consistent and transparent dialogue already during the development of the NDC is essential (IIGCC, 2024).

3.5 Synthesis: Key phases and building blocks for designing NDC investment plans

Figure 2 summarises the main building blocks and phases for NDC investment plan design, as well as the challenges and opportunities outlined in Sections 3.4 and 3.5. More specifically, Figure 2 outlines how each building block can be affected by the different challenges and what the corresponding solutions might be. Although stakeholder engagement is relevant in all phases, for illustration purposes it is included under the implementation phase.

Figure 2 demonstrates the importance of adapting NDC investment plans to the unique characteristics and resources of each country, and how design decisions can affect the quality of an NDC investment plan and compromise its effectiveness. In the case of resource and capacity constraints, suggested solutions include capacity building activities to strengthen institutional capacities, potentially also requesting external support, and initially focusing only on some aspects of investment planning (e.g. beginning with sectoral investment plans). Securing country ownership and achieving buy-in from relevant government stakeholders is crucial. However, this may only be possible to a limited extent due to capacity constraints, which can be addressed via capacity building activities to improve institutional capacities. Following a structured approach to identify financing needs and funding sources forms an important component of NDC investment plans. However, this can be challenging in environments facing capacity and data availability challenges. These can be addressed by putting robust MRV processes in place and undertaking relevant capacity building activities, also to strengthen institutional capacity.

For most building blocks, the most common challenges relate to limited capacity and resources followed by data availability. Low private sector engagement can be a barrier in terms of achieving meaningful stakeholder engagement and for determining appropriate policy and investment frameworks. The most common solutions are capacity building, strengthening institutional capacities, and MRV (with external support if necessary). Prioritising therefore these solutions can be conducive towards effective NDC investment design. Many of these solutions are building blocks themselves, showing that the building blocks are interconnected and mutually reinforcing.

Figure 2 includes arrows to show how the different building blocks are connected. For example, strengthening institutional capacities helps to ensure that the NDC investment plan is based on the unique characteristics of each country, while maintaining its effectiveness. It also helps ensure country ownership of the NDC investment planning process. Strengthening institutional capacities is also conducive to following a structured approach focused on the identification of investment requirements and funding sources to meet NDC goals. It also helps support other key processes like the alignment with national development plans, putting the right policies and financial instruments in place, collecting and using learnings on impact, and supporting the dynamic and iterative process between NDC and NDC investment plan updates.

MRV strategies are also crucial in supporting a structured approach as they can address potential data limitations. Moreover, MRV strategies facilitate the collection and use of learnings on impact of NDC investment plans and support a dynamic and iterative process for future updates. MRV strategies, the collection and use of learnings on impact, and dynamic and iterative processes are interlinked as they support and reinforce one another.

The diverse links between the different building blocks of NDC investment plans should be considered by policymakers and practitioners when deciding which building blocks are relevant in their country context and which actions need to be taken to incorporate them successfully.

Apart from identifying the key challenges in investment planning and solutions to address them, policymakers and practitioners need tools to assess to what extent the different building blocks for NDC investment design are being considered. Figure 3 outlines key indicators to measure progress towards the implementation of each NDC investment plan building block identified in this study.

For example, progress toward achieving country ownership and buy-in may be measured by assessing whether local actors (e.g. the Ministry of Finance and local government) play an active role in all stages of the process, the NDC investment plan is adopted by the responsible ministry, findings are frequently communicated to the public and relevant stakeholders, and whether there is a general knowledge of the plan and its aims among relevant stakeholders. When it comes to following a structured approach, suggested indicators of success include: all activities being costed, finance gaps and funding sources being identified, an absence of data gaps, the ambition of the NDC investment plan corresponding with available resources to implement it and all relevant stakeholders being informed about it.

Figure 3 can serve as a tool for practitioners and policymakers designing NDC investment plans and can be adapted to reflect each country's priorities and unique circumstances.

The sections that follow introduce insights from the different country case studies on the status of NDC investment plan design and on how the different building blocks are being considered.

Figure 2
Main building blocks for NDC investment plans with accompanying limitations and proposed actions.

Source:
Own illustration (adelphi)

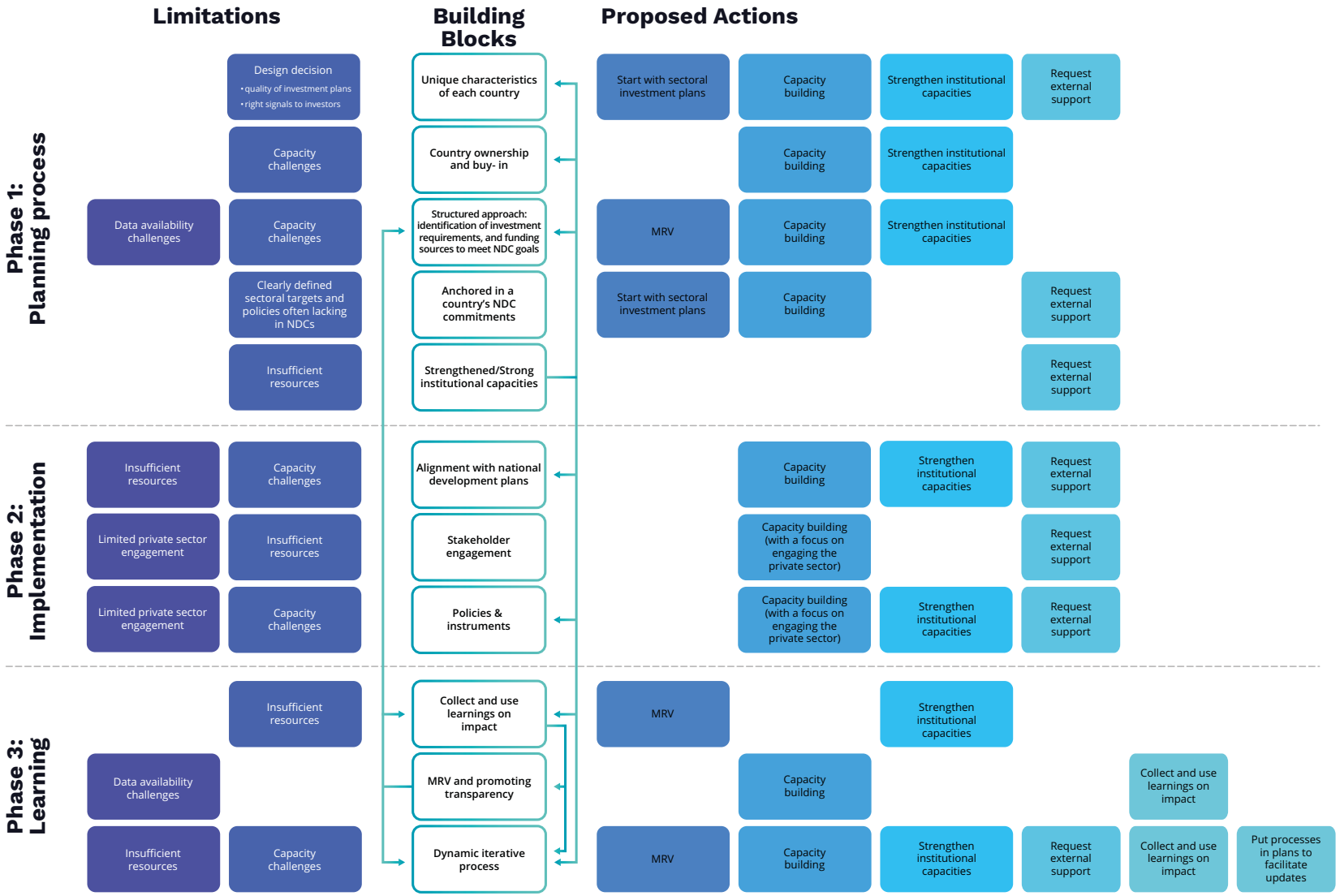
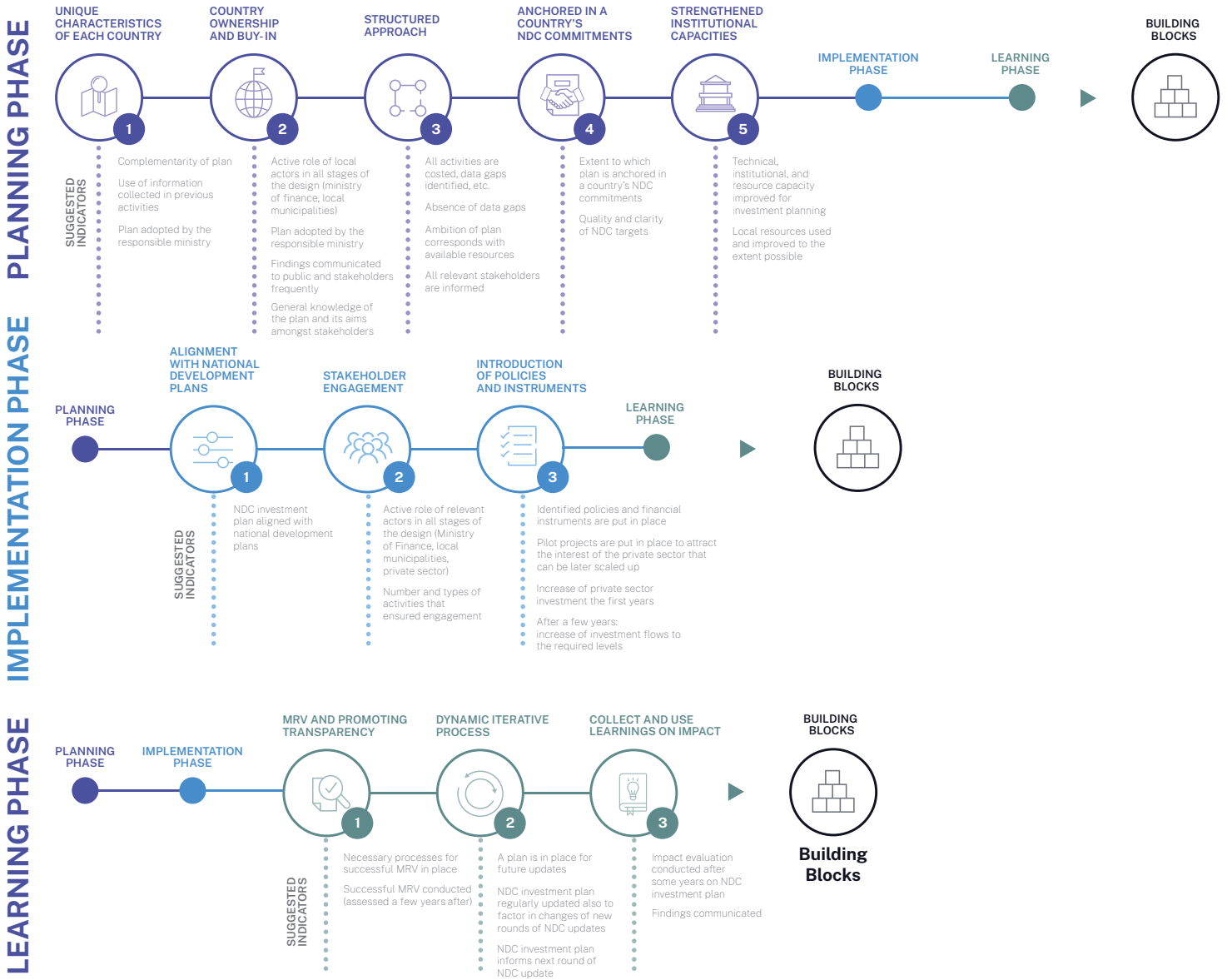


Figure 3
Building blocks of NDC investment plans and suggested indicators of promoting success.

Source:
Own illustration (adelphi)



Georgia
Kazbegi
04

4 Georgia

4.1 General country background

As a member of the PA, Georgia submitted its first NDC in 2017. In its updated NDC, submitted in 2021, the country committed to a 35% reduction in GHG emissions (compared to emission levels in 1990) by 2030 and to deeper reduction (by 50-57%) conditional on international support (NDC, 2021). Sectoral emission reduction targets were put in place as part of this process for the following sectors: transportation, buildings, energy generation and transmission, agriculture, industry, waste and forestry (NDC, 2021), with the biggest opportunities identified for the transport and energy sectors (Interview 7). The next NDC update will be completed in 2025 (Action Plan, 2021). This document is expected to set out more ambitious targets and to focus more on adaptation as well as health and social aspects compared to the previous versions (Interview 5).

The key actor responsible for the design and implementation of climate policy in Georgia is the Ministry of Environmental Protection and Agriculture, through the Environment and Climate Change Department and the Climate Change Council. The latter was established in 2021 to engage several ministries and coordinate collaborative efforts towards addressing climate issues (NDC, 2021). Other important entities include the Ministry of Finance that plans national funding via the state budget. Different ministries like the Ministry of Economy and Sustainable Development, the Ministry of Internal Affairs, the Ministry of Regional Development and Infrastructure, as well as the Agriculture and Rural Development Agency and relevant municipalities could take on active roles in the development and implementation of climate projects. Although no designated national fund exists yet for climate investments, the role of certain state funds like the Georgian Energy Development Fund and the Municipal Development Fund is central for financing such activities.

Georgia is an upper-middle income country (NDC, 2021) and in recent years has undergone several economic reforms (e.g. deregulation, tax reforms) to create an enabling environment for private investments (OECD, 2018). As a result, there was a threefold increase in overall private investments in the country from 2010 to 2019. This favourable environment also positively affected climate investments (NDCIP, 2022).

Policy support has been developed and put in place with the specific aim of incentivising climate investments, benefiting especially the transport, industry and energy sectors. This includes tax benefits for the import of electric and hybrid vehicles and other benefits like the reduction of fees (e.g. parking fees for electric vehicles), establishing clear conditions for public-private partnerships in the energy sector and putting in place laws promoting energy efficiency in small and mid-sized enterprises (SMEs) and industry through incentivisation. There are already some signs of success like an increase in electric and hybrid vehicles, and investments in renewable energy. However, it is widely agreed that more needs to be done, including the expansion of such measures to other sectors (NDCIP, 2022).

4.2 Status of climate finance

Georgia will require 13 billion Georgian Lari (GEL) to meet its NDC mitigation commitments (8 billion for the unconditional and 5 billion for the conditional target), while 4.8-6.4 billion GEL will be required for adaptation activities. A total funding gap of 208 million GEL has been estimated for the unconditional targets. 95% of the total finance gap is in the energy sector, followed by the transport (1.3%), building (0.8%), agriculture (1.5%), and waste (1.4%) sectors (NDCIP, 2022).

From 2010 to 2019 Georgia received 2.19 billion (GEL) in total **bilateral climate finance**, mainly to support the energy sector (45%). The main donors contributing bilateral finance have been Germany, the European Commission, France, the United States, Switzerland, Austria, and Sweden. Most of the support came in the form of grants (93% of projects) followed by concessional loans (6%) and equity investments (1%), with the size of loans being the highest (NDCIP, 2022).

From 2010 to 2019, Georgia received 2.98 billion GEL in **multilateral finance, mainly through grants**. Among the different multilateral climate funds, the GCF contributed 56% of the total finance. Other important contributors included the Global Environment Facility (GEF) (16%), the Eastern Europe Energy Efficiency and Environment Partnership Fund (E5P) (13%) and the European Fund for Sustainable Development (EFSD) (13%). The energy and forestry sectors received the most funding. International financial institutions channelled 28.35 billion GEL into the country from 2010 to 2022, predominantly in the form of loans (NDCIP, 2022).

Private investment is not tracked by the government, leaving levels of private climate finance flows unclear. Overall, significant private finance has been raised in the country from the Global Climate Partnership Fund. This is a public-private partnership focusing on developing and emerging economies that mobilises private investments for climate change mitigation and sustainable growth using public funding. This happens via national financial institutions. In the case of Georgia, this is via Basisbank and TBC Bank. The main areas of operation are energy efficiency and renewable energy for SMEs and households. A number of national companies are also exploring opportunities for climate change investments in novel sustainable industries that are emerging (NDCIP, 2022).

Overall, the level of climate finance that is currently available is insufficient to meet the NDC targets, which are expected to increase in ambition in the 2025 NDC update. There is also evidence of a lack of substantial financial commitment from the private sector (Khardziani, 2023).

4.3 Selected strategic documents in place

4.3.1 The Climate Change Strategy and Action Plan

The Climate Change Strategy and Action Plan (Action Plan, 2021) outlines pathways to meet the unconditional 2030 GHG emissions reduction targets for climate change mitigation, determined in the updated NDC. It is considered a key national document for climate policy and the closest document the country has to an NDC investment plan (Interview 2). Its stated objectives correspond well to those of NDC investment plans, given the strategic role the document aims to play in mobilising climate investments:

(Action Plan, 2021, p. 9)

"The Climate Strategy and Action Plan provide a means of demonstrating to the international partners and investors that Georgia is committed to the implementation of its Updated NDC."

The Action Plan is designed for three-year cycles. The first, 2021-2023 Action Plan developed in 2021 aimed to support the implementation of the priority mitigation actions for 2021-2023. The document includes detailed budget requirements per activity and information on budget gaps, funding sources, implementing actors, and timelines. The plan does not include an analysis of how to address the funding gap. For its design, the plan involved all relevant ministries responsible for its implementation and there was significant stakeholder engagement and consultation (Action Plan, 2021). However, as one expert highlighted, the involvement of the private sector was less pronounced (Interview 2).

4.3.2 The NDC Financing Strategy and Investment Plan

The NDC Financing Strategy and Investment Plan was published in 2022, commissioned by the EU and UNDP, and implemented by one international (Gauss international) and one national (Georgia's environmental outlook) actor (NDCP, 2022a).

The document aims to establish a financing framework to meet the country's mitigation targets as specified in its NDC. Using the Action Plan and NDCs as a basis (Interview 2), it developed guidelines and strategies to identify and address gaps and barriers impeding effective climate financing. The document assesses financial needs (including costing for the different mitigation actions) and existing gaps for each priority action, identifies funding sources, presents a comprehensive strategy to bridge financial gaps, and an implementation roadmap. There are also recommendations for designing a robust MRV system for evaluating and updating the document on a continuous basis.

Key stakeholders were involved throughout the design process. This included a kick-off meeting to make stakeholders aware of the project, ongoing consultations with different institutions, interviews with relevant actors for data collection, and a final workshop to communicate findings and validate the strategy. Moreover, as part of the process of designing NDC financing, several stakeholders were trained on a budget tagging methodology that was developed (Interview 8). The assessment of investment needs was mainly based on desk-based research, with stakeholder interactions then being used for validation purposes (Interview 8).

A new NDC investment plan informed by the country's NDC 3.0 is currently under consideration and would be commissioned through the NDC Partnership processes (Interview 2; 7; 8). However, it remains unclear if this will move forward (Interview 7).

4.4 Main barriers for climate finance mobilisation to meet NDC goals

Absence of a unified national policy framework on climate change for the mobilisation of financial resources. In Georgia, climate change is not consistently treated as a distinct policy area or integrated into the national framework through a comprehensive strategy. While several policy documents address climate change, it is not uniformly included as a key aspect across national, sectoral, and regional policies. Consequently, there are presently no dedicated national funds to support climate-related investments. Existing state funds lack a specific portfolio for green investments (NDCP, 2022a).

Climate change should be incorporated into the national policy framework via a comprehensive strategy that outlines the country's intended direction. This strategy will serve as a reference point for linking shorter-term documents that detail specific actions. Additionally, Georgia should incorporate NDC implementation into its national development policy cycle.

In Georgia, **assessment of investment needs and inadequate tracking of climate finance has been inconsistent**. This hinders accurate evaluation of investment needs for climate action and limits the integration of climate change into the state budget. Without this transparency, donors are often reluctant to provide funding. Lack of data was also highlighted as a limitation for the design of both the Action Plan and the NDC Financing Strategy and Investment Plan (Action Plan, 2021), making the documents less comprehensive and descriptive at points (Interview 4; 6; 7; 8). Climate finance tracking is conducted sporadically and on a project-by-project basis, often depending on external support (NDCP, 2022a). This also holds for tracking the implementation of planned activities. As of Q1 2025, very few activities listed in the Action Plan had been fully implemented and for many there was a lack of information regarding their status (Khard-

ziani, 2023). Local auditors to identify the environmental character of projects are also in short supply. Clearer criteria to identify green projects and green investments are needed (Interview 6).

A more structured approach to collect climate finance information is required (Khardziani, 2023). Involving different ministries in the development of future strategies is also crucial to overcome data confidentiality issues, as otherwise ministries may be reluctant to share information on their budget (Interview 8).

Some steps have already been taken to address this barrier. The national bank of Georgia is developing a sustainable finance taxonomy that will be mandatory for banks reporting on their activities. This will include classifications for both "green/climate" and "social" finance (Interview 1). For the state budget, climate tagging is being introduced by the Ministry of Finance with the support of the World Bank (Interview 1; 2; 4). A centralised system to track private sector investments should also be established. A unified, open, and transparent online platform with information on different climate actions, including their implementation status, funding sources and geographical information would represent a major step forward (Khardziani, 2023).

There is a **finance gap, particularly regarding private sector investments**. The scarcity of affordable, long-term capital within Georgia's private sector remains a significant obstacle to encouraging investments in climate-related projects (OECD, 2018). A range of innovative financial incentives and funding mechanisms are available to the private sector, but many are not used. These include corporate bonds, project bonds, guarantees/insurance, fund seeding, securitisation, and pooling/aggregation (NDCP, 2022a). There are also no strong public-private partnerships to drive investments (Interview 7). High collateral requirements and minimum loan thresholds render access to finance expensive and reduce access to loans for climate investments, especially for SMEs (OECD, 2018). Other barriers include a lack of capacity and expertise to tap into certain sources of funding (e.g. accessing international climate funds) (Interview 4). The country is also facing several macroeconomic challenges that could worsen the finance gap (NDCP, 2022a).

There is also limited interest from the private sector (Khardziani, 2023). Awareness among non-financial private companies regarding the "business case" for green projects is low (Interview 1; 5). Often green and climate regulations are regarded as a burden and not as an opportunity for new investments (Interview 7). It is therefore also difficult to engage the private sector in the design of climate strategies (Interview 7).

Regulation and incentivisation to promote private finance and the use of financial instruments should continue. More targeted trainings for private sector will be needed (Interview 7). There is a consensus amongst experts that established practices that have worked in other contexts can be used to mobilise the private sector (Interview 3; 7).

4.5 Main lessons learned for the design of NDC investment plans

1. **Undertake a structured approach in the design of NDC investment plans:** The Georgia Action Plan and the NDC Financing Strategy and Investment Plan provide good examples of a structured approach with clearly articulated granular information on finance needs, budget gaps, funding sources, implementing actors, and timelines. The latter also includes a comprehensive strategy to bridge financial gaps and an implementation roadmap.

2. **Manage ambition to correspond with available resources:** One limitation of the Action Plan was its ambition, as it was: "too expensive with too many activities" (Interview 2). This led to difficulties in implementation. For many activities the budget

was not defined, and it was also not possible to secure the funding at a later stage. Taking steps to ensure that such strategic investment documents are realistic in their ambitions is therefore a key lesson learned, and alignment with national development plans can help to achieve this.

3. **Ensure stakeholder engagement throughout the whole process:** Involving key stakeholders throughout the preparation of the Action Plan and the NDC Financing Strategy and Investment Plan had a positive impact on the design of both documents, but the limited engagement of the private sector and the Ministry of Finance leaves room for improvement in future processes.

4. **Engage the private sector:** The NDC Financing Strategy and Investment Plan was mainly aimed at the government and the different line ministries, and less so at the private sector (Interview 7). This is a limitation as private sector involvement is a key to effective investment planning (Interview 7). To address this, the government may consider putting in place new programmes and initiatives to attract the attention of businesses (Interview 1).

5. **Involve the Ministry of Finance as much as possible:** Given its crucial role in budget planning, the Ministry of Finance should be actively engaged in the design of strategic documents like the NDC Financing Strategy and Investment Plan and the Action Plan going forward (Interview 2).

6. **Improve MRV processes and data quality:** The NDC Financing Strategy and Investment Plan highlights the importance for designing a robust MRV system. Initiatives to create a sustainable finance taxonomy and introduce budget tagging and the training of relevant stakeholders on these methodologies are steps to the right direction.

7. **Ensure adoption and communication of NDC investment plans (country ownership and buy-in):** As of Q1 2025, the NDC Financing Strategy and Investment Plan had not yet been adopted and widely communicated (Interview 1; 2; 6). When an NDC investment plan is commissioned and adopted by the government it receives more attention, including from the private sector (Interview 7). Stronger country ownership can also be achieved if local actors are not just consulted but also directly involved in designing the plan. Further, it is important to ensure that both national and subnational policymakers (regions, cities, municipalities) are implicated as implementation ultimately takes place at the local level (Interview 7). Stronger engagement across government can also facilitate alignment between the investment plan and previous documents and strategies and help to avoid process and document duplication (Interview 2; 4; 5), which is crucial given the capacity and resource constraints many countries face (Interview 5).

8. **Ensure the right policies and financial instruments are in place:** An NDC investment plan on its own is not sufficient. NDC investment plans should be regularly updated and communicated, with key findings communicated, promoted and advocated for on an ongoing basis, not just when documents are published, to attract finance in priority sectors (Interview 5). More regular updates can also ensure the plan remains relevant and addresses data gaps (Interview 8). Experience shows the value of finding clear and concise formats to convey strategies, information and key messages (Interview 8). Finally, a strategy alone is not sufficient to mobilise the required levels of finance. It should be complemented by other actions to create an enabling environment and demonstrate commitment to climate action. These include implementing relevant policies, unlocking financing and financial instruments, a developing a pipeline of bankable pilot projects to attract the interest of the private sector, and putting in place pilot projects in place that can be scaled up (Interview 1).

Rwanda

Akagera National Park

05

5 Rwanda

5.1 General country climate policy background

Rwanda stands out in the East African region for its heightened vulnerability to climate-related risks, a situation exacerbated by its economy's significant reliance on natural capital. This dependence makes the nation more susceptible to environmental changes compared to its Sub-Saharan African counterparts and neighbouring countries within the East African Community (EAC). The vulnerabilities are not just hypothetical, but are playing out through increased floods and subsequent landslides in higher altitude areas and increasing drought leading to damages in the eastern province (World Bank, 2021b).

Recognising these vulnerabilities, Rwanda has been proactive in its climate policy initiatives, aligning itself with global efforts to combat climate change. In its commitment to international climate agreements, Rwanda is a signatory of the PA and has taken substantial steps to meet its obligations. The country submitted its first intended NDC in 2015 and submitted its revised this NDC in 2020 and is currently working on its NDC 3.0, expected in the first half 2025 (Interview 11), most recently in January 2025 having launched a nation-wide consultation process to ensure an inclusive approach (Ministry of Environment, 2025). The 2020 revised NDC outlines Rwanda's dedication to reducing GHG emissions by 16% unconditionally by 2030, with the potential to extend this reduction to 38% if international support is secured against business-as-usual projections (Republic of Rwanda, 2020). Before joining the PA, Rwanda already had a robust climate policy framework, with the initial Green Growth and Climate Resilient Strategy (REMA, 2022a) adopted in 2011, which provided guidance for the government on how to achieve green growth. The strategy was followed up by the creation of the Rwanda Green Fund, a nationally managed fund that has to date attracted USD 250 million in public and private capital to invest in scalable, high-impact green solutions. The fund plays a catalytic role in attracting further funding (Interview 14).

These commitments were followed by further integration of climate into different national strategies such as the Vision 2050, the National Biodiversity Strategy and Action Plan, and the creation of the Kigali International Finance Centre (with climate in mind) which makes it easier for foreign investors to come into the country. This initiatives taken by Rwanda positioned it well to among other things be chosen as a pioneer country for the Taskforce on Access to Climate Finance (Interview 14), which addresses "climate vulnerable countries' concerns by delivering concrete, system-wide changes in access to finance for climate action based on countries' own national plans and priorities" (FCDO, 2021) and more importantly further provides financing to (further) develop national plans and priorities. This, combined with other internal push factors to further involve the Ministry of Finance and Economic Planning (MINECOFIN) in leading the efforts on leveraging the financing needed in an integrated fashion to reach NDC targets, has led to a consensus that growth and economic development needs to be green. There is, and has been for the last few years, now a concerted effort to facilitate green growth by aligning financial services to this goal to streamline, de-risk, and reduce the cost of (green) investments in the country.

5.2 Status of climate finance

The cost of implementing Rwanda's NDC is estimated at USD 11 billion. Of this 40% is unconditional and to be financed through domestic efforts, and 60% is conditional upon international support. The sum is significant, representing 7% of GDP a year over a ten-year period (2020-2030) (IMF, 2023). In terms of current trends, in the ten years before that, climate finance has not reached a quarter of that, with around USD 100 million to USD 150 million a year. Making this leap remains the biggest challenge and the underlying impetus behind the structures that are being put in place to operate at the scale needed to achieve the NDC targets (Interview 11). Though there is momentum: the NDC implementation framework has secured USD 4.5 billion for the 2020–25 period (MINECOFIN, 2024a). The amount is the value determined necessary to execute a robust government-developed pipeline of 550 projects. Grants and public financing account for 89% of total financing (State of blended finance), showing there is room to grow in terms of mobilising public-private partnerships. Initially, leveraging larger amounts, for more capital-intensive projects, will necessitate further private sector engagement. This still leaves a USD 6.5 billion gap for the 2020-2030 period to reach the conditional target (MINECOFIN, 2024a).

Currently, approximately 5.4% of public expenditure is allocated to environmental and climate change sectors, amounting to USD 217.6 million annually, up from 2.1% in 2008–2012. In 2021, Rwanda received USD 636.4 million in development finance commitments, with 52% allotted for adaptation and 48% for mitigation (MINECOFIN, 2024a), closely resembling the amounts called for in its NDC. Most (88%) was concessional and developmental, with 9% non-concessional and 4% private concessional. This split will become more challenging going forward as Rwanda develops further, resulting in an on-going tightening in external grant and concessional financing conditions, necessitating them to increase the fiscal space through reforms (IMF, 2023), efforts which Rwanda has acknowledged and is actively undertaking (Interview 12).

The private sector contributed USD 2.1 billion in climate and nature investments in 2022, including USD 399 million in foreign direct investment, showing potential for significant climate and nature financing (MINECOFIN, 2024a). Further efforts to increase private sector participation are actively being pursued. In 2022, the Government of Rwanda published the Private Sector Mobilisation Plan for Climate Action (PSMP-CA) (REMA, 2022b), which provides an overview of the strengths, weaknesses, opportunities, and threats of engaging the private sector in financing of climate action in Rwanda, which acknowledges that there is both potential to grow investments but that there is a general lack of awareness among some financial actors and that institutional hurdles such as high interest rates/collateral make it difficult for those who are interested to pursue further investments. These both technical and institutional challenges are being actively addressed by the actors involved in Rwanda's climate finance space.

5.3 Selected strategic documents in place

As outlined in the introduction, Rwanda has been developing strategic documents to guide their climate policy for the last several decades. The section here will focus on two documents seen as critical for facilitating investments needed to unlock their NDCs, the first, which builds on its NDC implementation plan, is the Climate and Nature Finance Strategy which is regarded as Rwanda's NDC Investment Plan, and the second is the country's Green Taxonomy.

5.3.1 Climate and Nature Finance Strategy

The Climate and Nature Finance Strategy (CNFS) (MINECOFIN, 2024a) serves as Rwanda's NDC Investment Plan, providing a structured approach to integrating climate and environmental priorities into national development. Spanning from 2024 to 2030, the CNFS outlines key strategies to mobilise both public and private investments, crucial for meeting climate and nature-related goals. The CNFS neatly summarises all of Rwanda's context, targets, aims, efforts, actors, and policies to realise the financing needed to reach its NDC targets and put the country on track for green growth and sustainable development.

The strategy emphasises the role of development partners, the Government of Rwanda and the private sector in driving climate and nature investments through innovative financial mechanisms. It includes a timeline for implementation (p. 46), detailing activities and their schedules to ensure systematic progress. Additionally, the CNFS identifies various financial instruments (p. 50) that can be leveraged to support these initiatives, offering a comprehensive framework for resource mobilisation.

A dedicated Climate Finance Department within the Ministry of Finance and Economic Planning is tasked with coordinating these efforts, enhancing fund sourcing, and aligning policy measures. This department aims to improve collaboration across government sectors and with international partners, ensuring effective implementation of the strategy. The CNFS also incorporates monitoring and evaluation mechanisms to track progress and maintain accountability, positioning it as a cornerstone of Rwanda's climate policy framework.

5.3.2 Green Taxonomy

The Rwanda Green Taxonomy (MINECOFIN, 2024b) is a framework developed to guide the country's transition towards sustainable economic activities. It serves as a classification system to define and standardise what constitutes a green investment, aiming to attract the investments required to meet Rwanda's 2030 Climate Action Plan goals, as outlined in its NDCs. This taxonomy is instrumental in preventing greenwashing by establishing transparency and comparability of sustainable investments, thereby linking financial markets with climate objectives.

The document outlines specific criteria and methodologies for various sectors, including energy, transport, and agriculture, to ensure alignment with environmental goals such as climate change mitigation and adaptation. Being developed in phases, the Green Taxonomy involves collaboration among government ministries, financial institutions, and international partners. It is supported by a governance framework that ensures its operability within Rwanda's regulatory environment.

5.4 Main barriers for climate finance mobilisation to meet NDC goals

The interviews indicated a range of different barriers to mobilising climate finance, with different barriers affecting different types of prospective capital. As for any developing country there is an on-going challenge of mobilising capital for climate investments while balancing the rational of development in other sectors in a tight fiscal space. The concerted efforts to enlarge the pie and integrate a climate lens into development is an active effort in the country to ensure an intertwining of the two.

The sheer scale of the necessary investment was the primary challenge mentioned by several interviewees (Interview 11; 13; 14). As illustrated, even though governance processes have been set-up, financial markets are actively being tailored to climate

investments, there is technical assistance, on-going capacity building efforts, funding diversification strategies, political buy-in, special agencies and investment funds, inter-ministerial coordination led by the finance ministry, and other efforts, the amount of funding necessary to reach the targets is much higher than what has been mobilised in the past, and a significant portion of it needs to come from the private sector or as concessional or debt financing to be in line with Rwanda's development status, what is realistic in attaining in development assistance, and what can be allocated in government budgets.

Other barriers to climate finance investments in Rwanda are the relatively small market size limiting the potential for growth and scale (Interview 13) and high interest rates, which can lie around 15%. This restricts the ability of especially SMEs to afford loans. Beyond interest rates expected collateral on loans can often exceed 100% and run as high as 150% (Interview 11). The high interest rates are a result of a different factors ranging from depreciation of currency , to the perceived risk of doing business. Further, more of nascency challenge, but not so much a barrier in that it is not being addressed, there is significant capacity building that needs to be done to sensitise private sector actors, both investors and commercial banks to role of the Green Taxonomy and what ESG standards there are put in place, why these matter, how they reduce risk (and thereby interest rates), and what applications that account for these and subsequent compliance look like. Development partners are supporting these efforts (Interview 11; 12; 13; 16).

5.5 Main lessons learned for the design and implementation of NDC investment plans

1. **Showcasing the economic imperative of climate integration in development plans and ensuring buy-in:** The Ministry of Finance and Economic Planning was consulted on studies that showed the economic costs of not integrating a climate approach in their development plans. This made the business/economic case of inaction on climate very clear which assisted in mobilising their leadership, which further spurred central coordination on climate finance from an actor with authority to drive whole of government change (Interview 11; 12; 14).

2. **National ownership & collaboration:** NDC investment planning was conducted in an integrated fashion with strong national ownership with key ownership coming from the Ministry of Finance and Economic Planning. Their buy-in was key to make sure climate was integrated into overall development planning and paved the way for the establishment of a dedicated Climate Finance Department within in the ministry. This department will play a crucial role in coordinating and managing climate finance initiatives as well as implanting the CNFS, ensuring that resources are utilised efficiently and effectively to drive sustainable development. By leveraging existing institutional mechanisms and fostering collaboration among stakeholders, the department is well positioned to help maximise the impact of climate and nature financing efforts, ultimately promoting green growth and resilience across sectors.

3. **Integrated planning:** All the work that Rwanda has been doing in the climate (finance) space over the past several decades is iterative and has aided in building a robust and holistic approach to making sure climate is embedded in institutional and financial structures in the country and is clearly communicated both internally and externally and most importantly as a cornerstone of the country's sustainable development agenda. This is true as well for its macroeconomic planning with the country at a challenging crossroads (reducing reliance on official development assistance, meeting national fiscal needs, while maintaining stable debt levels) and climate investments are being leveraged as an opportunity to help facilitate this transition to a middle-income country.

4. **Facilities to pool and spur funding:** The Rwanda Green Fund and Rwanda Development Bank provide different financial instruments (recoverable) grants, concessional finance, incubator, loans, guarantees, leasing) and together created a special green investment facility Ireme Invest an example of how the government can use blending instruments to mobilise private sector capital.

5. **On-going capacity building, technical assistance, and targeted projects supporting existing infrastructure:** Rwanda, through their active leadership have made it easy for international donors to target funds to help support specific complementary tools such as e.g. GIZ funding the Green Taxonomy and efforts to support capacity building for its implementation. Their on-going commitment and vision provide useful spaces for continued engagement of the international community, while demonstrating their own national ownership of the climate finance agenda.

Jordan
Wadi Rum

06

6. Jordan

6.1 General country background

Jordan, officially the Hashemite Kingdom of Jordan, is a constitutional monarchy in the Middle East with a highly urban, youthful population of approximately 11.4 million (UNFPA, 2025). It is a lower-middle-income country, with a high score on the Human Development Index (UNDP, 2024a). Jordan' workforce is well educated and highly skilled compared to other countries in the region, making the country attractive to foreign investors. Nonetheless, slow job creation and high unemployment rates, particularly among young people, remain an issue. Despite its lack of natural resources, the country has a broad economic base, and expansion of its service, industrial and tourism sectors enabled the economy to return to pre-pandemic levels of growth in 2023 and 2024 in spite of the challenges posed by continuing regional instability and large influxes of refugees in recent years (World Bank, 2024). Overseas aid and loans have played a key role in the country's resilience to these developments, and there are concerns about the sustainability of the Jordan's high debt to GDP ratio (114% in 2023) (Bertelsmann Stiftung, 2024; El-Sharif & Muasher, 2024).

As a semi-arid country already experiencing significant socio-economic challenges due to water scarcity (UNICEF, 2022). Jordan is highly vulnerable to the impacts of climate change, such as rising temperatures, decreasing rainfall, and more frequent incidents of drought. The negative impacts of climate change on its natural and fixed assets, its infrastructure, and on water and energy demand and prices represent major development challenges for key sectors (GoJ, 2021a), and strong climate policy action and investment in the water, energy, agriculture, transport and urban development sectors are crucial to the country's future (World Bank Group, 2022).

Jordan is already well advanced in terms of developing its climate policies and is considered a leader in climate action in the region and on the world stage, particularly with regard to promoting the transition to renewable energies (World Bank Group, 2022). It submitted NDCs in 2016 and 2021, with its third NDC due in 2025. It has a National Adaptation Plan, a National Climate Change Policy (2022-2050), and a Long-Term Strategy is currently under development, with support from the World Bank (GoJ, 2021b; GoJ, 2022a; NDCP, 2023a). There have also been concerted efforts to mainstream climate action and sustainable development into national development strategies, including the National Green Growth Plans (NGGP) (2021-2025) at national and sectoral level (GGNAPs), and the goal to "apply sustainability principles to economic growth" in Jordan's guiding Economic Modernisation Vision (2022-2030).

With regard to mitigation, Jordan commits in its most recent NDC (2021) to an unconditional macroeconomic target to reduce the GHGs emissions by 5% by 2030 and a conditional GHG emission reduction target of 31%, raised from 14% in the first NDC, compared to a Business As Usual scenario (GoJ, 2021a). The government plans to secure USD 565 million by its own means to meet the unconditional target, with a further USD 7.54 billion required to finance the mitigation actions to reduce emissions by an additional 26%. In terms of financing, the NDC states that "Jordan's fiscal situation demands that it finds private sector solutions..., and that it incentivises these solutions as part of its development model, to build in resilience and economic growth." (GoJ, 2021a)

The NDC directly links to the National Climate Change Adaptation Plan of Jordan (NAP), also published in 2021, which was developed to "mainstream adaptation measures into development planning processes within all relevant sectors in Jordan" and outlines sectoral adaptation programmes and measures for water resources management, and agriculture and food security, including adaptation measures with mitigation co-benefits (GoJ, 2021b). The NAP includes a financing strategy but does not place a figure on esti-

mated financing needs. Overall, the World Bank has estimated the country will need to invest USD 9.5 billion by 2030 to fully implement the priority actions it has identified for its climate-resilient and low-carbon development (World Bank Group, 2022).

In 2019, the Ministry of Environment issued Climate Change Bylaw No.79 to put in place the governance arrangements for coordinating the implementation of Jordan's mitigation and adaptation measures across government. Under the bylaw, the lead ministry coordinating climate change action is the Ministry of Environment. The Ministry chairs the National Climate Change Committee (NCCC) that brings together 16 other line ministries and is the focal point for the UNFCCC and responsible for the preparation and tracking of the NDCs.

In its fourth National Communication to the UNFCCC (GoJ, 2023), the Jordanian government set out plans to further strengthen its governance of climate action. These include an update to the bylaw to better define the role and responsibilities of stakeholders and institutions, to establish formal arrangements for mainstreaming climate change into each sector, to establish a technical advisory body to the NCCC, and to formalise stakeholder engagement mechanisms and strengthen the participation of the private sector and vulnerable groups, as well as local government. Additionally, a Code of Corporate Governance will mandate sustainability reporting for public interest entities, while regulatory changes will enshrine governmental duties to address climate change. Stakeholder coordination will be improved through operational guidelines and capacity building, ensuring inclusive engagement in climate dialogues.

6.2 Climate finance status

Jordan is looking to leveraging financing from across multiple sources and channels to fund the priority actions under its NDC.

A 2023 analysis of climate and nature financing in Jordan revealed that public expenditure on these areas in 2021 was 482 million Jordanian dinars (JOD) (USD 680 million), with 58% directed towards water projects. While there was no available analysis on private financing, the International Finance Corporation (IFC) reported an average annual spending of JOD71 million on climate and nature from 2013 to 2023. Despite these efforts, there remains an annual financing gap of JOD 1,095 million (3.4% of GDP) for climate and nature initiatives. While grant support is essential to bridging this gap in the short term, the analysis suggested that 72% of the gap could be covered by conventional and innovative sources of public finance, and the growth of the private sector over the next ten years (Buso et al., 2023).

In terms of external support, Jordan remains reliant on overseas aid and loans and in 2023 its budget deficit totalled 5.1 percent of GDP or USD 2.6 billion. Among its international partners, the United Arab Emirates and the US were the largest donors of ODA, providing Jordan with USD 384.8 million and 323.8 million respectively in 2022 (Foreign Assistance, 2024). The US has also providing the country with substantial budget and military support, meaning its total aid to the country totalled USD 5.323 billion between 2019 and 2022 (Bertelsmann Stiftung 2024). In 2025, the EU announced a EUR 3 billion aid package for 2025-2027 (European Commission, 2025), and the country has a five-year partnership with the World Bank and a USD 1.2 billion programme with the International Monetary Fund (IMF) (S&P Global, 2025).

In terms of climate-related development finance, Germany, the World Bank, the European Investment Bank (EIB) and EU Institutions represented the largest donors in 2021 (providing USD 276 million, 161 million, 85 million and 62 million respectively). Just under half of this financing was provided in the form of grants (47%) and the water supply and sanitation sector received the most funding, followed by the government and civil society, and general environment protection sectors (OECD 2021). Jordan has also re-

ceived USD 160.5 million from the GCF in support of mitigation and adaptation projects in fields such as renewable energy, water efficiency, agriculture and integrated land management, as well as climate action at the subnational level and cities. Since 2023, green bonds have also been issued by leading private sector banks to provide financing for green projects in Jordan – the first supported USD 50 million by the IFC and blended finance co-investment from Canadian and Dutch funded IFC programmes (IFC, 2023). Alongside financial assistance, Jordan has received technical assistance via the NDC Partnership since 2017 to support the development and implementation of its NDC. This has included assistance in developing bankable proposals for projects that align with its sustainable development goals (SDGs) and development goals, and its NDCs (NDCP, 2021). Active donors via the NDC Partnership include France, the Netherlands and Germany (through GIZ and IKI), as well as the European Commission, EIB, FAO, GEF, IFAD, ILO, IRENA, IsDB, UNDP, UNEP, UNFCCC, UN Habitat, UNICEF, and the World Bank.

6.3 Selected strategic documents in place

While Jordan does not have an official NDC investment plan in place, it has developed a number of strategic documents to mobilise investment in support of its climate action and SDGs. This case study examines three plans and strategies that have played an important role in developing a pipeline of projects to support NDC implementation, and in creating a favourable environment for private sector investment in climate action.

6.3.1 Green Growth Action Plans

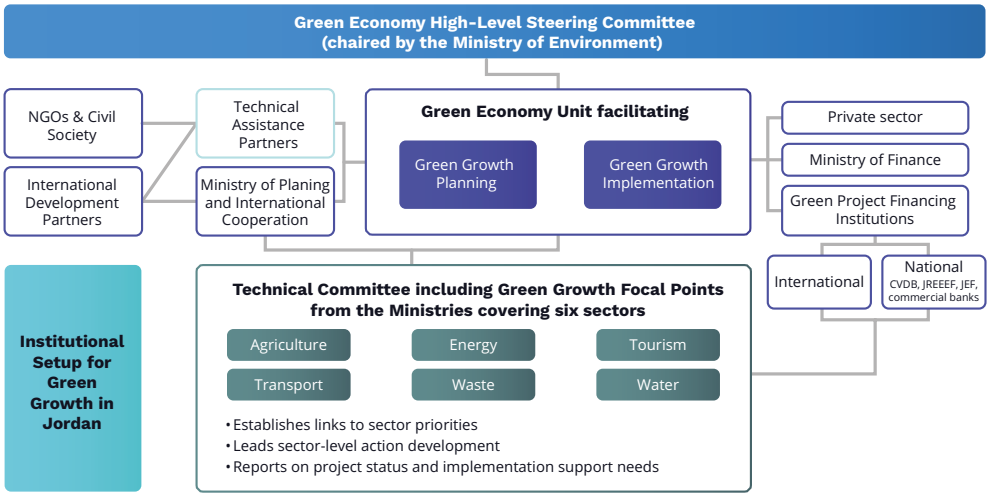
Jordan's Green Growth National Action Plans (GG-NAPs) have played a significant role in mainstreaming Jordan's sustainable development and NDC goals and embedding them into sectoral strategies (Interview 20). Green growth was established as a national objective in 2017 in the NGGP, which was later expanded into the GG-NAPs for 2021-2025. These plans sought to strengthen collaboration across government and integrate the country's green growth, climate change, and sustainable development objectives into strategic frameworks for priority sectors: agriculture, energy, tourism, transport, waste, and water. They included detailed descriptions of priority policy and investment actions and provide structured pathways for identifying investment requirements and opportunities for climate finance.

To support the implementation of Jordan's NDC and NDC Action Plan, the GG-NAP included climate change mitigation and adaptation as strategic objectives and outlined 53 relevant actions. Many of these were subsequently included in Jordan's NDC Action Plan with the aim of attracting donor and investor interest to support green projects and initiative. The total cost of implementation for all six GG-NAPS was estimated at USD 1.83 billion (GoJ, 2021c).

The GG-NAPs were developed in a highly collaborative approach, led by the Ministry of the Environment in collaboration with relevant line ministries and stakeholders. Sector-level green growth focal points were established, and ministerial leadership was engaged through the Higher Steering Committee for Green Economy to ensure endorsement. The Ministry of Environment facilitated action across various sectors, demonstrating its growing role in advancing green growth initiatives. The government also received technical support from the Global Green Growth Institute, which supported extensive stakeholder consultations conducted in 2018 and 2019 to align strategic objectives with existing sectoral priorities.

Figure 4
Institutional setup for green growth in Jordan.

Source:
GoJ, 2021c and adapted by adelphi



6.3.2 NDC Action Plan

Jordan's NDC Action Plan or Partnership Plan (GoJ, 2020), approved in 2019 and updated in 2020, was developed with support from the NDC Partnership's Climate Action Enhancement Package (CAEP), to implement action in the key sectors identified in the NDC – namely transport, energy, agriculture, health, water, and waste management. It included the identification of investment needs the use of a project prioritisation methodology including criteria linked to sustainable development and gender and a consultative process (NDCP, 2022b).

With support from the highest levels of government, including Jordan's Prime Minister at the time, H.E Dr. Bisher Al Khasawneh and, the plan was developed in a coordinated government approach, which involved setting up five Sectoral Working Groups that worked further to prioritise 35 actions based on impact, sustainable development potential, and gender and vulnerability considerations. In addition to preparing a Cost-Benefit Analysis Report for these actions, which put expected implementation costs at above USD 1 billion (GoJ, 2022b), the plan also included a Climate Finance Strategy Report to that provided a first indication of planned support from funders and development partners. For example, the plan was circulated via by the NDC Partnership to attract support from its international network of donors and partners. Since then, the government has proceeded to align sectoral plans and strategies with the NDC Action Plan and the country's Green Growth Action Plans, and to integrate priority actions in the sectors into the government's national development strategy, the Executive Development Programme 2021-2024 (GoJ 2023; NDCP, 2021; NDCP, 2022b).

Furthermore, the process was designed to increase the engagement of stakeholders beyond national government. For example, local governments and municipalities received technical support to create local Sustainable Energy and Climate Action Plans. This effort enhanced local capabilities and supported regional frameworks for climate action, offering valuable insights for ongoing collaboration with sector groups focused on identifying investment requirements (NDCP, 2022b).

6.3.3 Green Finance Strategy (2023)

Alongside the government, the Central Bank of Jordan (CBJ) is a central actor in terms of increasing green investment into the country. The CBJ's Green Finance Strategy 2023-2028, developed with technical assistance from the World Bank, therefore represents an important step towards mobilising green investment and investments supporting NDC goals in Jordan's financial sector. The strategy identifies the opportunities inherent in mobilising green finance for sustainable investments as one of the three core missions for the CBJ in engaging in climate action – especially given the size of the financial sector which represents more than 180% of GDP (CBJ, 2023). Six key areas are identified as key for mobilising green finance, namely capacity building and governance, risk identification and assessment, sustainable Islamic finance, fostering of inclusive green finance, micro-prudential supervision and regulations, and financial stability. The authors of the strategy note that if hypothetically the bank were able to green 20% of its total credit portfolio (USD 46 billion in February 2023), "it would more than cover the expected private sector share of Jordan's USD10 billion climate investment needs by 2030" (CBJ, 2023; Asktrakhan & Skarnulis, 2024).

Alongside these opportunities, the strategy also highlights the risks that climate change poses to the country's financial stability and the important role the CBJ can play in strengthening resilience to climate change – for example, "through climate-responsive insurance products as well as through microfinance solutions for more vulnerable people and micro- and small enterprises" (CBJ 2023). A third core area addressed in the strategy covers the climate-related risks and opportunities for CBJ's own operations.

6.4 Main barriers for climate finance mobilisation to meet NDC goals

With regard to the expansion of green investments and the green finance market in Jordan, the CBJ's Green Finance Strategy for 2023-2028 outlines several key barriers.

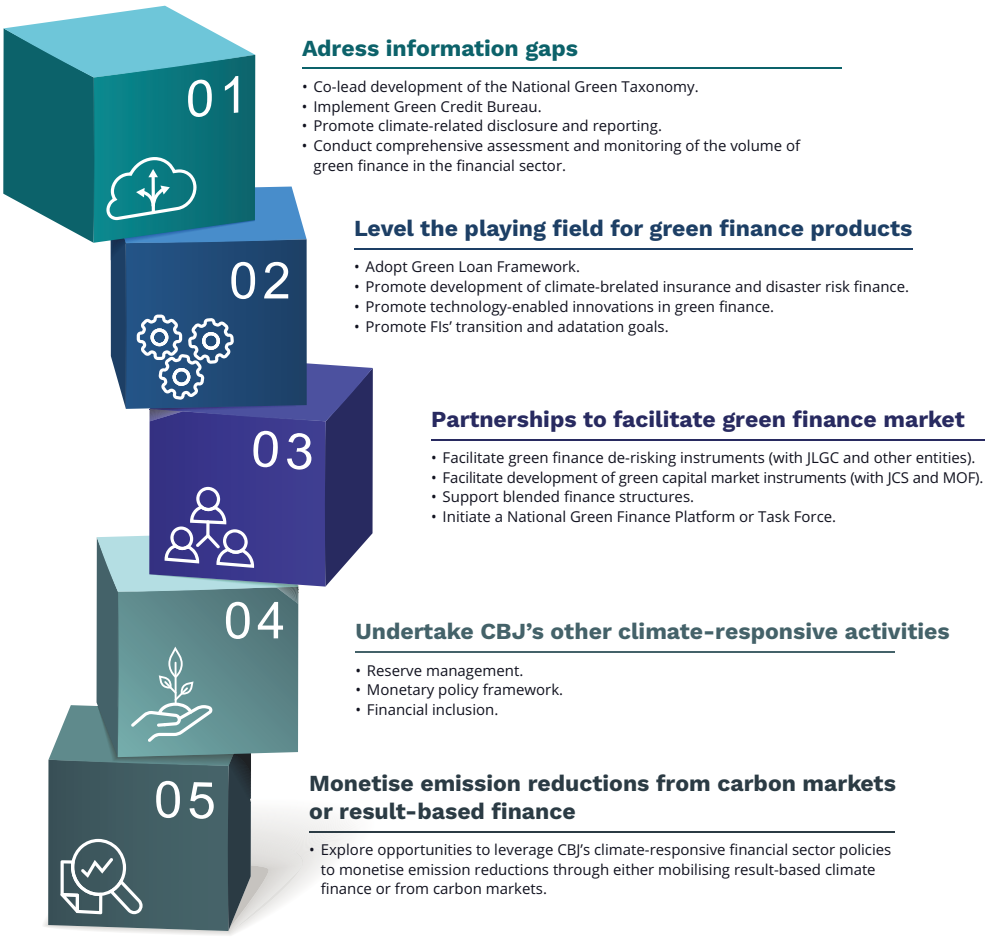
- **A lack of sufficient tools and capabilities among companies and banks to adequately manage and mitigate climate-related financial risks**. This gap highlights the need for enhanced capacity-building and the integration of climate considerations into financial decision-making frameworks.
- **High costs associated with obtaining information about the environmental impact of financial services**. This discourages both borrowers and financial institutions from engaging in green investments. A national green taxonomy to streamline the classification of green financing, thereby reducing information costs and facilitating access to green finance is currently in preparation to address this gap.
- **A need for further policy and financial de-risking measures** to create a favourable environment for private sector investments, including the establishment of a green credit guarantee programme and the utilisation of green blended financing structures (CBJ, 2023).
- **In the case of SMEs, a lack of strong management systems and high levels of informality** may also as a constraint in accessing green financing (World Bank Group, 2022).
- **Lack of mature bankable project proposals** that can attract climate and private sector finance. While there are initiatives to support capacity development and provide technical assistance, there is still a mismatch between the amount of financing available and the pipeline of projects that can attract this finance. (Interview 20)

- **Some sectors, such as the water sector, are not financially attractive to the private sector** (Interview 20). To overcome this barrier, innovative financing mechanisms and incentives must be developed to enhance the financial viability. These could include public-private partnerships and risk-sharing arrangements that make investments more appealing to private entities while ensuring the provision of essential services. One example here is Jordan's National Water Carrier Project, a major infrastructure initiative. Financed via a public-private partnership, the USD 4 billion project has leveraged financing from across government, development partners and the private sector to address the country's severe water scarcity.

To address these barriers, the CBJ has identified five key pillars to facilitate green finance mobilisation. For example, the process currently underway to develop a national green taxonomy to streamline the classification of green financing as an important step towards addressing some of these challenges, by reducing information costs and facilitating access to green finance (Interview 9).

Figure 5
Five pillars of the Central Bank of Jordan's engagement in facilitating green finance mobilisation.

Source:
CBJ, 2023, p. 159 adapted by adelphi



Note: CBJ = Central Bank of Jordan; FL = financial institution; JLGC = Jordan Securities Commission; MOF = Ministry of Finance

6.5 Main lessons learned for the design of NDC investment plans

Jordan's experiences in mobilising finance in support of the actions outlined in its NDC highlight several key lessons:

1. **Investment need identification and prioritisation:** Investment needs have been identified through successive strategies and plans, with the consultation processes for the sectoral GG-NAPS and the consultative process involving sector-specific working groups for the NDC Action Plan playing a key role. The NDC Action Plan outlined prioritised investments in sectors like energy, water, and health. A cost-benefit analysis of 35 priority actions assessed potential mitigation, adaptation, and co-benefits, using indicators to ensure alignment with national priorities.

2. **Coordinated investment planning and capacity building:** Jordan has continuously clarified and strengthened its institutional climate governance arrangements. NDC planning and implementation, led by the Ministry of Environment and the NCCC, takes a coordinated approach to mainstream national goals across sectors and on important nexus issues (NDCP, 2021). Processes have also included capacity building to promote inclusion and engagement of key stakeholders – for example of local government actors and the private sector.

3. **Political support and alignment with national policies:** Strong government support integrates climate action into national agendas like the Economic Modernisation Vision, ensuring climate policies align with broader development goals. This alignment maximises impact and coherence, embedding climate efforts in core national strategies.

4. **Essential role of central bank in leveraging private sector finance:** The CBJ's Green Finance Strategy is playing a key role in addressing information gaps, levelling the playing field for green finance, and de-risking investments in support of NDC goals.

Chile

Torres del Paine

07

7. Chile

7.1 Climate policy background

Chile is committed to global climate efforts as a signatory of the PA. In 2020, it submitted a revised NDC and enacted a Framework Law on Climate Change in 2022. Chile aims for an unconditional GHG emissions target of 95 MtCO2e by 2030, excluding land use, land-use change and forestry, and a 45% net emission reduction from 2016 to 2030. The country also has a legally binding goal to achieve net zero emissions by 2050.

Chile has introduced several climate policies to transition to a low emissions economy. The Framework Law on Climate Change (21455/2022) sets a legally binding 2050 GHG neutrality target and involves 17 national ministries, regional governments, and the private sector in climate action. The Energy Efficiency Law aims to reduce energy consumption in power, transport, buildings, and industry, and mandates the coal phase out. The Electromobility Strategy targets full electrification of urban public transport by 2050 and bans new combustion engine cars by 2035. The country also has sectoral strategies like the 2024 Decarbonisation Plan of Ministry of Energy, Electromobility Roadmap, and Green Hydrogen Action Plan 2023-2030. New laws, such as the Law on Energy Storage and Electromobility and the Energy Transition Law, are underway.

In June 2019, Chile announced its plan to phase out coal by 2040 and achieve GHG neutrality by 2050. The country has made significant progress, exceeding expectations by retiring 11 power plants with around 1.2 GW capacity by July 2024. The Ministry of Energy's Decarbonisation Plan aims to retire or retrofit 70% of coal plants by 2025. However, some plants lack firm retirement commitments and could operate until 2040. An accelerated phase-out could align Chile with the 1.5°C global pathway. The Just Transition Strategy focuses on creating jobs and investments in affected communities, ensuring a participatory process. Although discussions about a 2030 phase-out were mentioned in 2022, they have since stalled. Chile is advised to be cautious with gas retrofitting, as new fossil fuel investments could hinder efforts to limit global warming to 1.5°C (Climate Action Tracker, 2024).

In 2014, Chile introduced a tax reform bill that included three green taxes, which were implemented in 2017. The first tax targets CO2 emissions from stationary sources with boilers and turbines exceeding a total of 50 MW (even though the price level remains low). The second tax applies to local pollutants from the same sources, specifically targeting PM, SO2, and NOx emissions. The third tax is levied on the initial sale of new cars, based on their anticipated NOx emissions over their lifetime (Partnership on Transparency in the Paris Agreement & NDC Support Cluster, 2019).

The country also pioneered green bonds in Latin America in 2019, reinforcing its commitment to sustainability (see below for more detail).

7.2 Status of climate finance

Chile has made significant efforts in developing strategic frameworks and institutions to align public finance with the challenges posed by climate change, including the establishment of comprehensive documents and institutional structures aimed at directing financial flows towards sustainable practices. The country has recognised and promoted the importance of aligning financial flows with climate challenges internationally, e.g. it co-chaired the Coalition of Financial Ministers for Climate Action when it has issued the Helsinki Principles (Coalition of Finance Ministers for Climate Action, n.d.). However, there are limitations in tracking public climate expenditures, and there is a lack of comprehensive analysis regarding climate-related investments and spending within the private sector (Ministerio de Hacienda, 2024).

According to the Ministry of Finance's, the country faces annual financial needs amounting to 0.7% of its GDP, equivalent to approximately USD 2,147 million. Currently, public investment accounts for roughly 16% of this requirement, highlighting a substantial gap that necessitates increased private sector funding (Ministerio de Hacienda, 2024).

7.2.1 Status sustainable financial instruments

Green bonds have gained in popularity globally, especially following the 2015 PA. In 2019, Chile became the first country in the Americas to issue these bonds, and by 2020, it was the largest issuer in Latin America and the third largest among emerging markets. Chile's success with green bonds has not only improved its financial standing but also set a precedent for other Latin American countries, encouraging them to explore similar sustainable financing options. As of November 2022, approximately **31% of Chile's government debt was in Environmental, Social, and Governance** (ESG) instruments (currently nearing 40 %, Ministerio de Hacienda, 2025) (Madeira & Pérez, 2023).

The issuance of green bonds has also broadened Chile's investor base. In 2021, five Chilean corporations issued labelled bonds totalling USD 3.8 billion, reflecting the growing trend towards sustainable finance in the region. Chile's pioneering efforts have set a benchmark for other Latin American countries, with Colombia, Mexico, and Uruguay following suit by issuing ESG-related bonds (Madeira & Pérez, 2023). The success of the green bonds can be contributed to the successful developments of renewable energies. A limitation is, however, that mostly large companies can profit from green bonds, while the small and medium-sized companies, an important pillar of Chilean economy, are not equipped to do so (Interview 21).

In December 2020, Chile introduced its **Sustainable Bond Framework**, enabling the issuance of social and sustainable bonds. A Sustainability-Linked Bonds (SLBs) coupon payment is directly linked to a given outcome. If the targets are not met, the bonds pay an additional coupon (Madeira & Pérez, 2023). This framework laid the groundwork for the country's pioneering SLBs, which were first issued in March 2022. Chile became the first sovereign nation globally to issue SLBs, aligning economic incentives with ambitious sustainability targets. These bonds are designed to link the bond's financial characteristics to the issuer's achievement of pre-defined sustainability performance targets. The SLB Framework includes commitments such as a GHG emissions budget not exceeding 1,100 MtCO2eq between 2020 and 2030, peaking by 2025, and achieving a GHG level of 95 MtCO2eq by 2030. Additionally, it aims for a 25% reduction in black carbon emissions by 2030 compared to 2016 levels. It also aims at least 60% of energy produced by renewable sources by 2032 (up from 27% in 2021). In 2023, Chile incorporated social and gender equality targets, reinforcing its leadership in the ESG space (Ministerio de Hacienda, n.d.)

Result-based finance has also been piloted in Chile's climate efforts. In 2019, IDB Invest and Engie Energía Chile agreed on an instrument to promote coal phaseout. By 2021, IDB Invest provided USD 74 million in long-term financing to Engie, using market interest rates, to retire coal plants. This agreement compensates Engie by monetising emissions displaced through early plant closure, enabling the development of a 150 MW wind farm. The interest rate was linked to emissions reduced by replacing coal with renewables, accelerating plant closure by 18 months. Despite its innovation, the additional impact and use of public finance might be debated, as the installations would have been retired in any case (Kachi et al., 2024).

However, there is a significant lack of finance. While mechanisms such as green bonds and auctions are in place, they represent only a small fraction of the funding required to address the challenges effectively. Investments in many new technologies, e.g. in green cement, still have no business case in face of the competition pressures and regulatory uncertainty. The risk would still largely be with the private sector, lacking a risk-sharing mechanism, and international climate finance is not sufficient here. Bridging this gap will require a concerted effort from all stakeholders. Sectoral assessments would be important to identify to understand the specific barriers to the necessary investments and suitable instruments to help tackle them. Key industries such as energy, transport, and cement could be among those capable of driving change. Collaboration with the private sector as the primary drivers of investment and the development banks who provide the funding needed would be crucial (Interview 21).

7.3 Relevant policies and initiatives

7.3.1 Finance Strategy on Climate Change

Chile's Finance Strategy on Climate Change (EFCC) aims to align financial tools and policies to support climate change mitigation and adaptation, promoting GHG-neutral and climate-resilient development. This strategy aligns with Chile's commitments under the PA but it does not have a strict NDC focus. Initially developed in 2019, the EFCC has evolved in response to updated national climate commitments and the Climate Change Framework Law (LMCC) of 2022.

The Ministry of Finance follows eight steps in the strategy update:

1. assessing international experience,
2. identification of national climate change commitments and targets,
3. assessing the cost of these commitments and targets,
4. identification of climate change expenditure and investments,
5. estimation of gaps for the achievement of commitments,
6. proposing measures to align financial flows,
7. participatory process and validation,
8. publication of the Climate Change Finance Strategy.

It responds to its general objective and five specific objectives under four strategic axes:

- management of climate risks and opportunities,
- conducive conditions for climate finance,
- Chile's international positioning in climate cooperation, and
- development of financial and economic instruments for climate action.

These axes are complemented by two cross-cutting ones: (a) generation and dissemination of information for climate finance, and (b) capacity building in climate finance.

The strategic axes give rise to 14 lines of action that, through 65 measures, promote collaboration between the public and private sectors, aligning national efforts with international commitments in areas such as climate risk management, the integration of natural capital in decision-making, the promotion of projects with a climate focus, and the strengthening of the carbon market, among others. This does not include specific measures with respective costs to achieve the NDC, which is why the strategy cannot be considered an NDC investment plan (but can offer a good platform to create such a plan). At the same time, Chile traditionally relies on setting up market instruments to engage private actors in infrastructure investment (e.g. auctioning, public-private partnerships) (Interview 21). The EFCC also emphasises data-driven decision-making and collaboration between public and private sectors. Future updates will incorporate biodiversity, circular economy, and socioecological transition commitments, aligning with Chile's Long-Term Climate Strategy (ECLP) and updated NDC by 2025.

There is a disconnect between what the public sector is planning and what the private sector and various industries are implementing. There is room for improvement, both through top-down policies and bottom-up incentives. At present, companies drive decarbonisation if there is a compelling business case or strong corporate culture or shareholder obligations. The challenge is also that policies often cater to large, international companies while neglecting smaller players across the broader industry, more balanced and inclusive decarbonisation instruments (Interview 21).

7.3.2 Draft Taxonomy of Environmentally Sustainable Economic Activities

The Ministry of Finance presented the **Draft Taxonomy of Environmentally Sustainable Economic Activities**, or T-MAS, 10 January 2025 (open for public consultation since 31 December 2024). The policy aims to identify and standardise criteria for determining when economic activities are environmentally sustainable. It offers guidance to both public and private sector stakeholders to direct investments and facilitate the flow of financial resources into sustainable projects. The Minister underlined that the goal is to develop a taxonomy that is globally interoperable and not exclusive, despite country specifics. For instance, nuclear energy is significant in some countries, but not in Chile, but the mining sector is of great importance (Ministerio de Hacienda, 2025).

The Taxonomy Roadmap for Chile has been created already in 2021, outlining the steps towards a full taxonomy for the country. The report was prepared by Climate Bonds Initiative, in association with the Ministry of Finance of Chile, the IDB and the Green Finance Public-Private Roundtable (La Mesa), with the support of Germany's IKI.

7.3.3 Tracking methodology for public climate spending and investment

The need to compile information on public sector climate expenditure is highlighted in the NDC (2020), the draft LMCC, the National Climate Change Action Plan 2017-2022, and Article 16 of the Budget Law 2021. In partnership with the UNDP and UNEP, Chile has developed methods to track climate expenditure. For the Ministry of Environment, a methodological proposal was developed to identify climate expenditure at the micro-data level, from the Integrated Project Bank (BIP) of the National Investment System (SNI) and government goods and services expenditure data from the Public Market managed by ChileCompra. The first report on public climate investment has been presented to the Congress in 2023 (around USD 263 million were spent on investment projects with a climate component in 2022, representing 13,7 % of investment spending) (Dirección de presupuestos, 2023). UNDP has further supported Chile in tracking government spending on climate, which remains a challenging exercise, including institutional coordination needs (Córdova & Toledo, 2024). As stated in the draft finance strategy, private sector spending and investment is virtually not tracked.

7.3.4 Green Finance Public-Private Roundtable

The Ministry of Finance, the Financial Market Commission, the Superintendence of Pensions, and the Central Bank of Chile have pledged to promote effective management of climate change risks and opportunities to ensure financial system stability and development. These entities are collaborating in the Public-Private Roundtable on Green Finance. They have signed a 'Green Agreement,' a public-private commitment by financial sector participants, establishing principles for managing climate-related risks and opportunities. The roundtable, that also includes the Ministry of Environment, aims to establish a long-term agenda for dialogue and collaboration. It supports the national financial sector in integrating climate change-related opportunities and risks into business strategies and decision-making. Among others, the roundtable had requested the report to create a roadmap for a green finance taxonomy in Chile.

7.3.5 Team Europe Renewable Hydrogen Funding Platform for Chile

The Team Europe Renewable Hydrogen Funding Platform for Chile is a collaborative initiative by the EU, its member states, and key financial institutions such as the EIB and the German KfW Development Bank, and part of the Global Gateway. The platform aims to support Chile's transition to a renewable hydrogen economy by facilitating investments and fostering local supply chains. With a budget of EUR 216.5 million, the initiative seeks to boost renewable hydrogen projects in Chile. The initiative is designed to enhance Chile's potential as a leader in green hydrogen, contributing to its national hydrogen strategy and enabling the export of renewable hydrogen to Europe. It emphasises the importance of a just energy transition, ensuring that the shift to renewable energy benefits all stakeholders.

The Team Europe Initiative in Chile operates through two main branches: financial cooperation and technical assistance. The technical assistance is implemented by GIZ, while the financial cooperation is managed by KfW and the EIB (Interview 21).

The technical assistance includes Financial Service Assistance which tries to bring together development companies across the hydrogen value chain and investors, including commercial banks, international investors or other sources such as pension funds. The initiative assists with business models and plans, due diligence, and organises technical discussions in order to for this new market to be understood by banks and regulators, leading to creating financial instruments that can help it take off (Bnamericas, 2024).

In the international finance landscape, green hydrogen is not always viewed as a viable solution for decarbonisation but rather a research and innovation track, due to the higher risks associated with this emerging technology. It must compete with alternatives—both fossil fuel-based and non-fossil fuel-based—that are already established, benefit from economies of scale, and have the necessary infrastructure in place. This makes closing the commercial viability gap for green hydrogen particularly challenging. To bridge this gap, it's essential to reduce subsidies and incentives for competing solutions while simultaneously creating tailored financial mechanisms that provide the right type of funding for green hydrogen projects: debt finance are likely insufficient given the scale of the projects and the uncertainty, rather patient equity and first-loss capital are needed, and in turn require building capacity of development banks (Interview 21).

While initiatives like the Green Hydrogen Facility are a step forward, the current financial landscape is not adequately suited to support the unique needs of green hydrogen projects. To unlock their potential, there must be a shift toward patient equity, first-loss capital, and innovative financial mechanisms that can accommodate the long timelines and high risks associated with this emerging sector (Interview 21).

7.4 Main barriers for climate finance mobilisation to meet NDC goals

Absence of a reliable policy framework for a sufficient project pipeline: Despite advanced climate and sustainable finance instruments, private sector still struggles with investment costs and regulatory uncertainty which inhibits taking decarbonisation projects to scale. Effectively unlocking climate finance remains intimately linked to overall conducive economic and regulatory conditions for the respective sectors (Interview 10). Specifically, access to green finance continues to be challenging for SMEs (Interview 21).

Insufficient policy and finance instruments to account for lacking market incentives: Generally, there is a certain disconnect between the actions of the private sector and the public policies and strategies green finance (Interview 10, 21). Chile traditionally relies on the private sector for its infrastructure and applied this approach to renewable energy development (e.g. auctioning for renewables). To take forward green hydrogen and decarbonise hard-to-abate sectors, this approach however shows its limits, as market incentives are not sufficient (i.e. conventional technologies are much cheaper, international competition, no investment certainty or mandatory standards for new technologies) and public instruments to bridge the gap are underdeveloped. A robust risk sharing mechanism for emerging technologies is lacking. Under these conditions, even international climate finance can fail to create sufficient transformation incentives (Interview 21).

Inconsistent assessment of investment needs and inadequate tracking of climate finance: The progress made on public finance tracking has not yet led to a completely consistent and whole-of-government approach to gathering data on climate investment. For the private sector, aggregated investment data is not available.

Finance gap in place and especially a lack of private sector investments: There not yet sufficient instruments to finance new technologies (e.g. carbon contracts for difference) such as green hydrogen at scale (Interview 10). Technologies like hydrogen still impose significant risks on the companies that the available types of finance are not able to mitigate, while providing first-loss capital e.g. at the necessary scale also represents a challenge (Interview 21).

7.5 Main lessons learned for the design of NDC investment plans

Chile's experience in mobilising finance in support of the actions outlined in its NDC highlight several key lessons:

1. **Efforts to promote climate-compatible infrastructure and successful positioning on evolving international markets are essential to develop green finance flows:** Chile is an OECD country with relatively constrained public budget and high international climate economy potential. It has maintained a commitment and interest in green and climate finance since the early years of the PA, being active internationally and nationally in this field. Chile can show significant progress in promoting climate-compatible economies. It has not only advanced its renewable energy sector quite substantially over the past decade but also became an important player for future markets such as green hydrogen, further engaging in international decarbonisation initiatives, notably as co-chair of the Climate Club. This, in combination with advanced green finance frameworks (SLB methodologies, green taxonomy, climate finance strategy), offers significant potential for financing the NDC progress, as the project pipeline and financial instruments come together.

2. **Climate finance instruments need to be tailored to the sectoral conditions to respond to the specific barriers:** Overall, Chile provides good examples of channelling finance towards climate measures with an existing business case for private actors (mostly, renewable energy generation) while not yet succeeding to design instruments for sufficient public support for areas where the business case is to be created – which seems to be in line with Chile's traditional approach to infrastructure finance that relies heavily on private sector engagement.

3. **Disadvantageous economic conditions for climate-aligned infrastructure cannot be fully amended by climate finance:** Chile faces similar challenges as many other countries on this path, including insufficient action to advance climate measures, lack of regulatory certainty (e.g. prolonging project development periods) and effective tax incentives for the private sector, high cost of capital and insufficient de-risking finance tools, lack of technology transfer, and climate-compatible financial market remaining relatively small in comparison to conventional financial flows (Interview 10, 21).

4. **Green finance instruments can vary and NDC investment plans should be embedded in the existing policy landscape:** Chile had a climate finance strategy early on, in 2019, and it is currently being revised, introducing more precise data on investment needs and a more specific action plan. The strategies first version and subsequent updates have been considering the respective NDC updates (2015, 2020) as well as the long-term decarbonisation strategy. The current update can serve as a step towards an NDC investment plan or roadmap, and once it is in force, it's effectiveness can be assessed. However, it goes beyond the NDC and establishes a broader framework for climate finance, while not providing a list of specific infrastructure measures with accompanying cost. At the same time, there are several other relevant policies that advance NDC finance as they advance sustainable finance, including ESG-oriented finance instruments, the draft green taxonomy.

Germany
Hinterzarten
08

8. Germany

The EU and its member states submit a collective NDC, meaning that Germany does not have its own NDC. Nonetheless, Germany can serve as an example of how finance can be mobilised based on comprehensive long-term planning in certain sectors, the introduction of carbon pricing, inclusive stakeholder engagement and the creation of additional sub-sector specific incentives. In sum, broad public-private engagement across these different measures has contributed to a de-risking of climate friendly investments. The German approach is particularly relevant for the NDC investments framework of other countries due to the comprehensive and innovative nature of its interventions. These include the implementation of the EU emission trading system, the pioneering introduction of a feed-in-tariff for renewable energy, the creation of a coal commission to pave the way for a broad societal consensus on phasing out coal, and measures to build an enabling environment to achieve sectoral climate mitigation targets, including carbon contracts for difference. These examples can inform the development of NDC investment plans to mobilise financing from the private sector, even if the direct transfer of experiences from the German economy to other countries is not possible.

8.1 General country background on climate policy

The EU has been a major driver of German climate policy, with EU strategies and policies guiding and supporting the energy transition processes in member states in a variety of ways (Oberthür et al., 2021). In 2008, the EU adopted a landmark policy package that set ambitious targets for GHG reduction, renewable energy expansion and energy efficiency improvements for 2020. Member states work together to implement their international climate commitment through a joint NDC and in 2027 the long-running EU Emissions Trading System (EU ETS) for power and industry emissions will be complemented by the EU ETS 2 – also covering heating and road transport. In 2019, the European Commission launched the European Green Deal, committing to reducing its GHG emissions by 55% by 2030 and to achieving climate neutrality (i.e., net zero GHG emissions) by 2050. The EU has a series of financial and regulatory instruments aimed at ensuring a sustainable and socially equitable transformation of its economy, particularly as it seeks to meet ambitious climate goals and adapt to technological changes (Tänzler et al., 2024).

As part of EU effort sharing decisions, and additional policies and measures, the German government is contributing to the EU climate and energy target through its own ambitious target setting. In its Climate Action Programme 2030 and Climate Change Act (*Klimaschutzgesetz*), Germany made a binding commitment to reduce its GHG emissions by 65% by 2030 (compared to 1990 levels), making Germany's efforts a key pillar in the successful implementation of the EU's NDC. The target is likely to be achieved, as 2024 GHG projections showed emissions had been reduced by almost 64% (Umweltbundesamt, 2025). This has primarily been achieved through the Germany's energy transition – known as the Energiewende – via a range of policy tools combining both command and control and market-oriented policy instruments to expand renewable energy sources.

For example, the Climate and Transformation Fund (KTF) has acted as a trailblazer for a comprehensive investment approach, even if its impact remains ambivalent, as had still not been embedded in the overall budget in late 2024. The KTF is primarily financed via European and national carbon pricing revenues. These revenues are intended to offer compensation to private households and companies to ensure a socially just climate transition, although in 2024 around two-thirds of the fund was earmarked for funding programmes and investments (Illenseer & Schenk, 2024). In addition, the German government provides funding programmes for companies through the NDB KfW and is

also issuing green federal bonds. According to an impact report published by the German government in November 2024, German Federal securities issued in 2022 totalled EUR14.5 billion – around EUR 16.8 billion in eligible green expenditures from budget year 2021 were allocated to the proceeds from these securities. The volume of Green German Federal securities issued increased further in 2024 to about EUR 17.5 billion (up from EUR 17.25 billion in 2023) (Federal Ministry of Finance, 2024).

8.2 National climate policy and finance milestones

In recent decades, German climate policy has been defined by the ambition to combine environmental integrity and economic growth. Two developments have served as major milestones in derisking investments in climate friendly technologies. As the EU showed leadership in establishing a comprehensive emissions trading system, Germany created in its feed-tariff an incentive that unlocked tremendous volumes of private finance for the energy transition. A further milestone in the energy transition was the establishment of a coal commission, which engaged a broad spectrum of stakeholders, including the private sector, to facilitate broad societal agreement on coal phase out. Despite recent challenges and disputes regarding the overall direction and speed of Germany's energy transition, including economic pressures and political instability, this process of building a social contract has served as a springboard for continued private sector engagement and contributions. Further, the development of carbon contracts for difference is a key innovation in incentivising the compliance of private sector investments with climate targets and shows the expanding climate policy mix for securing the commitment of key industries.

8.2.1 Introduction and evolution of feed-in tariffs

German climate policy has been based on a comprehensive planning approach since its inception, before the PA and introduction of NDCs. The development of feed-in tariffs for renewable energy from the early 2000's was pivotal in generating the financial resources for the climate compatible transformation of the country. The resulting expansion of renewable energies coupled with ambitious policies to decarbonise the industry and heating sectors created opportunities to align business ambition and incentives with national climate policy goals.

A feed-in tariff aims to increase the share of renewable energy in the electricity mix. Key features include priority access to the power grid for renewables and energy producers receiving a fixed price per kilowatt hour produced for a certain period to ensure a return on investment. Tariffs can cover different types of renewables and be differentiated by source/plant size and year of installation. When they were first implemented in Germany, consumers covered the costs through a charge on their retail electricity price. To manage the pace of renewable energy expansion, governments can decrease the extent of the tariffs based on the overall market developments.

In Germany, the production of electricity from renewable sources increased from 6.2% to 23.7% from 2000 to 2012. A 2012 study showing the interim consequences of this approach for climate finance and private sector mobilisation calculated that at least EUR 37 billion or 1.5% of GDP was invested in 2010 to support the German transition to a low-carbon economy (CPI, 2012). This included full capital costs for renewable energy and incremental costs for all other investments. Although the private sector provided more than 95% of this finance, half was based on the provision of concessionary loans from public banks, demonstrating the crucial role the public sector played in supporting private investment. The lion's share of private finance came from corporate investors (EUR 22 billion), led by corporations in the energy sector. However, private households also invested a significant EUR 14 billion (CPI, 2012).

Over the years, the feed-in tariff was amended multiple times to adjust the tariffs and respond to changing market conditions, such as the decreasing cost of solar panels. From 2014, there was a transition from the tariff system towards auctions for large-scale projects to foster competition and reduce costs. In 2023, the Energy Financing Law (EnFG) came into force, replacing the previous regulations on the 'special equalisation scheme' in the Renewable Energy Sources Act (EEG). The EnFG serves to finance the expenses – especially for energy-intensive companies – incurred by grid operators under the Renewable Energy Sources Act and the Combined Heat and Power Act, as well as in connection with the offshore grid connection. These later changes notwithstanding, the feed-in tariffs laid the foundation for Germany's robust renewable energy infrastructure, contributing significantly to its energy transition goals.

8.2.2 The Coal Commission as a consensus building process

A significant pillar in Germany's climate and energy transition was the establishment of the Commission on Growth, Structural Change and Employment in 2018 – also known as the Coal Commission. Convened under an official mandate by the then Federal Ministry for Economy and Energy, the Commission assessed the impacts of the planned coal phase-out on the country's energy transition, as well as its social and economic consequences (Tänzler et al., 2024).

The members of the commission represented a broad spectrum of relevant stakeholders, including energy sector representatives, scientific experts, unions, environmental groups, citizens initiatives, industry partners and German state institutions. In particular, the buy in of influential private sector stakeholders was key to ensuring a broad and lasting consensus. The commission formulated recommendations that addressed support for retraining or early retirement of workers within the coal industry, the role of different actors in reaching socially acceptable collective agreements, and compensation mechanisms to shield consumers from the costs of the transition, while advocating more generally for a socially balanced distribution of advantages and burdens in energy transition. The recommendations were not legally binding, and a further step is still needed to translate them into law and political action at the federal and state levels.

A major point of discussion within the commission was the creation of a dedicated fund, financed primarily via the federal budget, to ensure the economic viability of the coal phase out. To strengthen economic growth and structural change in the affected regions, alternative industries are being encouraged and assisted through investments to create economic opportunities. Implementing the commission's recommendations was estimated to cost an additional EUR 69 to 93 billion to the federal budget by 2038, 1.0 to 1.4% of the annual federal budget at that time (Litz et al., 2019). This estimate is comprised of roughly EUR 40 billion for regional policy, up to EUR 32 billion for power price compensation, up to EUR 10 billion for utility compensations, EUR 7 billion for labour market policies, and EUR 3-4 billion for CO2 certificates.

Although the energy transition in Germany is more contested in 2025 – mainly due to rising energy prices and the repercussions of the Russian war of aggression in Ukraine on the country's energy security – the work of the Coal Commission can still be considered as crucial for achieving Germany's climate targets and ensuring private sector engagement.

8.2.3 Carbon contracts for difference

The de-risking of investments has been most challenging for industries with hard to abate emissions and high international competition. To enable investments in these areas, new financial incentive structures have been enacted to complement the policy mix. In 2024, the German government launched a first call for tenders for climate protection contracts – also known as carbon contracts for difference (CCfDs). This funding programme is intended to general billion of euros to support the conversion of German industry to climate-friendly production facilities.

The rationale of CCfDs is that protection against regulatory risks through a contract can enable the financing of climate-neutral production processes and reduce financing costs for the company and ultimately for society (Richstein & Neuhoff, 2022). At the same time, the requirement for a transformative investment project creates strong incentives to switch to climate-neutral production. CCfDs guarantee investors a fixed carbon price over a certain contract duration. This supports the de-risking of such investments from political and market uncertainty – by allowing governments to set carbon prices above current levels. In practical terms, the CCfD is concluded between the state and the investing company. The contract price results from a competitive auction. If the CO2 certificate price is below the contract price during production, the state subsidies the project. However, if the CO2 price rises above the contract price, the company is obliged to pay the difference to the state.

According to the German Institute of Economic Research (DIW) (Richstein & Neuhoff, 2022), carbon mitigation costs in the steel sector could be reduced by up to 27% – compared to no policy. The instrument has yet to prove itself in reality. However, the intended mode of operation illustrates the necessary political flexibility, especially for a country like Germany where industrial production is of great importance.

8.3 Main barriers for climate finance mobilisation in Germany

German economic growth has been slow to non-existent in the early 2020s. This is both due the impacts of the conflict in Ukraine and structural reasons, such as the weak growth in the country's automotive and construction sectors. This has resulted in reluctance among private sector and commercial actors to invest in clean technologies. This trend intensified when public financing for climate action was constrained following the federal constitutional court's 2024 judgement that the KTF was not in line with a constitutional law setting limits on government debt, also known as the "debt brake". Opinion polls conducted around the time of 2025 federal elections also indicated that ambitious climate policies and investments were less of a priority for voters than in previous elections.

In this context, the main barriers for climate finance can be summarised as follows:

- A **lack of investment in clean technologies** due to unfavourable economic conditions – with potential solutions including further tax incentives and the successful implementation of CCfD (see above).
- From a macro-economic perspective, the **debt brake rule can be perceived as a barrier hindering investments** into sustainable transition processes.
- In selected sectors, such as the building sector, there is a **lack of clarity of overarching rules that also need to consider principles of a socially just transition**.

8.4 Main lessons learned for the design of NDC investment plans

As of early 2025, Germany is on track to meet its national climate mitigation targets for 2030 (Umweltbundesamt, 2025). In 2024, net public electricity generation from renewable energy sources reached a record share of 62.7% (Fraunhofer ISE, 2025). The German policy landscape is well developed, comprised of multiple, interconnected layers of climate, energy and industrial policy. As such, this case study highlighted four key milestones to illustrate how the sustainable financing of climate action has been enabled – in the absence of an agile culture of risk capital investments:

1. **De-risking of investments into climate technologies:** The dynamic evolution of feed-in tariffs in Germany – together with the overall development of the ETS at EU level – has enabled the diversification of energy sources and creation of an enabling environment for private investments. Although subject to multiple adjustments over time, feed-in tariffs have proven to be a core element of Germany's climate policy approach.

2. **Stakeholder engagement for a robust socio-economic consensus as the basis for planning:** Germany's climate policies have been driven by a broad societal consensus for ambitious climate action. Though the political landscape and discourse in 2025 is challenging – putting this consensus at risk – the example of the Coal Commission illustrates how important broad stakeholder engagement processes are to ensuring the sound planning of the energy transition, especially with regard to ensuring the social equity of the transition and getting major stakeholders, also from the private sector, on board.

3. **Enabling policy learning through flexible policy design:** The examples of the continuous adjustments in renewable energy procurement and the introduction of CCfDs illustrate how important it is to ensure that the policy landscape remains dynamic and flexible. Although public financing to cover the risks associated with, for example, carbon markets are more affordable for a country like Germany and need to be adjusted for lower-income countries, the German approach remains relevant for the NDC investments framework of other countries due to the comprehensive nature of its interventions.

Conclusions and recommendations 09

9. Conclusions and recommendations

9.1 Summary of key insights from the country case studies

The analysis in the previous chapters reveals distinct phases and important building blocks for designing effective NDC investment plans. The case studies confirmed the importance of these different elements and provided valuable real-world examples for how they have been applied so far.

NDC investment plan design can be considered to have three distinct phases – **planning**, **implementation** and **learning** – that together create an enabling environment to achieve investment readiness.

Planning refers to the preparation and design phase for the NDC investment plan. Building blocks contributing to the success of this phase include tailoring the approach to each country's characteristics, promoting country ownership and buy-in, following a structured approach for investment needs analysis anchored in a country's NDC targets, and improving institutional capacity with relevant capacity building activities. Table 3 summarises key insights from the different country case studies on how the elements of the planning phase are being considered.

Table 3
The planning phase – summary of key insights from the country case studies.

Building blocks	Insights from the country case studies
Tailor to the unique characteristics of each country	The case study countries take diverse approaches to investment planning and mobilising climate investments, each focusing on distinctive elements and following unique processes – for example, with regard to selecting specific sectors or engaging different actors. Additionally, the names and terminology used for these investment planning documents varies considerably across countries. This diversity reflects how countries adapt NDC investment planning to suit their specific needs.
Promote country ownership and buy-in	In **Georgia**, the NDC investment plan has yet to be formally adopted and communicated. This can hinder implementation and effectiveness, potentially leading to missed opportunities for stakeholder engagement and collaboration as well as to effort duplication. **Rwanda** demonstrated strong country ownership and engagement in NDC investment planning, with the Ministry of Finance and Economic Planning assuming a leading role in the process. The latter ensured climate considerations were mainstreamed into overall development planning. **Jordan** also provides an example of strong political support and country ownership. The process to design its NDC Action Plan followed a coordinated government approach and received support from the highest levels of government.

Table 3
The planning phase – summary of key insights from the country case studies.

Building blocks	Insights from the country case studies
Follow a structured approach to identify investment requirements and funding sources to meet NDC goals	In **Georgia** the NDC Financing Strategy and Investment Plan includes an assessment of financial needs and the finance gaps for each priority action. Funding sources are identified and presented as part of a comprehensive strategy to bridge financial gaps with an implementation roadmap. **Rwanda's** Climate and Nature Finance Strategy effectively summarises Rwanda's context, targets, aims, efforts, actors, and policies to obtain financing for its NDC targets. Investment needs for different actions and projects were identified and prioritised within the NDC Implementation Framework. In **Jordan** the NDC Action Plan identifies investment needs and uses a robust approach to prioritise projects based on social and economic criteria (gender, sustainable development).
Anchor in a country's NDC targets	**Rwanda**, **Georgia** and **Jordan** offer good examples of successive processes to anchor climate finance strategies in NDC targets.
Improve institutional capacities and undertake capacity building targeting relevant stakeholders	In **Georgia** various stakeholders received training on a newly developed budget tagging methodology as a part of designing the NDC Financing Strategy and Investment Plan. In **Rwanda** the process to develop the country's green taxonomy also focused on capacity building to increase private sector awareness of the taxonomy's role. In **Jordan** capacity building activities promoted inclusion and engagement of key stakeholders. Local governments and municipalities received technical support to create local Sustainable Energy and Climate Action Plans.

The **implementation** phase aims to ensure that the goals and measures set out in the NDC investment plan are actionable and achievable. The building blocks in this phase enhance the viability of an NDC investment plan and include aligning the NDC investment plan with other national development plans for sound implementation and introducing appropriate policies and financial instruments to attract private sector investment. Another key building block is stakeholder engagement and in particular engaging actors who make the investment decisions (Ministry of Finance, private sector) as co-developers. Table 4 summarises the insights the case studies provide with regard to the implementation phase.

Table 4
The implementation phase – summary of key insights from the country case studies.

Building blocks	Insights from the country case studies
Align with national development plans	In **Rwanda**, the planning for NDC investments took a holistic approach, incorporating climate objectives into the nation's development strategies. The Ministry of Finance and Economic Planning was pivotal in facilitating this integration. **Jordan** has made substantial efforts to integrate climate action into its overarching national development strategies. Support from the government has been instrumental, with strategic alignment and harmonisation enhancing the efficacy of climate policies.
Engage relevant actors (e.g. Ministry of Finance, private sector)	In **Georgia** many key stakeholders were involved in the design process for the Climate Change Strategy and Action Plan and the NDC Financing Strategy and Investment Plan. Some challenges were experienced in engaging the private sector and Ministry of Finance. In **Rwanda** the planning process involved the Ministry of Finance and Economic Planning, which has a dedicated Climate Finance Department within the ministry. In **Jordan** local governments and municipalities were successfully engaged in the design of the NDC Action Plan. This delivered crucial insights for ongoing collaboration with sector groups to pinpoint investment requirements. In **Chile** the Public-Private Roundtable on Green Finance enabled effective dialogue and collaboration between the public and private financial sectors. The Just Transition Strategy was accompanied by an inclusive and participatory process dedicated to fostering employment and investment in communities impacted by the phase out of coal. In **Germany** the Commission on Growth, Structural Change and Employment, also known as the Coal Commission, took an inclusive approach and engaged a broad spectrum of relevant stakeholders to facilitate a comprehensive societal agreement and find socially acceptable solutions on transitioning away from coal.
Introduce appropriate policies and instruments	In **Rwanda**, the Rwanda Green Fund and the Rwanda Development Bank developed a green investment platform, Ireme Invest, to showcase how blending instruments can effectively mobilise private sector capital. The instruments featured included recoverable grants, concessional finance, incubators, loans, guarantees, and leasing options. **Chile** has effectively deployed a range of financial instruments to finance environmental initiatives, including green taxes, results-based finance, the issuance of green bonds, and the establishment of a sustainable bonds framework. **Germany** has successfully mobilised finance from private sources by implementing policies such as the EU ETS and feed-in tariffs. Sub-sector specific incentives, including contracts for difference, have further enhanced the effectiveness of these initiatives, particularly in industries facing hard-to-abate emissions and intense global competition.

Finally, the **learning phase** aims to ensure that the NDC investment plan design process generates knowledge that can inform future NDC investment planning and other related processes, also in other settings. Key building blocks include collecting and using learnings on impact, conducting robust MRV, and putting in place a dynamic and iterative process that mutually informs future NDC target setting and NDC investment plan updates. Table 5 summarises key insights from the country case studies with regard to the learning phase.

Table 5
The learning phase – summary of key insights from the country case studies.

Building blocks	Insights from the country case studies
Collect and use learnings on impact	Evidence on the overall impact of NDC investment plans is currently lacking, due to a limited follow-up on the actions taken after NDC investment plan completion. Enhancing data access and transparency can improve this evaluation process.
Conduct MRV and promote transparency	In **Georgia** the NDC Financing Strategy and Investment Plan proposes a robust MRV system to evaluate and update the document on a continuous basis. Georgia's National Bank is in the process of creating a sustainable finance taxonomy. Additionally, the Ministry of Finance, with assistance from the World Bank, is introducing climate tagging to the state budget. In **Rwanda**, monitoring and evaluation mechanisms are a fundamental component of the country's climate policy framework. MRV mechanisms have been integrated into the Climate and Nature Finance Strategy to track progress and ensure accountability, and the Rwanda Green Taxonomy, by defining and standardising green investments, has established criteria and methodologies to evaluate sector alignment with environmental goals, including climate change mitigation and adaptation. **Jordan** is in the process of developing a national green taxonomy to standardise the definition and classification of green financing. This initiative seeks to lower information costs and enhance access to green finance, effectively addressing existing gaps in the financial sector. In **Chile**, the Ministry of Finance unveiled the Draft Taxonomy of Environmentally Sustainable Economic Activities in 2025, a policy to establish and standardise criteria for environmentally sustainable economic activities. The taxonomy aims to be globally interoperable and inclusive, while also accommodating specific national details. Moreover, in collaboration with UNDP and UNEP, Chile has devised methods to monitor climate-related spending.
Ensure a dynamic iterative process	There is a lack of adequate follow-up on actions taken after the completion of NDC investment plans and it is early in the update process to assess this element.

The case studies reveal that both countries with and without formal NDC investment plans have made substantial progress in strengthening NDC investment readiness, providing valuable lessons on effective actions for finance mobilisation.

Rwanda faces additional challenges compared to more developed countries like Germany and Chile. These include low awareness of climate policy goals among financial actors, institutional hurdles such as high interest rates and collateral requirements, and high vulnerability to climate change impacts, all of which complicate efforts to attract private sector finance. Despite these obstacles, Rwanda has successfully implemented numerous initiatives that provide valuable insights for other countries aiming to establish NDC investment plans.

Rwanda's achievements in securing funding through its NDC implementation framework highlights the critical role such strategies can play in mobilising finance. Rwanda refers to its NDC investment plan as the Climate and Nature Finance Strategy to broaden its scope. A notable innovation in Rwanda's planning process was involving the Ministry of Finance, which has a dedicated climate finance department. Additionally, the development of a green taxonomy highlights Rwanda's commitment to enhancing transparency and data accessibility, with an emphasis on capacity building to increase private sector awareness of the taxonomy's role.

Rwanda's approach to investment planning also demonstrates the importance of integrated planning, national ownership, and collaboration. The Ireme Invest facility exemplifies how governments can effectively use blending instruments to attract private sector capital.

Jordan's strategic climate policy documents highlight key elements that create a favourable environment for private sector investment in climate action. The successful development of these documents has been underpinned by inclusive consultations with government stakeholders and development partners, among others. Furthermore, the design of its NDC Action Plan followed a robust approach to prioritise projects based on social and economic criteria (gender, sustainable development) and was subject to strong political support and country ownership. Jordan has also taken significant steps to integrate climate action into its national development strategies.

Despite facing some key barriers in attracting climate finance, **Georgia** has shown a strong commitment to climate policy through various strategies and initiatives. The country's NDC investment planning process underscores the importance of establishing a cohesive national climate policy to mobilise financial resources and align them with the country's development policy cycle, and of avoiding duplication of efforts in future NDC investment planning going forward. Moreover, for an NDC investment plan to be effective it would have to be regularly updated and communicated, with pilot projects serving as complementary actions.

Although **Germany** does not have its own NDC, its experience provides valuable insights for NDC investment planning processes with regard to engaging the private sector and creating an enabling environment for mobilising finance. Its use of certain policies (implementation of the EU ETS, feed-in tariffs) and additional sub-sector specific incentives (contracts for difference) serve as examples of strong public and private sector collaboration to reduce the risks associated with climate-friendly investments, with the implementation of the EU ETS and feed-in tariffs proving particularly successful in mobilising finance from private sources. Germany has also engaged in inclusive, cross-societal stakeholder engagement processes – a prime example being its coal commission, which facilitated broad agreement on the transition away from coal and included meaningful private sector engagement.

Chile has been a leading pioneer of climate policies and mobilising climate finance, particularly from the private sector. It has successfully implemented a variety of financial instruments, including green taxes, spearheaded the issuance of green bonds, developed a sustainable bonds framework, and has been at the forefront of piloting results-based finance. Its efforts to create a green taxonomy and to monitor climate-related spending have proven crucial steps towards enhancing transparency and serve

as valuable models for other countries struggling with data access challenges in developing effective investment plans. Furthermore, Chile's Public-Private Roundtable on Green Finance provides a model for effective dialogue and collaboration between the public and private financial sectors, and integrated climate change-related opportunities and risks into business strategies and decision-making. A significant achievement and tangible outcome of this forum was to set out a roadmap for developing a green finance taxonomy for Chile. Moreover, the Team Europe Renewable Hydrogen Funding Platform for Chile – a collaborative initiative by the EU, its member states, and key financial institutions – is a prime example of international collaboration and policies that extend beyond the borders of Germany and the EU.

While Chile has not yet developed a formal NDC investment plan, it made significant strides in 2019 when it established its Finance Strategy on Climate Change. Mirroring many elements typically found in an NDC investment plan, it also involved a participatory process and validation. The strategy takes NDC updates into account but also extends further to focus on a longer-term decarbonisation strategy, highlighting the array of strategies and documents with overlapping components that can serve similar functions to NDC investment planning.

9.1.1 Overall observations

NDC investment plans are one of several tools available to countries to mobilise public and private finance for NDC implementation. While not the sole requirement for successfully attracting NDC-related finance, NDC investment plans play a key role in building an enabling environment. The country case study analysis demonstrated that the building blocks identified for an effective NDC investment plan are being acknowledged and incorporated into NDC investment plans and related strategies in different countries, albeit to varying degrees. This confirms their importance and applicability, while also highlighting areas that require more attention.

Overall, there remains a lack of follow-up on actions taken after the completion of NDC investment plans and the case studies did not provide as many insights on incorporating the building blocks associated with the learning phase – i.e. collecting and using learnings on impact and ensuring a dynamic iterative process. While countries with NDC investment plans acknowledge the significance of MRV, in the countries studied in this report MRV implementation remains in the inception phase, even if several actions to enhance access to data and transparency are being put in place.

Data constraints are still an issue, particularly in the cases of Georgia, Chile and Jordan, and overcoming these will be crucial to ensure future progress. Relevant measures in this regard include the implementation of budget tagging and green taxonomies and are already underway in many countries. However, it is essential to ensure these efforts are also effectively implemented. Further standardisation at the international level can also play a valuable role. Going forward it is important to prioritise capacity-building initiatives focusing on private sector engagement and to improve skills with regard to data quality and reporting, as well as other elements of NDC investment design.

The insights from the case study countries, as well as these overall observations, provide the basis for the recommendations in the next section.

9.2 Recommendations for the design and implementation of NDC investment plans based on the best practices and case studies

The following recommendations to promote NDC investment readiness target three key audiences: decision makers at the national and international level, and private sector stakeholders. Countries engaged in NDC implementation but also international partners can further increase their focus on strengthening country engagements by mobilising private finance.

1. **Integrate investment planning and finance mobilisation:** Ensure that NDC investment plans are not stand-alone documents but are integrated with other finance mobilisation strategies. Co-developing plans with financiers and engaging all relevant ministries, particularly the Ministry of Finance, can enhance the plan's effectiveness and implementation. The planning process also needs to consider private sector representatives from those sectors crucial for NDC implementation to ensure that investor perspectives are taken into account throughout the process. Financially viable projects should ideally be presented to the private sector, while public projects should be presented to development partners in a coordinated manner. Generally, NDCs need to be aligned more explicitly with national development planning frameworks and long-term climate strategies. This helps to ensure that climate action becomes a core element of national development strategies and takes a long-term perspective. This can be achieved by linking climate action with poverty reduction, economic development, and infrastructure planning. In addition, involving local government stakeholders at an early stage in the process is important to ensure effective implementation later on.

   The distinct phases and building blocks for a successful NDC investment plan should be identified early on in the design process. Defining clear, measurable indicators of success and integrating them throughout the project cycle will increase the likelihood of achieving desired outcomes – especially when the interests of investors and other private sector actors are reflected from the beginning.

2. **Enable long-term public-private cooperation:** Investment plans can help to secure the buy-in of stakeholders in the private sector. Learning from examples of best practice in other countries, such as Germany's use of feed-in tariffs or Chile's implementation of green bonds and green taxonomies, can form the cornerstone of such processes. There may also be prospects for regional cross-border cooperation on sharing best practices in green investments and even pooling resources. These approaches can inform investment planning and the development of policies and financial instruments to attract climate finance. Involving private sector representatives throughout this process helps identify priorities, specific needs, and investment readiness gaps at an early stage. This can form the basis for targeted support from government and/or international partners, as appropriate, even if there may be limits to this in countries that are less advanced in engaging with the private sector and attract low volumes of foreign direct investment.

3. **Ensure private sector engagement early on:** Public-private cooperation can foster meaningful private sector participation in the design of the NDC investment plan right from the initial stages via formats such as roundtables and forums. These should involve financial institutions such as banks or insurance companies to improve the understanding of risks and opportunities of climate-relevant investments, contributing to the de-risking of relevant investments in low carbon and climate-resilient processes. These engagements should focus on aligning business strategies with climate goals and identifying opportunities for private sector investment. Ideally, the engagement serves to further strengthen the business cases action in the medium and long-term.

4. **Address institutional and economic barriers:** The NDC investment plan should prioritise improving enabling conditions for investments through dedicated structures that create incentives and support de-risking. However, an initial focus should also be identifying and mitigating institutional barriers, such as high interest rates and collateral requirements, which hinder private sector investment. Policies that reduce these barriers and promote financial inclusivity should be designed and implemented. This was illustrated in the case of Georgia where, despite the remaining challenges, a number of economic reforms (e.g. deregulation, tax reforms) created an enabling environment for private investments. In addition, debt-related constraints can be addressed by integrating debt-for-climate swaps or debt restructuring mechanisms into NDC investment plans. Green budgeting and other institutional measures can help to channel national public funding and international financial support into the NDC investment plan.

5. **Improve transparency and access to climate finance data:** Building institutional capacities to improve transparency and data accessibility is a key concern in international climate negotiations. Securing buy-in from private sector partners can be increased by ensuring closer cooperation vis-à-vis international obligations in this regard. This includes developing green taxonomies and MRV systems to effectively track and report climate finance. As the example of Rwanda indicates, establishing a taxonomy creates the basis for an improved understanding of the different ways in which climate change is affecting business activities. Increasing the climate literacy of private sector stakeholders can serve to strengthen ongoing engagement and further public-private cooperation.

6. **Ensure regular updates and communication of NDC investment plans:** Regularly updating NDC investment plans to reflect new climate targets and commitments, as well as lessons learned, is key to investment readiness. Lessons learned should be based on the ongoing monitoring of implementation progress and any adjustments needed (e.g. due to unforeseen challenges). This serves to establish an iterative process where updates are communicated effectively to stakeholders to maintain transparency and engagement. Showcasing positive examples of NDC investment in these updates can also serve to increase private sector and development partners trust in the country's commitment to achieving its climate goals.

7. **Implement parallel measures for an enabling environment to promote investment readiness:** While having a strategy is essential, further steps are required to secure the levels of investment readiness necessary to secure sufficient climate finance flows. These complementary measures should aim to demonstrate a commitment to climate action by the public and the private sector. Initiatives such as pilot projects can play a crucial role in capturing the interest of the private sector, offering promising opportunities for future expansion.

8. **Invest in capacity building to increase financial literacy:** Prioritise capacity-building and ensure initiatives engaging the private sector are also a key focus. These activities should increase financial literacy and understanding of climate finance instruments – also including training for public and private sector actors on mobilising and managing climate finance and designing and implementing targeted investment projects. By engaging with international partners like the NDC Partnership, countries can also gain better access to technical and financial assistance for developing NDC investment plans.

9. **Make sound investment planning a key feature of the current NDC updates:** The next NDC updates to be submitted by end of 2025 offer a window of opportunity to develop accompanying NDC investment plans. These NDCs 3.0 need to collectively achieve a significant step towards global decarbonisation and thus be developed with an economy-wide perspective - covering of all GHG emission sources. Here again, close cooperation between public and private sector stakeholders is crucial to ensure that ambitious targets are also implementable – which requires sufficient financial resources and efficient use of international climate finance.

Bibliography

Action Plan. (2021). Georgia's 2030 Climate Change Strategy and Action Plan. Available online: https://faolex.fao.org/docs/pdf/geo209870.pdf

Adaptation Fund. (Jan 2025). BLOG: Adaptation Fund's Inclusion in Key COP29 Decisions Raises Promise for 2025 and Beyond for Vulnerable Countries. Available online: https://www.adaptation-fund.org/blog-adaptation-funds-inclusion-in-key-cop29-decisions-raises-promise-for-2025-and-beyond-for-vulnerable-countries/

Adolphsen, O., Könneke, J., & Thielges, S. (2024). Die dritte Generation der nationalen Klimabeiträge: der Kern des Pariser Klimaabkommens steht auf dem Spiel. Available online: https://www.swp-berlin.org/publications/products/aktuell/2024A37_ndc_dritte_generation.pdf

Asktrakhan, I., & Skarnulis, A. (2024). Jordan: Empowering climate action in the financial sector. Available online: https://blogs.worldbank.org/en/arabvoices/jordan-empowering-climate-action-financial-sector

Banga, J. (2018). The green bond market: a potential source of climate finance for developing countries. Journal of Sustainable Finance & Investment, 9(1), 17–32. Available online: https://doi.org/10.1080/20430795.2018.1498617

Bertelsmann Stiftung. (2024). BTI 2024 Country Report — Jordan. Gütersloh: Bertelsmann Stiftung. Available online: https://bti-project.org/fileadmin/api/content/en/downloads/reports/country_report_2024_JOR.pdf

Bhandary, R. R. (2024). The role of institutional design in mobilising climate finance: Empirical evidence from Bangladesh, Brazil, Ethiopia, and Indonesia. PLOS Clim, 3(3). Available online: https://doi.org/10.1371/journal. pclm.0000246

Bnamericas. (2024). Financing key in fulfilling Chile's green hydrogen potential. Q & A. Available online: https://www.bnamericas.com/en/interviews/how-giz-is-helping-chiles-hydrogen-sector-take-off

Buso, T., Nicholson, K., Smith, C., Bann, C., Steele, P., & Omari, M. (2023). Jordan climate and nature financing analysis. London: IIED. Available online: https://www.iied.org/21251iied

CBJ. (2023). Green Finance Strategy. 2023-2028. Central Bank of Jordan. Available online: https://www.cbj.gov.jo/EBV4.0/Root_Storage/EN/FINAL_-_Green_Finance_Strategy_-_English_Version_-_10_Nov_2023.pdf

CDKN. (2016). Planning for NDC implementation: A Quick Start Guide. Climate and Development Knowledge Network. Available online: https://ndc-guide.cdkn.org/book/planning-for-ndc-implementation-a-quick-start-guide/finance/

Choi, E., & Seiger, A. (2020). Catalyzing Capital for the Transition toward Decarbonization: Blended Finance and Its Way Forward. June 15, 2020. Available online: http://dx.doi.org/10.2139/ssrn.3627858

Choi, E., & In, S. Y. (2021). Blended finance for state-led decarbonization. Settling Climate Accounts: Navigating the Road to Net Zero, 93-120. Available online: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3895653

Climate Action Tracker. (2024). Chile. Policies & action. Available online: https://climate-actiontracker.org/countries/chile/policies-action/

Climate Bonds Initiative. (2025). 5 for 25. Available online: https://www.climatebonds.net/files/reports/cbi_5_for_25_01b.pdf

Coalition of Finance Ministers for Climate Action. (n.d.). About the Coalition. Available online: https://www.financeministersforclimate.org/

Córdova & Toledo. (2024). MEDICIÓN DEL GASTO PÚBLICO EN CAMBIO CLIMÁTICO EN CHILE. PNUD Chile. Notas de Política, 28. Available online: https://www.undp.org/sites/g/files/zskgke326/files/2024-06/nota_28_chile_clima.pdf

CPI. (2012). The Landscape of Climate Finance in Germany. Available online: https://climatepolicyinitiative.org/wp-content/uploads/2012/11/Landscape-of-Climate-Finance-in-Germany-Full-Report.pdf

CPI. (2023). Global Landscape of Climate Finance 2023. Climate Policy Initiative. Available online: https://www.climatepolicyinitiative.org/wp-content/uploads/2023/11/Global-Landscape-of-Climate-Finance-2023.pdf

CPI. (2024a). Global Landscape of Climate Finance 2024: Insights for COP 29. Climate Policy Initiative. Available online: https://www.climatepolicyinitiative.org/publication/global-landscape-of-climate-finance-2024/

CPI. (2024b). 10th Meeting of the San Giorgio Group. Mobilising Capital for a Just and Resilient Global Transition. Climate Policy Initiative. Available online: https://www.climatepolicyinitiative.org/wp-content/uploads/2024/03/SGG10-Summary.pdf

DGAP. (n.d.). National Action Plans (NAPs). German Council on Foreign Relations. Available online: https://dgap.org/en/research/glossary/climate-foreign-policy/national-adaptation-plans-naps

Dirección de presupuestos. (2023). GASTO PRESUPUESTARIO EN INVERSIÓN PÚBLICA EN MATERIAS RELATIVAS A CAMBIO CLIMÁTICO, AÑO 2022. REVISIÓN DE INICIATIVAS DE INVERSIÓN. Ministry of Finance, Chile. Available online: https://www.dipres.gob.cl/598/articles-316674_doc_pdf.pdf

El-Sharif, S., & Muasher, M. (2024). Vulnerability and Governance in the Context of Climate Change in Jordan. Available online: https://carnegieendowment.org/research/2024/05/jordan-climate-change-adaptation-commitments?lang=en

European Commission. (2023). EU carbon market continues to deliver emission reductions. Available online: https://climate.ec.europa.eu/news-your-voice/news/eu-carbon-market-continues-deliver-emission-reductions-2023-10-31_en

European Commission. (2025). EU and Jordan launch multi-billion euro partnership to tackle shared challenges and opportunities. Available online: https://enlargement.ec.europa.eu/news/eu-and-jordan-launch-multi-billion-euro-partnership-tackle-shared-challenges-and-opportunities-2025-01-29_en

Federal Ministry of Finance. (2024). Green Bond Impact Report 2022. Available online: https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Public-Finances/Sustainable-Development-Strategy/green-german-federal-securities-restricted/green-bond-impact-report-2022.pdf?__blob=publicationFile&v=5

Foreign Assistance. (2024). U.S. Foreign Assistance by Country. Jordan. Available online: https://www.foreignassistance.gov/cd/jordan/

FCDO. (2021). The Taskforce on Access to Climate Finance. Foreign, Commonwealth & Development Office. Available online: https://unfccc.int/sites/default/files/resource/FCDO%20UK%20-%20Hannah%20Binci.pdf

GCF. (2022). Annex XV. Work programme of the Secretariat for 2023 and administrative budget. Green Climate Fund. Available online: https://www.greenclimate.fund/sites/default/files/decision/b34/decision-b34-05-b34-a15.pdf

GCF. (2023). Enhancing access and increasing impact: the role of the multilateral climate funds. Available online: https://www.greenclimate.fund/statement/enhancing-access-and-increasing-impact-role-multilateral-climate-funds

GCF. (2024). Green Climate Fund. Climate Investment Planning and Mobilisation Framework. page 7. Available online:

GEF. (2024). Report of the Global Environment Facility to the Conference of the Parties and guidance to the Global Environment Facility. Global Environment Facility. Available online: https://unfccc.int/sites/default/files/resource/GEF_0.pdf

GEF. (n.d.). Climate Change Adaptation. Available online: https://www.thegef.org/what-we-do/topics/climate-change-adaptation#results

GIZ. (2023). Implementing the Paris Agreement on Climate Change. Available online: https://www.giz.de/en/worldwide/118893.html

GIZ. (2024). Financing and implementing nationally determined contributions. Available online: https://www.giz.de/en/worldwide/144237.html

Global Climate Action Partnership. (2015). Training Session 3: Financial instruments and innovative risk mitigation instruments. Available online: https://globalclimateactionpartnership.org/app/uploads/2015/10/Session-3-Financial-Instruments-and-innovative-risk-mitigation-instrument.pdf

Global Climate Action Partnership. (n.d.). Available online: https://globalclimateactionpartnership.org/toolkits/resource-guide-for-ndc-finance/

GoJ. (2020). NDC Action Plan (Partnership Plan). Government of Jordan. Available online: https://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_page/jordan_ndc_action_plan_october_2020_update_(3).pdf

GoJ. (2021a). Updated Submission of Jordan's 1st Nationally Determined Contribution (NDC). Government of Jordan. Available online: https://unfccc.int/sites/default/files/NDC/2022-06/UPDATED%20SUBMISSION%20OF%20JORDANS.pdf

GoJ. (2021b). The National Climate Change Adaptation Plan of Jordan. Government of Jordan. Available online: https://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_page/final_draft_nap-2021.pdf

GoJ. (2021c). Green Growth National Action Plan 2021-2025. Available online: https://edama.jo/wp-content/uploads/2024/07/Green-Growth-National-Action-Plan-2021-2025.pdf

GoJ. (2022a). National Climate Change Policy of the Hashemite Kingdom of Jordan. 2022-2050. Available online: https://www.undp.org/sites/g/files/zskgke326/files/2023-03/National%20Climate%20Change%20Policy%20of%20the%20Hashemite%20Kingdom%20of%20Jordan%202022-2050.pdf

GoJ. (2022b). Climate Investment Mobilisation Plan. Available online: https://www.moenv.gov.jo/ebv4.0/root_storage/ar/eb_list_page/climate_investment_mobilisation_plan.pdf

GoJ. (2023). Jordan's Fourth National Communication on Climate Change. Available online: https://unfccc.int/sites/default/files/resource/Hashemite%20Kingdom%20of%20Jordan%204th%20National%20Communication.pdf

Haber, S., Guilanpour, K., & Huang, J. (2024). What are "Investable" NDCs? Discussion Paper. Center for Climate and Energy Solutions. 25 July 2024. Available online: 20240723-C2ES-Investable-NDCs-FINAL.pdf

Illenseer, N., & Schenk, A. (2024). Der KTF auf unsicheren Füßen: Herausforderungen für die Finanzierung der Klimapolitik in Deutschland, MCC-Arbeitspapier. Available online: https://www.mcc-berlin.net/Publications/2024_MCC_Der_KTF-auf_unsicheren_Fuessen.pdf

IFC. (2023). IFC Invests in First Green Bond in Jordan to Boost Climate Finance, Spur Growth. International Financial Corporation. Press Release. Available online: https://www.ifc.org/en/pressroom/2023/ifc-invests-in-first-green-bond-in-jordan-to-boost-climate-finance-spur-growth

IIGCC. (2023). The Net Zero Investment Framework. NZIF 2.0. Available online: https://www.iigcc.org/hubfs/2024 resources uploads/IIGCC_NZIF 2.0_consultation_2024.pdf

IIGCC. (2024). Making NDCs investable – the investor perspective. Available online: https://www.iigcc.org/hubfs/POLICY/IIGCC_Making%20NDCs%20investable%20-%20the%20investor%20perspective_June2024.pdf

International Monetary Fund. (2023). Challenges and Policy Options to Financing Rwanda's Climate Agenda.

ISO. (n.d.). Climate finance: The key to a sustainable future. Available online: https://www.iso.org/climate-change/climate-finance

Jaramillo, M. et al. (2024). Available online: https://publications.iadb.org/en/publications/english/viewer/Climate-Finance-Strategies-Analysis-of-International-Experiences.pdf

Jeudy-Hugo, S., Re, L. L., Pouille, C., & Errendal, S. (2024). Insights for designing mitigation elements in the next round of Nationally Determined Contributions (NDCs). OECD/IEA Climate Change Expert Group Papers. Available online: https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/05/insights-for-designing-mitigation-elements-in-the-next-round-of-nationally-determined-contributions-ndcs_9b3c7347/b70a88ef-en.pdf

Kachi, A., Bendahou, S., & Outlaw, I. (2024). Financing coal phase-out: Public development banks' role in the early retirement of coal plants. Cologne. NewClimate and I4CE. Available online: https://newclimate.org/sites/default/files/2024-03/Financing%20Coal%20Phase-out_mar2024.pdf

KfW. (2023). Materials on Development Finance. Available online: https://www.kfw-entwicklungsbank.de/PDF/Download-Center/Materialien/2023_Nr.2_Materials-on-Development-Finance.pdf

Khardziani, Tamar. (2023). Climate change policies and strategies development and implementation action in Georgia. Greens Movement of Georgia / Friends of the Earth – Georgia. Tbilisi.

Litz, P., Graichen, P., & Peter, F. (2019). The German Coal Commission: A Roadmap for a Just Transition from Coal to Renewables. Agora Energiewende and GIZ, Berlin.

LT-LEDS. (2023). Georgia's Long-term Low Emission Development Strategy. Available online: https://unfccc.int/sites/default/files/resource/Georgia%27s%20LT-LEDS%202023-eng.pdf

Madeira, C., & Pérez, A. (2023). The Role of Sovereign Green Bonds in Chile's Development. Georgetown Journal of International Affairs. Business & Economics. 16 October 2023. Available online: https://gjia.georgetown.edu/2023/10/16/the-role-of-sovereign-green-bonds-in-chiles-development/

Ministerio de Hacienda. (2024). Anteproyecto de la Estrategia Financiera frente al Cambio Climático. Ministry of Finance, Government of Chile. Available online: https://cms.hacienda.cl/ciudadana/assets/documento/descargar/951a7c5330766/1718629248

Ministerio de Hacienda. (2025). Hacienda lanzó consulta pública y presentó Anteproyecto de la Taxonomía de Actividades Económicas Medioambientalmente Sostenibles. Ministry of Finance, Government of Chile. 14 January 2025. Available online: https://hacienda.cl/index.php/noticias-y-eventos/noticias/hacienda-lanzo-consulta-publica-y-presento-anteproyecto-de-la-taxonomia-de

Ministerio de Hacienda. (n.d.). Sustainability-linked Bonds. Ministry of Finance, Government of Chile. Available online: https://www.hacienda.cl/english/work-areas/international-finance/public-debt-office/esg-bonds/sustainability-linked-bonds

Ministry of Environment. (2025). Rwanda's Climate Action Plan (NDCs 3.0) Consultation Process Launch [Video]. Ministry of Environment, Rwanda. 31 January 2025. YouTube. Available online: https://www.youtube.com/watch?v=pjx3Ypcc4kw

MINECOFIN. (2024a). National Climate and Nature Finance Strategy of Rwanda. Ministry of Finance and Economic Planning, Rwanda.

MINECOFIN. (2024b). National Climate and Nature Finance Strategy of Rwanda. Rwanda Green Taxonomy: Executive Summary. Ministry of Finance and Economic Planning, Rwanda.

Mohan, P. S. (2022). Implementing nationally determined contributions under the Paris agreement: an assessment of climate finance in Caribbean small island developing states. Climate Policy, 22(9–10), 1281–1289. Available online: https://doi.org/10.1080/14693062.2022.2101978

Mohieldin, M. (2022). FINANCIAL INSTRUMENTS FOR ADAPTATION: Mobilising PUBLIC BUDGETS AND PRIVATE. Available online: https://gca.org/wp-content/uploads/2023/01/GCA_State-and-Trends-in-Adaptation-2022_Financial-Instruments-in-North-Africa.pdf

NAP Global Network. (2024). Inventory of Innovative Financial Instruments for Climate

Change Adaptation. Available online: https://napglobalnetwork.org/innovative-financing/

NDC. (2021). Georgia's updated Nationally Defined Contribution (NDC). Government of Georgia. Available online: https://unfccc.int/sites/default/files/NDC/2022-06/NDC%20Georgia_ENG%20WEB-approved.pdf

NDCIP. (2022). Final NDC Financing Strategy and Investment Plan. TECHNICAL REPORT. Georgia. NDC Investment Plan. 30 May 2022. Available online: https://www.undp.org/sites/g/files/zskgke326/files/2022-12/undp-georgia-eu4climate-ndc-financing%20strategy%202022-eng.pdf

NDCP. (2021). NDC Investment Project Pipeline. Available online: https://pia.ndcpartnership.org/country-stories/jordan/#ndc-investment-project-pipeline

NDCP. (2022a). Three Stages to Strengthen NDC Investment Planning: A Guide from the NDC Partnership. Available online: https://ndcpartnership.org/news/three-stages-strengthen-ndc-investment-planning-guide-ndc-partnership

NDCP. (2022b). Lessons from Jordan's NDC Investment Planning: Aligning Climate and Development Goals Through Prioritisation Exercises. Available online: https://ndcpartnership.org/news/lessons-jordans-ndc-investment-planning-aligning-climate-and-development-goals-through

NDCP. (2023a). Jordan Developing 2050 Long-term Low-carbon and Climate Resilient Strategy. Available online: https://ndcpartnership.org/news/jordan-developing-2050-long-term-low-carbon-and-climate-resilient-strategy

NDCP. (2023b). NDC Investment Planning Guide: Best Practice Brief. Available online: https://ndcpartnership.org/sites/default/files/2023-12/ndc-investment-planning-guide-best-practice-brief2023.pdf

NDCP. (n.d.-a). NDC Investment Planning Guide and Checklist. Available online: https://ndcpartnership.org/sites/default/files/2023-09/ndc-investment-planning-guide.pdf

NDCP. (n.d.-b). NDC Partnership Global Call for NDCs 3.0 & LT-LEDS. https://ndcpartnership.org/country-action/ndc-partnership-global-call-ndcs-30-lt-leds

NDCP & GCF. (2024). Climate Investment Planning and Mobilisation Framework. https://ndcpartnership.org/sites/default/files/2024-12/climate-investment-planning-and-mobilisation-framework.pdf

Ngwenya, N., & Simatele, M. D. (2020). Unbundling of the green bond market in the economic hubs of Africa: Case study of Kenya, Nigeria and South Africa. Development Southern Africa, 37(6), 888–903. Available online: https://doi.org/10.1080/0376835X.2020.1725446

Oberthür, S., Tänzler, D., Wright O'Kelly, E, & Khandekar, G. (2021). European Foreign Policy in a Decarbonising World: Challenges and Opportunities. Routledge Studies in Environmental Policy.

OECD. (2018). Mobilising Finance for Climate Action in Georgia, Green Finance and Investment, OECD Publishing, Paris. Available online: http://dx.doi.org/10.1787/9789264289727-en

OECD. (2020). OECD DAC Blended Finance Principle 2: Design blended finance to in-

crease the mobilisation of commercial finance. Available online: https://www.oecd.org/content/dam/oecd/en/events/2022/5/cefim_blended-finance-guidance-for-clean-energy---2nd-workshop/Guidance-note-OECD-DAC-Principle-2.pdf/_jcr_content/renditions/original./Guidance-note-OECD-DAC-Principle-2.pdf

OECD. (2021). Climate-Related Development Finance. Partner Country Perspective. Available online: https://public.tableau.com/views/Climate-RelatedDevelopmentFinanceRecipient2021/CRDFRP?:language=en-US&publish=yes&:display_count=n&:origin=viz_share_link&:showVizHome=no#1

OECD. (2022a). OECD Blended Finance Guidance for Clean Energy. Available online: https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/08/oecd-blended-finance-guidance-for-clean-energy_69d21d35/596e2436-en.pdf

OECD. (2022b). Scaling up blended finance in developing countries. Available online: https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/11/scaling-up-blended-finance-in-developing-countries_4d47ff2c/2fb14da0-en.pdf

OECD. (2022c). Global Outlook on Financing for Sustainable Development 2023: No Sustainability Without Equity. OECD Publishing, Paris. Available online: https://doi.org/10.1787/fcbe6ce9-en

OECD. (2023). Improving Transparency of Incentives for Investment Facilitation. Key Considerations Drawing on Novel Data from 15 Developing Economies. OECD Business and Finance Policy Papers. Available online: https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/11/improving-transparency-of-incentives-for-investment-facilitation_f638c5a1/ab40a2f1-en.pdf

OECD. (2024). The Role of Incentives in Investment Promotion. Trends and Practices in OECD Member Countries. OECD Publishing, Paris. Available online: https://doi.org/10.1787/e3338264-en

Partnership on Transparency in the Paris Agreement & NDC Support Cluster. (2019). CHILE'S CARBON TAX: AN AMBITIOUS STEP TOWARDS ENVIRONMENTALLY FRIENDLY POLICIES AND SIGNIFICANT GREENHOUSE GAS EMISSION REDUCTIONS. Available online: https://api.knack.com/v1/applications/5b23f04fd240aa37e01fa362/download/asset/5e34461ef6508200156f9882/190927_gpd_chile_carbontax_web.pdf

Republic of Rwanda. (2020). Updated National Determined Contribution.

REMA. (2022a). Revised Green Growth and Climate Resilience: National Strategy for Climate Change and Low Carbon Development. Rwanda Environment Management Authority.

REMA. (2022b). Private Sector Mobilisation Plan for Climate Action (PSMP - CA). Rwanda Environment Management Authority.

Richstein, J.C., & Neuhoff, K. (2022). Carbon contracts-for-difference: How to de-risk innovative investments for a low-carbon industry? iScience, 25(8), 19 August 2022, 104700. Available online: https://doi.org/10.1016/j.isci.2022.104700

Sheriffdeen, M., Nurrochmat, D. R., Perdinan, P., & Di Gregorio, M. (2020). Indicators to Evaluate the Institutional Effectiveness of National Climate Financing Mechanisms. Forest and Society, 4(2), 358–378. https://doi.org/10.24259/fs.v4i2.10309

Strand, J. (2019). Climate Finance, Carbon Market Mechanisms and Finance "Blending" as Instruments to Support NDC Achievement under the Paris Agreement. Policy Research Working Paper; No. 8914. World Bank, Washington, DC. Available online: http://hdl.handle.net/10986/31979

Swedish Presidency of the Council of the European Union. (2023). Subject: 2023 PCCB focus area 'Capacity-building support for adaptation, with a focus on addressing gaps and needs related to formulating and implementing national adaptation plans'. Available online: https://unfccc.int/sites/default/files/resource/EU%20-%202023%20PCCB%20focus%20area.pdf

S&P Global. (2025). Jordan Ratings Affirmed At 'BB-/B'; Outlook Stable. Available online: https://disclosure.spglobal.com/ratings/en/regulatory/article/-/view/sourceId/13440467

Tänzler, D., Bernstein, T., & Hilliges, M. (2024). JET-P Study: Compilation of the EU's Experience on Just Energy Transition and Recommendations for Indonesia. Study funded by the European Union.

Transparency International. (2023). COP28 should ensure accountability and inclusivity to end undue influence. Available online: https://www.transparency.org/en/press/cop28-ensure-accountability-inclusivity

Umweltbundesamt. (2025). Klimaziele bis 2030 erreichbar. Gesetzliches Emissionsbudget wird eingehalten – weiter Handlungsbedarf bei Verkehr, Gebäuden und natürlichen Senken. Pressemitteilung. Available online: https://www.umweltbundesamt.de/presse/pressemitteilungen/klimaziele-bis-2030-erreichbar#:~:text=Bis%202030%20w%C3%BCrden%20die%20Treibhausgasemissionen,%C3%BCberf%C3%BCllt%20werden

UN. (n.d.) The Paris Agreement [Website]. United Nations. Available online: https://www.un.org/en/climatechange/paris-agreement

UN. (2024). Building Country Capacities to Access Funding for Adaptation. United Nations. Available online: https://unfccc.int/news/building-country-capacities-to-access-funding-for-adaptation

UNDP. (2020). Derisking Renewable Energy Investment. United Nations Development Programme. Available online: https://www.undp.org/publications/derisking-renewable-energy-investment

UNDP. (2024a). Jordan. United Nations Development Programme. Available online: https://data.undp.org/countries-and-territories/JOR

UNDP. (2024b). Planning for a Net-Zero Future: Guidance on how to develop a Long-Term Low Emission Development Strategy (LT-LEDS). United Nations Development Programme. Available online: https://www.undp.org/publications/planning-net-zero-future-guidance-how-develop-long-term-low-emission-development-strategy-lt-leds#:~:text=Long-Term%20Low%20Emission%20Development%20Strategies%20%28LT-LEDS%29%20are%20crucial,to%20limit%20global%20warming%20to%20well%20below%202%C2%B0C

UNEP. (2020). Implementing nationally determined contributions (NDCs) [Report]. Available online: https://www.unep.org/ndc/resources/report/implementing-nationally-determined-contributions-ndcs

UNEP. (2023). Adaptation Gap Report 2023. Available online: https://www.unep.org/resources/adaptation-gap-report-2023

UNEP. (n.d.) National Action Plan. Available online: https://www.unep.org/topics/climate-action/adaptation/national-adaptation-plans

UNFCCC. (2022). Information paper on linkages between adaptation and mitigation Information paper by the Adaptation Committee. Available online: https://unfccc.int/sites/default/files/resource/linkages_mitigation_adaptation_infpaper.pdf

UNFCCC. (2023). Technical Paper Benefits of Climate Transparency. Available online: https://unfccc.int/sites/default/files/resource/Benefits-of-Climate-Transparency_2023.pdf

UNFCCC. (2024). NDC Synthesis [Report]. Available online: https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/2024-ndc-synthesis-report#Planning-and-implementation-process

UNFCCC. (n.d.-a). Adaptation Fund [Website]. Available online: https://unfccc.int/Adaptation-Fund

UNFCCC. (n.d.-b). Nationally Determined Contributions (NDCs). The Paris Agreement and NDCs [Website]. Available online: https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs

UNFCCC. (n.d.-c). Introduction to Climate Finance [Website]. Available online: https://unfccc.int/topics/introduction-to-climate-finance

UNFCCC. (n.d.-d). NDC 3.0 support by other organizations [Website]. Available online: https://unfccc.int/process-and-meetings/the-paris-agreement/nationally-determined-contributions-ndcs/ndc-30/ndc-30-support-by-other-organizations

UNFP. (2025). World Population Dashboard: Jordan. United Nations Population Fund. Available online: https://www.unfpa.org/data/world-population/JO

UNICEF. (2024). Water Stress in Jordan Report. The costs of the water crisis in Jordan. United Nations agency for children. Available online: https://www.unicef.org/jordan/reports/water-stress-jordan-report

World Bank. (2017). The Potential Role of Enhanced Bond Structures in Forest Climate Finance. Washington, DC, World Bank. Available online: https://openknowledge.worldbank.org/server/api/core/bitstreams/c9f84413-624e-576f-ae96-5ccd27398475/content

World Bank. (2018). A Guide For Effective Results-Based Financing Strategies. Available online: https://documents1.worldbank.org/curated/en/265691542095967793/pdf/A-Guide-For-Effective-Results-Based-Financing-Strategies.pdf

World Bank. (2019). Banking on Impact. What You Need to Know about Results-Based Financing. Available online: https://www.worldbank.org/en/news/feature/2019/06/28/banking-on-impact-what-you-need-to-know-about-results-based-financing

World Bank. (2021a). What You Need to Know About Concessional Finance for Climate Action. Available online: https://www.worldbank.org/en/news/feature/2021/09/16/what-you-need-to-know-about-concessional-finance-for-climate-action

World Bank. (2021b). Rwanda. World Bank Groups Climate Change Knowledge Portal. Available online: https://climateknowledgeportal.worldbank.org/country/rwanda/

World Bank. (2024). Climate Support Facility. 2024 Annual Report. Available online: https://documents1.worldbank.org/curated/en/099536310232454387/pdf/IDU186ea8ea01531d1455d19ee81315150d8bdd1.pdf

World Bank Group. (2021). COP26 Climate Briefs - Expanding World Bank Group Support for Country NDCs and LTSs. Available online: https://thedocs.worldbank.org/en/doc/82c2b8f89b9b345bd1d305f24df7f665-0020012021/cop26-climate-briefs-expanding-world-bank-group-support-for-country-ndcs-and-ltss

World Bank Group. (2022). Jordan Country Climate and Development Report. Available online: https://www.worldbank.org/en/country/jordan/publication/jordan-country-climate-and-development-report

World Bank Group. (2024). Jordan Economic Monitor, Summer 2024: Strength Amidst Strain: Jordan's Economic Resilience. Available online: https://www.worldbank.org/en/country/jordan/publication/jordan-economic-monitor-summer-2024

World Economic Forum. (2022). The Power of Partnerships. How grant-funded multistakeholder platforms are seeding solutions to address complex challenges. Available online: https://www3.weforum.org/docs/WEF_The_Power_of_Partnerships_Report_2022.pdf

World Economic Forum. (2024). Innovative funding tools for climate adaptation and resilience. Available online: https://www.weforum.org/stories/2024/02/climate-adaptation-and-resilience-innovative-funding/

Annex

Table 6
Affiliations of interviewed experts. Interviews were assigned a random number for citing purposes. Numbering does not follow the order in the table.

Affiliation	Sector
Banking Association of Georgia	Banking industry association
NDC Partnership (Georgia mission)	International partnership
Gauss International	International consultancy
GIZ (Georgia mission)	German development agency
Georgia Environmental Outlook	National consultancy
Undisclosed	Regional development bank
National Bank of Georgia	Financial institution
UNDP (Georgia mission)	UN agency
World Bank	International financial institution
GIZ Rwanda	German development agency
NDC Partnership Rwanda/Ministry of Environment	International partnership
Ministry of Finance and Economic Planning	Ministry
Rwanda Finance LTD	Investment promotion company
Rwanda Green Fund	Climate fund
NDC Partnership	International partnership
Undisclosed	Think tank
Undisclosed	Regional development bank
GIZ Jordan	German development agency
GIZ Chile	German development agency