POLICY BRIEF

Advancing NDC implementation

Insights from UNEP's NDC Action Project

Summary

This policy brief presents key insights and reflections on the NDC Action Project's support to partner countries to implement their Nationally Determined Contributions (NDCs), drawing on examples from Colombia, Uganda, Morocco and Bangladesh.[1] It does so by showcasing various multistakeholder efforts to articulate policies and financing mechanisms to create or expand markets and/or secure investment in priority climate technologies. In doing so, the overall focus is governance, including the role of government policy and institutions to deliver on NDC commitments by enabling public and private capital investment in specific sectors stated in the NDCs 2.0. The aim of this policy brief is to inform the NDC 3.0 process, complementing the United Nations Environment Programme (UNEP) suite of technical analyses in advance of the 30th Conference of the Parties (COP30) of the United Nations Framework Convention on Climate Change.

1 The German-funded NDC Action Project is a UNEP-led initiative that aims to incentivize action and increase ambition on climate change. Since 2020, UNEP has worked with partners and donors to support ten partner countries – Argentina, Bangladesh, Colombia, Costa Rica, Ghana, Jordan, Mongolia, Morocco, Uganda and Viet Nam – to deliver on their climate mitigation and adaptation promises made under the Paris Agreement: https://www.unep.org/ndc/.

Preface

The United Nations Environment Programme (UNEP) *Emissions Gap Report 2024* found that current Nationally Determined Contributions (NDCs) put the world on track for a global temperature rise of 2.6–2.8°C. For a 1.5°C pathway, reductions to global greenhouse gas (GHG) emissions of 42 per cent compared with projections based on policies currently in place are needed by 2030. Further, the *Adaptation Gap Report 2024* includes an analysis of alignment between National Adaptation Plans (NAPs) and NDCs that found that most countries' NAPs and the current NDCs are only partially aligned (68 per cent), with a further 16 per cent showing no alignment. As countries update their NDCs, significant emphasis should be placed on ensuring alignment between these two instruments so that they can mutually reinforce each other, lead to more strategic investments and avoid duplication of effort.

A draft of this policy brief was shared among the organizers of the three-day-long NDCs 3.0 Regional Fora that took place between August and October 2024. The fora aimed at helping countries' efforts to shape their NDCs, as the next generation of NDCs are widely seen as "a make it or break it" moment towards the 1.5°C goal. Organized in six regions, the events brought together more than 500 representatives from national governments and development partners to discuss national and regional challenges, identify new opportunities and synergies, harness collective technical and financial capabilities, and highlight the joint UN support available for countries to prepare and implement their NDCs. The objectives of the fora were two-fold: (i) to foster peer learning and exchanges; and (ii) to distil lessons from the previous rounds of NDCs to feed into the formulation of ambitious and implementable NDCs in the next round.

Introduction

By taking stock of the UNEP NDC Action Project, this policy brief focuses on the "how" of NDC implementation, drawing on up-to-date country examples. Analytically, this brief draws on the ideas and arguments put forward by Prof. Mariana Mazzucato of University College London on the role of the state and non-market actors to drive economic transformation,[2] building on past analytical outputs by UNEP and others.[3] While some of the country case studies focus on sector-specific examples, a cross-cutting theme is the study of financial mechanisms and incentives to enable investment in climate mitigation and adaptation.

2 Mazzucato was lead author of an article in the 2018 edition of UNEP's *Emissions Gap Report* and has published widely cited books, including *The Entrepreneurial State: Debunking Public vs. Private Myths in Risk and Innovation* (2013) and *Mission Economy: A Moonshot Guide to Changing Capitalism* (2021).

3 These include *Implementing Nationally Determined Contributions* published by UNDP, UNEP and WRI (2020): *https://www.unep.org/ndc/resources/report/implementing-nationally-determined-contributions-ndcs*; *Financing Climate Futures: Rethinking Infrastructure* published by the OECD, World Bank and UNEP (2018): *https://doi.org/10.1787/9789264308114-en*; *Financial Markets and Climate Transition: Opportunities, Challenges and Policy Implications* published by the OECD (2021): *https://www.oecd-events.org/green-finance/content/key-resources*; and *Finance Strategy for the Implementation of the NDC Partnership Work Program 2021-2025* published by the NDC Partnership (2021): *https://ndcpartnership.org/sites/default/files/2023-09/ndc-partnership-finance-strategy.pdf*

Key challenges and solutions in NDC implementation

Understanding multistakeholder efforts and their significance

This paper uses the term "multistakeholder" in parallel with "governance". UNEP *defines environmental governance* as comprising "the rules, practices, policies and institutions that shape how humans interact with the environment". This is a broad yet useful framing for the case studies presented in this policy brief, with the focus on NDC implementation which is, by definition, a country-led yet multistakeholder process.

Use of the term multistakeholder also aligns with the Intergovernmental Panel on Climate Change's *definition of governance*: "whereas government is defined strictly in terms of the nation-state, the more inclusive concept of governance recognizes the contributions of various levels of government (global, international, regional, sub-national and local) and the contributing roles of the private sector, of nongovernmental actors, and of civil society to addressing the many types of issues facing the global community." From this starting point, some examples are presented of context-specific approaches taken by countries to design and implement low-carbon and climate resilient investment strategies in support of NDC 2.0 targets, in the hope that this can serve as inspiration for others seeking to raise ambition and articulate implementation pathways for the NDCs 3.0.

The importance of institutional arrangements in NDC implementation

In recent years, many climate change mitigation technologies have become more affordable, advanced and widely available, often through commercial markets. While traditionally financed and implemented by foreign donors and NGOs, climate investments are now *increasingly driven by private investors* (UNEP Copenhagen Climate Centre 2020). Yet a range of domestic barriers to investment persist in many sectors in non-OECD countries, including access to concessional climate funding and financing. Indeed, overcoming these barriers is the most common focus of requests for technical assistance made by governments to the *NDC Partnership*. This is especially so for adaptation-side investment, which is dominated by the need for investment in public infrastructure. Overall, the adaptation finance needed to implement domestic adaptation priorities is *estimated at* US$387 billion per year (UNEP 2024a), and most countries are just beginning to outline national risk allocation and management policies in conditions of deep uncertainty, that is, partial or total ignorance of the frequency and severity of extreme weather events. For mitigation-side actions, the identification and prioritization of interventions, project structuring and risk management are often weak and disconnected.

The complexities of mitigation-side financing stem from the dispersed nature of the interventions, across a diversity of sectors. In adaptation, the financing difficulties mostly come from weak capacities to structure regionalized plans and protocols and to incorporate these into the public financing cycle. Existing fiscal commitments and short-term needs for social spending tend to undermine efforts to design and commit to long-term investments to reduce the physical risks posed by climate change. For adaptation, subnational governments also often have weak project structuring capacities and minimal resources at their disposal. Except for regulated sectors (infrastructure service networks), line ministries often lack expertise in climate financing, nor do they have the resources to build prioritized portfolios of mitigation projects, let alone adaptation plans.

The above problems can be classified into two groups: (i) market failures (gap between financing supply and demand) and (ii) coordination failures within the state, and between the state and non-market actors. The following sections offer practical and real-world examples of multistakeholder efforts to tackle these problems, taken from UNEP's NDC Action Project. Inspired by Mazzucato's "mission thinking", these examples are presented as part of broader efforts to orchestrate delivery on NDC targets, based on both a clear sense of direction as well as the development of attractive climate investment portfolios for both local and global funds.

Good practice example: an "institutional triplet" for NDC implementation in Colombia

Increasing investment in climate change mitigation and adaptation in Colombia requires greater state leadership and multistakeholder coordination focused on NDC implementation. A proposed solution developed under the NDC Action Project for Colombia[4] is to structure an "institutional triplet" to tackle these problems:

1. Establish a clear "NDC Mission": A mission is a set of coordinated decisions to solve a complex and specific high-impact social challenge. Missions serve to align transversal efforts in the public sector and to deliver tangible outcomes. Missions must trigger relevant research and development plus innovation (R&D+i), and complement and not replace private sector initiatives. An NDC Mission must ensure that these functions are carried out by relevant ministries or state agencies, through:
    - The definition and follow-up of measurable goals (e.g. mobilized money, emission reduction, reduced risk)
    - Alignment of investment priorities and actions by hierarchical coordination at the highest level of the state
    - Offering prizes and penalties for achieving (or not) stated goals
    - Open and transparent knowledge management in climate change mitigation and adaptation.
2. Create a dedicated public agency to structure complex investment projects: This is needed to gather scarce public resources to fund socially profitable projects that do not have positive private profitability. For climate change adaptation, it should allow sub-national entities to co-finance interventions and to generate regional economies of scale.
3. Create a blended finance fund: Blended financing funds improve the risk profile of projects and attract a diversity of investors in terms of amount, term, risk appetite and purpose. They are not designed to carry out the bulk of climate financing. The main aim of a blended finance fund should be to attract institutional investors who, worldwide, are looking to match local and commercial investment in income-generating low-carbon and climate resilience projects.

4 A national roadmap on how to finance Colombia's contributions to the Paris Agreement was developed with support from the UNEP Copenhagen Climate Centre and launched at a high-level event held in Bogota in June 2022, hosted by leading Colombian thinktank Fedesarollo and attended by the Deputy Environment Minister and approx. 30 key stakeholders: *https://www.unep.org/ndc/news-and-stories/story/road-finance-colombias-ndc*.

The following are policy recommendations from Colombia, developed locally through the NDC Action Project in a consultative process, under direction from the Ministry of Environment and Sustainable Development:

1. Define the public climate financing model for mitigation and adaptation: Public financing must be guided by the principles of efficiency, equity, gender inclusivity, transparency and catalytic impact. Public climate financing must be included in medium- and long-term fiscal allocations, assign ratios to mitigation and adaptation and define eligible interventions. Public financing for mitigation must be based on constantly updated marginal abatement cost curves to identify projects in which it is necessary for the state to intervene.
2. Build a pipeline of prioritized mitigation projects and establish the logical framework for adaptation projects: The negative carry risk of sovereign and green bonds due to the absence of projects will be mitigated by having prioritized portfolios, aligned with a green taxonomy and supplemented by certification systems. The areas with the greatest mitigation impact include energy efficiency, green buildings, the electrification of urban mass transportation, sustainable agriculture and the conservation and restoration of forests and other carbon storage ecosystems.
3. Adopt a national policy for managing adaptation risks: Developing countries are required to define an adaptation policy in a decision-making framework under deep uncertainty that strengthens existing sectoral and territorial initiatives. The four strategic lines of work in adaptation are: (i) cost-efficient investment in preserving the continuity of the service of vital networks; (ii) investment in ecosystem services and protection of biodiversity; (iii) protection of the built environment; and (iv) R&D+i in new technologies and business models that transform the economy and occupation of the territory.

Good practice example: Integration of long-term displaced communities into Uganda's NDCs

As of mid-2024, there were more than 120 million people displaced as a result of persecution, conflict, violence, human rights violations or events seriously disturbing public order (UNEP and International Science Council 2024), approximately 75 per cent of whom are hosted by low or middle-income countries and living in protracted circumstances (meaning the same population, in the same place for at least five years). Globally, women and girls account for 50 per cent of displaced persons, though the nature of the cause of displacement can lead to gendered imbalances, in some circumstances women, children and elderly people account for more than 80 per cent of those displaced (Internal Displacement Monitoring Centre 2022).

Host countries are facing challenges in addressing the needs of internally displaced persons and refugees, even with the assistance and efforts of UN agencies and humanitarian organizations. This situation is being exacerbated by climate change. The World Bank's *Groundswell* report (Clement *et al.* 2021) indicates that, without decisive climate action and inclusive development measures, climate change could drive the internal displacement of 216 million people by 2050 (UNEP 2023).

In November 2023, ahead of the 2nd Global Refugee Forum, the Government of Uganda, with support from UNEP and its local partners, announced a commitment to include the country's 1.7 million refugees and their specific situations in its NDCs and adaptation plans, to "effectively reduce the carbon emissions from deforestation and to enhance access to safe, clean and affordable energy in refugee hosting districts by 2027".[5] At the broader level, this is a good example of the Sustainable Development Goal (SDG) "leave no-one behind" political agenda, breaking political silos and inviting UN agencies to share mandates, capacities and resources to support partner countries hosting large populations of long-term displaced persons.

When it comes to clean energy access for displaced persons and their host communities, the UN is organizing itself through the Global Platform for Action (GPA) on SDG 7 in situations of displacement, as one example of inter-agency collaboration to gather and organize global resources to deliver practical solutions on the ground. The GPA promotes household access to clean and sustainable energy as a means to reduce the environmental impact caused by intensive biomass consumption following the influx of displaced populations. It also contributes to the humanitarian sector's transition to renewable energy, which will increase efficiency and reduce costs and carbon emissions while building the climate resilience of host communities by relieving pressure on valuable local biomass resources used for cooking food. Hosted by the UN Institute for Training and Research (UNITAR), the GPA Coordination Unit galvanizes collective action towards the GPA's realization and is *governed by a Steering Group* made up of relevant UN agencies including the International Organization for Migration, World Food Programme, Office of the United Nations High Commissioner for Refugees, UNEP and the United Nations Development Programme.

Mainstreaming investment in NDC action

Through a consultative process driven by National Technical Institutes, the NDC Action Project identified key barriers to advancing climate finance, including challenges in inter-ministerial coordination, limited technical capacity for preparing funding proposals and challenges in accessing international finance. Effective solutions are showcased through successful collaborations, such as working with accredited funds like the Green Climate Fund, Adaptation Fund and the Mitigation Action Facility on blended finance and risk mitigation strategies, enabling smallholder farmers and vulnerable communities to access climate financing for technologies (products and services) that require donor support to make them commercially viable.

Examples include Uganda's Blended Finance Tool, which combines de-risking strategies, insurance products and fiscal incentives to catalyse investment in NDC-aligned technologies. Similarly, Colombia seeks to leverage debt-for-climate and nature-swaps (DFCNS) to link debt relief with environmental investments, addressing fiscal challenges while advancing climate action.

Bangladesh's climate-resilient housing pilot demonstrates scalable solutions for vulnerable coastal communities. These initiatives highlight the importance of aligning grassroots efforts with government-led strategies, showcasing how targeted interventions can transform NDC commitments into impactful, finance-ready actions for sustainable development.

5 Pledges by the Government of Uganda to the Global Refugee Forum 2023 are here: *https://unepccc.org/wp-content/uploads/2023/11/uganda-grf-pledges-2023.png*.

Good practice example: The design and mainstreaming of an innovative blended climate fund for Uganda

In Uganda, the NDC Action Project supported priority development ambitions, to design and then help implement technology-specific projects that seek to overcome barriers to investment. The overall aim is to deliver NDC-aligned climate change mitigation and adaptation-side solutions with a range of co-benefits.

On the mitigation side, the Uganda country team leveraged data from high priority and complementary technologies for solar PV-powered irrigation, solar dryers, solar electric cooking appliances and agroforestry. On the adaptation side, the NDC Action Project collaborated with Agriculture and Climate Risk Enterprise Ltd. Africa, Agro Consortium Limited and the Banana Industrial Research and Development Centre to design and secure donor support for innovative insurance products tailored for smallholder banana farmers.

The NDC Action Project has developed the Innovative Blended Finance Tool (IBFT) for Uganda, through a collaboration between UNEP and its local partner Climate Change Adaptation Innovation and the Ministry of Water and the Environment. The IBFT provides a combination of strategies to de-risk the financing of enterprises engaged in Uganda's NDC priorities, to catalyse affordable financing/capital for these enterprises. The creation of the IBFT has been facilitated through multistakeholder interaction, drawing on and consolidating stakeholders' respective technical resources.

Key strategies include working through cooperatives for risk diversification; enhanced market access for products/services derived from NDC areas to enhance business liquidity and ease finance/debt repayment obligations; hybrid insurance products to cover climate risks; favourable repayment terms by financers for NDC priority areas; training and capacity enhancement for entrepreneurs engaged in the priority areas; and fiscal incentives in the form of tax breaks, VAT waivers, etc. The IBFT is the operational tool for the NDC investment plan and in late 2023 it was integrated into Uganda's draft Climate Finance Strategy under the Ministry of Finance, Planning and Economic Development.

To drive a green energy transition, interventions are necessary to stimulate both supply and demand, creating markets for transformative technologies such as renewably powered electric cooking appliances, which also offer climate adaptation benefits (UNEP Copenhagen Climate Centre and World Food Programme 2024). Building new partnerships with private sector actors and financial institutions, including sharing responsibilities within the UN, is crucial for developing and scaling markets for electric cooking – especially in displacement settings where there is a significant and growing need for clean, modern cooking solutions. An example of this is the multistakeholder *SOLCO Partnership*, launched at both the Global Refugee Forum in 2023 and as part of the *Global electric Cooking Coalition* at COP28.

The complexity of certain technology transitions calls for a systems-based approach and the establishment of platforms like the Global Electric Cooking Coalition, managed by impartial and independent systemic intermediaries. While clean cooking goals feature prominently in Africa's NDCs, with some explicitly targeting electric cooking (though often excluding solar electric cooking), there is potential to emphasize these goals further in updated NDCs and incorporate a wider range of renewably powered electric cooking technologies.

Good practice example: Climate debt swaps as means of NDC implementation – Colombian advocacy to build on regional leadership

DFCNS are instruments that offer partial debt relief in exchange for commitments from debtor countries to invest in climate and nature-related projects. These swaps provide both debt relief and funding for environmental investments. Although DFCNS initiatives began in the 1980s, there has been a significant increase in interest globally, particularly in Latin American and Caribbean (LAC) countries such as Belize, Ecuador, Barbados and Peru over the past three years. These initiatives have varied in form and structure, increasingly involving more stakeholders and larger amounts of debt, especially expensive commercial sovereign bonds. Successful DFCNS initiatives focused on single countries have led to substantial savings in debt servicing costs, thereby unlocking new funding for nature conservation and climate action. This trend underscores the growing importance of DFCNS in addressing environmental and financial challenges.

Following the COVID-19 pandemic, the LAC region has experienced rising debt levels, with some countries facing limited fiscal space. Projections suggest that high debt-to-GDP ratios will persist in many countries in the region for the next five years. This is coupled with an increase in foreign currency denominated and commercial debt components. Given these challenges, debt restructuring is becoming increasingly relevant for securing fiscal sustainability in the LAC region, making DFCNS a compelling option to consider, including as a means to finance NDC implementation.

There are several additional opportunities for the LAC region in pursuing DFCNS. The region has considerable experience among UN Member States in designing and implementing DFCNS deals using various structures and modalities to address a range of climate and nature challenges. Moreover, the LAC region's rich and diverse ecosystems provide an opportunity to use DFCNS to mobilize funds for common environmental objectives while simultaneously reducing debt burdens. This synergy between environmental conservation and debt management makes DFCNS an attractive option for the region.

To capitalize on these opportunities and address the challenges of implementing DFCNS, an integrated approach is essential. Using data from 2023, a UNEP technical paper on the "potentials for debt-for-climate and nature swaps in latin america and the caribbean" outlines a collaborative and innovative strategy that builds on past experience while incorporating new innovations. Five key recommendations for a regional strategy for DFCNS as a means to finance NDC implementation include:

1. Creating a regional framework
2. Establishing a knowledge centre to enhance and amplify regional experiences
3. Identifying shared nature and climate actions
4. Exploring the possibilities for regional or multi-country debt pooling
5. Considering the establishment of a regional special purpose vehicle to fund ndc implementation through dfcns.

In June 2024 during the first High-Level Officers meeting of the Forum of Ministers of Environment of Latin America and the Caribbean, the Government of Colombia presented the UNEP working paper and called for collaboration within the forum to advance this and similar proposals with a regional voice.

Good practice example: Climate-resilient housing in Bangladesh

Through a pilot project for climate-resilient housing in Bangladesh's coastal zone, the NDC Action Project supports the Ministry of Environment, Forest and Climate Change (MoEFCC) with its local technical partner BRAC, showcasing innovative housing solutions to the climate crisis in the Mongla and Moheshkhali administrative divisions in the southern parts of the country.

Centred on enhancing climate adaptation efforts, the stakeholder-driven pilot housing project highlights Bangladesh's dedication to translating its NDCs into tangible actions, delivering sustainable development in vulnerable coastal communities. Building on BRAC's expertise and lessons from the NDC Action pilot, the MoEFCC now aims to replicate this model across the country's coastal regions.

Covering about a third of Bangladesh, the coastal zone's climate resilience is directly addressed in the country's NDC. In the Mongla administrative division, a climate-vulnerable area in the southwestern coastal belt, frequent cyclones and storm surges already pose significant challenges, resulting in loss of life, livelihoods and critical infrastructure. The government-endorsed housing project has access to several funds established by the Bank of Bangladesh to invest in "green housing" in both urban and rural settings.

BRAC's extensive experience in designing and building climate-resilient housing across Bangladesh has informed the creation of these houses, which are designed to withstand climate-induced disasters and long-term climate change impacts. Although the low-cost resilient housing is intended for individual families, it can also serve as a small cyclone shelter, accommodating up to 45 people and providing shelter for livestock on the ground floor. The houses use sustainable, locally sourced materials, include a rainwater harvesting system, and have disability and gender-inclusive components as well as featuring renewable energy generation through solar installations.

What sets these houses apart from other shelter projects is that people no longer have to travel long distances on uneven, low-lying roads, leaving their livestock behind during cyclones. Instead, they can find safety, security and comfort close to home.

Prova Mridha from Joy Kha village, the recipient of a climate-resilient house in Mongla, is a reminder of the vulnerability faced by millions living in coastal Bangladesh. In 2007, Cyclone Sidr left her family and many others scrambling for safety in overcrowded shelters, only to return to devastated homes and lost livestock. The cycle of destruction and rebuilding has been a recurring theme for the coastal community, exacerbated by rising sea levels and increasingly extreme weather events. In selecting beneficiaries for the houses, BRAC prioritizes female-headed households, families with school age children, adolescent girls and persons with disabilities to ensure the inclusiveness of the intervention.

When Cyclone Remal struck Bangladesh in 2024, 23-year-old Shwati Baroi was visiting her mother's house with her newborn baby. While the cyclone was wreaking havoc, Shwati, her baby and her mother took shelter in the nearby climate-resilient house of Prova Mridha. They remained safely in the house throughout the entire period of Cyclone Remal. Several other families also affected by the cyclone stayed with them. Describing the severity of the cyclone, Prova said, "The devastating impacts of the cyclone remained for more than 24 hours this time. I have never seen the tidal surge this high; water started entering from both the south and north direction while deluging the entire neighbourhood. Only our house got spared due to its elevated plinth. I felt assured to shelter our neighbours during the cyclone." The design of the climate-resilient housing model is approved and endorsed by the Government of Bangladesh.

In terms of impact pathways for scaled-up investment, the Bangladesh experience is instructive in the way bottom-up consultations and initiatives were linked to more top-down government-led processes. For example, the UNEP NDC Action team ensured that the housing project and

its learnings were included in the scope of the government's inter-ministerial technical advisory committee meetings, chaired by the MoEFCC. Consequently, Bangladesh is mainstreaming climate resilience in coastal regions, aligned with NDC priorities. The work with BRAC on piloting climate-resilient housing for coastal communities is a key component of these efforts.

Aligning NDCs with long-term climate goals

This section summarizes some of the work completed by the NDC Action Project to support countries in their efforts to better align their NDCs with national development priorities and long-term strategies. Comprehensive policy assessments were conducted in some of the participating countries to evaluate the coherence between NDC targets and sectoral or national long-term plans. In short, these assessments highlight the importance of bridging short-term actions with long-term climate goals to ensure effective and sustainable decarbonization pathways. Key recommendations include aligning NDC objectives with sectoral strategies, enabling stakeholder collaboration and embedding climate measures into national planning, budgeting and resource mobilization strategies. By addressing gaps and inconsistencies, countries can better integrate NDC measures into broader policy frameworks, enhancing transparency, efficiency and ambition.

Good practice example from Morocco

The foundation of Morocco's qualitative Long-Term Low Emission Development Strategy (LT-LEDS) was based on existing Low Emissions Analysis Platform model for Morocco, including the model developed for the updated 2021 NDC, which provided key information and capabilities for the LT-LEDS analysis. From this data and additional sectoral inputs, the LT-LEDS modelling resulted in sectoral decarbonization scenarios and plans that explored long-term, low-carbon development options that went beyond what is included in the NDC and introduced new measures necessary to achieve the net-zero emissions goal. The governance set-up for the development of the LT-LEDS involved significant reflection and consultation, with an in-depth analysis of the NDC and various public policies, which led to the following results in terms of aligning the LT-LEDS with the existing NDC:

- Several unconditional and conditional measures targeting 2030 have been integrated into the modelling of the country's net-zero trajectory, complemented by other measures from various public policies and directives from sectoral departments.
- Some measures from the NDC have been extended to the 2040 and 2050 horizons and incorporated into the modelling aimed at achieving carbon neutrality.
- Certain measures were not included in the LT-LEDS, based on the governance of the LT-LEDS and the involved ministerial departments.

It is important to note that the LT-LEDS targeting 2050 constitutes the long-term horizon of NDCs, which are limited to 2030. The LT-LEDS helps place the NDC in a long-term planning context and identifies national priorities, providing a vision and direction for future development. With the new process of NDC revision just starting, the LT-LEDS measures will be analysed, leading to the identification of those eligible for Morocco's unconditional and conditional NDC commitments. Based on UNEP's experience supporting the development of Morocco's LT-LEDS under the NDC Action Project, the following areas are identified as essential to optimize the link with the LT-LEDS:

1. Alignment of objectives: The governance of the NDC should ensure that national commitments, as defined in the NDCs, are aligned with national priorities, development policies and sectoral strategies, particularly the LT-LEDS.
2. Stakeholder coordination: The governance of the NDC should involve coordination among various stakeholders, including the government, local authorities, the private sector and civil society. The governance of the LT-LEDS, which built on this integrated approach, could be associated with and form the basis of this NDC process to ensure convergence between the next NDC and the LT-LEDS.
3. Planning process: The development process of the NDC requires national consultations based on a thorough understanding of the LT-LEDS, particularly on mastering the policy implications and the legislative, regulatory and technical roadmap of the LT-LEDS, identifying essential operational programs for decarbonization and GHG emissions sequestration.
4. Methodological approach to sizing: The measures reported in the NDC must be financially costed and quantified in terms of avoided emissions. The new NDC should integrate the methodological approach to sizing for transparency, consistency and credibility.
5. Integration of unconditional NDC measures into national multi-year budget programming: To reflect the measures of the NDC and the LT-LEDS in the short term within the national context, it is essential to incorporate the programs/measures of the NDC into national budget programming.
6. Coordinated revision and updating between the LT-LEDS and the NDC: The LT-LEDS and the NDC have periodic revision cycles and aligning updates will be expected. If updates lead to changes in the LT-LEDS, the NDC may also need to be updated. If the NDC identifies a necessary update point for the LT-LEDS, the governance of the LT-LEDS should be notified to follow the update process previously outlined and recall the major measures and directions related to the governance.

These insights and recommendations can help inform an internal roadmap specifically designed for preparing the new NDC and its connection to the LT-LEDS.

Lessons learned and future directions

The implementation of the NDC Action Project across various countries has highlighted the critical role of multistakeholder collaboration and robust governance structures in achieving climate goals. Key lessons learned include the importance of aligning national policies with long-term climate objectives, the necessity of creating attractive climate investment portfolios, and the value of incorporating bottom-up initiatives into top-down governmental processes. However, challenges persist, particularly in financing climate adaptation and mitigation efforts, coordinating between different levels of government and stakeholders, and overcoming domestic barriers to investment.

Reflecting on the experience with the NDC Action Project and the discussions at the UN-hosted NDC Regional Fora in 2024, some key actionable recommendations to countries as they work to revise their NDCs are summarized here:

- Ambition setting: The NDCs 3.0 will need to strike a balance between setting ambitious climate targets and ensuring that goals are realistic and achievable within the given timeframe and resources.
- Implementation: Raising ambition and implementation need to go hand in hand. Countries require increased support to identify and develop a portfolio of policies and programmes that can drive NDC implementation in order to achieve their existing national commitments, which needs to be happening in parallel with the development of the NDCs 3.0.
- Finance: Mobilizing both domestic and international public and private resources remains challenging, though robust enabling environments and active engagement with the private sector can foster needed investments. Even with the perception of high investment risk and a paucity of bankable investment projects, there are solutions available, for example through blended finance facilities.
- Coordination: Successful climate action requires strong political leadership at the highest level of government in combination with effective coordination across ministries and the engagement of sub-national governments. National climate committees or steering bodies that facilitate inter-ministerial coordination can bring together ministries with different mandates and ensure that efforts are harmonized and build on each other's competences.
- Technology: The development of the NDCs 3.0 could benefit from involving a greater emphasis on the adoption of new and emerging technologies. Technology Needs Assessments can be a useful planning instrument to identify, select and implement environmentally appropriate technologies for mitigating and/or adapting to climate change.
- Capacity building: Capacity building at technical and institutional levels is a continuous process and linked to the operationalization of NDC implementation plans.
- Measuring, monitoring and evaluation: Adopting the Paris Agreement's Enhanced Transparency Framework requires national systems to track progress accurately, report transparently and ensure accountability for meeting Paris Agreement commitments, including NDCs. Challenges experienced include data collection and quality of data, legislation and enforcement for data, identifying indicators to track conditional vs. unconditional targets, transparency about indicators and baselines, and consideration of informal sectors, youth and gender indicators, among others.
- International cooperation: Countries and partners recognize that many climate challenges require coordinated global and regional responses. This includes coordination of climate action to meet global targets, as well as coordination among implementing and development partners in the delivery of scarce public resources in line with country priorities

Looking forward, and in conclusion, the next phase of NDC implementation (NDCs 3.0) must focus on further strengthening these collaborative efforts, enhancing the capacity of local institutions to structure and manage climate data, and ensuring that adaptation and mitigation strategies are financially viable and integrated into national development and investment plans. Additionally, future directions should include expanding the use of innovative financing mechanisms such as blended finance and debt-for-climate swaps and leveraging regional cooperation to amplify impact. By building on the lessons learned and addressing the identified challenges, countries can more effectively meet their NDC targets and contribute to global climate resilience and sustainability.

Acknowledgments

Contributing authors were Alejandro Regatero Labadia, Clarine Tania Ovando, Helen García, James Haselip, Jerome Malavelle, John Kaddu, Juan Benavides, Miguel Naranjo, Patrick Kibaya, Rachid Ennassiri, Ranga Pallawala, Richard Munang, Sinchita Podder and Sumalee Khosla.

Peer reviews were provided by Anne Olhoff, Federico Canu, Fatemeh Bakhtiari, Miriam Hinostroza and Myung Kyoon Lee.

The report was compiled by James Haselip of the UNEP Copenhagen Climate Centre.

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ISBN: 978-92-807-4227-5
Job number: CLI/2709/PA
DOI: https://doi.org/10.59117/20.500.11822/48456

Suggested citation
United Nations Environment Programme (2025). *Advancing NDC implementation: Insights from UNEP's NDC Action Project*. Paris. https://wedocs.unep.org/20.500.11822/48456

Production: Global Climate Action Unit (Paris), with support from the UNEP Copenhagen Climate Centre

URL: https://www.unep.org/resources/policy-and-strategy/advancing-ndc-implementation-insights-uneps-ndc-action-project

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Special thanks to UNEP's funding partners. For more than 50 years, UNEP has served as the leading global authority on the environment, mobilizing action through scientific evidence, raising awareness, building capacity and convening stakeholders. UNEP's core programme of work is made possible by flexible contributions from Member States and other partners to the Environment Fund and UNEP Planetary Funds. These funds enable agile, innovative solutions for climate change, nature and biodiversity loss, and pollution and waste.

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