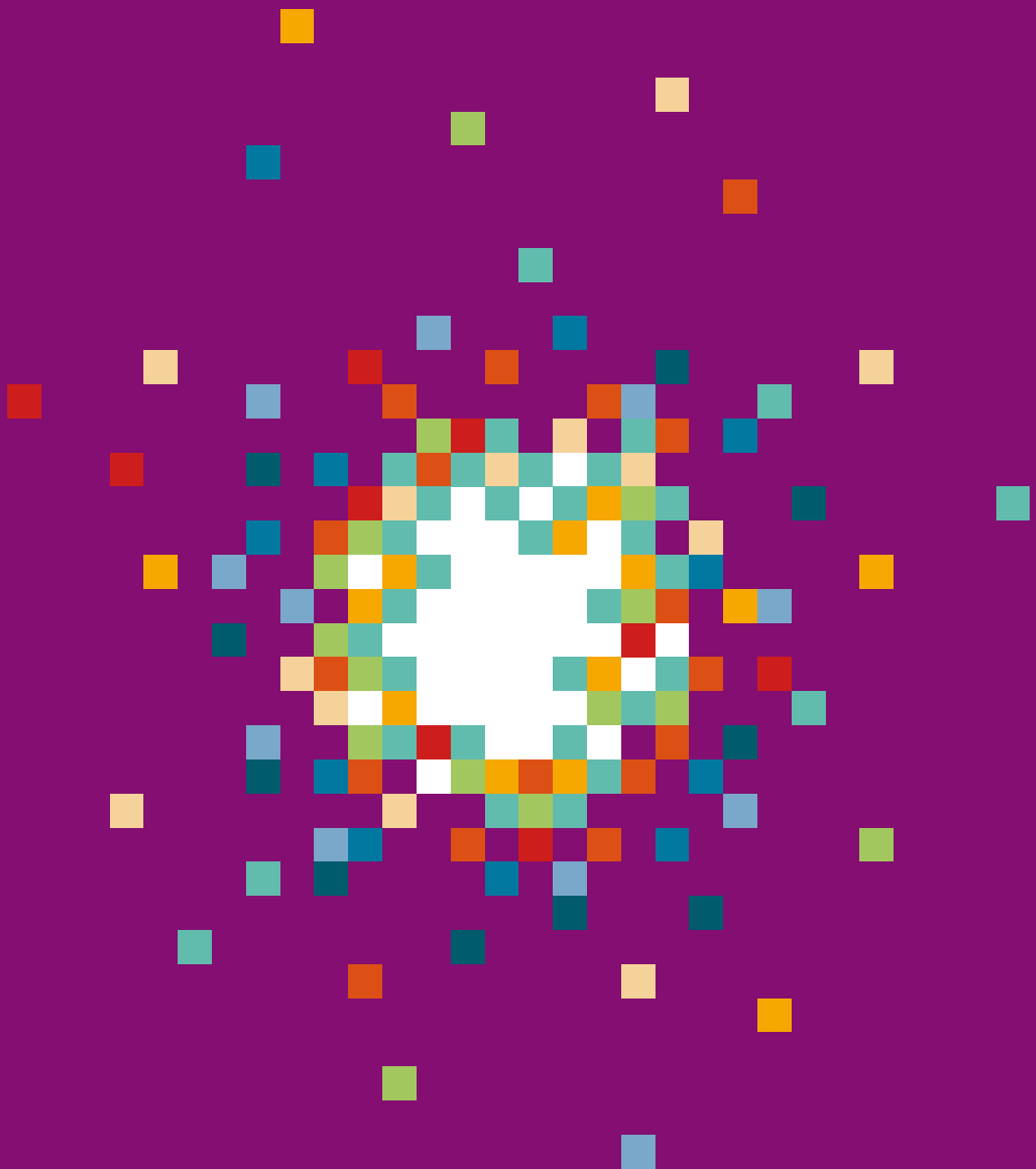
UNITED NATIONS DEVELOPMENT PROGRAMME

Planning for the implementation of Nationally Determined Contributions:

Lessons learned from the NDC Support Programme (2017–2025)



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NDC PARTNERSHIP

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Acronyms

CICC	Intersectoral Climate Change Commission (Colombia)
GHG	Greenhouse gas
GNCC	National Climate Change Cabinet (Argentina)
LEDS	Low-Emission Development Strategies
LTS	Long-Term Strategy
MRV	Measurement, Reporting and Verification
NCWC	National Commission for Women and Children (Bhutan)
NDC	Nationally Determined Contribution
NDC SP	NDC Support Programme
NEC	National Environment Commission (Bhutan)
PNAYMCC	National Climate Change Mitigation and Adaptation Plan (Argentina)
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change

Executive summary

The effective implementation of Nationally Determined Contributions (NDCs) requires a coordinated whole-of-society and whole-of-government response, one that can be greatly facilitated by the development of climate plans at the national, sectoral and subnational levels. These plans translate NDC targets into actions that can be implemented by national and subnational governments, the private sector and civil society. They can also show development partners a country's needs and priorities for international financial support, technology transfer and capacity development to achieve NDC priorities.

Planning for NDC implementation is commonly addressed through two dimensions: horizontal—across sectors—and vertical—across different levels of government. These are challenging in different ways: horizontal planning requires breaking down silos and bringing in stakeholders who may not have previously been involved in climate action; meanwhile, vertical planning must contend with the reality that subnational governments may lack the capacity and financial resources of national governments. Planning in these two directions requires dedicated processes that produce distinct planning products, and it must be well coordinated and coherent for climate action to be effective.

This report draws lessons from the work of the United Nations Development Programme's (UNDP) NDC Support Programme (NDC SP) on assisting countries to strengthen national processes and develop more integrated governance approaches to combat climate change. The good practices highlighted in the report demonstrate the value of whole-of-government planning. Each country is unique, with its own context and capacities, but regardless of circumstances, climate action planning can help move nations closer to their NDC targets. Based on the case studies of four NDC SP countries—**Argentina, Bhutan, Colombia** and **Paraguay**—this report presents **six key characteristics of effective climate planning.** These insights may also be useful to governments as they revise and submit NDCs in the 2025 submission cycle.

1. **Strong and committed leadership.** Line ministries and subnational governments are crucial for the implementation of effective climate action, while national authorities can provide support and oversight.

2. **Robust and gender-responsive governance frameworks.** Setting clear guidelines, objectives, roles and responsibilities for planning processes increases the likelihood of success, while a gender-responsive approach makes the process and its outcomes more inclusive.

3. **Availability of robust data and information.** Planners require detailed, accurate data to create climate action plans that are relevant, comprehensive, effective and feasible.

4. **Assessments of financial needs and investment gaps.** Planners must be able to create an accurate picture of the costs of implementing the proposed climate actions. Participation from financial institutions and the private sector can help by improving assessments and identifying opportunities for investment.

5. **Broad stakeholder participation and inclusion.** Consulting with a variety of stakeholders ensures that climate action plans are inclusive and reflect the needs and priorities of all members of society, including women, Indigenous Peoples and other vulnerable or marginalized groups.

6. **Robust monitoring frameworks.** Monitoring and evaluation create transparency and make implementers accountable to stakeholders. It also provides valuable feedback that planners can use to make changes if needed.

Some challenges remain. While the countries profiled in this report made tremendous progress, gains are vulnerable to budget constraints, changes in government or shifts in support from development partners. However, with these six good practices in mind, this holistic approach to climate planning should be promoted, particularly in light of the 2025 NDC submission cycle and subsequent potential updates to NDC implementation planning based on updated or new NDC targets and actions.

Introduction

The purpose of this report is to draw lessons from the work of the United Nations Development Programme's (UNDP) NDC Support Programme (NDC SP) on assisting countries to strengthen national planning processes and develop more integrated governance approaches to combat climate change. It explores how programme countries have approached integrated planning to support NDC Implementation. The good practices highlighted in the report demonstrate the value of whole-of-government and whole-of-society planning, as well as the importance of adopting gender-responsive instruments. As such, these insights may also be useful to governments as they revise and submit their NDCs during the 2025 submission cycle.

The findings presented here are derived from a comprehensive review of activities and outcomes related to NDC SP result areas (see Box 1 for NDC SP background).

Box 1

Background to UNDP's NDC SP

The NDC SP, launched in 2017, supported 46 countries and 1 territory in implementing their NDCs under the Paris Agreement. The NDC SP sought to drive transformational change by scaling up climate investments. The programme's resources exceeded US$74.7 million, with contributions aimed at enhancing the capacity of governments to deliver on their climate commitments. Funding was provided by the governments of Germany, Spain and the European Union. The programme focused on six key result areas underpinned by peer-to-peer knowledge-sharing and advocacy efforts:

1. Leadership strengthened and championed to promote ambitious climate change vision;
2. Integrated governance enhanced to deliver NDC outcomes;
3. Evidence-based design and planning of mitigation actions delivered;
4. Capacities developed to design climate-friendly investment opportunities, address investor risk, and blend and catalyse climate finance;
5. Enabling environment enhanced for private sector engagement; and
6. Alignment between COVID-19 recovery efforts and NDC enhancement and implementation processes strengthened.

The NDC SP was part of an ongoing effort that integrates previous and current initiatives, demonstrating the continuity and evolution of UNDP's support for climate action. The NDC SP's results built upon the Low Emission Capacity-Building (LECB) Programme (2011–2017) and, in many cases, are now being sustained and scaled up through UNDP's Climate Promise portfolio.

One key area of support that the NDC SP Programme sought to address was the request from developing countries for more agile and integrated governance structures to facilitate effective NDC implementation both horizontally (across line ministries) and vertically (national to subnational).

The majority of programme countries undertook a wide range of efforts under key result areas 2 and 3 to drive NDC outcomes by strengthening existing policy frameworks and mainstreaming NDC priorities. In addition, 24 countries received support to mainstream gender equality within the NDC planning and implementation processes. This paper draws on those reported experiences and takes a deeper dive into the approaches supported in four countries: **Argentina, Bhutan, Colombia** and **Paraguay.**

Context and relevance

The Paris Agreement is a landmark international treaty adopted by Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2015 to address climate change and its impacts, marking a significant achievement in global climate cooperation. In the Agreement, Parties committed to limiting temperature increase to well below 2^{0}C above pre-industrial levels and making efforts to further limit it to 1.5^{0}C. The Agreement emphasizes the importance of reducing greenhouse gas (GHG) emissions, enhancing adaptive capacities and increasing the availability of financial support for developing countries. Under the Agreement, Parties are required to submit NDCs that reflect their climate pledges every five years.

The cross-cutting nature of climate action and NDCs requires an integrated development response and increased buy-in from a broad range of stakeholders who are invested in finding solutions. Lead sectoral ministries and subnational authorities must be empowered to lead technical implementation of NDC actions and mainstream NDC priorities into national, sectoral and subnational policies, plans and budgets. Good policy and planning also requires approaches that bring in diverse views of the public and private sectors as well as civil society to reach consensus around potentially conflicting priorities. Thus, NDC implementation requires strengthened institutional frameworks that move climate action beyond the sole purview of ministries of environment towards more inclusive approaches, with clearly defined interministerial coordination mechanisms, roles and responsibilities, as well as engagement with non-state actors.

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Planning for NDC implementation is commonly addressed through two dimensions: **horizontal**, i.e., coordinating climate strategies and plans across sectors such as energy, agriculture, forestry and others; and **vertical**, through the alignment of efforts across the different jurisdictional levels of the public sector (i.e., national, state or provincial, local and municipal). Planning along these two directions requires dedicated processes that produce distinct planning products. Planning must be well coordinated and coherent for climate action to be effective across different sectors and levels of government.

Horizontal planning is led by line ministries in coordination with environmental and planning authorities. Common sectoral planning products include sectoral climate change plans, roadmaps and low-emission development strategies (LEDS). These products identify the sectoral actions required to deliver the climate change mitigation and adaptation priorities defined in NDCs, such as developing enabling environments (including revision and alignment of sectoral policies and regulations), identifying and securing financial resources, building capacities and delivering the investments needed to achieve the mitigation and adaptation objectives in NDCs.

Sometimes, sectoral plans are integrated into a single national climate change plan that details climate action in each sector that contributes to NDC objectives. A common practice is to allocate mitigation targets to individual sectors in such a manner that, when these targets are aggregated, they add up to the country's mitigation commitments in the NDC. Sectoral planning products can also include Measurement, Reporting and Verification (MRV) frameworks that are vital to tracking progress towards climate objectives, which strengthen national enhanced transparency frameworks under the Paris Agreement.

Vertical planning requires aligning subnational planning tools to the climate objectives defined in NDCs, which can be accomplished by engaging subnational governments in climate action. Planning tools often used to mainstream climate action at the subnational level include state/provincial and local/municipal development, land-use and climate action plans. Subnational climate action planning allows agility to respond to local circumstances, development priorities, climate-related risks and vulnerability, and differentiated impacts on women and marginalized populations. Subnational plans are often developed with the participation of local stakeholders, including subnational government entities, private sector companies, civil society organizations, women, youth and Indigenous Peoples.

Clear principles and objectives for climate action at the national and sectoral levels designed to guide planning and decision-making by subnational government authorities and stakeholders leads to the effective incorporation of climate action into subnational planning tools. In this context, climate action planning along the horizontal and vertical directions should be coordinated, creating and maintaining mechanisms to share and review information, track progress and build capacities.

Finally, to meet climate action targets, policies and planning processes should also integrate gender equality and women's empowerment aspects and recognize women as key agents of change. Climate change can exacerbate existing gender inequalities, for example, due to changes in the gendered divisions of labour and increased work burdens. Men and women may be vulnerable to climate change impacts differently depending on their age, livelihood, where they live, ethnicity, access to information and services, among other factors. Therefore, in planning climate action or NDC revision, participants must be able to identify the different experiences and roles for men and women that might have an effect on how they benefit from or participate in sectoral climate change activities. Ensuring that such gendered understandings of climate change impacts and response are well comprehended by actors when they undertake NDC planning and implementation will help ensure equality of outcomes for women and men as well as marginalized groups.[1]

1 UNDP (2019). Gender and NDCs: Country Progress and Key Findings.

Key characteristics of effective climate planning

The effective implementation of NDCs requires a coordinated response across sectors that engages the public and private sectors, civil society and development partners. An effective response is facilitated by national, sectoral and subnational climate plans. These plans translate NDC goals into actions that can be implemented by national and subnational governments, the private sector and civil society. These plans can also inform development partners of a country's needs and priorities for international financial support, technology transfer and capacity development to achieve NDC priorities.

The majority of NDC SP countries undertook activities to strengthen planning and processes for more effective NDC implementation in accordance with national priorities and development contexts. This included mainstreaming NDC priorities into national, subnational and sector plans, policies, and budgets; undertaking technical analyses and data collection to improve the quality of information available to planners and decision makers; facilitating and technically supporting planning processes during the development of national, sectoral and subnational climate strategies and plans; and capacity development—reflecting the diversity of approaches and needs.

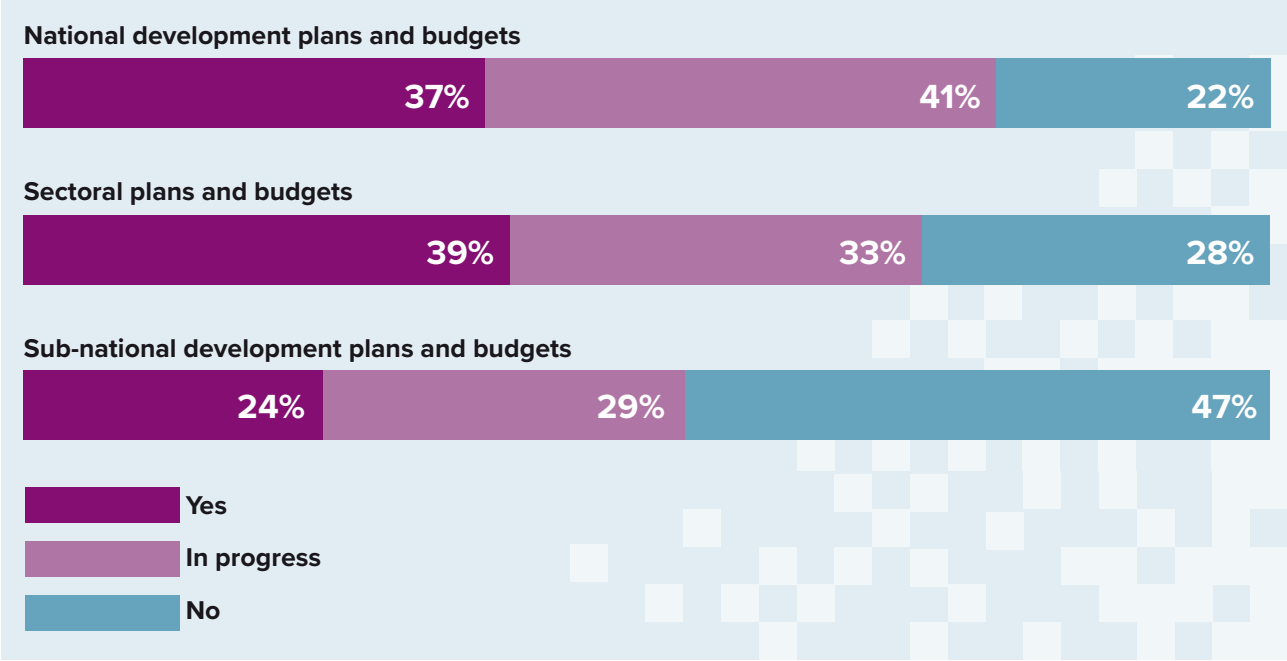
In addition, 24 programme countries received support to mainstream gender equality into their NDC planning and implementation processes. This included efforts to embed gender in the initial stages of the planning process to better understand the specific needs, roles and priorities of diverse segments of society, as well as to identify capacity gaps in NDC-related planning and implementation processes from a gender perspective. Activities centred around ensuring women's organizations were consulted, supporting in-depth gender analysis and ensuring that gender was mainstreamed into NDC implementation plans; climate change action plans; Measurement, Reporting and Verification (MRV) systems; and financing or investment strategies.

The impact of such efforts can be seen in the wider adoption of whole-of-government approaches to NDC development,[2] with governments reporting higher awareness-raising and consultation with key sectors at the national and subnational levels, as well as recognition of the important role of subnational governments in implementing NDC priorities. Alignment between NDCs and national and sectoral development plans, as well as the mainstreaming of NDC targets into subnational plans, also improved during the 2020 NDC revision cycle (2020–2024).

Nonetheless, challenges remain. Effective coordination of climate action between multiple actors at national and subnational levels is a highly complex process, which heavily depends on political systems and governance structures that differ widely across countries with regards to the powers and capacities devolved from national to subnational governments.[3] NDCs remain a relatively new component of national and sectoral planning processes and, as such, many countries are still overcoming barriers such as ill-defined roles and responsibilities, lack of buy-in across government and society, and insufficient financial and human resources to support planning and coordination.[4] These challenges are illustrated by the findings from a 2021 UNDP survey that found that only 37 percent of developing countries[5] indicated that NDC priorities had been mainstreamed into national development plans and budgets, while 41 percent were still in the midst of the mainstreaming process—leaving a significant number reporting that this work had yet to start (Figure 1).[6] Less than three-quarters of countries (72 percent) had already mainstreamed NDC targets into sectoral strategies or were in the process of doing so, while just over half (53 percent) reported the same for subnational development efforts. A follow-up survey from the UNDP in 2023 (unpublished) found some gains in national mainstreaming efforts, but almost no progress at other levels.

2 South South North/GIZ (2022). On the road to 2025: Lessons for effective NDC update support.
3 NewClimate Institute (2021). NDC Update Report 2021 – Time to pull the brake.
4 South South North/GIZ (2022). On the road to 2025: Lessons for effective NDC update support.
5 Responses received from 122 developing countries to UNDP NDC Outlook Report survey.
6 UNDP (2021). NDC Outlook Report. State of Climate Ambition.

Figure 1:
Mainstreaming of NDC targets into national, sectoral and subnational plans (2021)



Source: UNDP (2021). NDC Outlook Report. State of Climate Ambition.

As this report will demonstrate, **six key characteristics of effective climate planning have emerged** from programme evidence, which are described in more detail in the conclusion:

- Strong and committed leadership;
- Sound and gender-responsive governance frameworks;
- Availability of robust data and information;
- Assessments of financial needs and investment gaps;
- Broad stakeholder participation and inclusion; and
- Robust monitoring frameworks.

The country case studies that follow explore the planning processes undertaken in four NDC SP countries—**Argentina, Bhutan, Colombia** and **Paraguay**—highlighting significant milestones, including how the NDC SP contributed to these achievements.

Argentina

Argentina submitted its second NDC to the UNFCCC in 2021, which committed to an economy-wide, unconditional cap net emission of 349 $MtCO_2eq$ in 2030 by focusing on mitigation actions for energy, agriculture, forests, transportation, industry and waste. A Long-Term Strategy (LTS) (*Estrategia de desarrollo resiliente con bajas emisiones a largo plazo a 2050*) was submitted in November 2022 with a target to achieve net zero by 2050. Underpinning and complementing these efforts is a suite of national, sectoral and subnational plans.

Horizontal planning

At the **national** level, Argentina has developed a National Plan for Adaptation and Mitigation to Climate Change by 2030 (*Plan Nacional de Adaptación y Mitigación al Cambio Climático*, or PNAyMCC). The plan, finalized in 2022, is grounded in Argentina's 2019 climate change law (Law 27520), which sets the principles and standards for climate action, defines policy and planning instruments and establishes coordination mechanisms for the country's climate action. Argentina's environment authority[7] led the preparation of the national plan, convening representatives from line ministries, subnational governments, the private sector, academia and civil society. The plan defined the actions required to meet Argentina's NDC goals in three main areas (mitigation, adaptation, and loss and damage) and six priority sectors (biodiversity and public goods, food systems and forests, sustainable mobility, human settlements, energy, and production and circular economy). The plan also addressed four cross-cutting issues (gender and diversity, just transition, disaster risk management and health) and included a monitoring and evaluation framework to inform the country's MRV system to track progress of mitigation and adaptation actions.

Working alongside a range of development partners and stakeholders, UNDP and the NDC SP supported the development of the PNAyMCC and the LTS, which was approved through Ministerial Resolution 218/2023.

The programme continued to support Argentina's inter-institutional climate change coordination body, the National Climate Change Cabinet[8] (*Gabinete Nacional de Cambio Climático,* or GNCC), on a 2023 workplan that included technical review and validation of a series of strategies, including a National Action Strategy for Climate Empowerment, a National Strategy for the Use of Carbon Markets, a National Strategy for Gender, Diversity and Climate Change and an LTS update. Efforts were also made to further improve the PNAyMCC by strengthening goals, costs, indicators and GHG emission reduction potentials, as well as identifying projects best placed to access international financing.

With NDC SP support, the Ministry of the Environment and Sustainable Development also strengthened coordination with business chambers, generating spaces for dialogue and training. As a result, a subset of climate change mitigation and adaptation measures from the PNAyMCC that are relevant to the private sector were identified, allowing private organizations to better align their initiatives with the national plan. More than 80 Argentine companies and business associations signed a commitment to improve their environmental and social performance, use natural resources more efficiently and responsibly, contribute to national climate goals and voluntarily report on their progress.

Argentina has several **sectoral** climate strategies, including for energy, transportation, agriculture and waste. The NDC SP provided support to the Ministry of Health to prepare the 2023 National Health and Climate Change Strategy, under the guidance of the GNCC and with the collaboration of the Ministry of the Environment and Sustainable Development. Stakeholders at the national, subnational and local levels were engaged in the development. As noted above, health was one of the four cross-cutting issues prioritized in Argentina's PNAyMCC. The National Health and Climate Change Strategy defined guiding principles, approaches and actions to mainstream health into the planning and implementation of climate change mitigation and adaptation actions. It also defined targets for priority actions and allocated responsibilities, set timelines and identified funding sources for implementation of these actions. Finally, the strategy focused on strengthening the capacities of the health system to address climate-related challenges.

In 2023, the programme also supported the Secretariat of Energy in publishing its 2030 Energy Transition Plan and 2050 Energy Transition Guidelines and Scenarios, again under the guidance of the GNCC.

7 At the time, this was the Ministry of the Environment and Sustainable Development. The Ministry was dissolved in December 2023 and environmental functions are now under the Secretary of Sport, Tourism and Environment.

8 Created by Presidential decree in 2016, the GNCC is chaired and coordinated at a high political level by the chief of the Argentine Cabinet and brings together representatives of approximately 12 ministries and government secretariats, including energy, economic development, agriculture, transportation, environment, education and science.

Vertical planning

Argentina's climate change law (Law 27520) also required all **subnational** entities—23 provinces and one autonomous city, Buenos Aires, which serves as the federal capital—to create climate change response plans *(Planes de Respuesta)*. These subnational plans are aligned with the PNAyMCC but provide information on local circumstances that inform the selection of the most suitable adaptation and mitigation actions for each province. For example, three provinces account for nearly 80 percent of Argentina's total forested area, while extractive industries or agriculture have more prominence in other provinces. The subnational planning process allows each province to determine how it can best contribute to national climate objectives. The GNCC reviewed all plans before their final approval and adoption by subnational authorities.

The NDC SP supported subnational governments in developing these plans, which followed guidelines from the Ministry of the Environment and Sustainable Development on how to assess climate vulnerability and identify and prioritize adaptation measures. Key GHG emissions sources within each plan's jurisdictional area were also assessed as the basis to set climate change mitigation targets and prioritize mitigation actions. Subnational authorities also set up governance frameworks, prepared implementation plans and established monitoring and evaluation frameworks to track progress.

Highly participatory processes were used to engage stakeholders from the public and private sectors, academia and civil society during plan development; these processes are considered a key success factor. Subnational authorities also benefited from a high degree of engagement with the GNCC and technical support from the national team of the Climate Change Directorate. In 2023 alone, the NDC SP supported a series of GNCC events, including a provincial roundtable to discuss the approach for validating climate change response plans, which were to be submitted by the end of 2023; provincial workshops on participatory processes and monitoring systems; and working meetings to support plan development. Through these efforts, subnational and national authorities agreed on the procedures and criteria to evaluate and validate the response plans according to minimum standards laid out in the 2019 climate change law.

Subnational governments were also consulted in 2023, with the support of the NDC SP, on the draft National Strategy for the Use of Carbon Markets. Finally, Argentina's External Advisory Council was used as a forum in 2023 to invite feedback on the carbon market strategy and provide updates on the progress of the provincial climate change response plans. The Council includes representatives from environmental organizations, business entities, trade unions, academia, Indigenous Peoples, civil society and political parties.

Bhutan

The Kingdom of Bhutan announced its commitment to remain a carbon-neutral country at COP15 in 2009. Bhutan's constitution mandates that at least 60 percent of its land be maintained under forest cover, which is crucial for this effort. The country reaffirmed that target in the first NDC submitted in 2025, the 2020 Climate Change Policy, its second NDC submitted to the UNFCCC in June 2021, and its Long-Term Low Greenhouse Gas Emission and Climate Resilient Development Strategy submitted in September 2023. Sectoral climate strategies also support carbon neutrality.

Horizontal planning

At the **national** level, Bhutan's 2020 Climate Change Policy aimed to provide guidance on how to achieve a climate-resilient and carbon-neutral economy that contributes to gross national happiness. There are policy objectives: pursue carbon-neutral development, build resilience to climate change, ensure means of implementation, and pursue effective and coordinated actions. The policy also highlights several key institutional roles. The National Climate Change Committee, which is chaired by the Prime Minister and operates within the National Environment Commission (NEC), provides overall guidance on the climate policy—as well as other national climate strategies and plans—and ensures it is implemented in all sectors. A Climate Change Coordination Committee, chaired by the Director General of the Department of Environment and Climate Change, serves as a technical advisory body on matters related to climate change, with members who represent various government agencies and civil society organizations.

The NDC SP played a key role in ensuring that gender was successfully mainstreamed into the climate policy by advocating for the inclusion of the National Commission for Women and Children (NCWC) on the National Climate Change Committee and providing the NCWC with technical support and guidance. In 2021, an in-depth gender analysis was completed that explored the gender-differentiated impacts of climate change for three NDC priority sectors (agriculture, energy and waste). As a result, Bhutan's second NDC also included gender considerations, which was not the case for the country's first NDC. The programme continued to support the NCWC based on recommendations from the in-depth analysis, including development of gender mainstreaming toolkits and guidelines in 2022 for the three NDC priority sectors, accompanied by extensive capacity-building that targeted ministerial gender focal points, **district-level** members of Bhutan's Mainstreaming Reference Group, and civil society organizations that focus on gender equality and women's empowerment.

Bhutan's LTS sets climate change mitigation objectives for the agriculture, energy, forestry, human settlements, industry, transportation and waste sectors. Likewise, it sets priorities for adaptation action related to food production, development planning, disaster risk reduction and water management. The LTS was informed by five **sectoral** LEDS that address energy efficiency (2019), human settlements (2021), industry (2021), land transport (2021) and food security (2023). The NEC led the development of the LTS and supported relevant line ministries and departments to prepare the LEDS, using participatory processes that engaged representatives from national and subnational governments, as well as the private sector, academia, civil society and development partners.

The NDC SP supported the 2021 updates to the LEDS for human settlements and for industries, both of which had been initially prepared with UNDP support under the Low Emission Capacity Building Programme (LECB). This included costing of priority measures and actions and preparation of implementation and investment plans. The LEDS also informed ambition-setting during the development of Bhutan's second NDC. The sale of hydropower to India contributes significantly to Bhutan's economy, accounting for about 41 percent of its total exports. In 2022, the programme supported technical analysis to assess the most appropriate electricity grid emission factor for Bhutan to maximize opportunities to benefit from new carbon market mechanisms. This work also informed the LTS.

Vertical planning

Bhutan's **district-level** climate change plans are informed by national climate policy and adaptation planning, with a focus on building resilience, reducing vulnerability and promoting sustainable development. In 2023, Bhutan launched its first National Adaptation Plan—prepared with support from UNDP and the Green Climate Fund—which analysed climate risks and medium- and long-term adaptation priorities for seven climate-vulnerable sectors: water, agriculture and livestock, forests and biodiversity, human settlement and cities, health, energy, and climate service and disaster risk reduction. The National Adaptation Plan is guiding the implementation of these priorities through integration into national, sectoral and local development plans.

Colombia

Colombia submitted an updated first NDC to the UNFCCC in December 2020 with a commitment to reduce emissions by 51 percent by 2030 compared to the business-as-usual scenario and peak GHG emissions by 2027. The NDC's adaptation component included 31 multisectoral goals. This was followed in November 2021 with a 2050 net-zero GHG emissions target for the national LTS (E2050), which considers different scenarios and pathways and identifies 9 strategic initiatives and 48 transformation options. These efforts were complemented by a climate action law adopted in December 2021 (Law No. 2169/2021) that enshrined the 2030 and 2050 targets into law and set out measures for carbon neutrality and climate resilience.

Horizontal planning

Colombia adopted a **national** low-carbon, climate-resilient development strategy (*Estrategia Colombiana de Desarrollo Bajo en Carbono Resiliente al Clima*) in 2022 that outlines the country's climate action objectives through 2050. The strategy recognizes two key planning instruments for mainstreaming climate action: sectoral climate change plans *(Planes Integrales de Gestión del Cambio Climático Sectoriales)* and subnational climate change plans *(Planes Integrales de Gestión del Cambio Climático Territoriales)*.

The **sectoral** plans are developed by line ministries under the guidance and oversight of the country's Intersectoral Climate Change Commission *(Comisión Intersectorial de Cambio Climático,* or CICC), with support from the national planning agency. The plans stipulate which climate change mitigation actions will be implemented to meet the targets assigned to each sector by the CICC in order to achieve the NDC's overall mitigation goals. Each plan also identifies and prioritizes adaptation actions to reduce vulnerability to climate change. The plans, which are formally adopted by the line ministries responsible for each sector, also include monitoring frameworks to track progress and identify potential public and private financial resources for implementation.

The NDC SP supported the government in the sectoral planning process from the outset. This included providing technical and operational support to the CICC for the 2019/2020 work planning process, including coordinating three workshops in 2019 to define guidance to line ministries for formulating and implementing the plans. From 2019 to 2021, the programme provided technical support to sectoral ministries to develop baselines, methodologies and mitigation scenarios for target setting for the respective plans for Housing, City and Territory; Commerce, Industry and Tourism; Agriculture and Rural Development; Transport; and Environment and

Sustainable Development. The Ministry of Mines and Energy had already adopted a comprehensive roadmap in 2018 before programme support to Colombia began. Between 2020 and 2021, the programme also supported the design of sectoral guidelines for incorporating a gender approach into climate change projects, programmes, plans and policies for the six priority sectors (Transport, Commerce, Industry and Tourism, Mines and Energy, Housing, Agriculture, Environment and Sustainable Development). This effort culminated in the launch of a Gender Toolbox, a comprehensive capacity-building programme and the mainstreaming of gender in the sectoral climate plans.

Another key area of support during the design of the sectoral plans was stakeholder engagement, which saw outreach to representatives of national and subnational governments, the private sector (including the financial sector), civil society, academia and development partners. Fifty-seven firms and seven trade unions made formal commitments to support NDC mitigation actions and zero-deforestation agreements linked to palm oil, meat, dairy and cocoa production.

Technical elements of the sectoral plans also informed the 2020 NDC update and the LTS, which were supported by UNDP, the NDC SP and other development partners. Specific programme contributions to the NDC and LTS through the Ministry of Environment and Sustainable Development included the integration of gender considerations, just transition analyses, a detailed assessment of long-term decarbonization measures, and coordination support for the LTS vision-setting and roadmap process.

Vertical planning

Colombia's 2018 national climate change law (Law 1931.2018) first stipulated that **subnational** governments should develop climate change plans that reflect the NDCs' priorities and goals, including sector-specific mitigation targets and adaptation actions to reduce the vulnerability of communities, ecosystems, infrastructure and economic activities within their jurisdiction. In addition, municipal authorities should align **local** development, land-use and disaster risk management plans with the relevant subnational climate change plan.

Subnational governments (departments) prepare the plans following guidelines issued by the Ministry of Environment and Sustainable Development.[9] The NDC SP supported the Ministry of Environment and Sustainable Development in preparing guidance for subnational planning, including some subnational consultations and the incorporation of a gender approach.

9 Ministry of Environment and Sustainable Development (2024). *Guía para la formulación e implementación de los planes integrales de gestión del cambio climático territoriales*. Republic of Colombia.

Paraguay

Paraguay submitted an updated first NDC to the UNFCCC in November 2021 in which it committed to an unconditional GHG emissions reduction target of 10 percent and a conditional target of 10 percent by 2030, as compared to the business-as-usual scenario. To support the implementation of the NDC, Paraguay has adopted several sectoral climate change mitigation plans as well as a National Adaptation Plan.

Horizontal planning

In line with the government's commitments to the Paris Agreement and the National Development Plan, Paraguay's National Law on Climate Change (Law no. 5875/17) established a framework for mitigation and adaptation efforts. The law also mandated the creation of a National Commission on Climate Change, which serves as an inter-institutional committee in charge of creating and updating climate change policies, and a National Directorate on Climate Change to apply the policies and oversee public and private funds for mitigation and adaptation. The government also approved the 2019 National Strategy for Climate Change 2050 (Executive Decree 34/2019), which further defined the country's climate vision.

Following the submission of its updated NDC, Paraguay began preparing several **sectoral** climate change mitigation plans to support NDC implementation. The sectoral plans are also aligned with national development plans and with Paraguay's objectives under the 2030 Agenda for Sustainable Development; they indicate the contribution of each mitigation measure to the SDGs and list the anticipated economic, environmental and social co-benefits of implementing them.

The NDC SP supported the development of these sectoral mitigation plans in 2021/2022 by producing projections of baseline GHG emissions, identifying and assessing potential climate change mitigation measures, estimating GHG emissions reductions from prioritized climate change mitigation measures, and facilitating consultations with stakeholders from the public and private sectors, academia and civil society. Plans for the agriculture,[10] energy (including transportation), forestry, industry and waste management[11] sectors were adopted in 2023.

Mitigation measures from the sectoral plans informed longer-term **national** climate planning, including the development of a 2050 roadmap and low-carbon scenarios—both of which were supported by the NDC SP. Other complementary support included investment and costing analysis and preparation of an NDC financial strategy and a National Gender and Climate Change Strategy.

Vertical planning

Stakeholder engagement and empowerment were key components of programme support in Paraguay. The NDC SP ensured there were highly participatory processes at the national and **subnational** levels during the development of the NDC, sectoral mitigation plans and 2050 roadmap and vision. Additionally, a comprehensive capacity-building programme was rolled out in 2022 via four subnational workshops that targeted decision makers and key stakeholders, such as farmers, small producers, peasant associations, Indigenous Peoples and women's groups.

10 Ministry of Environment and Sustainable Development (2023). *Planes sectoriales de Mitigación del Cambio Climático del Paraguay al 2030. Opciones de Mitigación del Sector Agricultura y Ganadería.* Republic of Paraguay.

11 Ministry of Environment and Sustainable Development (2023). *Planes sectoriales de Mitigación del Cambio Climático del Paraguay al 2030. Opciones de Mitigación del Sector Residuos.* Republic of Paraguay.

Conclusions

Planning for climate action reflects the specific national circumstances, development context, governance structures and capacities of individual countries. Therefore, each country's approach to horizontal and vertical planning will be influenced by their respective context and details of that approach will be unique. However, they all share certain features that make them effective tools for implementing climate actions in line with the objectives of NDCs.

The experiences under the NDC SP highlight both the benefits and the complexities of comprehensive planning approaches. Through the programme's evidence base, **six key characteristics of effective climate planning have emerged:**

1 **Strong and committed leadership.** Effective climate action planning requires strong and committed leadership. In the case of sectoral planning, this leadership is best demonstrated by sectoral authorities, including line ministries and other sectoral governing entities at the national level. Likewise, subnational government authorities (i.e. state, district, provincial or municipal governments) are called to lead planning processes for climate action at the subnational level. National planning agencies and national environmental authorities play a key role in supporting and overseeing sectoral and subnational planning processes. For example, in **Colombia,** the Ministry of the Environment and Sustainable Development and the national planning agency provided guidance and leadership to the planning processes of sectoral and subnational authorities. In **Bhutan,** the NCWC worked alongside the NEC to ensure integration of gender considerations into climate planning at all levels. Other programme countries also exemplified this approach. For example, **Peru** advanced support for carbon markets by recognizing the critical role of sectoral authorities, with the NDC SP actively supporting the work of a Carbon Markets Working Group under Peru's High-Level Commission on Climate Change.

2 **Robust and gender-responsive governance frameworks.** Robust governance frameworks improve the quality and effectiveness of planning processes by providing clear and explicit guiding principles and objectives, adopting regulations to guide the planning process, and defining and assigning roles and responsibilities—including for review and approvals. Strong governance frameworks are built over time as experience accrues and stakeholder capacities are built up. **Argentina's** 2019 climate change law provided a robust governance framework for climate planning, while in **Colombia,** the low-carbon, climate-resilient development strategy defined the instruments for climate action planning, which have been complemented by planning guidelines issued by the Ministry of Environment and Sustainable Development and the national planning agency. Additionally, the consideration of gender is essential for informed climate planning and policymaking. The NDC SP supported extensive gender mainstreaming efforts in **Bhutan** as well as other programme countries. **Chile** received support to adopt a gendered approach in its climate change framework law, while **Ecuador** received support to integrate gender considerations into its national climate policy, climate law and other climate measures.

3 **Availability of robust data and information.** The quality of the information available to planners is a key factor in determining the clarity, relevance, comprehensiveness, feasibility and effectiveness of the resulting planning products. Planners need information that includes detailed and up-to-date inventories of GHG emissions and projections of GHG emissions, properly down–scaled information on climate-related risks and vulnerability, and technical and economic characteristics of relevant climate technologies and practices. In **Paraguay,** the development of sectoral mitigation plans was informed by GHG emissions projections that supported the identification and prioritization of mitigation measures, while **Bhutan** strengthened information in sectoral LEDS that then informed NDC ambition-setting and long-term climate planning. This was also the case in other programme countries. In 2023, **Tunisia** reviewed GHG simulations for the energy sector to inform an update of its National Low-Carbon Strategy.

4 **Assessments of financial needs and investment gaps.** Assessing financial needs and identifying potential investment sources for the implementation of climate actions during the planning stage contributes to the feasibility and realism of planning outputs. This step also goes a long way in ensuring that plans quickly enter the implementation phase after their official approval. A robust assessment of financial needs requires high-quality information on the investment and operating costs of climate technologies and practices, which may also need to consider factors that affect the costs of implementing them locally. Having economic and planning authorities, national and local financial institutions, and the private sector participate in the planning process improves cost assessments and helps identify potential sources of climate investment. For example, **Bhutan's** LEDS and

Paraguay's financial strategy each helped assess the cost of implementing climate actions and identify financing sources and instruments, providing a clearer overview of the financial requirements for the implementation of the strategies. Many other programme countries also undertook costing assessments, including **Nigeria, Morocco, Peru, Tunisia, Uganda** and **Vanuatu.** Some also advanced innovative approaches for tracking of private sector finance, such as **Thailand, Viet Nam, Chile** and **Ecuador.**

5 **Broad stakeholder participation and inclusion.** Broad participation from different types of stakeholders during the planning process invites diverse perspectives and facilities collaboration during the implementation of climate action. Engaging with a variety of stakeholders also ensures that planning reflects the needs, priorities and potential contributions to climate action from all relevant sectors of society. Incorporating the perspectives of women, Indigenous Peoples and other vulnerable or marginalized groups into the planning process is key for fostering inclusivity and ensuring that the specific circumstances and needs of those most affected by climate change are effectively addressed. **Argentina's** participatory processes were identified as a key success factor, while **Bhutan** made a concerted effort to mainstream gender considerations at all levels of government.

6 **Robust monitoring frameworks.** Robust monitoring and evaluation frameworks enable stakeholders to track the progress and impact of climate plans and contribute to national MRV systems, improving the country's responsiveness to the requirements of the Paris Agreement. Regular monitoring also provides timely feedback to adapt to emerging challenges or changing circumstances and increases transparency and accountability for climate action. **Argentina's** national climate plan provides a good example of this.

Developing countries, including those supported by the NDC SP, have worked to strengthen climate planning at all levels of government to support effective and efficient NDC implementation. More holistic planning approaches can help address structural barriers to climate action by addressing institutional fragmentation and lack of coordination between sectors by providing clear mandates and responsibilities. Meanwhile, vertical planning recognizes the critical role that subnational actors play in implementing NDC priorities and can serve as an important empowerment tool.

Nonetheless, some challenges remain. Developing countries will continue to require the support of development partners. Institutional capacities need to be maintained and supported to ensure policy and planning continuity, but budgetary constraints and government leadership changes can result in gaps in expertise retention and strategic direction. This is particularly true for subnational authorities, who require higher levels of technical assistance and capacity-building. The NDC SP also emphasized the importance of integrating subnational governments into climate finance planning and decision-making processes, as local governments often struggle to access climate finance, leading to uneven implementation of climate planning priorities across different jurisdictions.

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