



NDC ASPECTS

Policy Brief

Clarity and Transparency of Information in Nationally Determined Contributions (NDCs): Barriers to Implementation?

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Key Messages

- Nationally Determined Contributions (NDCs) need to be based on clear, transparent, and understandable (CTU) information to achieve the objectives of the Paris Agreement.
- Although the transparency of NDCs has improved significantly in previous years, important information gaps still remain. Especially, NDCs are lacking specific information on clear target dates, planning processes, financing and on the sectoral scope.
- There are several areas where information provision can be improved:
 - Clear target dates and methodologies - of the 171 most recent NDCs, 19 submissions still lack a clear target date.
 - Planning processes – 35 NDCs make no mention of the involvement of stakeholders in the development process.
 - Financing – 70 NDCs fail to identify the potential source of financing for the implementation of the targets.
 - Sectoral scope - around 25 NDCs either fail to engage with sectoral emissions or account for only a few economic sectors.
- This policy brief makes the following proposal for future NDCs:
 - There is a need for future NDC updates to employ clear target dates and methodologies.
 - It is crucial for NDCs to provide details on institutional arrangements for formulating and executing NDCs, encompassing consultation processes, public participation, and engagement with local communities and indigenous peoples, all approached in a gender-responsive manner.
 - A need for a clear typology of spending differentiating between mitigation and adaptation, domestic and international financing.
 - Information on national climate budgets would assist in measuring the cost-effectiveness of current climate policies.
 - NDCs should specify sectoral targets and how they contribute to broader national policies and development plans.

1 Introduction

The 2015 Paris Agreement sets up a framework of climate action based on the continuous improvement of voluntary commitments, known as Nationally Determined Contributions (NDCs) (UNFCCC 2015). To achieve the mitigation objectives of the Paris Agreement, parties devise and submit NDCs to the UNFCCC and are expected to implement these pledges domestically. The parties to the Agreement agree to take part every 5 years in a review process called the Global Stocktake (GST) that informs the next round of NDCs to assess collective progress. The first Global Stocktake process started in 2021 and concluded recently in December 2023 at the 28th Conference of the Parties (COP28), which arrived at the conclusion that even though the parties have made vital progress, the world is still not on track and global temperatures are expected to rise by 2.4-2.6°C by 2100 (UNFCCC 2023b). Most importantly, the Global Stocktake recalls “parties to revisit and strengthen the 2030 targets in their nationally determined contributions as necessary to align with the Paris Agreement temperature goal by the end of 2024 [...]” (UNFCCC 2023a, 6). While the level of ambition in the NDCs is crucial, future implementation of the commitments is highly dependent on their clarity and transparency to

help track current progress, as noted by Mulatu et al. (2023). This calls for an up-to-date assessment of NDC information gaps.

The Paris Agreement and its accompanying decision (1/CP.21) as well as Annex I to decision 4/CMA.1 set out that parties are required to provide “information to facilitate clarity, transparency and understanding of nationally determined contributions” (ICTU) (UNFCCC 2015). While states can continue to define their own level of ambition, the manner how they define, convey, and document ambition and their implementation arrangements needs to be presented in a transparent manner in their NDCs. Without clarity and transparency, the intended outcomes of NDCs, particularly in terms of emission limitations and reductions, remain unclear. However, parties’ varied levels of adherence to transparency requirements makes it difficult to get a complete overview of potential national implementation efforts (Weikmans and Gupta 2021). For instance, a lack of clarity hinders the ability to hold parties accountable for not achieving their targets, and impedes a clear assessment of the contribution of NDC targets to the global goals (Climate Transparency 2020; Weikmans, Asselt, and Roberts 2020).

However, transparency requirements are unevenly applied by parties and current NDCs tend to underperform on critical information. Gaps in information are especially acute for planning processes, clear targets with time frames, methodologies, financing, and the sectoral scope. This policy brief finds that parties to the agreement tend to submit vague implementation time frames and emission target methodologies, omit information on NDC development and leave out GHG emission plans for many key economic sectors. On financing, for instance, while information on international climate finance is accessible through the OECD and carbon pricing through the World Bank, we still lack information on key pieces of data, such as climate investments, public budgeting for climate change mitigation, and adaptation. NDCs typically do not fully cover sector-specific issues and leave out specific sectors from targets.

This policy brief demonstrates that the information landscape is currently insufficient and aims to provide suggestions on ways forward. Hence, despite notable advances in transparency, there is still a lack of clear, transparent and understandable information in NDCs. This policy brief highlights the need for additional emphasis on data gathering and continued work on supporting clear, transparent and understandable information, both in line with current requirements and prospective future agreements.

2 The Paris Agreement’s transparency and accountability framework

The key rules for NDC transparency are already set out in the Paris Agreement. First, rules about GHG accounting are specified in Articles 4.13 and 4.8, which note that parties need to adhere to accounting processes based on “transparency, accuracy, completeness, comparability and consistency”, and account for national GHG emissions and removals in their NDCs based on methodologies and indicators provided by the IPCC. All parties are expected to guarantee methodological consistency to support the implementation of their NDCs (UNFCCC 2015). Moreover, Article 6.2 emphasizes the necessity for strong accounting and transparency frameworks concerning internationally transferred mitigation outcomes (ITMOs). These outcomes stem from cooperative action by parties, which is implemented in one country and the resulting emission reductions are transferred to another and counted towards its NDC.

In 2018 at COP24, the Katowice Climate Package, more commonly known as the Paris Rulebook, was adopted. The rulebook addresses various aspects of NDC preparation, including the clarity and transparency required in presenting information. This ensures that parties and their stakeholders understand the strategy of each party for managing greenhouse gas (GHG) emissions, fostering transparency, and facilitating a shared understanding of efforts to address climate change. Consequently, the rulebook outlines the types of information countries should convey (more detailed explanations will be provided in later sections), along with a process for its consideration, and provides guidance on the information that participating countries should disclose regarding adaptation priorities, plans, and actions.

Finally, Paragraph 27 of Decision 1/CP.21 outlines the information requirements for Parties submitting their Nationally Determined Contributions (NDCs) under the UNFCCC. This section specifies that parties must submit information in their NDCs that facilitates clarity, transparency and understanding (ICTU). The Paris rulebook further elaborated guidance on the ICTU in Decision 4/CMA.1: The quantifiable information to be included encompasses reference points (potentially with a base year), implementation time frames, scope and coverage, planning processes, assumptions, and methodological approaches for estimating anthropogenic greenhouse gas emissions and removals. Additionally, parties are expected to articulate the perceived fairness and ambition of their NDCs considering national circumstances, along with an assessment of the contribution towards achieving the UNFCCC's objective outlined in Article 2.

3 Why improve NDC transparency?

NDCs represent a critical aspect of compliance through the submission of politically-backed national climate action plans. The climate policy information stated in NDC submissions can serve diverse purposes, from analysis, monitoring and distributing resources, and informing policy decisions (Jernnäs 2023). Hence, the presence of dependable and easily comparable information is important to achieve greater compliance. Among others, transparent information also enables national-level assessment of trends and disparities across regions and sectors. The general expectation is that increased transparency will build trust and confidence between states and promote greater implementation efforts and compliance (Jernnäs 2023).

But why would one expect the transparent provision of information to lead to greater compliance? Literature on international law and International Relations (IR) provides different rationales for this. Scholars from the “realist” school of IR contend that states, acting within their self-interest and power capabilities, are likely to comply by pure chance or due to fruitful cooperation (Goldsmith and Posner 2005). However, literature from the “managerial” and “constructivist” schools of IR are more likely to argue that material self-interest is not the only reason for compliance and that states are inclined to keep the agreements they have signed up to (Harrould-Kolieb et al. 2023). Recent work suggests that the transparency framework of the Paris Agreement exerts a “compliance pull” on states by activating several compliance pathways that induce states to change their behavior (Harrould-Kolieb et al. 2023). While transparency can affect implementation in many forms, the policy brief will cover three important pathways.

First, transparency can result in evaluation and learning through greater self-reflection by policymakers (Kamil and Karlsson-Vinkhuyzen 2023; Smith and Stirling 2007). Open data collection and reporting are crucial tools that make the policymakers more aware of their own efforts – whether ambitious or

sluggish. Ultimately, self-reflection can lead to a shift in policy ambition. Furthermore, valid and reliable measurements of climate policy performance are useful for both researchers and policymakers, and clear and international comparable data has always been beneficial for ambitious public policy (Bernauer and Böhmelt 2013). For instance, in the case of comparable data on renewable energy, information on the output of solar and wind power provides vital information on the green transition. The ability to identify deficiencies in comparison with other states can trigger greater implementation and open new opportunities for renewed confidence in climate action (W. Pieter Pauw and Klein 2020).

Second, the provision of transparent data can lead to improved implementation efforts by allowing the domestic public to hold governments to account. Although the relationship between transparency and accountability is not preordained (Gupta and van Asselt 2019), states, and especially democratic governments, are more likely to feel public pressure once information on their policy efforts becomes more open and transparent. As such, open data can potentially lead to public calls of increased ambition. We have a number of examples in recent history, where disclosure led to increased domestic scrutiny. For instance, information on the potential environmental and social impacts of the Dakota Access Pipeline (DAPL) in the United States was initially limited to the public. However, when previously undisclosed information, such as environmental impact assessments and details about the pipeline's route, became more widely available, it fueled public opposition (Johnson 2019). This increased transparency allowed for a more comprehensive understanding of the potential risks involved, and galvanized a significant protest movement, which drew supporters from various backgrounds.

Third, transparent information is vital to facilitate international “naming and shaming”. According to this logic, underperforming states may be singled out by stakeholders and the media. Naming and shaming works best when underperformance carries with itself a costly loss in reputation, such as limited future cooperation and/or impacts on markets (Harrould-Kolieb et al. 2023). States would be prompted to improve their behavior if they knew that their lack of compliance with pledges can potentially carry significant economic impacts. According to this logic, the release of information by each NDC is one of the main catalysts for inducing greater implementation. States are incentivized to modify their conduct to evade the negative consequences of shaming or to gain the positive advantages associated with being acclaimed, whether in terms of reputation or social standing.

Whether it is evaluation and learning, domestic accountability, or international naming and shaming, transparent NDCs are generally expected to improve compliance, and by extension, improve the implementation of the NDCs. Obscurity and ambiguity are likely to hinder implementation since they restrict international comparisons and the assessment of the progress of on-the-ground policies (Weikmans, Asselt, and Roberts 2020).

4 Widespread NDC information gaps

The state of NDC transparency has been slowly improving. According to recent Climate Watch (2023) NDC enhancement assessment data, 171 parties (including the EU) have either submitted an NDC update or a revision. According to this data, a wide majority of the parties (138) have improved their transparency by adding more information than during previous submissions. Nevertheless, close to a quarter of the parties (33) lag behind as they have not improved their transparency reporting compared to their earlier submissions. Hence, although transparency reporting is progressing, there

are still important issues that are not sufficiently covered by NDCs – issues which also could make a difference for tracking the state of implementation.

The policy brief will focus primarily on the lack of information on time frames, planning processes, financing, and the sectoral scope. NDCs differ greatly in terms of their level of transparency, which are partly caused by differences in capacities and disparities in resources between developed and developing countries (Weikmans and Gupta 2021), although many developing countries draw on the help of consultants for the development of NDCs. Disparities in NDC transparency exist due to contrasting responsibilities, in accordance with the UNFCCC principle Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC), which notes that developed countries hold greater responsibility for mitigation and are also expected to report financial and technical support to developing countries. Moreover, in some measure this disparity is also the result of variation in institutional capacity, economic conditions, and political unwillingness (Mulatu et al. 2023; Weikmans, Asselt, and Roberts 2020). However, the differences between developing and developed countries have been reduced in previous years. Nevertheless, there is scope to close the gap in areas of time frames, planning processes, financing, and the sectoral scope.

4.1 Clear target dates and methodologies

Although COP 26 in Glasgow resolved the issue of common time frames for mitigation targets, current NDCs still contain a wide variety of different types of targets. For instance, country NDCs pose, among others, single-year and multi-year targets for different time periods, but also entail various methodologies and assumptions to calculate reductions below BAU and intensity targets. As a result, uncertainties persist regarding the proper end dates of NDCs, creating ambiguity about whether an NDC submitted in 2025 ought to conclude in 2035 or 2040, and similarly, if an NDC submitted in 2030 would conclude in 2040 or 2045. Three primary options have emerged for implementation periods: a five-year implementation period, a 10-year implementation period, and a compromise known as the 5+5 option (WRI 2023). While the 10-year time frame allows for more time to plan and implement the NDC, it also has potential to result in delays and commitments that can complicate efforts to restrain global temperatures in the long run. Nevertheless, clarity in terms of implementation periods is a key shortcoming for current NDCs and an important issue that needs to be overcome.

While most of the NDCs propose GHG targets for 2025 to 2035, they often omit a clear date for the implementation of these targets. Drawing on data from Climate Watch (2023), of the 171 parties that have submitted an NDC update/revision, 142 have submitted a single-year target, while 10 have submitted a multi-year target, and 19 proposed an ambiguous or target-less NDC. The muddle of target dates is further complicated by the large variation in GHG target types, including absolute emissions reductions below a base year (e.g. the EU and the US), reductions below business-as-usual emission (i.e. projected emission curves, such as Angola, Morocco and Saudi Arabia), intensity targets (e.g. Malaysia and Tunisia), or a combination of multiple targets (CAT 2023). However, most importantly, transparency tends to be lacking in terms of clear target dates for an explicit implementation period. 22 of the most recent NDC submissions do not specify a clear timeframe for their implementation, and for many of the NDCs, the implementation period is described in relatively broad terms to be achieved by the year 2030 but does not specify it. A clear implementation timeframe for NDCs is crucial because it provides a structured and time-bound framework, ensuring accountability, facilitating monitoring, and enabling the effective evaluation of progress toward achieving climate goals.

4.2 Planning processes

Engagement with the NDC preparatory process has been demonstrated to improve the capacity and awareness of many parties to develop and implement climate policy. Prior surveys with government representatives have shown that a majority of the respondents found that the NDC preparation process contributed positively to a strong understanding of climate action issues (Röser et al. 2020). Parties that engaged with a wide set of stakeholders in a more meaningful way for the development of the NDC update were also more likely to enhance their GHG emission targets (Peterson et al. 2023). Although transparency regarding the detailing of planning processes has been improving, current NDCs still tend to lack information about the fulfilment of specific arrangements. Frequently, NDCs provide some information on institutional arrangements, but withhold information on multi-stakeholder consultations with local communities.

Most of all, information gaps persist concerning the involvement of stakeholders, the gender-responsive nature of the NDC execution, and whether consultations with local communities and indigenous peoples took place. Particularly, of the 171 most recent NDCs, around 35 make no mention of the involvement of stakeholders in the process. Moreover, a large portion of the NDCs that bring up stakeholder engagement fail to specify which stakeholder groups were involved nor detail their exact role in the development of the NDC (Climate Watch 2023). 41 NDCs omit completely how gender has been/will be mainstreamed into planning and implementation, while 78 make no reference to the inclusion of indigenous and local communities and/or their knowledge (Climate Watch 2023). Hence, there is still much to be improved regarding the description of planning processes.

4.3 Financing

Although the Paris Rulebook mandates that NDCs outline the projected amount of finance needed, and specify new and additional climate funding (not merely re-coded development aid), financing may be one of the most ambiguous areas for NDCs. Among others, parties are expected to detail the provision of climate finance, specify channels (bilateral, multilateral funds, development banks) and the use of types of instruments (grants, loans, or others). Parties should also highlight contributors' policies, priorities, and strategies for regional or sectoral support. Domestic processes, including national circumstances, limitations, methodologies, and lessons learnt, are also considered crucial. Finally, the financial support's alignment with the Paris Agreement's long-term goals, integration of climate considerations, and capacity-building for sustainable development should be emphasized (UNFCCC 2019; WRI 2023).

However, around 110 NDCs among the most recent submissions lack estimates on the total cost of implementation, while around 70 fail to identify the potential source of financing for reaching their targets (Climate Watch 2023). In the meantime, issues with financing are brought up as one of the key reasons for the barriers that countries are facing to implement their NDCs, which shows that financing is not getting the coverage as part of NDCs that it deserves.

4.4 Sectoral scope

Another key challenge for NDCs has been the description of sector-specific data. While the first batch of NDCs provided limited insights into sectoral emissions, subsequent NDCs have made notable

improvements. This progress enables a clearer comprehension of the inferred emissions levels, as well as the sectoral GHG associated with several NDCs.

Most recently, 113 parties have submitted NDCs with enhanced sectoral GHG targets compared to their previous NDCs, while the rest have either not revised their sectoral targets or provided an unclear submission (Climate Watch 2023). Nevertheless, there is significant diversity in terms of sectoral emissions that are covered by NDC targets. The most common sector to be covered by NDCs is energy, but transport and land use are frequently covered as well. Around 25 of the most recent NDC updates either fail to mention sectoral emissions or discuss merely a few sectors (less than 4). Nevertheless, NDCs are specially lacking information on the land use sector. In 87 instances, it was included as part of the overall target, in two cases as a separate target, while for 39 NDCs it was either excluded or described in an unclear manner. The latter group of NDCs continues to present an issue of ambiguity that conflicts with a clear and transparent understanding of sectoral emissions, and NDC implementation.

5 Strengthening NDC transparency

A significant amount of work remains to be done to enhance the clarity, transparency and understanding of NDC submissions in accordance with Decision 1/CP.21. First, transparency in terms of consistent target dates and methodologies has been promoted for a long time since the adoption of the Paris Agreement (Dagnet and Cogswell 2019; Müller 2018). Despite notable advances, some confusion still exists even in today's NDCs. This is especially the case for coherence on target dates and in terms of methodologies and reference bases that are used to calculate NDC emission targets. Hence, it is crucial that all future NDC revisions adopt **clear target dates and transparent methodologies to prevent the double counting of emissions and reductions**.

Second, regarding planning processes, **it is crucial for NDCs to provide details on institutional arrangements for formulating and executing NDCs, encompassing consultation processes, public participation, and engagement with local communities and indigenous peoples, all approached in a gender-responsive manner**. Furthermore, in cases where key stakeholders may require capacity support, such as indigenous peoples groups and small local communities, this needs to be mapped out in the NDC implementation plan (Michaelowa et al. 2021). While the dearth of consultation processes may be caused by underlying institutional differences and government motivations (Peterson et al. 2023), it is still vital to require parties to reflect on the issue more clearly.

Third, the lack of clarity on financing stands as one of the primary hurdles for NDC financing plans (Gogoi, Cooke, and Petrarulo 2018). One way of clearing up this confusion would be to **create a clear typology of spending that would differentiate between mitigation and adaptation efforts, but also domestic and international financing**. The creation of a typology for the purpose of NDC submissions would assist in the categorization of all economic data on climate expenditures and help identify national investment needs. Nevertheless, numerous uncertainties persist regarding the proper accounting of these climate investments to avoid duplication (Gogoi, Cooke, and Petrarulo 2018). This is primarily due to the absence of clear guidelines on selecting baseline data, compounded by the inadequacy or inaccuracy of available data in many instances. While developed countries provide economic data, such as information on climate finance flows to developing countries, we still lack information on the full extent of public financial flows for climate action. This has led to several initiatives to track both domestic and international funding, such as efforts to implement climate-

budget tagging (UNDP 2019). Future NDCs should include more detailed and credible cost estimates of potential support needs, as well as more clarity in terms of which actions require what type of support (W. P. Pauw et al. 2020).

Fourth, information on climate budgets would assist in measuring the cost-effectiveness of current climate policies. It would enable a comparison of the money spent on mitigation programs with the corresponding reduction in greenhouse gas (GHG) emissions, offering insights into which programs provide better value for money. Climate budget information would also demonstrate governments' commitment to climate action by including specific paragraphs on budgeting, which would explicitly state the allocated budget for climate change and any increase from the previous year. Finally, the data could help parties to set up financial targets within their climate change financing framework or policy. Monitoring progress towards these targets becomes possible through tagging, facilitating a structured approach to addressing climate change and its impacts (UNDP 2019, 46). The key would be to provide clear and comparable information as part of budget documents or annual financial reporting.

Fifth, information on the sectoral scope can be improved through a more detailed breakdown of relevant sectors, which goes beyond broad categories. Clear articulation of quantifiable targets for each sector, such as emission reduction goals or renewable energy adoption targets, is crucial for a precise understanding of the intended outcomes. Moreover, parties should include baseline information for each sector, such as current emission levels, vulnerabilities, or adaptation needs, and establish a reference point for assessing the effectiveness of proposed measures. Specifying implementation dates and milestones for each sector, along with monitoring and reporting mechanisms, ensures a clear roadmap for tracking and evaluating progress over time. Financial and technical support requirements for each sector should be clearly outlined, including details on funding sources, investment plans, and international assistance needed. **Parties should also demonstrate how sectoral targets align with and contribute to broader national policies and development plans.** Plans for building institutional and human capacity within each sector are essential, ensuring that there is adequate expertise and resources to implement and sustain the proposed measures effectively.

In summary, by incorporating these elements, information on NDCs can be significantly improved, fostering a more comprehensive and transparent approach to addressing climate change at all levels.

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