NDC-SDG Connections: Data on first NDC submissions (V1)

Dr. Gabriela Iacobuţă, Prof. Dr. Clara Brandi, Dr. Adis Dzebo

Dr. Gabriela Iacobuţă is an associate researcher in the "Environmental Governance and Transformation to Sustainability" research programme at the German Institute of Development and Sustainability (IDOS)

Email: gabriela.iacobuta@idos-research.de

Prof. Dr. Clara Brandi is the Head of "Transformation of Economic and Social Systems" research programme at the German Institute of Development and Sustainability (IDOS)

Email: clara.brandi@idos-research.de

Dr. Adis Dzebo is a Senior Research Fellow at the Stockhom Environment Institute (SEI)

Email: adis.dzebo@sei.org

Abstract

This data documentation presents the methodological framework including the coding and data validation process of the NDC-SDG Connections project. NDC-SDG Connections is a joint initiative of the German Institute of Development and Sustainability (IDOS) and the Stockholm Environment Institute (SEI). The research and visualisation project aims at illuminating synergies between the 2030 Agenda for Sustainable Development and the Paris Agreement, and at identifying entry points for coherent policies that promote just, sustainable and climate-smart development.

Acknowledgements

Introduction

NDC-SDG Connections is a joint initiative of the German Institute of Development and Sustainability (IDOS) and the Stockholm Environment Institute (SEI). The research and visualisation project aims at illuminating synergies between the 2030 Agenda for Sustainable Development and the Paris Agreement, and at identifying entry points for coherent policies that promote just, sustainable and climate-smart development.

The objective of the NDC-SDG Connections is to: foster a dialogue on meaningful interaction between the 2030 Agenda and the Paris Agreement, globally and at the national level; to increase transparency with easy accessibility to all climate activities; and to cultivate learning and catalyse partnerships between countries and other actors to raise the ambition of future NDCs.

With its second version, the NDC-SDG Connections project opened its data for public re-use. Visit the Online Data Visualisation to interact directly with the data: www.NDC-SDG.info

Methodology

Data

The analysis behind NDC-SDG Connections was developed through three different steps. First, in 2016, during the development of the original tool all of the Nationally Determined Contributions (NDCs) or Intended Nationally Determined Contributions (INDCs) that were available were analysed and included as part of the tool launch, except for Iraq. In the second step, in 2021, all NDCs that had replaced INDCs were included in the analysis. Iraq's INDC was also included in the tool. In the third step, in June 2023, more INDCs were replaced with recently submitted NDCs. In addition, for 63 NDCs, updated NDC submissions were added allowing for a comparison between original NDCs (now called First NDCs) and updated NDCs.

The terms 'First' and 'Updated' do not fully follow the UNFCCC nomenclature. For most countries, updated NDCs are called 'First updated NDC' or 'Enhanced NDCs', while some countries call their updated NDCs for 'Second NDC'. In order to make it comprehensible, the tool developers have chosen

to distinguish between 'First' and 'Updated'. For more information, download the file below to see a detailed description of which version is counted as 'First' and which as 'Updated'.

The 27 member states of the European Union (EU) all share one NDC, despite being individual parties to the Paris Agreement. This means that same data will be presented for these countries. In the First NDCs, the United Kingdom is counted as part of the EU. In the updated NDC submission, United Kingdom has its own NDC as they have left the EU. Both NDCs are included the third step of the analysis.

Document Analysis

To build the database, the content of each NDC was examined to identify so called "activities" – statements identifying a strand of future activity, conditional or unconditional, under the NDC. Activities were assessed and assigned to individual Goals. Where a statement applied to multiple SDGs, the same activity was added to multiple Goals (although this was the case for only a very limited number of activities). The disaggregated activities served as the main source of information for the analysis. Table 2 gives examples of types of statement that would, or would not, have been counted as activities.

Table 2 Illustrative NDC activity statements

Activities	Not counted as activities
[Country] will pursue actions to limit the impact of diseases.	Sectors covered: agriculture, energy, LULUCF.
[Country] has an adaptation plan for the health sector.	[Country] is vulnerable to the impact of diseases.
[Country] expresses the need for support in the health sector.	[Country] has made progress to cure diseases in the past. [Country] has been much impacted by the presence of diseases.

In terms of the total number of activities, the tool currently includes 8091 activities in the First NDCs category and 3594 activities in the Updated NDCs category. The latter number is continuously being updated as new updated NDCs are added to the tool.

Data analysis

The NDC-SDG Connections is based on document analysis. Each extracted climate activity was coded across a large number of categories in four broad sections:

- **Interpretation**: Assessment of activities according to their radius of influence (national, regional, local); type of climate action (adaptation, mitigation, both or none); and if the activity mentions a quantifiable target to be reached.
- **SDG targets:** Each climate activity was first allocated to one SDG (and sometimes more) based on its relevance to that respective sustainable development area. Next, the activity was coded across all targets of that SDG, based on its relevance to one or more of these. We used the official list of targets for the analysis. However, in the tool, the targets are presented in a shortened wording format for practical reasons.
- **Climate actions:** We derived, inductively from the NDC activities and deductively using the official list of SDG indicators, a set of the most frequently mentioned categories of action that could be attributed each specific SDG. This set of so-called climate actions varies for each SDG and complements the SDG targets. Like targets, each activity was assessed whether it related to one or more climate actions.

- **Socio-economic themes:** We also analysed links of climate activities to a set of cross-cutting themes. Some of these themes are closely related to a particular SDG, while others are broader and more easily relate to two or even more SDGs (e.g. 'forests' as a socio-economic theme is tightly linked to SDG 15, but often mentioned, for instance, in the context of agriculture; 'resource efficiency' more easily spans across multiple SDGs, including Goals 7, 9 and 12). This approach helped to reveal co-benefits that can be found in the climate activities that go beyond a specific SDG. For example, if an activity targeted scaling up climate-smart agriculture, it was coded as relevant for SDG 2.4, but if it also mentioned co-benefits for water efficiency (SDG 6.4) and/or forest management (SDG 15.2) it was coded as providing synergistic information on these respective SDG targets. In total, we identified 39 socio-economic themes that emerged inductively in the coding process. These were analysed consistently across all 17 SDGs.

This fine-grained and synthetic analysis of NDC activities allows a more precise picture of which activities in NDCs contribute to certain SDGs at target level and in what specific way.

Except for the interpretation section, we used binary coding (1 or 0) where applicability was determined. To guarantee the robustness of our analysis we applied inter-coder reliability, meaning that always at least two independent coders went through the data material. Despite this, it is important to acknowledge that there is always an embedded subjectivity along each step of the methodology. An activity can belong to one or multiple Goals, and can be linked to one or several targets and actions. To ensure consistency a third coder conducted a final broader review of the data across all NDCs.

Terms and definitions

Table 3 Definition of key terms

Key term	Definition
Nationally determined contribution (NDC)	NDCs are climate action plans that reflect what a country intends to do in order to achieve its commitments as set in the Paris Agreement.
NDC activity	A statement identifying a strand of future activity, conditional or unconditional, under the NDC.
Climate action	Specific areas of action within the strand of activity. These are derived from the identified activities and differ for each SDG.
Socio-economic themes	Socio-economic sectoral categories. Some are closely related to a particular SDG (e.g. energy), but they can also be broader than one SDG and may encompass two or even more SDGs (e.g. agriculture as a theme encompasses SDG 2 and SDG 15).
Sustainable Development Goals (SDGs)	The 2030 Agenda encompasses five principles for implementation as well as the 17 SDGs and their respective 169 targets.
SDG Targets	Under each of the 17 SDGs is a varying number of targets that describe either a process or a quantified outcome that is aimed to achieve with this target.

References

Please go to: Publications | NDC-SDG Connections (idos-research.de)

Last update: 2023-08-28