

# Exploring connections between the Paris Agreement and the 2030 Agenda for Sustainable Development

## Key insights

- Nationally determined contributions (NDCs) under the Paris Agreement are mainly statements of the actions a country intends to take to reduce greenhouse gas emissions, but many indicate other priorities and ambitions that contribute to broader sustainable development.
- The new NDC-SDG Connections tool can identify the most important overlaps and potential synergies between the NDCs and the 2030 Agenda for Sustainable Development.
- The strongest links between the NDCs and the Sustainable Development Goals (SDGs) are found in the areas of water, food and energy.
- However, not all environmental SDGs are equally reflected in the NDC commitments. For example, there are four times fewer activities related to SDG 14: Life Below Water than to SDG 15: Life on Land.
- The social SDGs are highly under-represented in NDC commitments compared to the environmental and economic goals; in particular health, education and gender equality (SDGs 3, 4 and 5, respectively).
- The NDCs clearly reinforce the interlinked character of sustainable development. Several SDG themes (i.e. socio-economic sectoral categories) are addressed by numerous climate actions, indicating that there are multiple potential synergies and opportunities for policy coherence.

## 1. Introduction

The 2030 Agenda and the Paris Agreement are both universal visions and are both based on being implemented from the “bottom-up”, meaning that countries identify their own priorities, needs and ambitions (Mbeva and Pauw 2016; Carraro 2016). Following this paradigm shift towards voluntary binding contributions, the world is now moving on to discuss how to coherently implement both agendas. First attempts have already been made to examine the alignment between implementing the Paris Agreement, the 2030 Agenda and national development plans and strategies (see e.g. Pahuja and Raj 2017; UNFCCC 2017; Northrop et al. 2016). However, until now there has not been a comprehensive global analysis of how climate actions could contribute to the SDGs.

## 2. The NDC-SDG Connections tool

This brief presents a new online tool, NDC-SDG Connections ([ndc-sdg.info](http://ndc-sdg.info)), developed jointly by the Stockholm Environment Institute (SEI) and the German Development Institute/Deutsches Institut für Entwicklungspolitik (DIE). It also offers some insights into links between the NDCs and SDGs at global level to illustrate the tool’s potential.

The analysis underlying the tool is based on disaggregating each of 161 NDCs into “activities” (specific strands of future action under the NDC). These were then coded for their connections to each of the 17 SDGs and then to the 169 SDG targets. This process yielded more than 7000 activities.

NDC-SDG Connections allows users to explore, firstly, how NDC activities link up with the ambitions of the SDGs and their targets at global and national levels. It can also disaggregate results at the level of world regions or other common country groupings such as those of the World Bank.

Going down to the level of SDG targets, the tool quantifies links between NDC activities and individual targets under each SDG. It also links the targets to specific types of climate action identified within the NDC activities. This part of the analysis reveals – especially at the national level – how climate plans can be meaningfully complemented with sustainable development strategies.

Additionally, the tool provides insight into how activities under NDCs confirm the interlinked character of the 2030 Agenda, showing how climate activities under one SDG interlink synergistically with other SDGs.

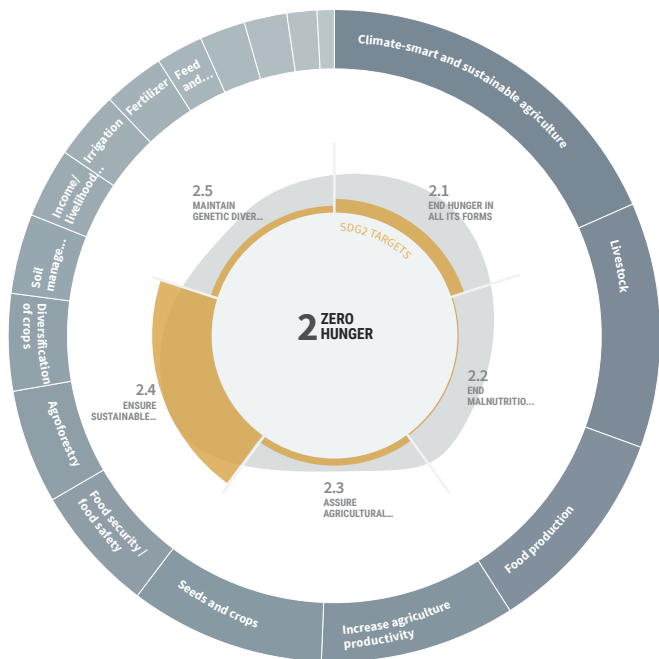
## 3. The 2030 Agenda and the Paris Agreement

The 2030 Agenda encompasses 17 SDGs, 169 targets and a declaration text articulating the principles of integration, universality, transformation and a global partnership. The SDGs integrate the social, environmental and economic



**Figure 1: NDC activities in the 17 SDGs**

Source: NDC-SDG Connections ([www.ndc-sdg.info](http://www.ndc-sdg.info))



**Figure 2: Zooming in on individual SDGs – SDG 2: Zero Hunger**

Source: NDC-SDG Connections ([www.ndc-sdg.info](http://www.ndc-sdg.info))

dimensions of sustainable development and aim to provide a social foundation for humanity while ensuring that human development takes place within the biophysical boundaries of Earth.

The SDGs were arrived at through a unique global process, centring on an open working group of member states and consultation with a broad range of stakeholders. The text was subsequently agreed on by all UN member states in the General Assembly in September 2015.

While the 2030 Agenda is global in its ambition and universally applicable, it is up to countries to decide how to implement it, and how to prioritize goals and targets, depending on national needs and ambitions. They are free to set up their own national and subnational implementation structures and plans. Countries are also encouraged to work in partnership to learn and assist each other.

The official follow-up and review mechanism includes voluntary national reviews that are presented to the global High Level Political Forum, which meets annually under the auspices of the UN Economic and Social Council (ECOSOC).

Although the NDCs are closely linked to countries' implementation of the Paris Agreement, which was adopted in December 2015, they were first drafted before that date. The success of the Paris Agreement can be attributed to – and will depend on – these strategic documents.

The submitted NDCs, representing 192 parties, go far beyond proposals to reduce greenhouse gas emissions to mitigate climate change, also mentioning numerous adaptation measures as well as other activities that promote sustainable development. Formally, the NDCs submitted before the adoption of the Paris Agreement were referred to as “intended nationally determined contributions”. Once the country has ratified the Paris Agreement, the intended NDC

becomes an NDC (although a handful of countries chose to revise them before converting them into NDCs<sup>1</sup>). For the purposes of the NDC-SDG Connections tool, both NDCs and intended NDCs were analysed.

The Paris Agreement is built on a bottom-up approach, meaning that countries are free to determine their own climate targets and instruments, expressed in the NDCs. Under the provisions of the Paris Agreement, each country will be asked to submit an updated NDC every five years, with the aim of ratcheting up ambition compared with the previous NDC.

While NDCs are primarily a mechanism for climate action, many countries have used them to indicate other priorities and ambitions for sustainable development (Pauw et al. 2016). But because individual NDCs are very different in scope and content to SDGs, and because the SDGs were still being negotiated when countries were developing their NDCs, the links between NDC activities and SDGs are not made explicit in the NDC texts. The NDC-SDG Connections tool aims to fill this gap, but doing so requires an assessment of the scale of local challenges, and an effort to link these with ambitions in national climate plans as well as sustainable development strategies.

#### 4. Sample insights from NDC-SDG Connections

The activities countries have committed to in order to meet their climate ambitions go far beyond SDG 13 on climate change. Our data show that many activities under the NDCs overlap with SDG ambitions, and that, to some extent, they span across every SDG (see Figure 1).

NDC activities link to the following SDGs most extensively:

- SDG 2: Zero Hunger
- SDG 7: Affordable and Clean Energy
- SDG 6: Clean Water and Sanitation
- SDG 11: Sustainable Cities and Communities
- SDG 15: Life on Land
- SDG17: Partnership for the Goals.

This underlines how issues around agriculture, energy and water are key for combating climate change as well as for sustainable development. The same is true for SDG 11, which reflects the importance of urbanization both for achieving the 2030 Agenda and for the success of the Paris Agreement, with over 70% of all greenhouse gas emissions generated by towns and cities.

Because the implementation of many NDCs is conditional and depends on the provision of finance, there are also many pertinent connections between the implementation of the Paris Agreement and SDG 17: Means of Implementation and Global Partnership, which, among other things, seeks to mobilize financial resources for developing countries. These connections emphasize the need for both partnership and policy coherence between the two agendas.

From a sustainability perspective, we might expect most climate activities in NDCs to be linked with either the environmental or the economic SDGs. While our analysis supports this, not all environmental SDGs are equally

<sup>1</sup> [http://unfccc.int/focus/ndc\\_registry/items/9433.php](http://unfccc.int/focus/ndc_registry/items/9433.php)

well reflected in NDC climate activities. For example, there are four times fewer activities related to SDG 14: Life Below Water (which focuses primarily on oceans and marine resources) than to SDG 15: Life on Land. This is surprising given that oceans are the single largest habitat on the planet and are inextricably linked to human survival, as well as playing a major role in climate.

Our analysis of NDC climate activities shows that they also connect with the social dimensions of the SDGs, but to a lesser extent. For example, countries connect their climate ambitions to SDG 3: Good Health and Well-being, SDG 4: Quality Education, and SDG 5: Gender Equality. But beyond the five core thematic areas of agriculture, water, energy, industry and land use, there remains a lot of room for improvement for NDCs to incorporate climate-related social dimensions of sustainable development.

### SDG targets and climate actions

Our fine-grained analysis enables us to go beyond assessing general SDG coverage of NDCs to also investigate which concrete climate actions are incorporated in the NDCs and how they contribute to SDGs at the level of targets.

Figure 2 zooms in on SDG 2: Zero Hunger, and categorizes climate actions according to their importance to the goal (signified by the size of the segment in the outer ring). For example, the figure shows that the biggest related priority in the NDCs is climate-smart and sustainable agriculture, followed by improved livestock resilience.

Parallel to this, our analysis of SDG 2 targets in the inner circle shows that target 2.4 (“By 2030, ensure sustainable food production systems and implement resilient agricultur-

al practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality”) is the most prioritized.

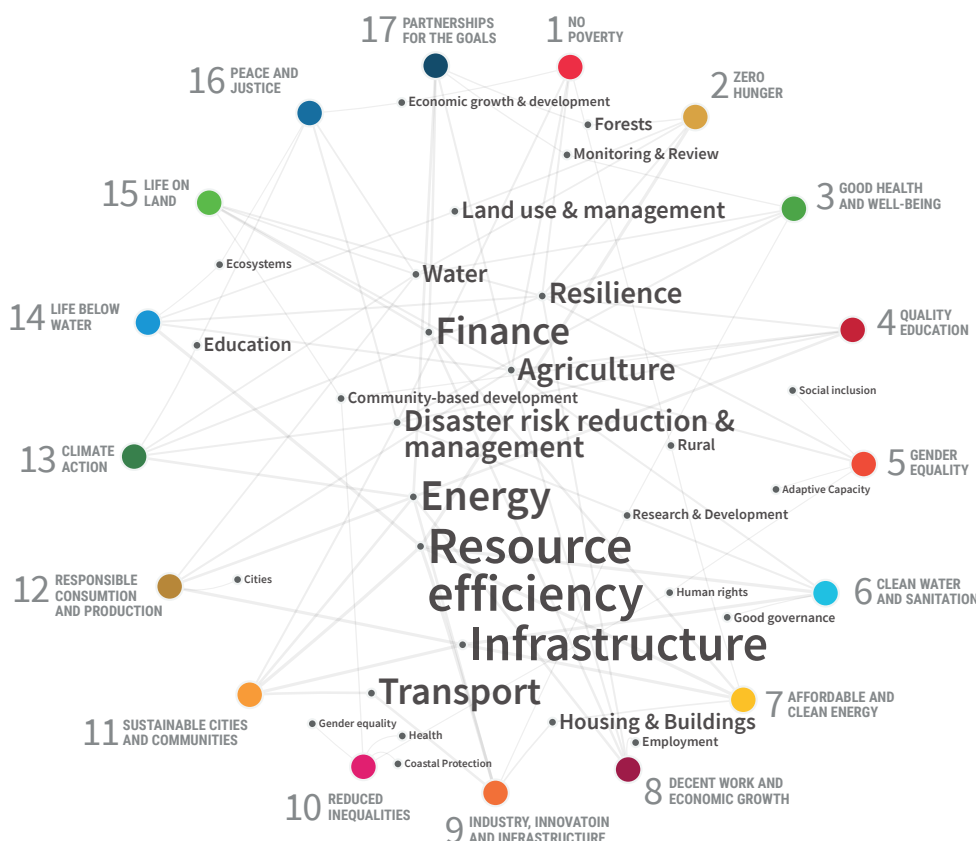
### Themes and cross-SDG synergies

Our assessment identifies which climate measures support the thesis that actions generate co-benefits across SDGs. The analysis of cross-cutting themes in NDCs shows that there are many SDG-relevant issues mentioned in the NDCs that relate to more than one SDG (see Figure 3).

Several SDG themes (i.e. socio-economic sectoral categories) appear across numerous SDG-relevant NDC activities. Some of these themes closely relate to a particular SDG, but as Figure 3 shows, they can also link with two or more SDGs. For example, agriculture as a theme connects SDG 2: Zero Hunger and SDG 15: Life on Land, but also SDG 6: Clean water and Sanitation.

By revealing the links between these SDG themes, NDC-SDG Connections shows how NDC activities can promote several SDGs at once. In that respect, SDG themes such as energy and agriculture are particularly relevant, but activities related to infrastructure, land use and finance also span across several SDGs. NDC-SDG Connections can help to identify the most important overlaps between NDCs and targets across the 17 SDGs, and pinpoint key ways in which climate action under the Paris Agreement can contribute to the 2030 Agenda.

It should be noted that the analysis in the tool only highlights synergies between SDGs and climate actions. It does



**Figure 3: SDG themes: socio-economic sectoral categories that appear across numerous SDG-relevant NDC activities**

Source: NDC-SDG Connections ([www.ndc-sdg.info](http://www.ndc-sdg.info))

## Policy considerations

- Policy-makers can use the NDC-SDG Connections tool to plan more coherent, coordinated implementation of the SDGs and climate action.
- Synergies between the SDGs and NDC climate actions provide opportunities for more ambitious national implementation of both agendas.
- As well as synergies, the NDC-SDG Connections tool also reveals where links between the SDGs and NDC activities are currently weak. Countries could strengthen these links in the next round of NDCs.
- While the NDC-SDG Connections tool reveals positive links between the 2030 Agenda and NDC commitments, trade-offs between the two also need to be taken into account when planning coordinated policy responses.

not reveal trade-offs. Areas where SDG targets have the most and least positive influence on climate action, and where efforts should be directed (or not), is an unexplored area. Literature on SDG interactions (e.g. Nilsson et al. 2016; Weitz 2017; ICSU 2017) can help explore these trade-offs in an empirical setting in order to identify and anticipate them at an early stage in national development plans and strategies.

## 5. Conclusion

The synergies revealed by the NDC-SDG Connections tool underline the need for policy-makers to consider the SDGs and climate action under the NDCs as linked, even integrated agendas; and to address them with coherent policies.

Taking into account SDG commitments can help countries to ensure that climate actions promote wider social, economic and environmental ambitions. At the same time, considering committed climate actions and SDG targets together can help avoid duplication of effort and opportunities for more efficient budget allocation.

## References

- Carraro, C. (2016). A bottom-up, non-cooperative approach to climate change control: assessment and comparison of nationally determined contributions (NDCs). *Journal of Sustainable Development*, 9(5). 175. DOI:10.5539/jsd.v9n5p175
- ICSU (2017). *A Guide to SDG Interactions: From Science to Implementation*. International Council for Science (ICSU), Paris.
- Mbeva, K. L. and Pauw, P. (2016). *Self-Differentiation of Countries' Responsibilities: Addressing Climate Change through Intended Nationally Determined Contributions*. Deutsches Institut für Entwicklungspolitik, Bonn.
- Nilsson, M., Griggs, D. and Visbeck, M. (2016). Policy: Map the interactions between Sustainable Development Goals. *Nature*, 534(7607). 320–22. DOI:10.1038/534320a
- Northrop, E., Biru, H., Lima, S., Buoye, M. and Song, R. (2016). *Examining the Alignment Between the Intended Nationally Determined Contributions and Sustainable*

*Development Goals*. Working paper. World Resources Institute, Washington, DC. [https://www.wri.org/sites/default/files/WRI\\_INDCs\\_v5.pdf](https://www.wri.org/sites/default/files/WRI_INDCs_v5.pdf)

Pahuja, N. and Raj, A. (2017). *SDG Footprint of Asian NDCs: Exploring Synergies Between Domestic Policies and International Goals*. Energy and Resources Institute, New Delhi. [http://www.ndcfootprints.org/pdf/asiareport\\_july.pdf](http://www.ndcfootprints.org/pdf/asiareport_july.pdf)

Pauw, P., Cassanmagnano, D., Mbeva, K., Hein, J., Guarín, A., et al. (2017). NDC Explorer. DOI:10.23661/ndc\_explorer\_2017\_2.0

UNFCCC (2017). *Catalysing the Implementation of Nationally Determined Contributions in the Context of the 2030 Agenda through South-South Cooperation*. UN Framework Convention on Climate Change, Bonn, Germany. <http://www.un.org/sustainabledevelopment/wp-content/uploads/2017/05/Download-Report.pdf>

Weitz, N., Carlsen, H., Nilsson, M. and Skånberg, K. (2017). Towards systemic and contextual priority setting for implementing the 2030 Agenda. *Sustainability Science*. 1–18. DOI:10.1007/s11625-017-0470-0

Published by:  
Stockholm Environment Institute  
Linnégatan 87D, Box 24218  
104 51 Stockholm  
Sweden  
Tel: +46 8 30 80 44

**Author contact:**  
Adis Dzebo  
[adis.dzebo@sei-international.org](mailto:adis.dzebo@sei-international.org)

**Media contact:**  
Tom Gill  
[tom.gill@sei-international.org](mailto:tom.gill@sei-international.org)

**sei-international.org**  
2017

**Twitter:** @SEIresearch, @SEIclimate

This policy brief was written by Adis Dzebo<sup>1</sup>, Clara Brandt<sup>2</sup>, Hannah Janetschek<sup>2</sup>, Georgia Savvidou<sup>1</sup>, Kevin Adams<sup>1</sup>, Stefanie Chan<sup>1</sup> and Claire Lambert<sup>2</sup>.

Explore the NDC-SDG Connections at [ndc-sdg.info](http://ndc-sdg.info)

<sup>1</sup> Stockholm Environment Institute

<sup>2</sup> German Development Institute / Deutsches Institut für Entwicklungspolitik