

SDG Synergies: An approach for coherent 2030 Agenda implementation



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- A practical way of understanding how SDG targets interact in a given context
- Provides a basis for priority-setting, cross-sectoral collaboration, and assessing
 alternative development pathways that can drive progress on the whole 2030 Agenda
- Looks beyond simple target-target interactions to how interactions can ripple through the whole 2030 Agenda
- Offers a smarter, more robust, likely more cost-efficient way to plan for sustainable development

In 2015 world leaders agreed an ambitious global agenda for sustainable development in the United Nations General Assembly. The 2030 Agenda's 17 Sustainable Development Goals (SDGs) and 169 targets are interconnected; together they create a picture of what a sustainable world could look like in 2030. Actions to drive progress towards one target can influence progress towards many others. Many times they support each other, but unmanaged negative interactions can slow or even undo progress.

To deliver on the 2030 Agenda, governments, international agencies, businesses and other organizations need to plan efficiently, exploiting the synergies, mitigating trade-offs and treating the Agenda as an indivisible whole.



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SEI researchers have developed a practical approach that can support this planning (described in detail in Weitz et al. (2018)). The approach can be used to prioritize action on SDG targets and to identify the most effective partnerships and collaborations, based on an understanding of real-world interactions between targets in a given context.

The SDG Synergies approach has already been tested in partnership with national governments and international agencies and is constantly being improved and adapted, with tailored decision-support tools created in the process.

Overview of the SDG Synergies approach

The core of the approach is a three-step process of collaborative analysis. The process can involve scientific experts, representatives of different sectors of government, and a range of other stakeholders. As well as benefitting from their unique perspectives, this inclusiveness can help to build bridges and partnerships between actors and sectors, generating shared understanding of the challenges and opportunities, highlighting common interests, and building ownership among stakeholders. These outcomes can be just as valuable as the analytical outputs.

Step 1. Customization

Every use of SDG Synergies is necessarily unique, depending on the coalition of actors using it, and the context in terms of natural resources, economic conditions, governance set-ups, technological options available, current policies and practices, and prevailing ideologies. These factors, in turn, shape which targets are perceived as most relevant and important by decision-makers.

Given this – and the fact that there are almost 30 000 possible direct interactions between 169 targets – the first crucial step in applying the approach is to narrow the scope of the analysis and choose a subset of targets to focus on.



Figure 1. A sample cross-impact matrix

Green indicates positive interactions, red negative interactions, with shading and chevrons indicating the score. Interaction scores relate to the impact of progress towards the target listed on the left on progress towards the target listed along the top. Thus, while progress towards Target 1.3 would somewhat promote progress towards Target 1.5, progress towards Target 1.5 would have an stronger positive effect on Target 1.3.

Based on Weitz et al. (2018)

This can be done collaboratively, with discussions on interpretation of the targets for the specific context: What main challenges does the target pose? Does it address issues that are central to enhancing sustainability? Targets can then be selected based on the discussions and some pre-established criteria, such as choosing at least one target from each of the 17 SDGs and setting a maximum number of targets – usually between 20 and 40 is practicable.

Finally, the stakeholders that should be involved in the next stage can be identified based on the selection of targets.

Step 2. Scoring interactions

Once the subset of targets has been selected, they are entered in a "cross-impact matrix" (see Figure 1), and each interaction is given a score against a guiding question. When the objective is to support priority-setting and collaboration, a typical question would be: "If progress is made towards Target A, how does this influence progress towards Target B"?

Consistent scoring is facilitated by the use of a scale of different types or strengths of interaction. Two scales that have been used successfully with the SDG Synergies approach are those proposed by Weimer-Jehle (2006), which goes from "strongly promoting" to "strongly restricting", and by the International Council for Science (ICSU), which goes from "indivisible" to cancelling" (Nilsson, Griggs and Visbeck 2016).

To fill out the cross-impact matrix it is a good idea to engage a broad group, including some scientific experts. However, the final decision on scoring must lie with the stakeholders who will be responsible for planning and implementation. The reasoning behind the scoring for each interaction should be documented for future reference.

Focusing only on the direct influence of progress on one target on another is key at this stage. It makes the scoring manageable for participants and enables analysis that accounts for indirect impacts in the next step. Also worth noting is that interactions between two targets can be scored differently depending on the direction (e.g. progress on Target A may promote progress towards Target B, whereas progress to reach Target B may restrict progress towards Target A).

This brief is based on the openaccess article Weitz, N., Carlsen, H., Nilsson, M. and Skånberg, K. (2018). Towards systemic and contextual priority setting for implementing the 2030 Agenda. *Sustainability Science*, 13(2). 531–48. DOI: 10.1007/s11625-017-0470-0

Learn more about SEI's work on the 2030 Agenda: https://www.sei.org/ sdgs-agenda-2030/

Figure 2. Illustrating ripple effects through the network of targets



Network analysis shows that Target 6.6 makes an even larger contribution to the 2030 Agenda than is seen at first glance, due to positive ripple effects (top row): progress on protecting and restoring water-related ecosystems (Target 6.6) contributes to climate adaptation (Target 13.1), which in turn has a positive impact on the implementation of social protection systems (Target 1.3). Conversely, heavy reliance on hydropower as a source of renewable energy might mean that progress on Target 6.6 would conflict with Target 7.2 (increasing the share of renewable energy), and thus hinder Target 7.2's positive influence on other targets such as 11.1 (safe and affordable housing).

Source: The New Division and SEI

Step 3. Analysis: beyond direct interactions

Looking at all the interactions in this way can seem overwhelming at first, but with a completed cross-impact matrix it is possible to go beyond the direct interactions and identify patterns, clusters of interacting targets and other network effects.

More sophisticated network analysis methods can be used to gain a better understanding of how progress towards different targets could affect the whole system. These effects are more difficult to detect because they emerge through several stages of interaction and involve a large number of targets; for example, it is possible to map indirect "ripple" effects, when progress towards Target A intensifies or reduces the ways Target B influences other targets. Figure 2 (previous page) visualizes how positive and negative ripple effects might play out. Clarifying these ripple effects is crucial to reflect the real-life behaviour of the SDGs and to avoid surprises in implementation further down the line.

Another useful type of analysis in this step is to identify clusters of positively interacting targets and how they might interact with other such clusters. This could be a basis for creating crosssectoral working groups and partnerships.

From analysis to policy

Results from using the SDG Synergies approach can offer valuable insights for policies and implementation strategies regarding the 2030 Agenda. Targets that have a strong positive influence on many other targets (taking into account both direct and indirect interactions) could be prioritized in the allocation of resources, for example. Similarly, the analysis might highlight targets that will need specific policy support, as they will not be helped by progress on other targets. Those targets that negatively affect progress towards others can be identified, and potential trade-offs and negative spill-over effects mitigated, or at least anticipated. Cluster analysis can guide how to more effectively organize implementation across different sectors or ministries.

In addition to the analytical results, the approach adds value by making the most of existing expert knowledge about the SDGs in a transparent and systematic way, and it facilitates dialogue between stakeholders from different sectors or departments, helping to broaden their perspectives and build consensus.

Finally, insights from the process can inform discussions around different policy pathways, in order to find action areas that enhance progress on the 2030 Agenda as a whole.

All in all, the SDG Synergies Approach offers decision-makers a systemic view of the SDGs, highlighting how interactions between different targets can shape the outcomes of policy choices. Compared to traditional sectoral approaches to policy-making, it is a smarter, more robust and likely more cost-efficient way to plan for sustainable development.

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