

Understanding the interactions of Sustainable Development Goals in Sri Lanka



SEI brief
May 2021

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Key messages

This brief summarizes key findings from a government-led, systemic review for Sri Lanka on the 2030 Agenda. The review analysed interactions of key targets to support better policymaking and more coherent implementation of the 17 Sustainable Development Goals (SDGs).

- Pursuing progress on the 36 targets included in the analysis is a highly synergistic undertaking. There are far more synergies than trade-offs. Progressing on one target generally promotes progress on other targets, too.
- The largest potential to accelerate achievement of the full set of analysed targets stems from three targets: strengthening policy coherence, reducing corruption, and enhancing climate change capacity.
- The synergy is lowest for two targets: improving access to drinking water, and expanding decent housing. Trade-offs can be mitigated through mindful implementation; addressing these trade-offs will likely be of great value.
- Progress will likely require collaborative arrangements beyond siloed or sector-based approaches.

Background

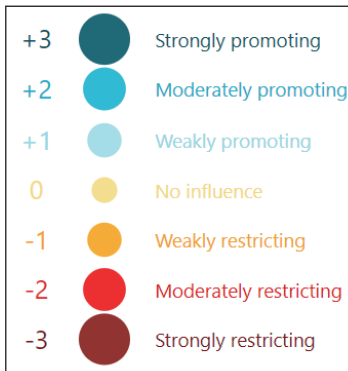
The 2030 Agenda for Sustainable Development calls on governments and other actors to pursue 17 Sustainable Development Goals (SDGs), divided into 169 targets. The SDGs constitute a highly integrated agenda, covering a broad range of policy areas that will inevitably interact with each other. The interconnected nature of the agenda poses both challenges and opportunities for successful implementation of the SDGs. Attaining the goals and targets will largely depend on successfully tackling trade-offs and leveraging synergies.

In 2017, two Sri Lankan ministries – the Ministry of Sustainable Development, Wildlife and Regional Development, and the Ministry of National Policies and Economic Affairs – initiated a process of mapping interactions among SDG targets. The process was conducted in collaboration with the UN Development Programme (UNDP) Sri Lanka, the UNDP Regional Hub for the Asia Pacific, and Stockholm Environment Institute (SEI), with technical support from the Centre for Poverty Analysis (CEPA). The process was aimed at providing a context-specific and systemic analysis of key SDG interactions of relevance for national-level policymaking and implementation of the SDGs in Sri Lanka.

This brief presents key findings from the process, which used the SDG Synergies approach developed by SEI. This approach was undertaken to better understand how progress towards different goals and targets of the 2030 Agenda in Sri Lanka could

IMAGE (ABOVE): Tea plantation, Nuwara Eliya, Sri Lanka
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Figure 1. A seven-point scale was used to assess the type and strength of interaction (from Weimer-Jehle, 2006).



affect progress in other parts of the agenda. The results provide input to strengthen policy coherence, and to support priority-setting and cross-sectoral collaboration that reflects the interconnectedness of the 2030 Agenda.

The SDG Synergies approach was applied in three steps, each carried out in close collaboration with an Expert Committee assigned by the Sri Lankan Ministry of Sustainable Development, Wildlife and Regional Development. In a first step, the Expert Committee selected 36 targets for inclusion in the analysis, based on their relevance for Sri Lanka, their potential transformative impact, and their implementability. Second, to assess interactions across the selected SDG targets, a national consultation was held in January 2019 with representatives from government, civil society, UNDP and the UN Resident Coordinator's Office; and national experts and members of academia. Finally, SEI carried out a tailored analysis of systemic SDG interactions using network analysis methods.

This is one of the first, comprehensive applications of SDG Synergies that looks at interactions across all 17 goals, and that has been government led from the start. It provides valuable lessons for actors specifically interested in SDG interactions in Sri Lanka, but also for a wider audience of government representatives interested in applying a systemic approach to SDG implementation in a policymaking context, and for researchers and practitioners interested in the methodology.

This brief summarizes a report (Järnberg et al., 2021) that describes results and method in greater detail.

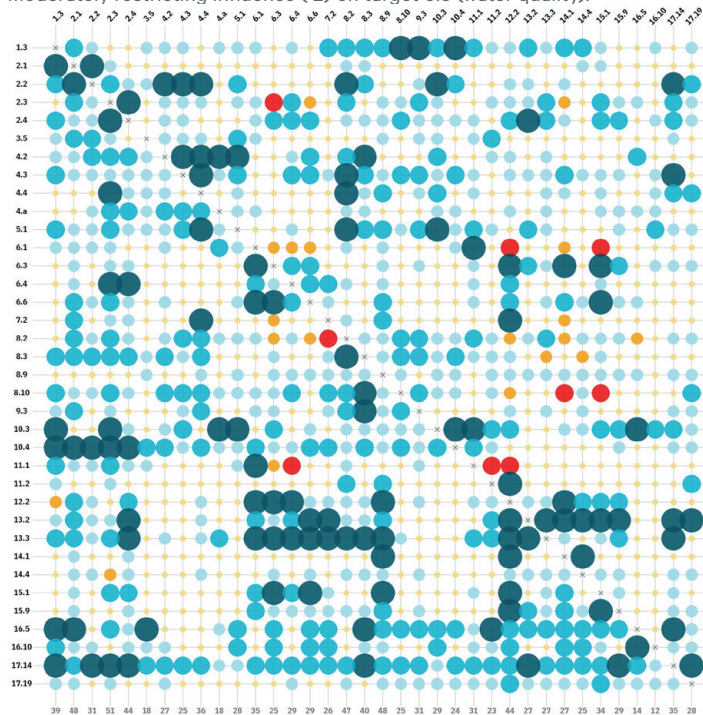
Key findings

Overall findings on SDG interactions

One of the key results from the interactions assessment is a cross-impact matrix (see Figure 2), which summarizes interactions between all possible combinations of the

36 included targets (i.e. over 1200 interactions in total). For each interaction, the scorers answered the question: "In Sri Lanka, if there is progress on target X, how would this influence progress on target Y?" The results were recorded using a seven-point scale (Figure 1), ranging from strongly promoting (+3) to strongly restricting (-3).

Figure 2. A cross-impact matrix shows interactions across 36 SDG targets in Sri Lanka. The matrix should be read starting from the vertical axis. For example, progress on target 2.3 (agricultural productivity) is scored as having a moderately restricting influence (-2) on target 6.3 (water quality).



Looking at the cross-impact matrix reveals the overall patterns of synergies and trade-offs across the agenda as a whole, and for specific targets. Overall, the assessment found that in Sri Lanka only 2% of all direct interactions between the selected targets were restricting. Achieving progress on the included 36 SDG targets in Sri Lanka is thus highly synergistic. Targets generally support achieving progress in other targets.

The cross-impact matrix, along with more sophisticated methods to consider indirect effects not displayed in the matrix itself, allows for comparing the systemic influence of the included targets. We identify targets that can be labelled "accelerators". That is, progress made on these targets will have a large promoting influence on many other targets.

Enhancing policy coherence (target 17.14) tops this list of accelerators, followed by reducing corruption (target 16.5) and building climate change capacity (target 13.3).

This policy brief is based on [Järnberg, L., Weitz, N., Maltais, A. and Carlsen, H. \(2021\). *Interactions among the Sustainable Development Goals in Sri Lanka – a systemic assessment*](#) Stockholm Environment Institute.

Progressing on these three key targets will help the most with achieving progress on the entire set of included targets.

Conversely, we also identify targets whose progress raises the risk of undermining progress in other areas. The targets of most concern are increasing access to drinking water (target 6.1) and expanding safe and affordable housing (target 11.1). These targets may deserve special attention in terms of their implementation. It is important to note that these targets should not be deemed as having lower priority. They should instead be viewed as targets that need careful implementation and mitigating interventions. Any of the identified trade-offs can be overcome, and, indeed, large gains can be made if these trade-offs are surmounted.

Information on the systemic influence of targets, both synergies and trade-offs, can be important to inform priority setting across the set of included targets. The cross-impact matrix can also be viewed from the perspective of a particular target or goal, to see where there are important connections with other targets and sectors, and to inform which actors are critical for the coordinated efforts needed to implement the target.

Findings for selected SDG targets

The Expert Committee selected four policy areas as subjects for more detailed analysis of interactions.

Social protection

Progress on social protection systems (target 1.3) can reduce poverty and increase incomes – which would have a range of positive effects on economic development, including innovation and technology use, and investments in small- and medium-sized enterprises. Social protection systems are also critical for reducing hunger and malnutrition because they target poor and vulnerable people who are often food insecure and malnourished. Further, an expanded social protection system is considered essential to devise policies that can achieve greater equality, including gender equality, which can increase the economic independence of women.

Food, nutrition and agriculture

The areas of food, nutrition and agriculture (targets 2.1-2.4) are highly interconnected and synergistic, and progress on these targets affects almost all the targets included in the analysis. The targets promote poverty reduction and social protection by securing availability of nutritious food all year-round, and by providing resilient livelihoods to Sri Lanka's many smallholders, many of whom are poor. Reduced malnutrition increases academic performance, and promotes learning, early childhood development, primary education, and psychosocial well-being. Food, nutrition and agriculture targets all promote economic development by increasing labour productivity, and by raising smallholder productivity and incomes.

The goal of increased agricultural productivity has potential trade-offs with environmental sustainability, water pollution, and deforestation. For example, agriculture's impacts depend on choices made about how to boost farms' productivity. Will chemical fertilizers and pesticides be used? Will production increases take place on existing or new land? Will increased incomes lead small-scale farmers and workers in the fishing industry to adopt more sustainable practices? These issues merit further attention.

Drinking water

Progress on access to drinking water (target 6.1) has a promoting influence in the areas of food, nutrition and agriculture, education and economic development. This is because clean drinking water could reduce the prevalence of water-borne diseases and

malnutrition, thereby improving the productivity of labour and farming, and enhancing children's school performance.

ACKNOWLEDGEMENTS

The author would like to gratefully acknowledge all the contributors to the report (Järnberg et al., 2021) upon which this brief is based, as well as editing support from Karen Brandon (SEI).



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However, access to drinking water was one of the targets with the most restricting influence on other targets, including those related to management of natural resources and freshwater and marine ecosystems. The restricting influence relates to lack of monitoring and institutional coordination, and a risk for increased wastage of water. Choices of technology and monitoring systems, institutional coordination, and public awareness could mitigate the trade-offs.

Housing

Improved access to adequate, safe and affordable housing (target 11.1) can reduce poverty.. This is because improving housing can increase the assets of households, and provide space for home-based livelihoods and income-generating activities.

Housing, however, also has a range of potential restricting influences in the areas of water, transportation, and natural resource management. Key factors that affect the restricting interactions relate to i) water treatment practices and water consumption; ii) transportation needs in developed areas; iii) building materials; iv) the location of city expansions; v) energy sources for electricity generation; and vi) waste management.

Reflections

The study shows that the SDG interactions are mostly synergistic, in line with previous applications of this and similar methods (see e.g., Barquet et al., 2019; Weitz et al., 2018). The generally synergistic nature of the interactions is highly promising for successful SDG implementation. The findings show that there is great potential for coherent implementation of the agenda, for virtuous cycles, and for good return on investments. Further, the trade-offs identified are often not deterministic. Trade-offs typically depend on how progress is made – a matter affected by choices that are under the control of governments and other actors that determine planning priorities, implementation practices, and technological investments. Awareness of potential trade-offs and mitigating efforts can thus go a long way in ensuring more coherent implementation of the 2030 Agenda. The results also show that the SDG targets interact strongly. This underscores the need for institutional coordination and cross-sectoral implementation of the agenda. It also underlines the value of drawing on systemic assessments of SDG interactions in such processes.

This analysis is one of the first, comprehensive applications of the SDG Synergies approach, which examines interactions across all 17 goals. It is also one of the first such processes that has been government led from inception. Thus, the experiences from Sri Lanka provide lessons regarding methods for study of SDG interactions. Specifically, the experience points to the need to find simple yet robust ways of defining the boundaries of the exercise, and selecting targets in the absence of a sectorial focus. For example, one might draw on available data regarding progress towards certain targets. Or, one might base the selections on existing policy priorities. The Sri Lanka experience also highlights the need to contextualize the targets and analysis, and, to the extent possible, to identify the relevant policy measures or interventions available for implementing the target. Future applications could explore alternative ways of framing and discussing potential trade-offs in nuanced and non-deterministic ways. This is important because there appears to be a tendency to overlook trade-offs in the scoring process. Future applications of the approach could also increase the use of evidence in the scoring, and further strengthen data verification procedures to increase the robustness of results – which may increase the likelihood of meaningful implementation in policy.
