Stockholm Environment Institute

Piloting the SDG Synergies approach in Mongolia

SEI report
July 2019

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Acknowledgements

We would like to thank the United Nations Development Programme in Bangkok and Mongolia, as well as the Government of Mongolia, for their collaboration in this project.

Introduction

Mongolia was an early mover in implementation of the 2030 Agenda for Sustainable Development. Six months after the Agenda was formally adopted in the UN General Assembly in September 2015, the Mongolian Parliament approved the country's Sustainable Development Vision (SDV) 2030 – which attempted to integrate the 2030 Agenda's Sustainable Development Goals (SDGs) into national development planning and policy (Government of Mongolia 2016, pp.5–33).

The resolution adopting the SDV calls on the government to: "do monitoring and evaluation on whether national, sectoral and cross-sectoral policies approved by the Parliament and the Government have coherence and coordination to the vision in 2016 and reformulate the policies found necessary to be renewed". Furthermore, Article 5 of the Law on Development Policy and Planning, adopted in November 2015, states that "development policy planning . . . shall be unified, comprehensive and harmonized" (Government of Mongolia 2016, p.39). The National Development Agency found that some 170 policies were incoherent with each other and were not fully aligned with the SDGs and the SDV.

The government initiated a process in 2017 to review sectoral policy documents in order to improve coherence, which made use of the SDG Synergies approach developed by SEI (Weitz et al. 2019).[1] SEI delivered a capacity-building programme for government staff and experts on applying the approach to analyse interactions between sectoral targets and the broader sustainable development agenda. The programme focused on the field of integrated water resources management. It was supported by the UN Development Programme (UNDP) office in Mongolia and regional hub in Bangkok.

This report describes the capacity-building process, and offers some considerations for future application of the SDG Synergies approach, based on experiences in Mongolia.

The need for more systemic, integrated approaches to policy analysis

The adoption of the 2030 Agenda was a milestone in international cooperation. According to its preamble, Agenda 2030 aims to bring about a "transformation of our world" (UN 2015). The Agenda's commitment to balancing the three dimensions of sustainable development – environmental, economic and social – along with its 17 universal, indivisible goals and 169 targets, and its call for the involvement of many national stakeholders, make delivering on this ambition especially challenging for governments (Beisheim and Simon 2016).

In an assessment of global progress on Agenda 2030 ahead of the 2018 meeting of the High-Level Political Forum (HLPF), the UN stated that "the rate of global progress is not keeping pace with the ambitions of the Agenda, necessitating immediate and accelerated action by countries and stakeholders at all levels". It also highlighted the need for integrated approaches by governments, and called for a "data revolution" to support implementation and follow-up of the goals (UN 2018).

The need for implementation, planning and follow-up to build on systemic and integrated analysis of interactions between goals and their targets has been further emphasized in assessments of countries' voluntary national reviews for the HLPF meetings (Allen et al. 2018; CCIC 2018; DESA 2018). One of these assessments places great responsibility on technical and research partners for building capacity and sharing good practices in this kind of analysis, and calls for the use of science and knowledge to inform national practices in SDG implementation (Allen et al. 2018).

Whereas many countries have made progress in the initial planning for Agenda 2030 implementation – for example setting up follow-up mechanisms and aligning national development strategies with the SDGs – large gaps remain in the assessment of links, trade-offs and synergies between targets (CCIC 2018; DESA 2018). Countries' capacity for such systemic analyses is critical to coherent policy-making and to successful implementation of the 2030 Agenda (Allen et al. 2018).

1 See the key messages from Mongolia's voluntary national review report 2019 in preparation for the High-Level Political Forum, https://sustainabledevelopment.un.org/memberstates/mongolia.

The SDG Synergies approach

SDG Synergies is a novel approach developed at SEI for carrying out systemic assessments of how sustainable development targets relate to and interact with each other in a given country or regional context (see Weitz et al. 2018; Weitz et al. 2019). It aims to help policymakers and potentially others to prioritize targets, identify policy interventions that will generate the most overall progress, manage potential clashes between targets, and create effective cross-sectoral partnership.

SDG Synergies helps to cut through the complexity of dealing with large numbers of target interactions, and to capture in a nuanced way how progress towards one target could affect a group of policies or a whole system, such as the 2030 Agenda. Applying the approach brings in decision-makers, experts and a range of relevant stakeholders in order to balance scientific insight with real-world knowledge of how things work and what is feasible in the country context.

SDG Synergies differs from previous frameworks in some other key ways. One is that it goes beyond examining interactions between pairs of targets and instead looks at how they influence the whole system – for example, how the impact of one interaction affects interactions between other targets.

Another is that, while previous analyses have tended to characterize interactions in a binary way – as either positive or negative; synergy or trade-off – SDG Synergies has so far used seven-point scales in order to better capture the varying intensity and character of interactions (Weitz et al. 2019).

Having the possibility to compare very diverse contexts (e.g. between countries) can in turn enhance understanding of commonalities and differences. Assessing synergies within a country can highlight challenges within current policies, and inform decision-makers about potential future challenges and opportunities for harmonizing SDG-related policies across scales (e.g. between national and local levels) and across sectors, and in doing so stimulate cooperation between ministries.

In Mongolia, a seven-point scale proposed by Nilsson et al. (2016) was used to score interactions. This scale ranges from "indivisible" (scored as +3) in the exercise to cancelling (-3). It provided a common language for participants to discuss interactions. See Figure 1 for a detailed presentation of the scale.

Figure 1. The seven-point scale of SDG interactions

Indivisible +3: An indivisible interaction; for example reducing air pollution will automatically reduce non-communicable respiratory health diseases.
Reinforcing +2: Helps the achievement of another target. For example, improved access to clean water can help to reduce maternal mortality. Progress on the first target is likely to result in progress on the first, but waterborne disease is only one factor in maternal mortality.
Enabling +1: Creates conditions that enable further progress on another target. For example, household electricity access enables children to do homework, but school attendance, quality education, and other factors will also be needed to improve school performance.
Consistent 0: No significant positive or negative interaction.
Constraining -1: Limits options for progress towards another by adding constraints or costs. For example, protecting ecosystem in an area could put limits on urban development, for instance by hindering the construction of new residential areas or road building to improve connectivity between cities.
Contradicting -2: Clashes with another target. The pursuit of one target will tend to work against progress on another. This could involve, for example, competing demands on resources such as water for household use, agriculture, industry and ecosystem protection.
Canceling -3: A strong negative interaction, where progress towards one target makes it impossible to reach another. For example, the growth of coal mining may help to boost the economy but will inevitably hamper progress on clean water resources, clean energy and climate action.

Adapted from Nilsson et al. (2016)

Finally, the SDG Synergies approach works *with* subjectivity rather than against it. The participatory, deliberative SDG Synergies approach captures the attitudes and values of actors involved in decision-making and implementation, and the dynamics of contestation and negotiation inherent in decision-making – which will be critical in determining what happens on the ground. The approach relies on collaborative assessments by practitioners, government officials, civil society, private sector actors and scientists, rather than on quantitative data.

Subjectivity is often viewed as a shortcoming in assessments that require an informed and scientific basis (Wilkins 2003). Classic mathematically inspired decision-theory models assume that decision-making is always rational and optimal to achieve the desired outcome (Bell et al. 1999). Thus, more and better data should lead to better decisions. However, decision-making processes are rarely fully rational (Schlüter et al. 2017) and are profoundly influenced by cognitive and behavioural factors, values, ideological biases, as well as the availability of time and resources (Ajzen 1991).

Thus, the approach responds to recent calls for integrating human behaviour into decision-making models for assessing complex human-ecological systems (Schlüter et al. 2017), and for understanding how context shapes thinking for the design and implementation of policies (World Bank 2014). Another advantage of working with subjectivity is that the SDG Synergies approach can be used irrespective of the amount or quality of quantitative data available, sidestepping a common limitation in such policy analyses, and in follow-up of the 2030 Agenda.

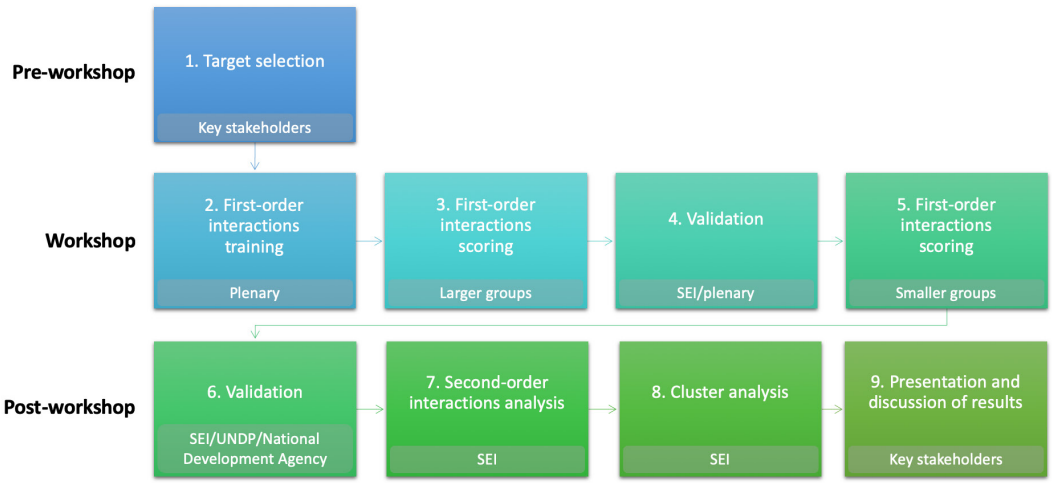
Applying the SDG Synergies approach in Mongolia

The process in Mongolia had several stages (see Figure 2), but centered on a workshop on 5–6 December 2017 in Ulaanbaatar, followed by a one-day meeting on 8 December with a core group of stakeholders at the National Planning Agency.

The process was convened by the authors in coordination with the UN Development Programme office in Mongolia and regional hub in Bangkok along with the National Development Agency of Mongolia, which is in charge of the country's national development plan.

The purpose of the project was to build capacity for assessing interactions between SDG and SDV targets as well as needs for integrated policy-making. The scope of the pilot was defined by the Government of Mongolia, which decided the focus should be on integrated water governance, and how targets relevant to the sector interact with other development targets. More often, the SDG Synergies approach is used to assess interactions across the whole policy spectrum, rather than a single sector.

Figure 2. Steps in the capacity-building process followed in the Mongolia



Target selection

The Sustainable Development Vision 2030 was the result of an attempt by the Government of Mongolia to harmonize the country's national development goals with the SDGs. For this reason, the analysis used targets from the SDV rather than the SDGs.[2]

Prior to the workshop, SEI together with the Mongolian Government selected 17 of the SDV's 43 targets, taking into account the focus on the water sector and using the SDGs as a guide to identify relevant targets in other sectors that the water targets might interact with. Context for these objectives was provided in the form of the goals outlined in Mongolia's Integrated Water Management Plan (IWMP). The 17 SDV targets and the numbers they were assigned in the cross-impact matrix used in the workshops are shown in Table 1.

Table 1. The SDV targets assessed in the workshop

	SDV target	Number in cross-impact matrix
2.1.1.ii	Develop intensive livestock farming based on the population concentration and market demand; increase manufacture of meat and milk products; and develop the supply, storage and transportation network for raw material and raw products.	**3**
2.1.1.iii	Increase the fertility of soil, adopt economical and efficient advanced agro-technical and irrigation technology to repair soil, and develop intensified farming in order to meet domestic demand for grains, potato, and vegetables	**4**
2.1.2.i	Mongolia would become the international destination for nomadic culture and tourism	**5**
2.1.3.ii	Introduce advanced technology in food industry, improve the competitiveness, increase domestic supply in main food products, and ensure that citizens are supplied with healthy and safe food products	**6**
2.1.3.iii	Develop chemical industrial sector and supply the main types of fuel products meeting international standards from local production.	**7**
2.1.4.ii	Encourage transparent and accountable extractive industry, and improve the competitiveness of the mining sector	**13**
2.1.5.ii	Increase the share of renewable energy in the consumption of total energy, and seek for new energy sources	**8**
2.1.5.vi	Provide greater independence to urban areas and settlements, build roads and transportation, and engineering infrastructure, create a healthy, safe and comfortable living environment for citizens, and improve urban planning in with world-class green development model.	**9**
2.2.1.i	Create an economic and legal environment for the poor to have a permanent source of income, direct the social welfare system to the target group, and reduce the poverty rate to 18%.	**14**
2.2.2.ii	Reduce factors affecting preventable maternal and child mortality by improving the quality and accessibility of reproductive health care services, and decrease maternal and child mortality and malnutrition.	**15**
2.3.1.i	Protect water resources and prevent water shortages	**1**
2.3.1.ii	Increase drinking water supply that meets health standards, and improves the availability of sanitation and hygiene facilities	**2**
2.3.2.i	Establish national capacity to cope with climate change, and strengthen the system to prevent from meteorological hazard and natural disaster risks	**12**
2.3.3.i	Preserve the natural landscape and biodiversity, and ensure sustainability of the ecosystem services	**10**
2.3.3.ii	Improve planning of cities and urban settlements, enhance the quality of an accessibility to infrastructure facilities, advocate scientific clean living habits among populace, and improve the quality of the environment and waste management systems	**11**
2.4.i	Establish and strengthen an accountable and proficient governance structure to formulate, implement, monitor and evaluate sectoral and local development policies, for giving shape to the Sustainable Development Vision	**16**
2.4.ii	Improve the leadership of civil service organizations at all levels, and develop transparent and accountable governance at the national and local levels, based on public participation and public-private partnership	**17**

2 While the approach can be applied to assess interactions of any kind of policy targets, the focus of this exercise was on increasing coherence between national development plans and the SDGs. Thus, in the absence of a harmonized development strategy (coherent with the SDGs), then the assessment should use SDG targets as the point of departure.

Figure 3. A sample target interpretation prepared as input to the workshop

	Integrated Water Resources Management
TARGET	1
Objective	SDV 2.3.1.i: Protect water resources and prevent water shortage
Description **(Phase 1: 2016–2020)**	Protect at least 50% of the water resources, rivers, streams and water sources under special protection; build at least two national-level large water tanks to collect waters from precipitation and surface flows; and draw a medium-scale hydrology map for 15% of the territory.[a]
Progress on objective implies[b]	• Water inefficiencies addressed in urban areas and by industries. • Less amounts of water leave the country unused. • Problems of deteriorating hydrological regime of rivers is addressed, including deforestation, changing soil and vegetation cover, mining activities, hydropower generation, urbanization and on the longer term climate change.
Technology and methods for implementation	
SDV indicator	16 (SDV) Area of specifically protected land. Base level 17.4% (2014) and target level 30% (2030).
Relation to SDGs[c]	SDG 6.4 ensure sustainable withdrawals and supply of freshwater to address water scarcity
SDG target indicator[d]**/**	6.4.4? (n/a UNSTAT)

[a] *Mongolia Sustainable Development Vision 2030.*

[b] *Integrated Water Management Plan of Mongolia (2013) (interpretation).*

[c] *According to Sustainability Outlook of Mongolia.*

[d] *https://unstats.un.org/sdgs/indicators/database/?area=MNG.*

In the selection of targets in sectors other than water, four guiding principles were considered: relevance to national context; importance of the sector to the national economy; importance of the sector to livelihoods and social welfare; and importance of the sector in terms of ecosystem services. Priority was given to targets more directly linked with water issues, but it was also important to reflect the four groups of SDV objectives: economic, social, environmental and governance.

Brief interpretations of each selected target were prepared in an attempt to ensure the workshop participants understood the targets in the same way, which is essential for coherent scoring of interactions. See Figure 3 for an example.

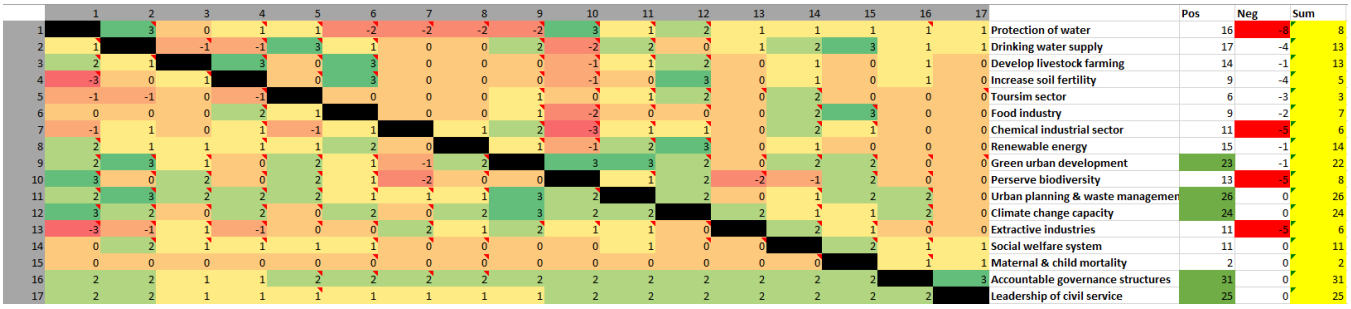
Workshop, first-order interactions analysis

The workshop was attended by 30 local stakeholders, including representatives of 10 ministries and government bodies, non-governmental organizations and a university. The focus of the workshop was on assessing so-called first-order interactions – direct interactions between pairs of targets – taking advantage of the breadth of local expertise available among the participants.

The guiding question for the analysis of first-order interactions was: If progress is made towards Target X, how does it influence progress towards Target Y? The interactions were then scored using the seven-point scale, and these scores entered into a cross-impact matrix (see Figure 4) – with each pair of targets scored twice, for interactions in either direction. This matrix gives an indication of how each target influence the others, and which are most influential – both in terms of number of targets and the nature of the interactions (positive or negative, and their intensity).

Results from this analysis can be used to assess perceptions of SDG (or other policy) interactions and enhance actors' understanding of perceived gains and losses across sectors. They are also the basic input

Figure 4. Cross-impact matrix from the workshop in Mongolia



	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		Pos	Neg	Sum
1		3	0	1	1	-2	-2	-2	-2	3	1	2	1	1	1	1	1	Protection of water	16	-8	8
2	1		-1	-1	3	1	0	0	2	-2	2	0	1	2	3	1	1	Drinking water supply	17	-4	13
3	2	1		3	0	3	0	0	0	-1	1	2	0	1	0	1	0	Develop livestock farming	14	-1	13
4	-3	0	1		0	3	0	0	0	-1	0	3	0	1	0	1	0	Increase soil fertility	9	-4	5
5	-1	-1	0	-1		0	0	0	1	0	1	2	0	2	0	0	0	Toursim sector	6	-3	3
6	0	0	0	2	1		0	0	1	-2	0	0	0	2	3	0	0	Food industry	9	-2	7
7	-1	1	0	1	-1	1		1	2	-3	1	1	0	2	1	0	0	Chemical industrial sector	11	-5	6
8	2	1	1	1	1	2	0		1	-1	2	3	0	1	0	0	0	Renewable energy	15	-1	14
9	2	3	1	0	2	1	-1	2		3	3	2	0	2	2	0	0	Green urban development	23	-1	22
10	3	0	2	0	2	1	-2	0	0		1	2	-2	-1	2	0	0	Perserve biodiversity	13	-5	8
11	2	3	2	2	2	1	1	1	3	2		2	0	1	2	2	0	Urban planning & waste managemen	26	0	26
12	3	2	0	2	0	2	0	2	3	2	2		2	1	1	2	0	Climate change capacity	24	0	24
13	-3	-1	1	-1	0	0	2	1	2	1	1	0		2	1	0	0	Extractive industries	11	-5	6
14	0	2	1	1	1	1	0	0	0	0	1	0	0		2	1	1	Social welfare system	11	0	11
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	1	Maternal & child mortality	2	0	2
16	2	2	1	1	2	2	2	2	2	2	2	2	2	2	2		3	Accountable governance structures	31	0	31
17	2	2	1	1	1	1	1	1	1	2	2	2	2	2	2	2		Leadership of civil service	25	0	25

to other types of analysis used with the SDG Synergies approach.

In Steps 2–3, workshop participants were first introduced to the scoring scale and methodology, which included showing them some examples of the different types of interactions (see Figure 5), and some test scoring (in plenary) of a few interactions. Then participants split into groups of four to six to assign scores to sets of 12–20 interactions (out of a total of 272 interactions between the 17 targets), on a printed matrix.

The target interpretations were used as guidance to inform their discussions. The groups were encouraged to try to reach a consensus on the scores and to provide brief written justifications for each score. These are important records for understanding the logic of the scoring, and are crucial for later reviewing and validating scores.

On the evening of Day 1, SEI researchers looked over the scores assigned and the justifications to identify cases where participants had perhaps misunderstood the task, or where scoring seemed inconsistent across targets.

On the morning of Day 2, the anomalous scores were discussed with the participants in plenary. As many interactions had not yet been scored, the participants were split into smaller groups of three and given only five minutes to discuss each interaction, after which the individual members' suggested scores should be averaged.[3]

Following the sessions, SEI carried out another validation process, but it was not possible to discuss the results with the participants. Results were instead discussed and validated with UNDP and the National Development Agency.

Validation is an important step. For instance, participants initially scored the influence of Target 2.3.3.i (preserving landscapes and biodiversity) on Target 1.2.5.ii (increasing the share of renewable energy) as +2 (reinforcing). SEI judged that the interaction had been scored in the wrong direction: while increasing renewable energy would indeed help to preserve landscapes and biodiversity, the preserving landscapes and biodiversity would have no significant positive impact on renewable energy provision, and so adjusted the score to 0 (while the interaction score in the opposite direction was left as +2). Some other scores were not accompanied by a justification, while an unusually number of very high and very low scores (+3 or -3) were assigned. In total, 25 interactions were rescored (less than 10%).

3 With the larger groups on the first day, the scoring process required more time but more sectors could be represented in the discussions.

Figure 5. Examples of interactions to help participants understand the scoring exercise

Reinforcing (+2)	Constraining (-1)
6.1 → 3.1	**6.6 → 7.1**
6.1 Achieve universal and equitable access to safe and affordable drinking water for all **3.1** Reduce the global maternal mortality ratio	**6.6** Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes **7.1** ensure universal access to affordable, reliable, and modern energy services
Suggested scoring: Improved access to water will contribute to reducing maternal mortality through maternal health improvements 3.1. Likely but not automatic.	Suggested scoring: Protection of water resources (6.6) can constrain renewable energy expansion by limiting hydropower potential (7.1)

Results of the first-order analysis

The cross-impact matrix resulting from this analysis (Figure 4) showed a broad spread of the different types of interactions), but it is dominated by neutral and positive linkages (0, +1 and +2). The large number of positive interlinkages implies that there is great potential to boost sustainability through integrated water resource management by strengthening partnerships and cooperation between ministries and sectors.

The summing of each row shown in the cross-impact matrix gives a quick indication of each target's net influence on other targets. The two targets with the highest net scores are 2.4.i: Accountable governance structures (numbered 16 in the matrix) with +31 and 2.3.3.i: Urban planning and waste management" (numbered 11) with +26. Target 2.4.i: Accountable governance structures has a positive influence on all other targets. Target 2.4.ii: Leadership for civil service (numbered 17) also has a positive impact on all other targets, and has the third highest net influence score.

Workshop participants were not surprised about the high level of influence of these governance targets, and there was broad recognition of pressing governance challenges in the country. Governance issues related to weak accountability and capacity constraints on designing, implementing and following up on policies were highlighted as key challenges. Furthermore, Target 2.3.3.i: Urban planning and waste management scored high due to the rapid growth of Ulaanbaatar due to a large influx of new residents from the countryside, which has created major challenges for city planning and provision of social services and basic infrastructure in many parts of the capital. However, there might have been an urban bias due to the type of participants involved in the exercise. If more participants representing the rural parts of Mongolia had taken part in the workshop, rural-related targets may have scored higher.

It is worth noting that the net total score of interactions hides nuances such as the range of positive and the negative scores – a 0 score could be due to a lack of significant interactions or a balance of more intense interactions. For example, Target 2.3.1.i: Protection of water (numbered 1 in the matrix) has a relatively small net score of +8, but negative scores totaling -8, from four -2 scores; and positive scores totaling +16, including to +3 scores. The participants suggested this was because increased protection of various sources of water would constrain the options for achieving progress for other objectives. Thus, while the total sum is important for obtaining a general picture, looking beyond the total sum is important for understanding the potential trade-offs and synergies between targets.

Second-order interactions analysis

Second-order interactions analysis was done by SEI using network analysis software, with the results of the first-order analysis as input. This type of analysis shows how progress towards different targets affect not just one other target but the entire system. For example, if Target A has a +2 influence on Target B, but Target C has a -2 influence on Target A, then progress towards Target C would reduce Target A's positive influence on Target B. By taking into account such system effects, the second-order analysis may change the list of the most influential targets derived from the first-order analysis.

Because the second-order analysis uses the results of the first-order analysis as input, it is essential that the first-order analysis is of the highest quality and deemed reliable by the participants.

It is also possible to identify patterns, clusters of interacting targets (see below) and other network effects. Understanding such systemic impacts can help in prioritization and sequencing of action to mitigate negative interactions.

Results

The second-order analysis resulted in a slightly different ranking of most influential targets (see Table 2), reflecting both direct and indirect interactions.

Taking into account indirect interactions, Target 2.4.ii: Leadership of civil service organizations moved one place up the ranking, to third to second place, while Targets 2.2.1.i: Social welfare system, 2.3.1.i: Protect water resources and 2.3.3.i: Preserve biodiversity all fell.

Table 2. Ranking of the most influential targets from the first- and second-order analysis

Rank	First-order analysis	Second-order analysis
1	SDV 2.4.i: Accountable governance structures	SDV 2.4.i: Accountable governance structures
2	SDV 2.3.3.ii: Urban planning and waste management	SDV 2.4.ii: Leadership of civil service organizations
3	SDV 2.4.ii: Leadership of civil service organizations	SDV 2.3.3.ii: Urban planning and waste management
4	SDV 2.3.2.i: Climate change capacity	SDV 2.3.2.i: Climate change capacity
5	SDV 2.1.5.vi: Green urban development	SDV 2.1.5.vi: Green urban development
6	SDV 2.1.5.ii: Renewable energy	SDV 2.1.5.ii: Renewable energy
7	SDV 2.3.1.ii: Increase drinking water supply SDV 2.1.1.ii: Develop intensive livestock farming	SDV 2.3.1.ii: Increase drinking water supply
8	SDV 2.2.1.i: Social welfare system	SDV 2.1.1.ii: Develop intensive livestock farming
9	SDV 2.3.1.i: Protect water resources SDV 2.3.3.i: Preserve biodiversity	SDV 2.2.1.i: Social welfare system

Cluster analysis

Data from the first-order analysis can also be used to identify clusters of targets; for example groups of targets sharing only (or mainly) positive interactions with each other and negative interactions with other clusters. Identifying clusters within a network can help decision-makers to develop comprehensive implementation strategies and organize implementation. Positively linked clusters illustrate what groups of objectives strengthen each other and what sectors would benefit the most from working together – to exploit synergies and to negotiate trade-offs with other clusters (Weitz et al. 2018). The cluster analysis could thus be used to identify new cross-sector partnerships and coordination structures; for example, SDV or SDGs working groups.

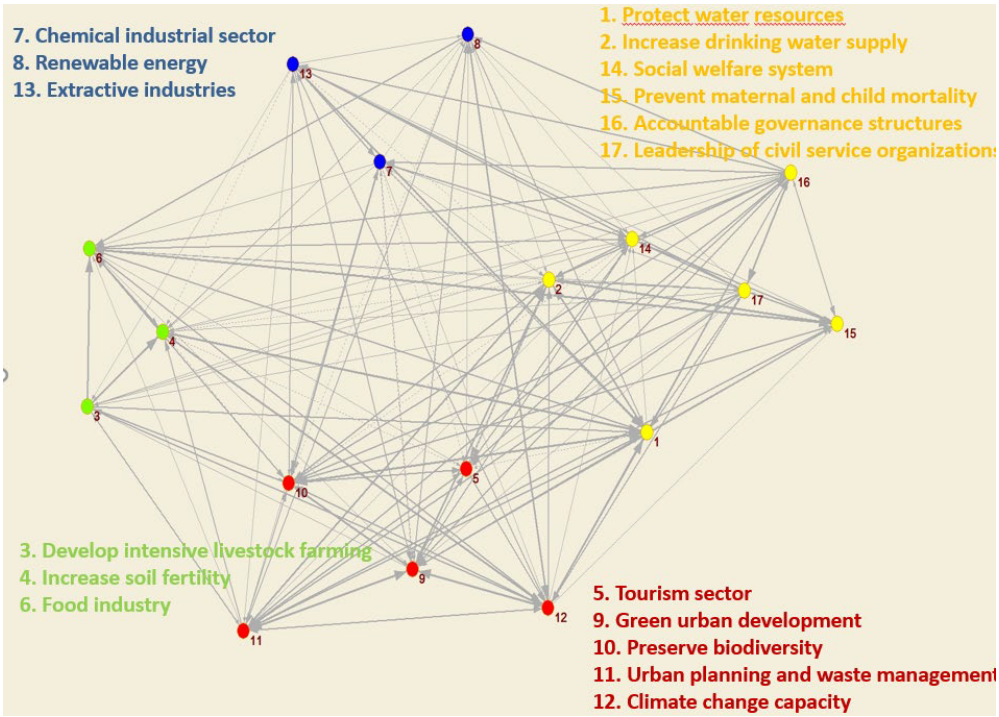
Results

Four clusters of positively linked targets emerged (see Figure 6). The "Industry" cluster is composed of targets 2.1.3.ii: Develop chemical industrial sector, 2.1.5.ii: Increase share of renewable energy. and 2.1.4.ii: Extractive industries. The "Agriculture/food" cluster was particularly strong, with a positive and self-reinforcing "loop of influence", which means that investments in any one of the three targets would have a cascade effect on the others; hence the thicker positive arrows between the targets (2.1.1.ii: Intensify livestock farming, 2.1.1.iii: Increase soil fertility, and 2.1.3.iii: Improve food industry).

The two other clusters (shown in yellow and red) are more eclectic and difficult to label. There are, however, positive interactions between 2.3.1.i: Protect water resources (the most negatively scored target in the first-order interactions assessment); 2.3.1.ii: Increase drinking water supply; and social targets such as 2.2.1.i: Social welfare system and 2.2.2.ii: Prevent maternal and child mortality. Similarly, it is interesting to highlight the positive interactions between Tourism (an important economic activity and source of income in Mongolia) and the "environmental" targets 2.3.2.i: Climate change capacity, 2.3.3.i: Preserve biodiversity, and 2.3.3.ii: Urban planning and waste management.

The results suggest that there could be considerable gains from (possibly formalized) cross-sectoral cooperation within the "Industry" and "Agricultural sector" clusters (these clusters are the most closely and most positively related to each other, in contrast to "Agricultural sector" and the yellow cluster).

Figure 6. Cluster analysis from the workshop in Mongolia



Learning

Analysis using the SDG Synergies approach can be an input to an integrated policy-making process, but only an input. How far it leads to real policy change depends to a large extent on the design of the wider process it is part of, as well as the level of government participation and commitment. If the government stakeholders enter the process with a weak mandate, or key sectors are left out, it is unlikely that the results of the analysis will have much influence on policy.

Furthermore, in a workshop setting, target interactions have to be assessed quickly, and in rather general terms. The SDG Synergies approach involves a range of local stakeholders in order to increase the likelihood that the assessments are realistic, but practical, personal, economic and political factors inevitably affect the feasibility and success of cross-sectoral collaborations.

Thus, SDG Synergies should ideally be embedded in a longer, broader planning or policy review process that has support at the highest levels of government, and that has plenty of room for subsequent cross-sectoral investigations and negotiations based on the results.

Below are some suggestions for future applications of the SDG Synergies approach, based on experiences in Mongolia and elsewhere.

Selecting and defining targets

The SDG Synergies approach can assess interactions between targets on the same policy level, for instance between SDG targets (if the focus is on 2030 Agenda implementation); between national development goals (if the focus is on implementation of a national development plan); or sectoral goals (if the focus is on understanding linkages between targets within a sector). Generally, the SDG Synergies approach works best where policies have been more concretely defined and anchored in the local context. For that reason, SDGs that have not been harmonized with Agenda 2030 and translated into national or sectoral policies will be more abstract – and hence more difficult to assess – than SDGs that have.

From SDG Synergies to sectoral strategies

The SDG Synergies approach can provide initial inputs to discussions on prioritizing targets in a specific sectoral policy. However, it should be complemented with other, sector-specific tools – particularly those that can incorporate future scenarios –in order to guide detailed discussions on budgets and sequencing of targets in a specific sectoral strategy. For the water sector, one such tool would be the Water Evaluation and Planning (WEAP) system,[4] which takes an integrated approach to water resources planning.

In Colombia, SEI has been trialing a two-step process, with an initial assessment of interactions between targets across sectors, then a follow-up exercise using WEAP to assess synergies between targets related to biophysical criteria (e.g. water quality and availability, agricultural productivity, and urban development).

Government ownership and political sensitivities

The SDG Synergies approach demands commitment and time from stakeholders across all sectors involved. The higher the level of ambition (e.g. if the analysis is to inform new policy across sectors rather than merely being used for capacity building), the more time and commitment is needed. Also, if key stakeholders or sectors are missing from the assessment process, their perspective will be missing in the interaction scoring and important considerations might be overlooked. Similarly, if one sector is over-represented, that could also skew the results.

However, a balance always needs to be struck between inclusiveness and pragmatism. The more sectors are involved, and the higher the stakes, the more politically sensitive the exercise is likely to be, and the more time it is likely to take. This is true even from the initial stage – selecting targets to include in the assessment. If multiple sectors are involved and committed at this stage it can strengthen the subsequent analysis and its impact on policy, but it also runs the risk of politicizing the process before the analysis has

4 https://www.weap21.org/

even started. Conversely, limiting the number of actors involved in target selection can make it quicker and easier, but may limit other sectors' buy-in to the results of the analysis.

Scoring interactions

Is is important for the initial scoring of first-order interactions to be done well, as it is the main building block for subsequent analyses. For this, the participants must have a good understanding of the scoring system. In Mongolia, it was evident that some participants had not fully understood or applied the system. We noted four main types of apparently incoherent/problematic scoring patterns in the first-order scoring:

1. Circular thinking: a mistaken assumption that the interactions between targets are automatically the same in both directions.

2. Difficulty understanding the seven-point scale. Participants complained that neither assessing the intensity of an interaction nor their descriptions in the scale were intuitive, so distinguishing between +3 and +2, for example, was difficult. Also, the 0 score is naturally ambiguous: it could mean no interaction or an interaction halfway between -3 and +3. The instruction for the workshop in Mongolia were to use the 0 value to denote no interaction, but this was not always followed.

3. Not focusing on direct interactions. It can be challenging to ensure that participants score only the direct interaction between two targets, and not take into account perceived indirect interactions. This is primarily because there is no clear, objectively definable system boundary between direct and indirect interactions, so participants do not always have the same point of departure for their assessments. This underlines the importance of the validation and review process. As an example of this, participants in the workshop initially scored extractive industries as fostering progress on all other targets, including health and water quality targets — which would in most other contexts probably be considered to be negatively influenced by mining. Their justifications for these included that mining companies would expand water and health infrastructure in rural areas where there is little government presence, but SEI assessed these positive interactions as indirect.

4. Geographic and sectoral biases. Most participants were officials based in Ulaanbaatar and primarily working with national-level strategies or with the city, rather than rural landscapes. Thus, it seems likely that urban-relevant targets were prioritized higher, and were less problematized than other targets, for instance extractive activities or food production.

Areas of potential application

The potential uses of interactions analysis using SDG Synergies will depend on how the process is designed; for example the selection of policy targets and the involvement of government stakeholders, as well as the window of political opportunity (i.e. which policy process the analysis is intended to support) to affect. Below are some of the types of policy process the results of an SDG Synergies analysis could feed into.

- Discussions on prioritizing targets, for example in national development plans or sectoral plans.

- Localizing sustainable development targets. This process involves assessing the coherence between national and local-level policies. The SDG Synergies approach could be used on the same set of targets at national as well as regional or municipal levels, and the results compared to assess differing perceptions as well as issues of common understanding, and consequently feed in to discussions on budget allocation and strategy at subnational levels that better reflect potential geographical nuances (rather than a national strategy that might prove irrelevant at subnational level).[5]

- Partnerships and coordination mechanisms. The network analysis on clusters could help in identification of key actors to involve in cross-sectoral working groups, or effective partnerships between ministries.

5 This has been done in an ongoing project between SEI, UN Environment and the government of Colombia.

- Policy advocacy. Results could be used to argue for greater prioritization of overlooked policy areas, on the basis of how they support progress in others.

- Capacity building and learning. Given the participatory, interactive elements of the SDG Synergies approach and its strong focus on process (not just results), it is potentially useful for capacity building and learning purposes. For instance, an SDG Synergies process could be used to spur cross-ministerial dialogue or create awareness of subnational-level challenges and opportunities.

Conclusions

As countries move forward with implementing the SDGs, limited resources and competing interests will result in difficult choices on trade-offs between goals and investments (Nilsson et al. 2016). The importance of pursuing the SDGs in an integrated manner, taking into account linkages between targets and interrelations between challenges and solutions, is well acknowledged in UN reports and reviews (see e.g. Allen et al. 2018; CCIC 2018; DESA 2018; UN 2018). But countries so far have limited guidance on how to do this. The SDG Synergies approach could help to fill that gap.

In Mongolia using the approach stimulated interesting discussions and participants had little difficulty in understanding the process or its results. Following the capacity-building workshop, the National Development Agency organized a series of 17 sectoral consultations for 13 sectors during 2018, using the approach to analyse target interactions and policy priorities. These consultations involved technical staff from government organizations, along with representatives of the private sector, civil society, professional associations and academia. As well as applying the approach, the consultations identified policy solutions to sectoral challenges, and discussed how these would align with national SDG and SDV objectives. A series of consultations using the approach also informed drafting of the country's voluntary national review, to be presented the High-Level Political Forum later this month.

At the same time, the National Development Agency has also developed a set of guidelines for using the SDG Synergies approach in the Mongolian context, which was approved by the Cabinet in October 2018. Sectoral ministries are tasked with developing their respective policies using the SDG Synergies approach.

Although the SDG Synergies approach is designed for assessing policy agendas holistically, the focus on one sector, water – a resource with multiple and competing demands – proved useful to demonstrate the approach. Targets from social, health, economic, environmental and governance areas were deliberately included in order to see how the water sector interacts with the broader policy agenda. Thus, while we would recommend using the approach for the whole policy spectrum, the sectoral focus in Mongolia proved valuable for the capacity-building purpose of the workshop.

It is important to bear in mind that while the SDG Synergies approach can help to improve national SDG implementation by facilitating cross-sectoral and cross-ministerial collaboration, it cannot make up for lack of political will or under-resourced SDG implementation. However, the experience in Mongolia indicates that if well implemented and with government commitment, the approach can create a space for dialogue, less politicized negotiation, trust-building and learning.

More user-friendly tools and interfaces would make the interaction scoring process more efficient and the analysis of results faster. Interactive methodologies for presenting background information (for instance on targets and their relevance to the national context) need to be clearer to reduce potential uncertainty and divergent interpretations. Ongoing SEI work in Sri Lanka and Colombia using the approach is currently trying to develop better user interfaces.

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