Session 6: Leveraging Data and Tools for Integrated Policymaking

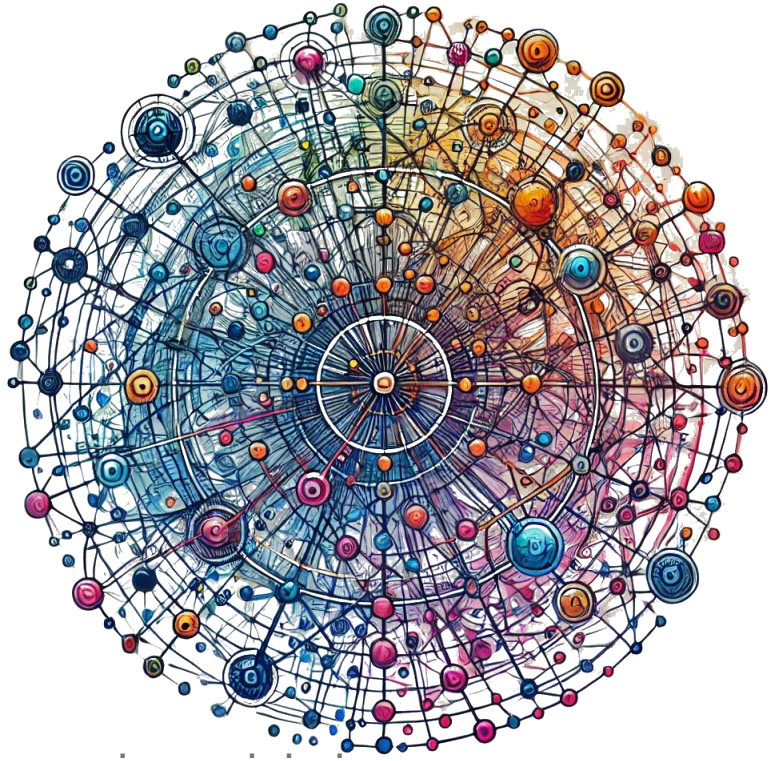
SESSION 6

Using SDG Synergies to assess policy interaction

UNOSD UNITED NATIONS OFFICE FOR SUSTAINABLE DEVELOPMENT
United Nations | Department of Economic and Social Affairs

SESSION 6

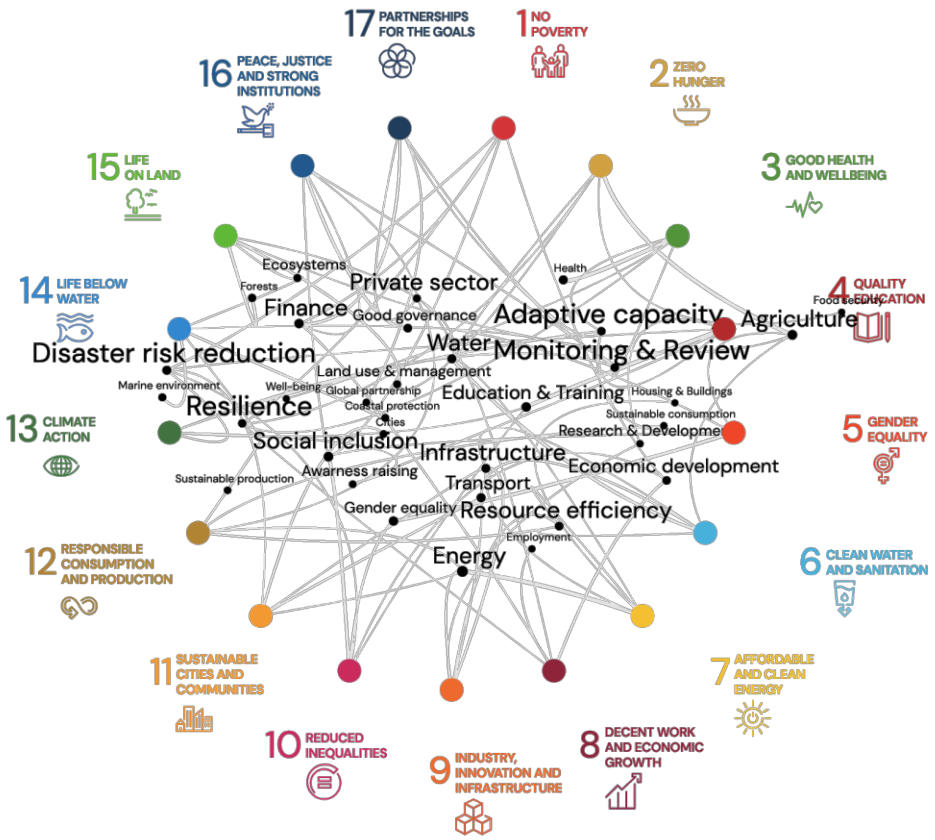
Objectives



- Apply a systems thinking approach in policymaking to increase synergies, minimise trade-offs and anticipate outcomes.
- Apply the SDG Synergies methodology in one of the four thematic areas to assess how policy goals and objectives interact and impact each other in implementation and what outcomes it leads to.
- Categorise and prioritise objectives and develop a strategy that leverages synergistic progress.

Systems Thinking

To inform the design of evaluations capturing various impacts of policies in different policy areas in a non-linear, holistic and systematic way.



(Dzebo et al. 2024)

SEI Stockholm Environment Institute

Interactions among the Sustainable Development Goals in Sri Lanka

A systemic assessment

SEI report
May 2021

Linn Järnberg
Nina Weitz
Aaron Maltais
Henrik Carlsen

SEI Stockholm Environment Institute

SDGs and the environment in the EU: A systems view to improve coherence

Report commissioned by the European Environment Agency

Report
October 2019

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Kristian Skånberg[a]
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Vincent Viaud[b]

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SEI Stockholm Environment Institute

Piloting the SDG Synergies approach in Mongolia

SEI report
July 2019

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Brian Joyce
Doljinsuren Jambal[1]

[1] National Development Agency, Mongolia

SEI Stockholm Environment Institute

SDG Synergies: An approach for coherent 2030 Agenda implementation

May 2019

Nina Weitz
Henrik Carlsen
Caspar Trimmer

- **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.

Photo (above):
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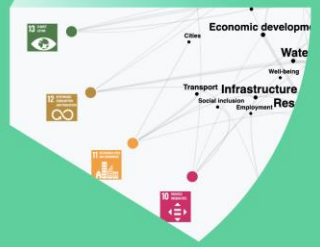
SEI Stockholm Environment Institute

Sustainable Development Goal interactions through a climate lens: a global analysis

SEI report
February 2023

Adis Dzebo
Zoha Shawoo



SDG SYNERGIES

SEI Stockholm Environment Institute

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United Nations | Department of Economic and Social Affairs

SDG Synergies

Tool to establish alignment and assess interaction between policy objectives in different issue areas to:

- Visualise synergies and trade-offs
- Pinpoint strategic entry-points to implementation
- Prioritise between objectives
- Align objectives with appropriate policy instruments
- Assign appropriate budgeting
- Monitor processes at necessary steps
- Anticipate outcomes
- Evaluate outcomes, compare with ex-ante assumptions and learn about feedback loops and spillover effects

https://www.sdgsynergies.org/

Step 1. Contextualise
- Selection of targets
- Selection of actors

Step 2. Assessment of interactions
- A ”cross impact”-matrix
- A guiding question
- A scale of +/- interactions

Step 3. Analysis
- Cross impact-analysis
- Network analysis

SDG Synergies tool

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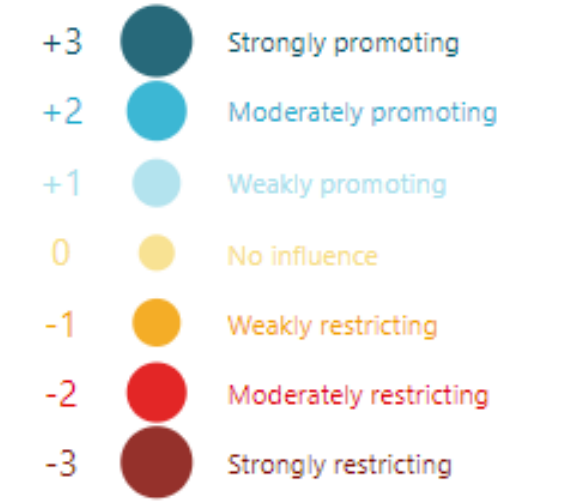
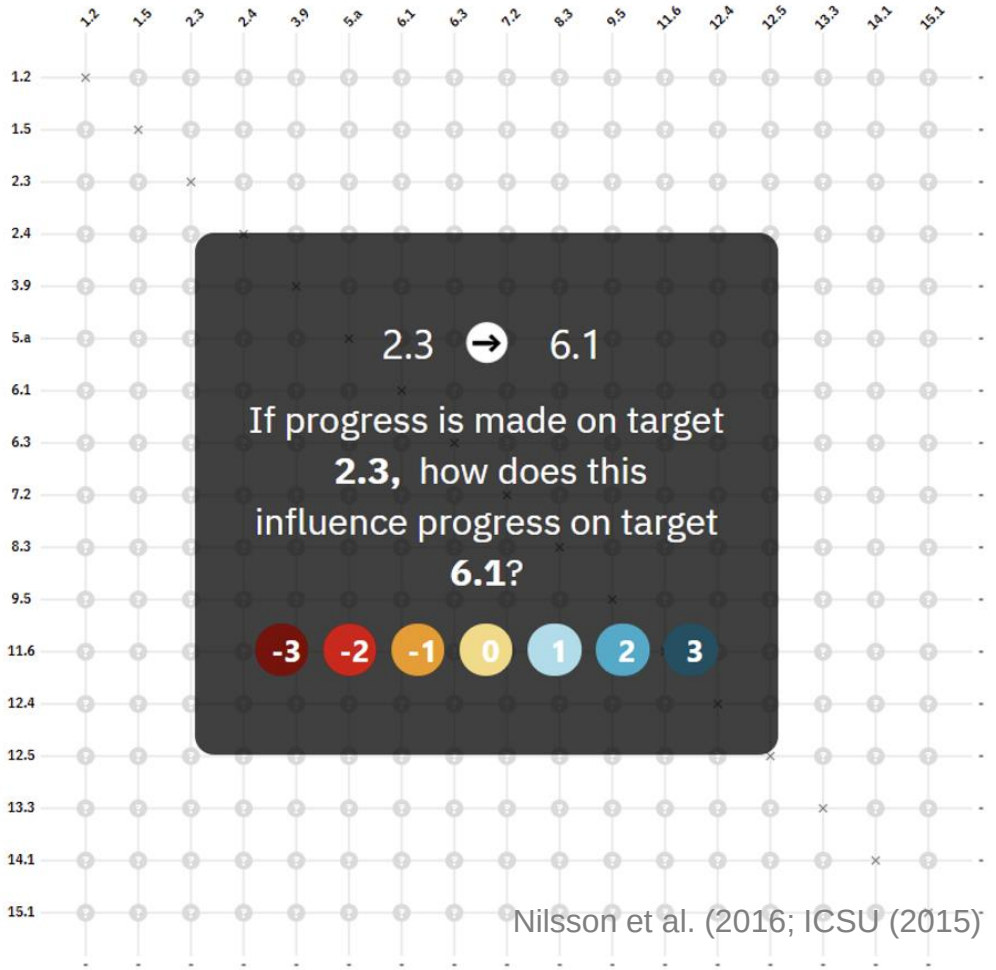
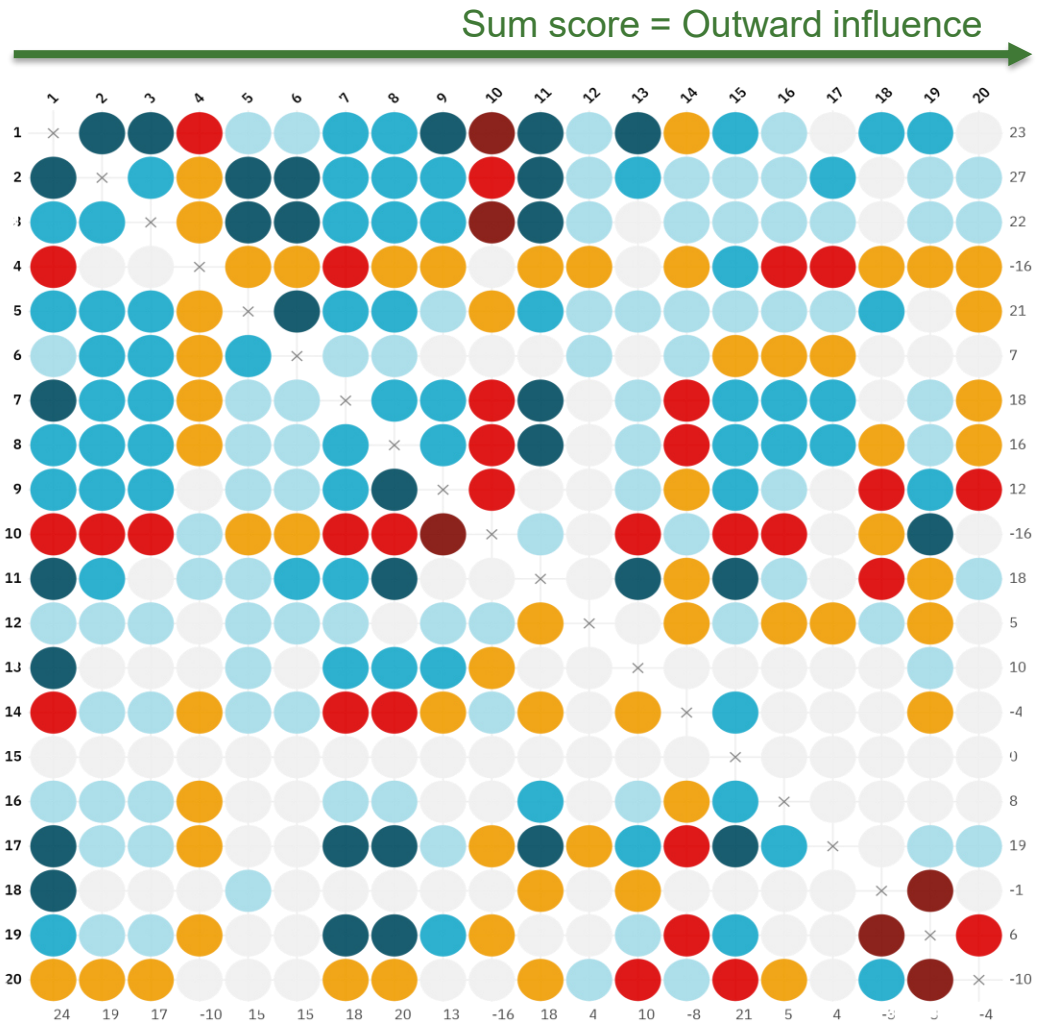




Nilsson et al. (2016; ICSU (2015)

Cross-impact Analysis



Germany: Climate-SDG interactions in the energy transition

Cross-impact matrix of all interactions

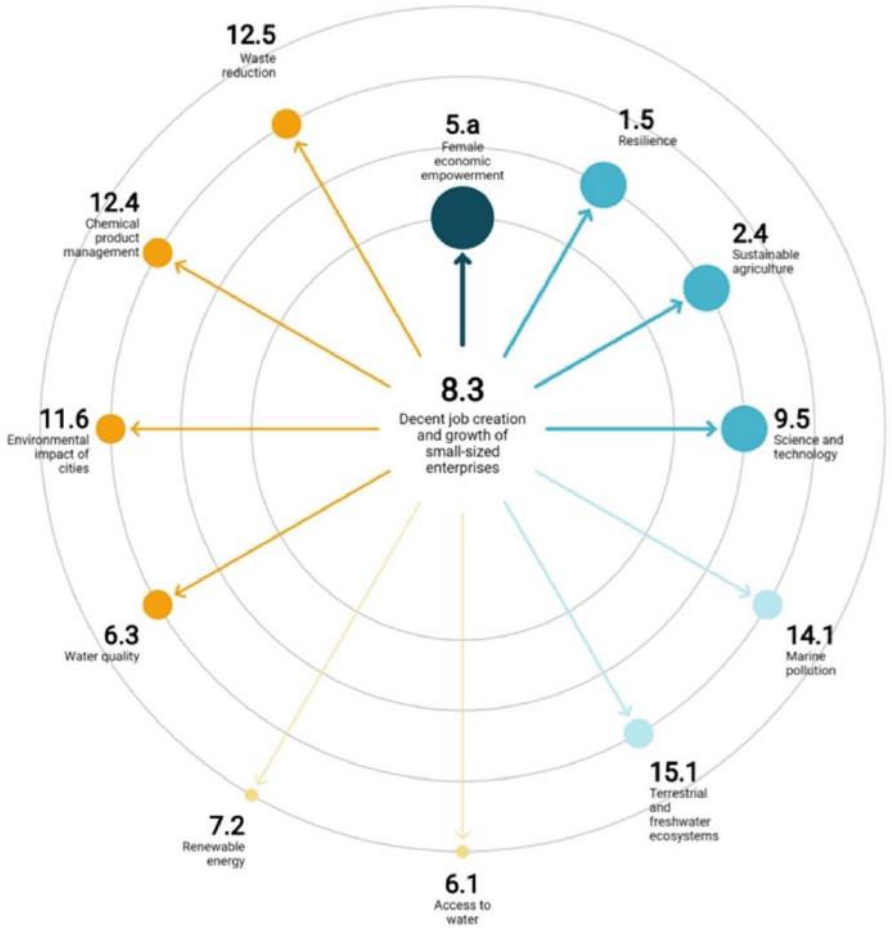
Ranking the most promoting and least promoting objectives related to all other goals:

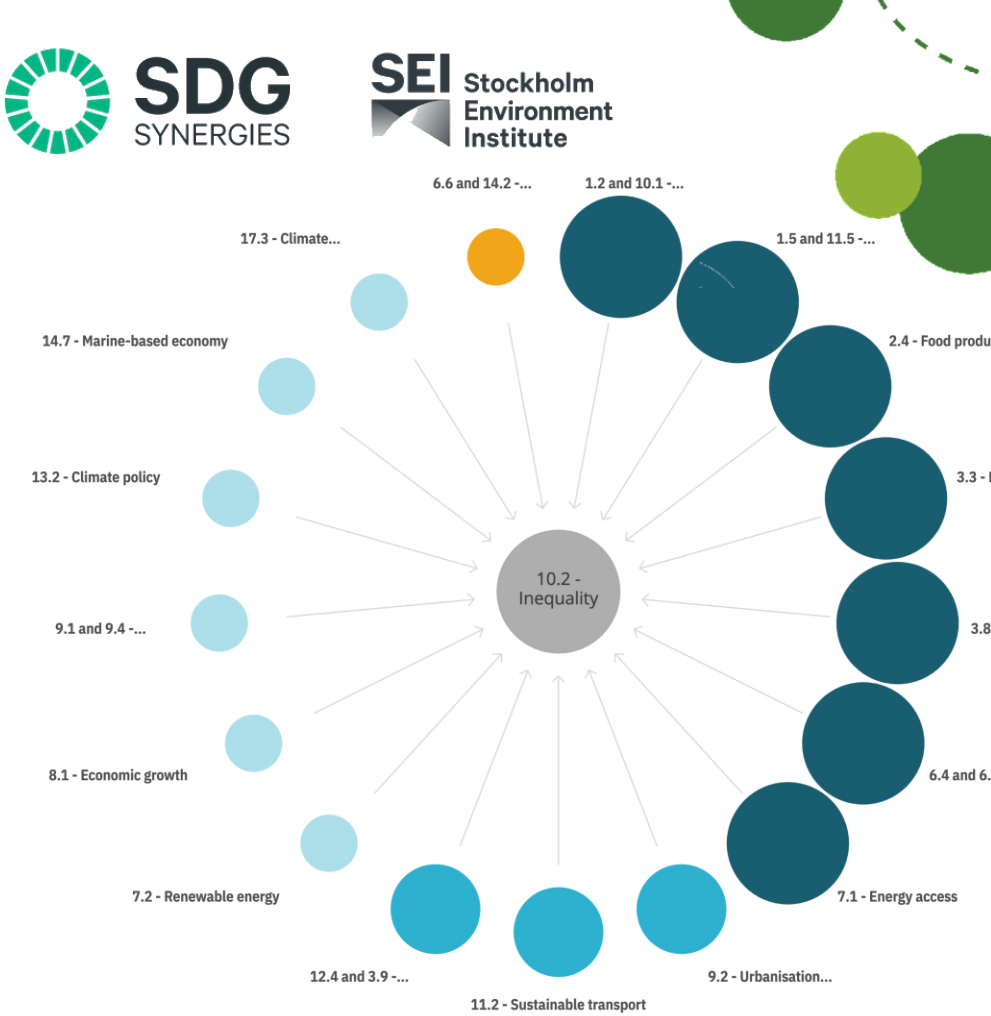
- Outward influence: Policy objectives that, when implemented, have the strongest promoting or restricting effect on implementation of other goals.

- Inward influence: Policy objectives that benefit the most or the least from progress of other goals.

Strategisation

Anticipate expected outcomes and feedback loops and prepare for unexpected outcomes





- Prioritise goals and objectives the provide co-benefits with other
- Align those objectives with appropriate policy instruments, budgeting and enforcement mechanisms
- Establish monitoring systems

GROUP EXERCISE

Work in your thematic area groups

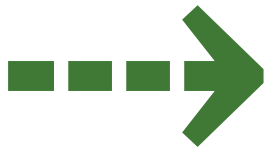
Country Groups	Thematic Area	Policy scenario
1. Tonga, Liberia, Mali, Lao PDR, Papua New Guinea	Climate-Resilient Infrastructure and Urban Adaptation	National Urban Resilience Strategy in a Small Island Developing State
2. Ghana, Bangladesh, Sri Lanka, 3. Philippines, Zimbabwe, Comoros, Kenya	Climate-Smart Agriculture and Food Security	Agricultural Transformation Program in a Drought-Prone Region
4. Costa Rica, Uganda, Indonesia, Ethiopia, Malaysia, Madagascar	Nature-Based Solutions and Land Restoration	Watershed Restoration Initiative in a Biodiverse Forest Region
5. Armenia, Bhutan, Thailand, Kyrgyz Republic	Renewable Energy and Low-Carbon Development	Energy Transition in a Resource-Dependent Emerging Economy

Step 1 Contextualise (ca 5 min)

As a senior government official in your respective country with responsibilities matching your thematic area consider the following:

Each group to read

- The respective scenario
- Policy context
- Prioritised targets



Discuss internally

- Policy instruments for implementation
- Resource allocation
- Enforcement capability
- M&E

Step 2 – Assess Interactions (ca 30 min)

Select one group member who will write down the results in Tables 1-4.

1.

Assess each target interaction in terms of one targets' enabling, consistent or cancelling effect on another target. **Use Table 1.**

Conduct the scoring by considering question:

"To what extent and how does progress on policy objective x influence progress on policy objective y?"

2.

Enter a score for each interaction in Table 1. You can enter any one of the seven scores from +3 to -3.

A score of -3 indicates a strong negative interaction (i.e. policy conflict), whereas a score of +3 indicates a strong positive interaction (i.e. strong synergy). A score of 0 indicates no significant interaction.

Discuss within the group and agree on a final score and write it down in Table 1.

Fill in the scoring in Table 1

To what extent and how does progress on Climate-resilient infrastructure influence progress on Sustainable Urban Planning??

- Full target description
- Policy context
- Scenario description

⇓X / ⇒Y	SDG 13.1 & 9.1 "Climate-Resilient infrastructure"	SDG 11.2 & 9.4" "Sustainable Urban Planning"	SDG 6.4 "Water security"	SDG 11.2 "Urban green spaces"	SDG 8.9 "Tourism Development "	Row-sum
SDG 13.1 & 9.1 "Climate-Resilient infrastructure"		+3				Σ
SDG 11.2 & 9.4" "Sustainable Urban Planning"				+3		Σ
SDG 6.4 "Water security"	0	+1			-1	Σ
SDG 11.2 "Urban green spaces"					-3	Σ
SDG 8.9 "Tourism Development"						Σ

Do not spend too much time on a specific target interaction

Step 2 – Example of Interactions

Climate Risk Reduction reinforces (+2) Water Security

Motivation: Implementation of climate-risk informed building codes and infrastructure standards (SDG 13.1) strongly supports water security (SDG 6.4) by ensuring water infrastructure is designed to withstand climate extremes. Water collection and storage systems built to climate-resilient standards reduce vulnerability to droughts and floods. This creates direct benefits for water availability during climate disruptions.

- Score: +2 (Reinforcing)

Renewable Energy Capacity enables (+1) Just Transition

Motivation: Expanding renewable energy capacity (SDG 7.2) creates enabling conditions for just transition programs (SDG 8.5) by providing new economic opportunities in affected regions. However, without targeted local content requirements and skills programs, many renewable jobs may not directly benefit fossil fuel communities. The relationship is positive but requires complementary policies to maximise benefits.

- Score: +1 (Enabling)

Step 2 – Motivation (5 min)

When scoring, select four pairs of interaction that were interesting, important or difficulty to assess and explain why!

Table 2

Target: SDG 13.2 & 1.5 "Climate-agriculture coordination" → SDG 2.3 "Agricultural Intensification" [-3]	Cross-ministerial climate-smart agriculture coordination directly conflicts with rapidly doubling agricultural production through expansion of commercial farming. Climate-smart approaches emphasize resilience and sustainability, while rapid intensification prioritizes short-term yields over climate adaptation. This represents a fundamental contradiction in agricultural development pathways.
Target:	
Target:	
Target:	

Step 3 – Ranking (5 min)

This column

Table 3

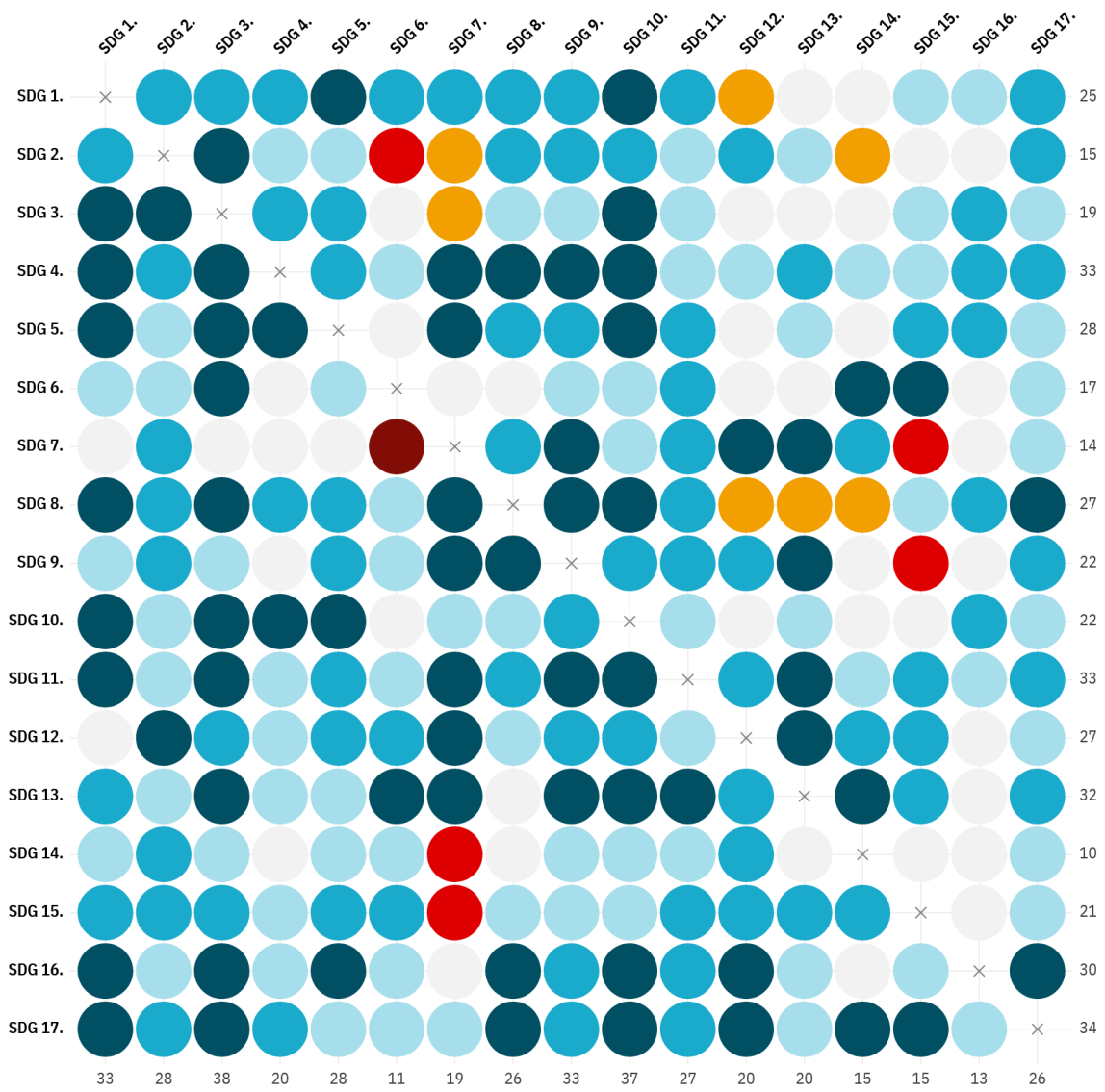
	Target	Sum outwards (Most/least synergistic)		SDG 8.9 "Tourism Development"	Row-sum
1	SDG 13.1 & 9.1 "Climate-Resilient infrastructure"	+6			Σ
2	SDG 11.2 & 9.4 "Sustainable Urban Planning"	+4			Σ
3	SDG 11.2 "Urban green spaces"	+4			Σ
4	SDG 6.4 "Water security"	+3		-1	Σ
5	SDG 8.9 "Tourism Development"	-8		-3	Σ
					Σ

Step 3 – Strategising (5 min)

Develop a strategy for public institutions that seeks synergies between multiple objectives and goals. Elaborate on the steps below and outline a process strategy for effective synergistic implementation.

Table 4

1. Synergistic Entry Points	- Emphasize renewable capacity, energy system modernisation, and skills development as the cornerstones of the energy transition. - Use these elements collectively to shift investments away from fossil fuels. - …
2. Critical Trade-offs	- Develop policies to gradually phase out fossil fuel subsidies while providing transitional support for affected workers.
3. Institutional Coordination	- Establish a multi-sectoral coordinating body involving the Ministries of Energy, Labor, Economic Planning, and Education. - …
4. Implementation Sequencing	- Launch skills development programs concurrently with pilot renewable energy projects to build capacity early on. - …



Suggestions:

- **Process matters more than result**
- **Don’t get stuck**
- **Think as a “future explorer”**
- **Present your plan in a plenary**

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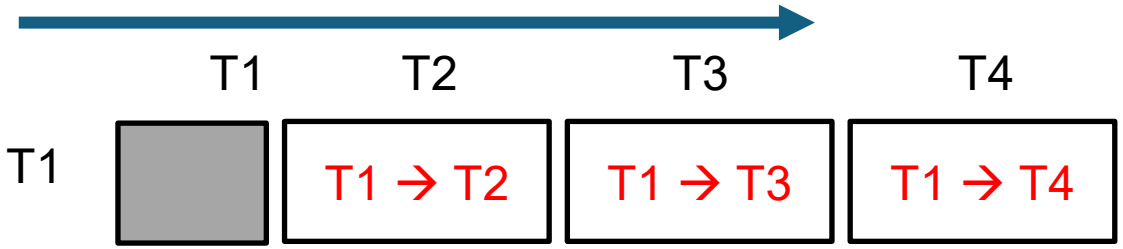
'To what extent and how does progress on target X influence progress on target Y?'



T1 = SDG 8.9 "Tourism Development"

Expand coastal tourism infrastructure and facilities to increase sector contribution to GDP from 40% to 50%

→

???

T1 = SDG 11.2 "Urban green spaces"

Create urban green spaces and coastal buffer zones with ecosystem-based adaptation

Approach to Systems Thinking

Understand system dynamics ⟺ Anticipate interaction outcomes ⟺ Develop strategic interventions

Cause and effect

Causality

Feedback loops

Spillover risks

Interdependencies

Synergies and co-benefits

Positive and negative spillover effects

Points of resistance and contestation

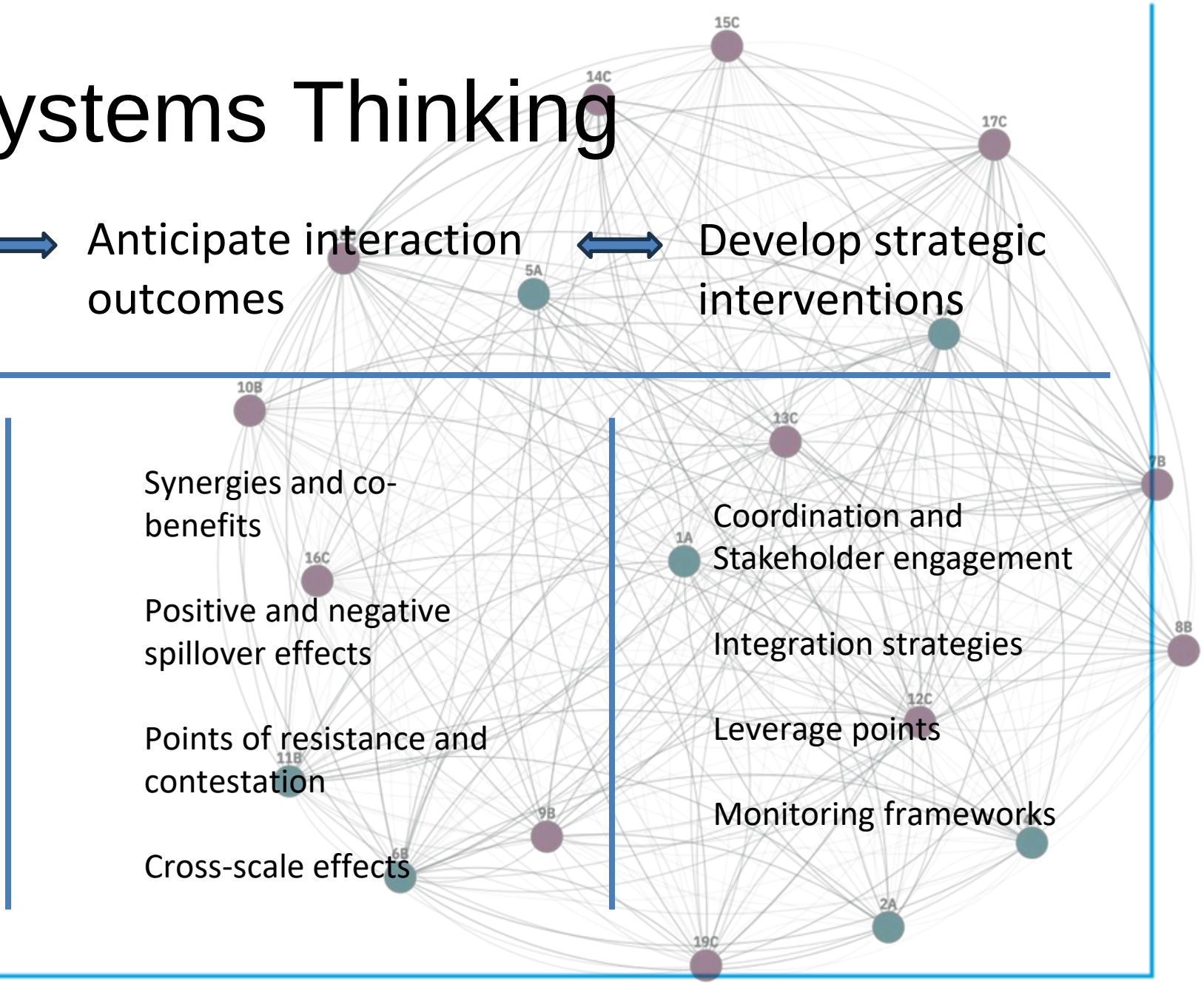
Cross-scale effects

Coordination and Stakeholder engagement

Integration strategies

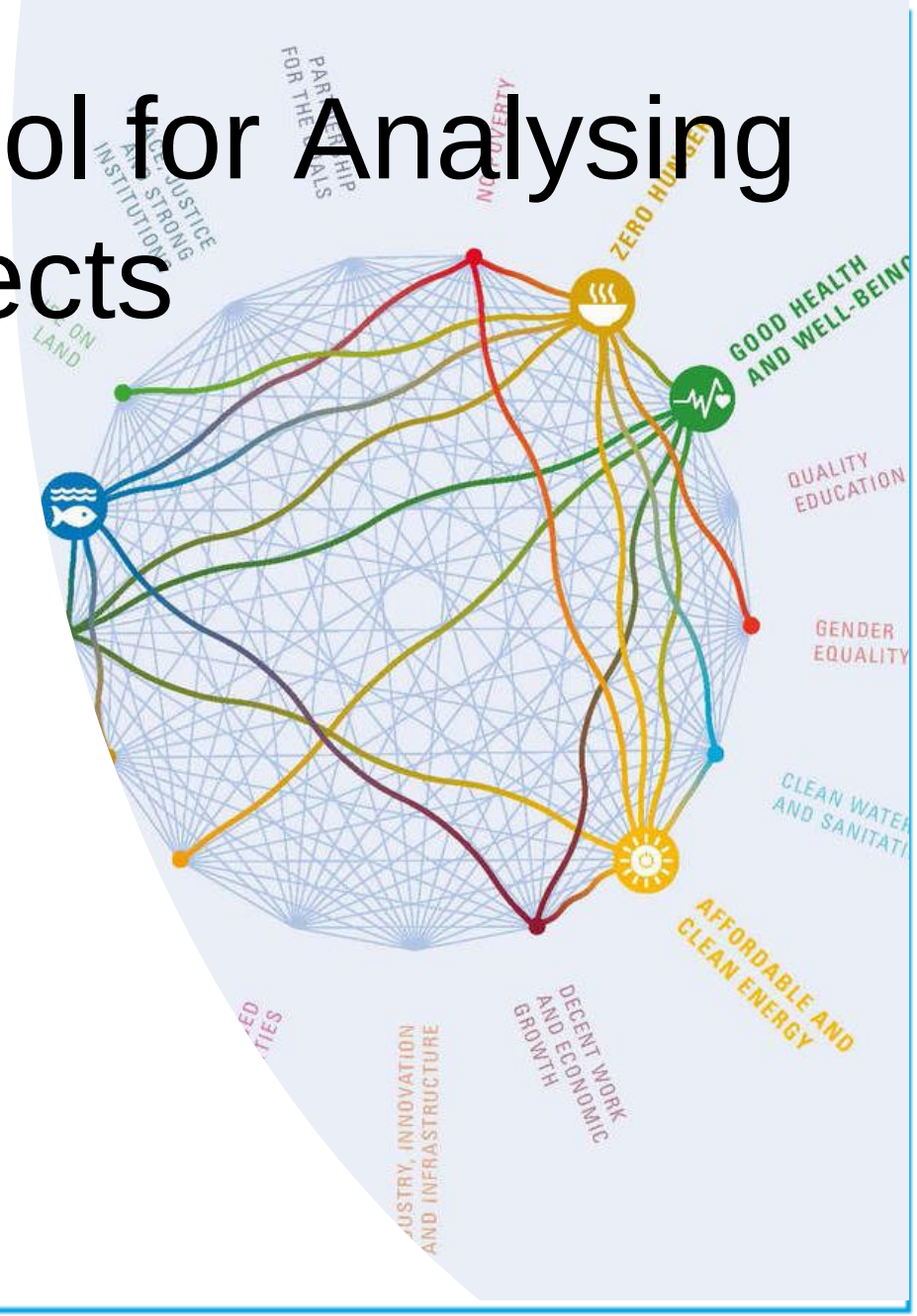
Leverage points

Monitoring frameworks



SDG Synergies 2.0(beta) – Tool for Analysing Geographical Spillovers Effects

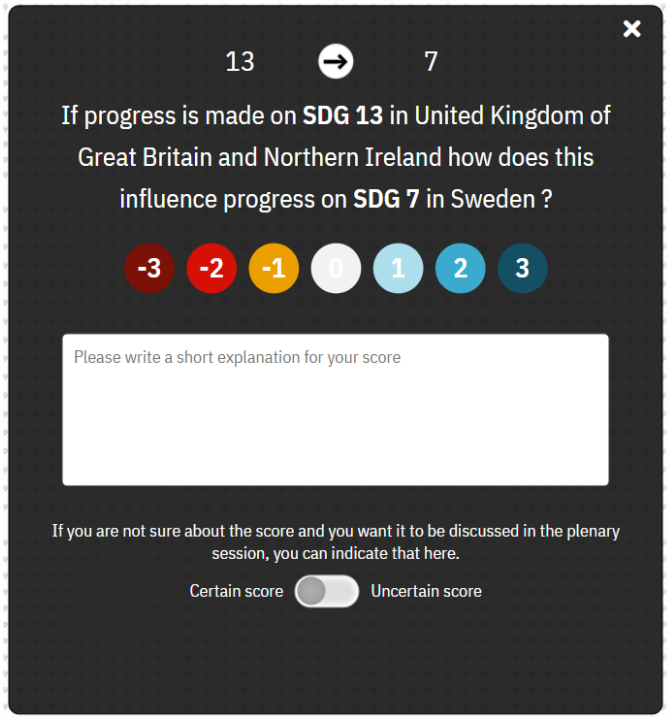
- Localize SDGs and/or climate action and align global commitments with the national development goals and explore how progress on one administrative level impacts the other.
- Assess policy interaction and implementation globally, at the national, regional and local scales.
- Explore consequences of global commitments on national and sub-national government agendas (e.g. the NDC, national and regional development plants, and city plans)
- Assess consequences and spillover effects from climate action on other countries and regions.



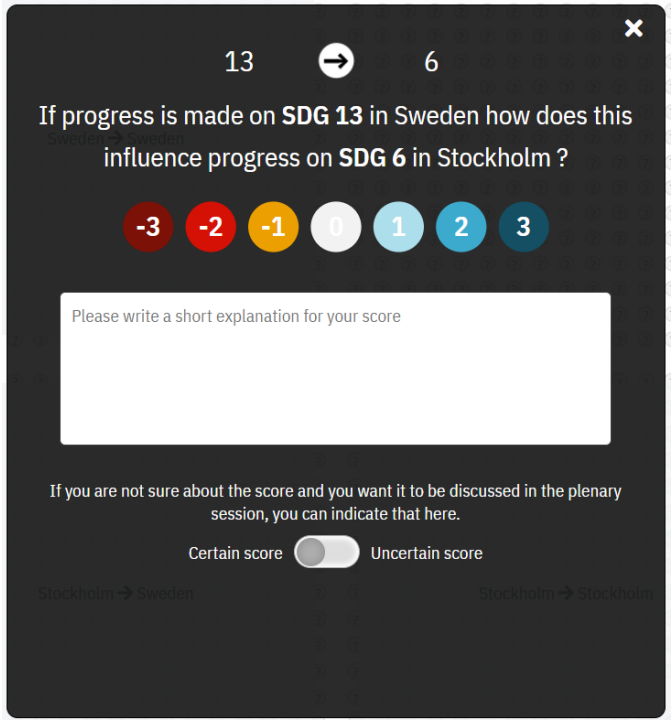
SDG Synergies 2.0 – Geographical Spillovers

The Geographical Spillovers feature of SDG Synergies 2.0 allows conducting analyses of SDG interactions between territories

Between Countries

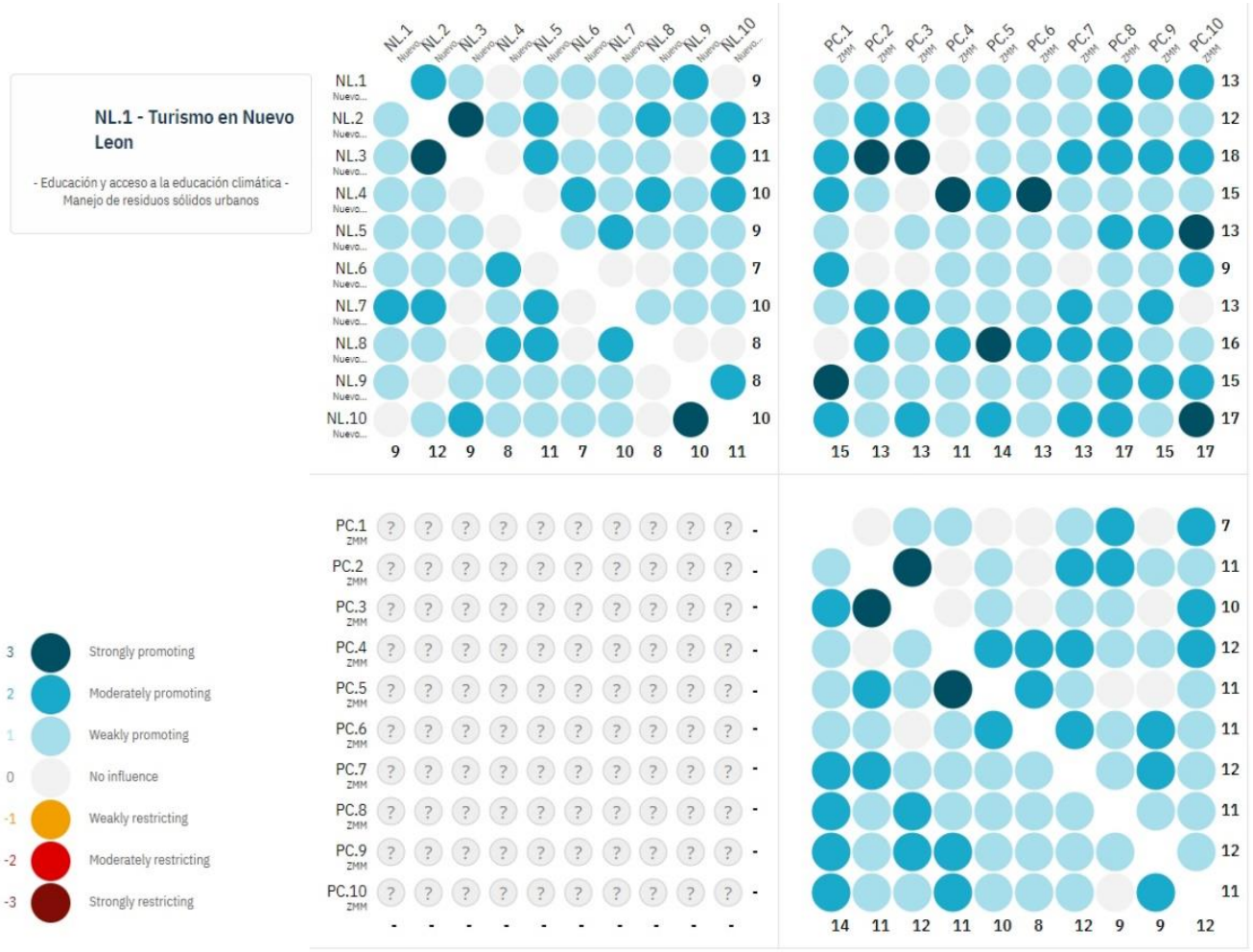


Across jurisdictional boundaries



SDG Synergies 2.0 – Geographical Spillovers

- Include up to three different countries or scales in the analysis, creating sub-matrices that show the interactions between different geographical regions or administrative levels.
- Exploring how progress in one region or level affects other
- Extrapolate synergistic and conflicting effects from interaction horizontally and vertically



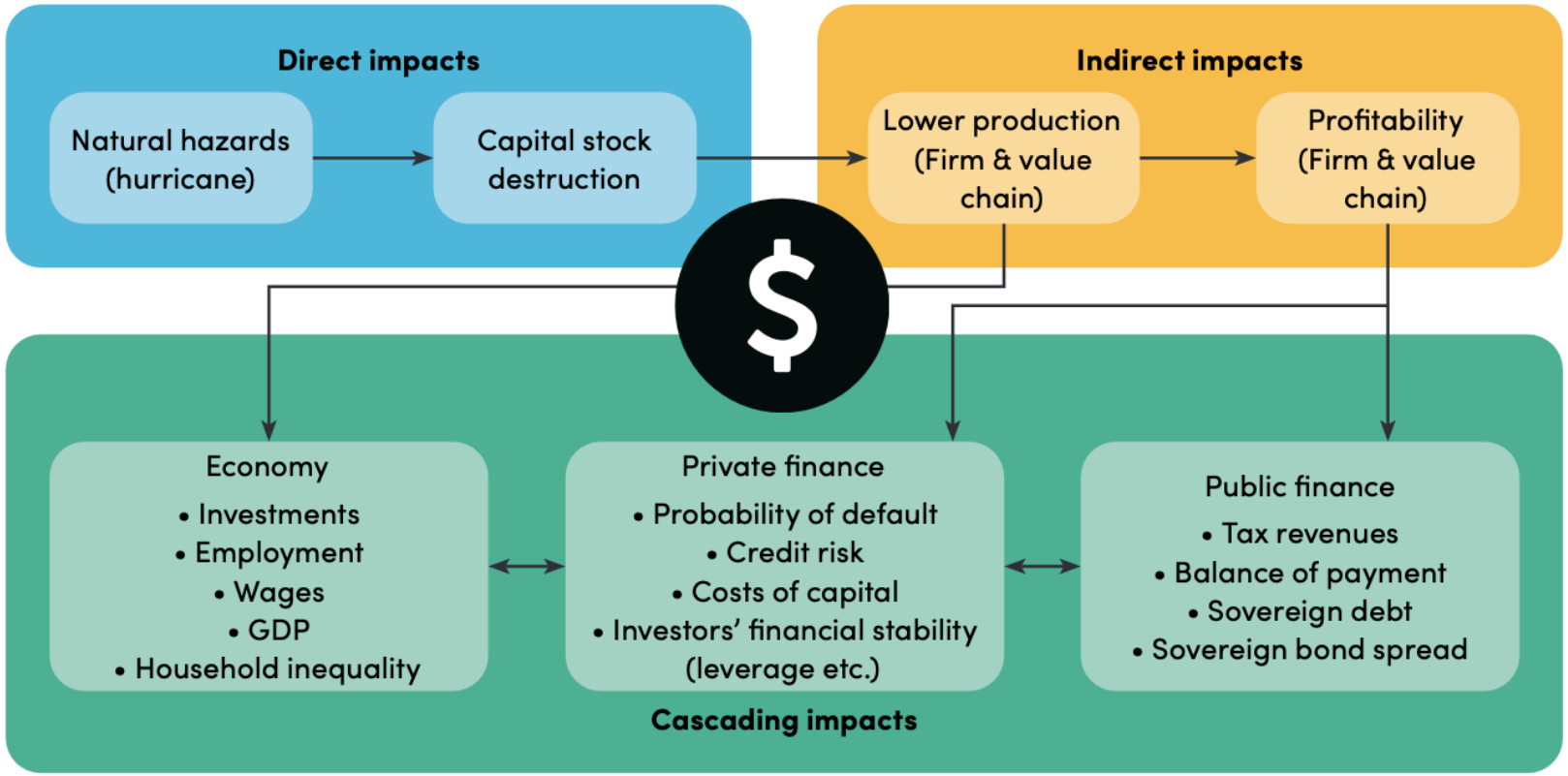
Evolution of Understanding of Complex Sustainability Challenges

Key challenges	Key features	In policy since	Policy approaches (examples)	Assessment approaches and tools (examples)
Specific	Linear cause-effect, point source, local	1970s	Targeted policies and single-use instruments	Data sets, indicators
Diffuse	Cumulative causes, multiple sources	1990s	Policy integration, market-based instruments, raising public awareness	As above; and DPSIR, environmental accounts, outlooks
Systemic	Systemic causes, interlinked sources	2010s	Policy coherence, systemic focus (e.g. mobility system), long-term and multi-dimensional goals (e.g. SDGs)	As above; and STEEPV, practice-based knowledge, systems assessment, stakeholder participation, foresight
Complex	As above; and wicked problems; VUCA; intertwining nature and culture; urgent and large-scale	In focus today	As above; and open governance, public participation, co-creation, innovation, experimentation	As above; and post-normal science, response-oriented, collaborative
Polycrisis?	Societal complexity combined with extreme weather and adaptation challenges	**Now/Near-future?**		

(EEA, 2024)

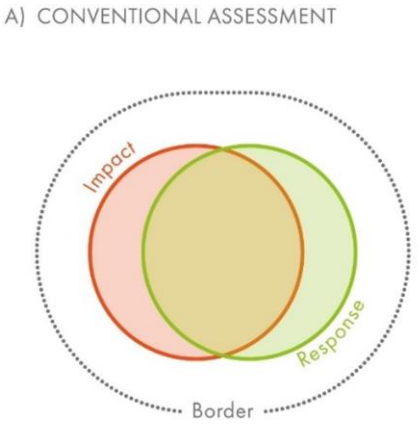
Systemic risk and spillover effects from climate change

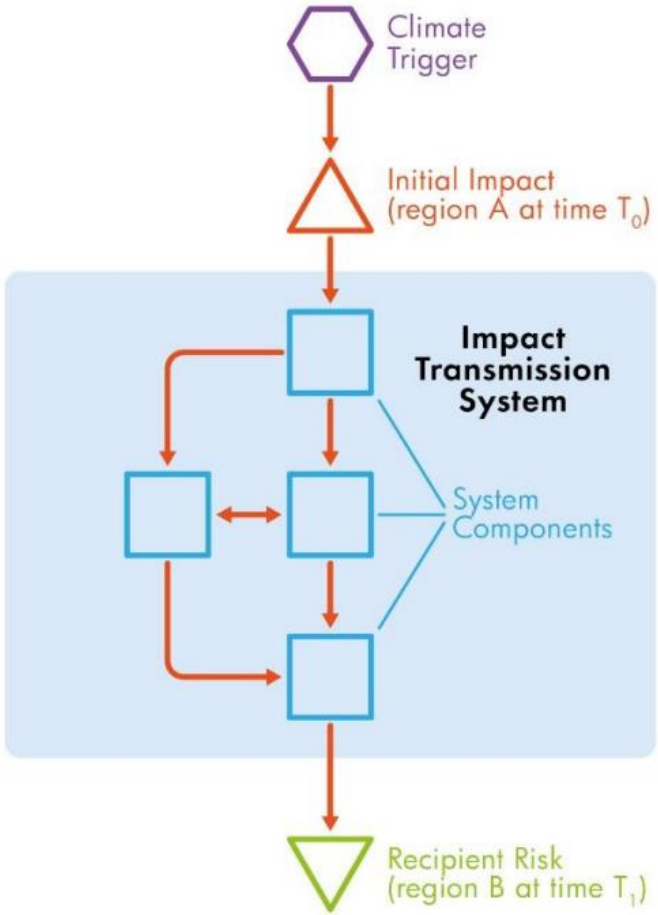
Transboundary climate risks are climate risks that cross national borders, arising from local climate impacts or from misguided climate policy.



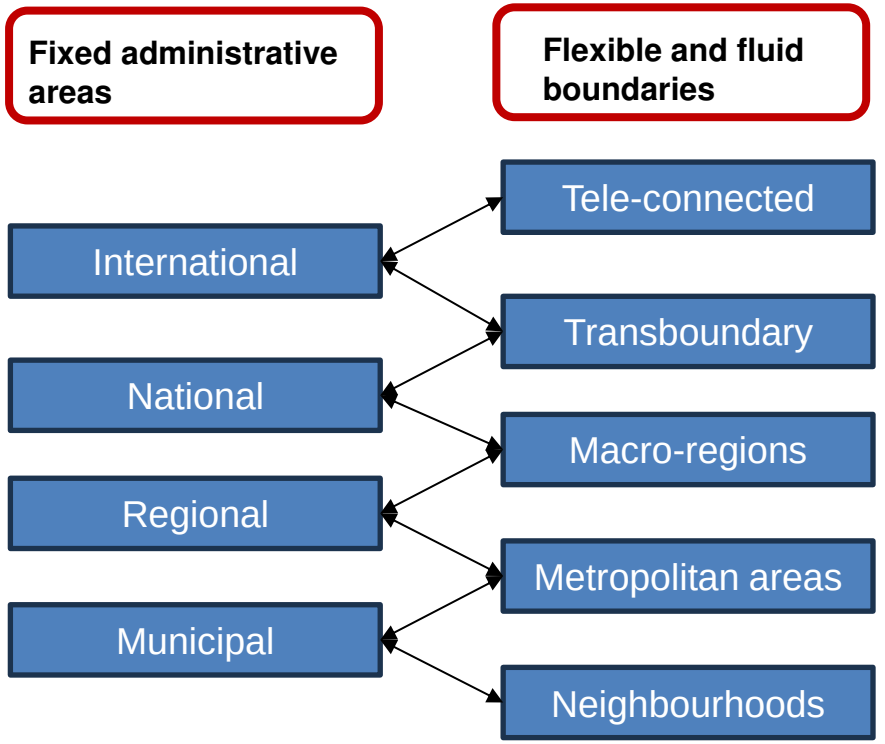
Adaptation without borders (2023)

Typology of Climate Risks and Spillover Effects





Carter et al (2021)



Dobravec et al. (2021)

Tools and Methods for Alignment and Interaction