The role of infrastructure in the 2030 Agenda for Sustainable Development

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The SDGs: 17 Goals, 169 Targets and 232 Indicators form an integrated and indivisible framework for achieving sustainable development from a systemic perspective





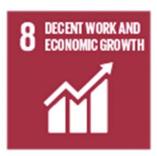
































Importance of taking an integrated approach through SDG interlinkages

- Shifting from a siloed approach to an integrated approach is imperative for achieving the SDGs.
- Understanding the interlinkages between the SDG targets is important for taking an integrated approach which helps address the following issues:



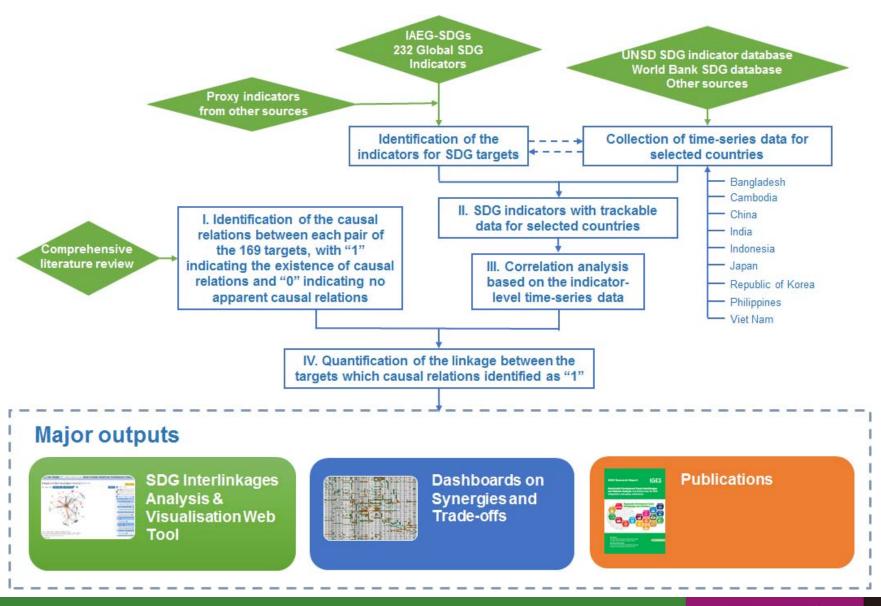




An integrated approach through SDG interlinkages

- How will achieving one target impact on achieving others and how strong are the impacts?
- Where are the synergies or trade-offs between the SDG targets?
- How countries are different in terms of SDG interlinkages and what are the policy implications? Etc.

IGES initiated a project on SDG interlinkages and indicators (FY2015-2018)

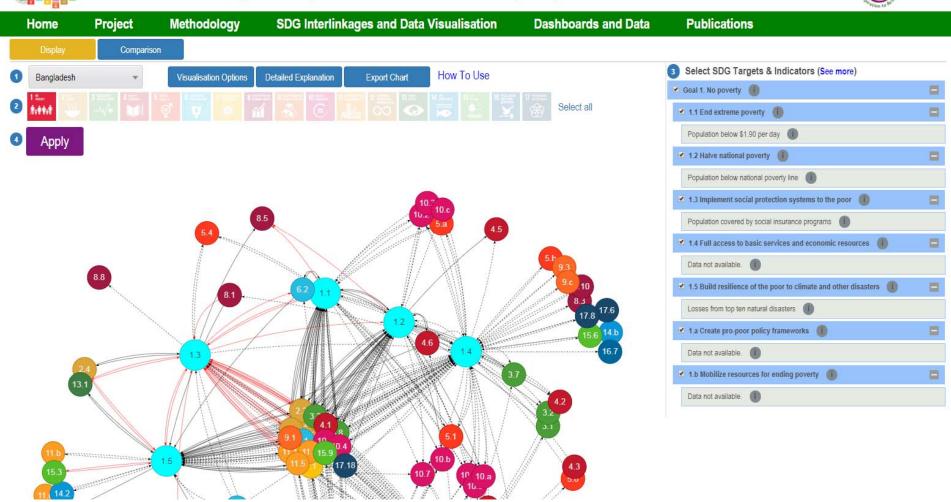


IGES SDG Interlinkages Analysis & Visualisation Tool (V2.0) (https://sdginterlinkages.iges.jp/visualisationtool.html)



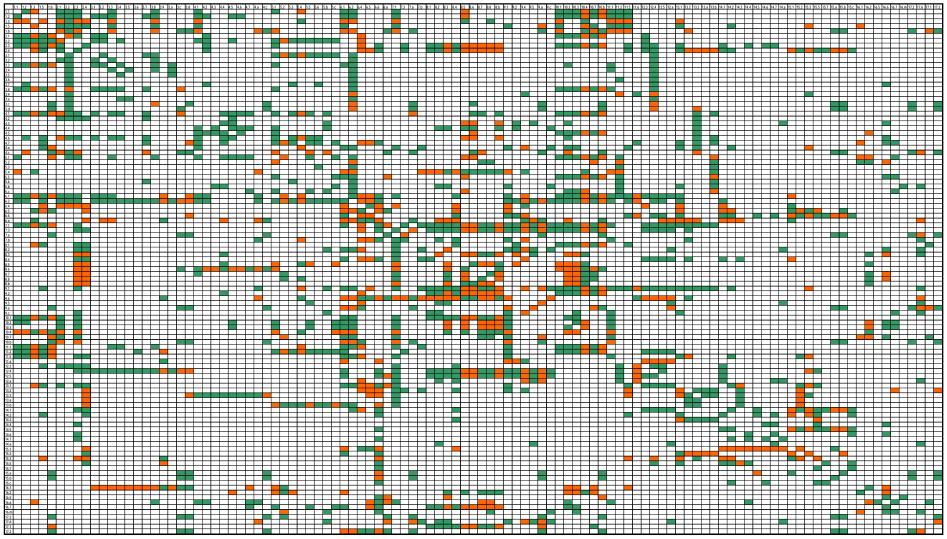
SDG Interlinkages Analysis & Visualisation Tool (V2.0)





Source: A snapshot taken from IGES SDG Interlinkages Analysis and Visualisation Web Tool.

The dashboard for Bangladesh indicating potential reinforcing (green) and conflicting (red) interlinkages



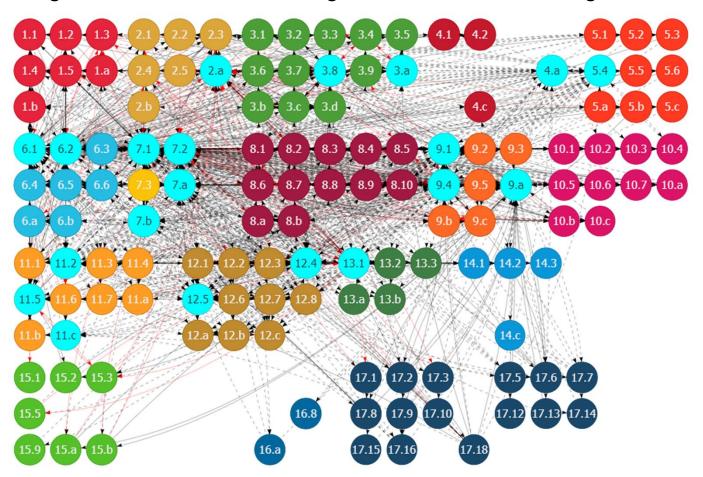
Source: Zhou & Moinuddion, 2017. IGES Research Report No. RR1602. https://sdginterlinkages.jges.jp/files/IGES_Research%20Report_SDG%20Interlinkages_Publication.pdf

Infrastructure and SDGs: Universal access, quality service, resilience, low emissions and resource efficiency

- Infrastructure is a key driving force for poverty reduction, job creation, economic growth and social well-being.
- Facts about infrastructure
 - 2.4 billion people lack access to basic sanitation and about 800 million people lack access to clean water;
 - Infrastructure constraints limit businesses' productivity by around 40 percent in some African countries;
 - 2.6 billion people in developing countries have no access to constant electricity;
 - More than 4 billion people do not have access to the Internet.
- Achieving SDGs heavily depends on infrastructure investment to ensure universal access and quality services which are provided in a low-carbon, resource-efficient and resilient way.

Infrastructure and the interlinkages with SDGs

Infrastructure-related SDGs include Goal 9 and 20 specific targets under 10 Goals linking with more than 130 targets.























Source: Zhou, et al. 2018. IGES SDG Interlinkages Analysis and Visualisation Tool (V2.0)

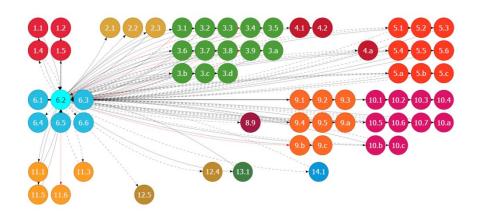
Bangladesh: Key infrastructure targets based on network analysis

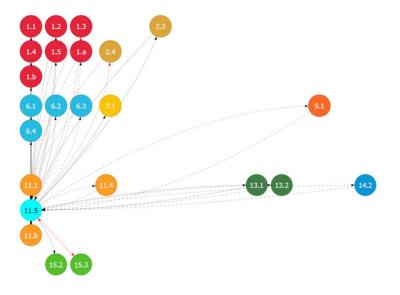






	Out degree	Weighted out-degree	Closness centrality	Betweeness centrality	Eigen centrality
1	6.2	6.2	6.2	6.2	7.1
2	7.1	3.b	7.1	6.1	6.1
3	6.1	7.1	7.2	7.1	6.2
4	7.2	6.1	6.1	2.a	13.1
5	3.b	3.8	9.4	9.a	7.2
6	3.8	7.2	2.a	3.b	9.a
7	9.4	9.a	3.b	13.1	2.a
8	2.a	11.5	9.a	9.4	9.4
9	9.a	2.a	3.8	7.2	3.8
10	13.1	13.1	13.1	3.8	11.5
11	11.5	9.4	11.5	11.5	3.b





China: Key infrastructure targets based on network analysis

	Out	Weighted	Closness	Betweeness	Eigen
	degree	out-degree	centrality	centrality	centrality
1	6.2	6.2	6.2	6.2	7.1
2	7.1	3.b	7.1	2.a	6.2
3	7.2	7.1	7.2	7.1	9.a
4	3.b	11.2	2.a	9.a	7.2
5	2.a	7.2	9.4	3.b	2.a
6	9.4	3.8	3.b	7.2	9.4
7	9.a	9.4	11.2	11.2	3.8
8	3.8	11.5	9.a	9.4	3.b
9	11.2	2.a	3.8	3.8	11.5
10	11.5	9.a	11.5	11.5	11.2



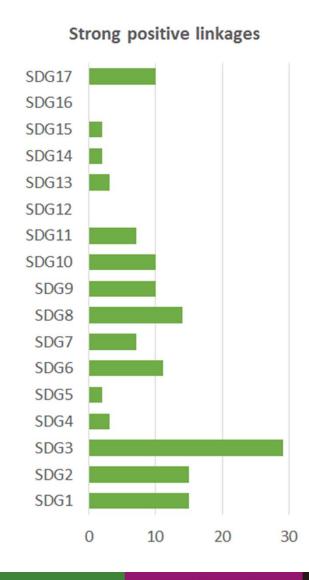






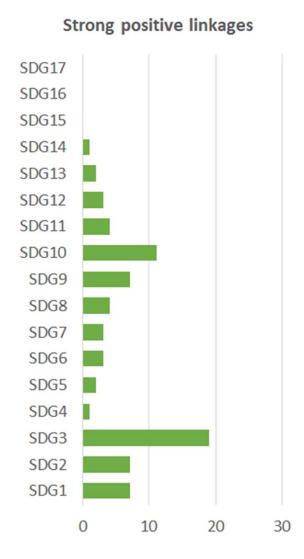
Bangladesh: Existing key synergies

1 Povery 小水布布市	1.1, 1.2, 1.5
2 HUNGER	2.1, 2.2, 2.3, 2.4, 2.5
3 GOOD HEALTH AND WIELL-GEING	3.1, 3.2, 3.3, 3.6, 3.7, 3.8, 3.9, 3.a, 3.b, 3.c
4 QUALITY DUCATION	4.1, 4.2
5 ERIGIEY	5.3, 5.6
6 CLEAN WATER AND SANITATION	6.1, 6.2
7 GLAN ENERGY	7.1, 7.3
8 BECENT WORK AND CONTROL OF THE CON	8.1, 8.2, 8.5, 8.7, 8.a
9 NULSTRY, NEOVARIO	9.2, 9.4, 9.b, 9.c
10 REDUCED NEURINES	10.a, 10.b
11 SUSTAINABLE CHIEF	11.1, 11.5
13 CLIMATE	13.1
14 BUT MATER	14.6
15 UNE ON LAND	15.2
17 PARTHESISHING FOR THE GOALS	17.2, 17.6, 17.8, 17.9, 17.11, 17.12, 17.13



China: Existing key synergies

1 POVERTY 市 *帝帝市市	1.1, 1.5
2 ANU HUNGER	2.1, 2.2, 2.3, 2.4
3 GOOD HEALTH AND WELL-GEING	3.1, 3.2, 3.3, 3.4, 3.6, 3.8, 3.9. 3.a, 3.c
4 QUALITY DUCATION	4.2
5 CENDER ORDINATIV	5.b
6 CLEAN WATER AND SANITATION	6.2, 6.4
7 AFFORDABLE AND GEAN EVEROY	7.2, 7.3
8 BECENT WORK AND ECONOMIC GROWTH	8.1, 8.4, 8.a
9 INEASTRY INNOVATION AND INTRASTRUCTURE	9.2, 9.5, 9.b, 9.c
10 REDUCED MEDIALITIES	10.1, 10.a, 10.b
11 AND COMMUNITYES	11.1
12 PESSONSBEE CONSISSION NA PROPORTION NA PROPORTION	12.2, 12.a
13 CLIMATE ACTION	13.1
14 MIOW WATER	14.5
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Bangladesh: Existing key trade-offs

1 POVERTY	1.3, 1.5
2 ZERO HUNGER	2.1, 2.3, 2.4
3 GOOD HEALTH	3.9
6 CLEAN WATER AND SANTATION	6.1, 6.2
7 AFFGGGGALE AND CLEAN ENERGY	7.1, 7.2
8 DECENT WORK AND EDONOMIC GROWTH	8.1, 8.2, 8.5, 8.6, 8.7, 8.a
9 AND INTERSTRUCTURE	9.2, 9.4, 9.b, 9.c
10 REDUCTO WEQUALITIES	10.a, 10.b
11 SUSTAINABLECTIES AND COMMUNITIES	11.6
13 SUMATE	13.1
14 LIFE SELOW WATER	14.4
15 UNE ON LAND	15.1, 15.3, 15.5
17 PARTHERSHIPS FOR THE GOALS	17.3

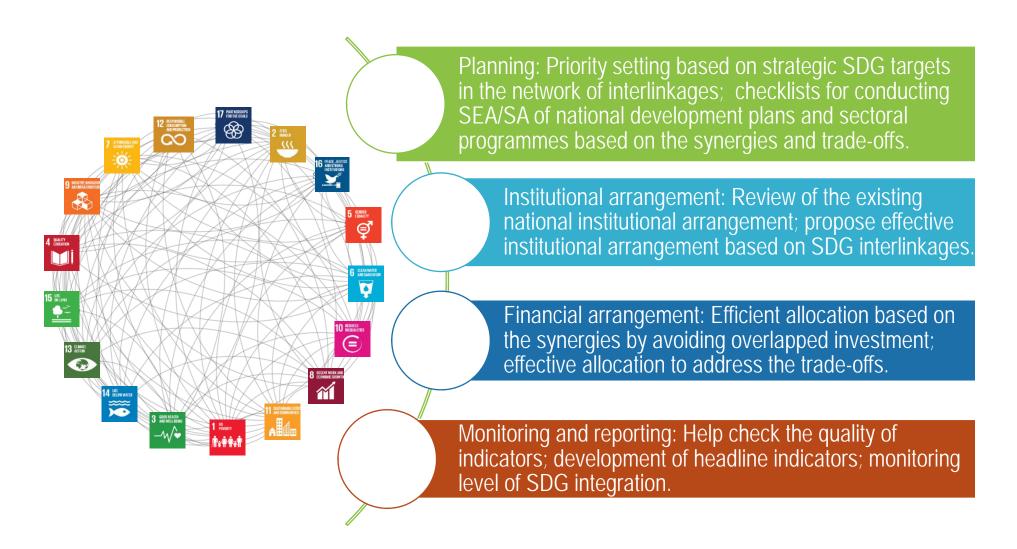


China: Existing key trade-offs

2 ZERO HUNCER	2.1, 2.2, 2.3
3 GOOD HEALTH AND WELL-BEING	3.1, 3.2, 3.3 3.4, 3.6, 3.8, 3.9, 3.b 3.c
5 GENDER EDUALITY	5.6
6 CLEARWATTE AND SANTATION	6.2, 6.4, 6.a
7 AFFORDALE AND CLEAN INCRET	7.1
8 DECENT WORK AND ECONOMIC GROWTH	8.1, 8.2, 8.4, 8.a
9 NOUSTRY, NOVATION AND NOTASTRUCTURE	9.2, 9.5, 9.b, 9.c
10 REDUCED WEGUALITIES	10.1, 10.a, 10.b
11 SUSTAINABLE CITE. AND COMMUNITIES	11.6
12 STANSBUL DISSIMPTION AND PRODUCTION	12.2, 12.a
14 LIFE BLOW WATER	14.6
17 PARTNERSHIPS FORTHE COALS	17.6, 17.8, 17.9, 17.11, 17.12



Applications of the SDG interlinkages tool for SDG integration at different stages of the policy cycle



Thankyou!

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Zhou, X., Moinuddin, M., 2017. Sustainable Development Goals Interlinkages and Network Analysis: A practical tool for SDG integration and policy coherence. IGES Research Report. Hayama: IGES. Available at:

https://sdginterlinkages.iges.jp/files/IGES_Research%20Report_S DG%20Interlinkages_Publication.pdf.



Zhou, X., Moinuddin, M., Li, Y., 2017. SDG Interlinkages and Data Visualisation Web Tool. Hayama: IGES. Available at: https://sdginterlinkages.iges.jp/visualisationtool.html.

