

# SDG Priority Setting and Core Indicators based on Interlinkages Analysis

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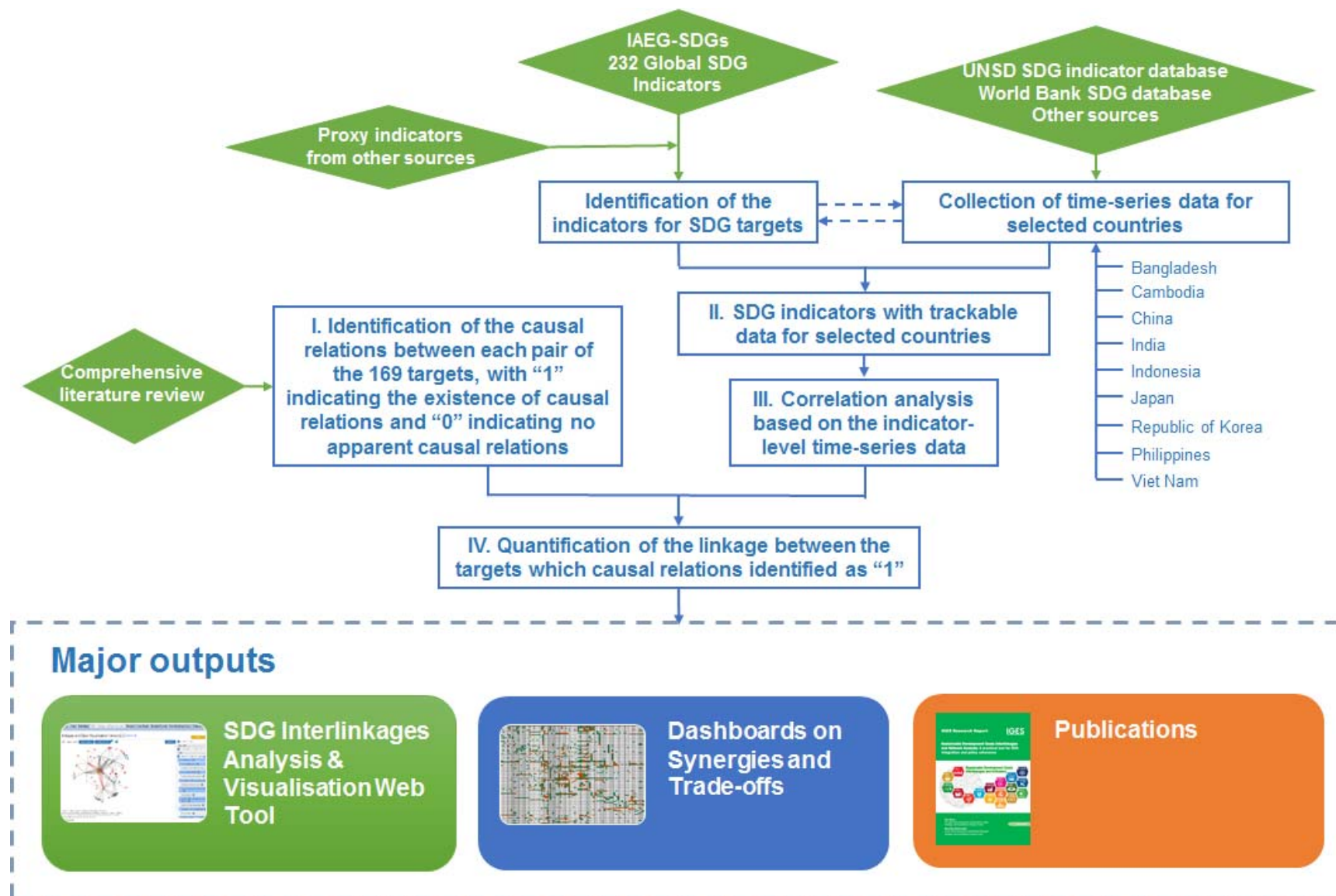
***Expert Workshop on Development of SDGs Progress Indicators***  
*9 October 2018, United Nations University, Tokyo*



***The SDGs: 17 Goals, 169 Targets and 232 Indicators form an integrated and indivisible framework for delivering sustainability from a systemic perspective.***



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





# Identification of SDG interlinkages based on literature review

Reference no.	Reference code	SDG coverage	Type of interlinkages/goal to goal (G-G), goal to target (G-T), target to goal (T-G) and target to target (T-T)	Source
1	IAEG-SDGs	All	T-T	IAEG-SDGs, 2015. List of Indicator Proposals (11 August 2015). Available at: <a href="https://unstats.un.org/sdgs/files/List%20of%20Indicator%20Proposals%201-8-2015.pdf">https://unstats.un.org/sdgs/files/List%20of%20Indicator%20Proposals%201-8-2015.pdf</a>
2	SDSN-1	All	T-T through shared indicators.	Leadership Council of the Sustainable Development Solutions Network (SDSN), 2015. Indicators and a Monitoring Framework for the Sustainable Development Goals: Launching a data revolution for the SDGs. A report to the Secretary-General of the United Nations. Available at: <a href="http://unsdsn.org/wp-content/uploads/2015/05/FINAL-SDSN-Indicator-Report-WEB.pdf">http://unsdsn.org/wp-content/uploads/2015/05/FINAL-SDSN-Indicator-Report-WEB.pdf</a>
3	SDSN-Shared indicators	All	T-T through shared indicators.	2015. Indicators for the SDGs: Identifying inter-linkages. SDSN Issue Brief. Available at: <a href="http://unsdsn.org/wp-content/uploads/2015/09/150816-Identifying-inter-linkages-SDSN-Briefing-for-IAEG.pdf">http://unsdsn.org/wp-content/uploads/2015/09/150816-Identifying-inter-linkages-SDSN-Briefing-for-IAEG.pdf</a>
4	ESCAP-SDG6	SDG6	T-T	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), 2016. Analytical Framework for Integration of Water and Sanitation SDGs and Targets: Using Systems Thinking Approach, Annex I: Full Matrix of Analysis of Direct and Indirect Linkages Between the SDG 6 Targets and the Targets of the Other SDGs. UNESCAP Working Paper. Bangkok: UNESCAP. Available at: <a href="https://sustdev.unescap.org/Files/resource/300add205ca64d4ee4b1c4d1116855ce.pdf">https://sustdev.unescap.org/Files/resource/300add205ca64d4ee4b1c4d1116855ce.pdf</a>
5	WEF-Nexus	SDG2, SDG6 and SDG7.	T-T	Weitz, N., Nilsson, M., Davis, M., 2014. A Nexus Approach to the Post-2015 Agenda: Formulating Integrated Water, Energy and Food SDGs. Available at: <a href="https://www.oecd.org/pcd/Art%20Nexus%20SAIS%20weitz.pdf">https://www.oecd.org/pcd/Art%20Nexus%20SAIS%20weitz.pdf</a>
6	UNECOSOC	All	G-T (for all SDGs except SDG17), G-G (SDG17)	Author(s) and publication date unknown. A Nexus Approach for the SDGs: Interlinkages between the goals and targets. Retrieved from the

## *Identification of SDG interlinkages based on literature review (2)*

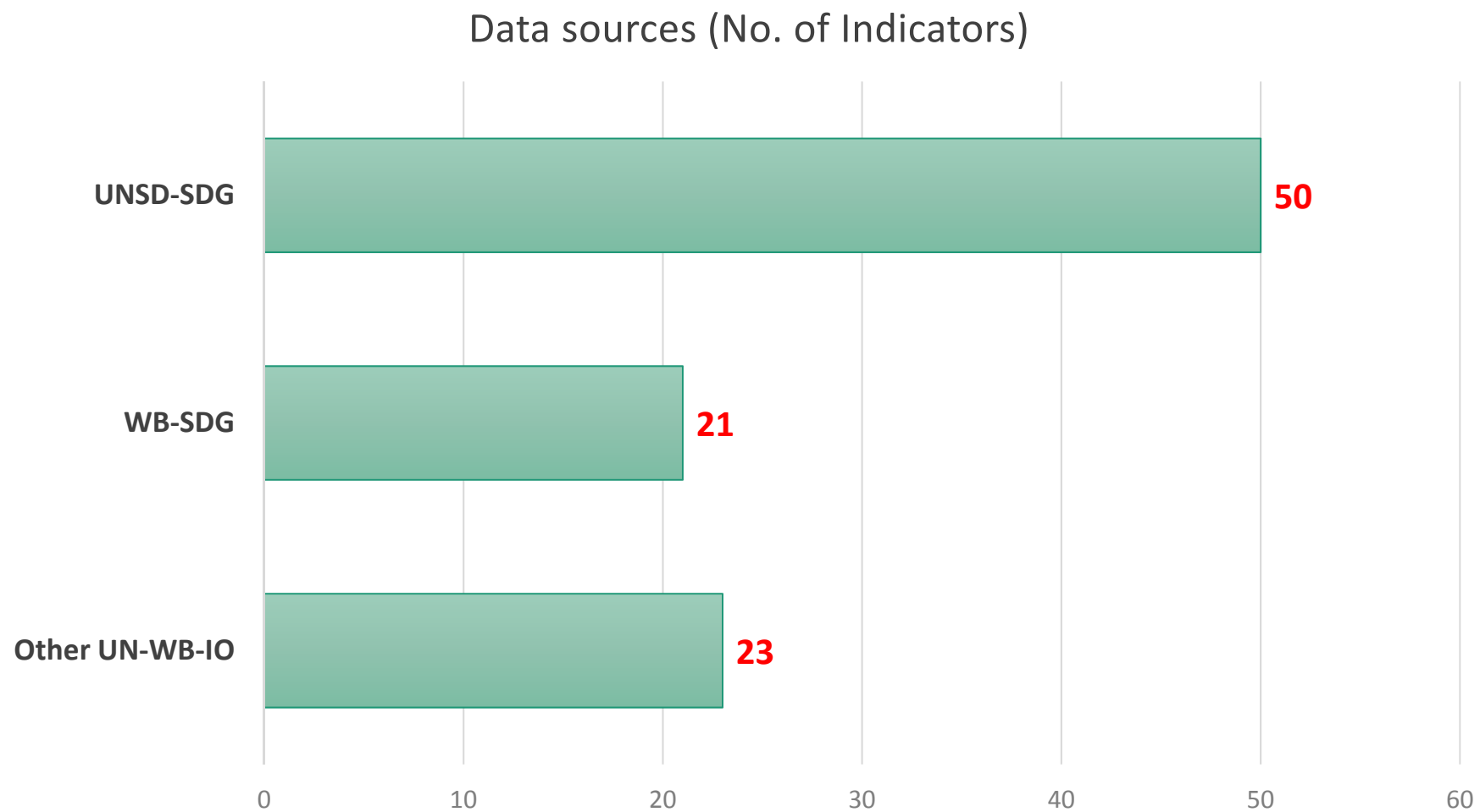
Reference no.	Reference code	SDG coverage	Type of interlinkages/goal to goal (G-G), goal to target (G-T), target to goal (T-G) and target to target (T-T)	Source
				website of the United Nations Economic and Social Council: <a href="https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/2016/doc/interlinkages-sdgs.pdf">https://www.un.org/ecosoc/sites/www.un.org.ecosoc/files/files/en/2016/doc/interlinkages-sdgs.pdf</a>
7	UNCTAD-Trade	Trade-related SDGs	T-T (trade-related targets link with each other)	United Nations Conference on Trade and Development (UNCTAD), 2016. Trading into Sustainable Development: Trade, Market Access, and the Sustainable Development Goals. Geneva: United Nations. Available at: <a href="http://unctad.org/en/PublicationsLibrary/ditctab2015d3_en.pdf">http://unctad.org/en/PublicationsLibrary/ditctab2015d3_en.pdf</a>
8	IOM-Migration	Migration-related SDGs	T-T (migration-related targets link with each other)	International Organization for Migration (IOM), publication date not known. 2030 Agenda for Sustainable Development. Available at: <a href="https://unofficeny.iom.int/2030-agenda-sustainable-development">https://unofficeny.iom.int/2030-agenda-sustainable-development</a>
9	Stakeholder Forum_1	All except for SDG17	G-G, T-G, T-T	Cutter, A., Osborn, D., Romano, J., Ullah, F., publication date unknown. Sustainable Development Goals and Integration: Achieving a better balance between the economic, social and environmental dimensions. Available at: <a href="http://www.stakeholderforum.org/fileadmin/files/Balancing%20the%20dimensions%20in%20the%20SDGs%20FINAL.pdf">http://www.stakeholderforum.org/fileadmin/files/Balancing%20the%20dimensions%20in%20the%20SDGs%20FINAL.pdf</a>
10	Stakeholder Forum_SDG12	SDG12	T-T	Coopman, A., Osborn, D., Ullah, F., Auckland, E., Long, G., publication date unknown. See the Whole: Implementing the SDGs in an integrated and coherent way. A Research Pilot by Stakeholder Forum, Biregional and Newcastle University. Available at: <a href="http://www.stakeholderforum.org/fileadmin/files/SeeingTheWhole.ResearchPilotReportOnSDGsImplementation.pdf">http://www.stakeholderforum.org/fileadmin/files/SeeingTheWhole.ResearchPilotReportOnSDGsImplementation.pdf</a>
11	ICSU-2017	SDGs 2, 3, 7, 14	G-G and T-T	ICSU, 2017. A guide to SDG interactions: From science To implementation. Available at: <a href="https://www.icsu.org/cms/2017/05/SDGs-Guide-to-Interactions.pdf">https://www.icsu.org/cms/2017/05/SDGs-Guide-to-Interactions.pdf</a> .

Source: Zhou and Moinuddin, 2017. IGES Research Report.

# ***SDG indicators and data collection***

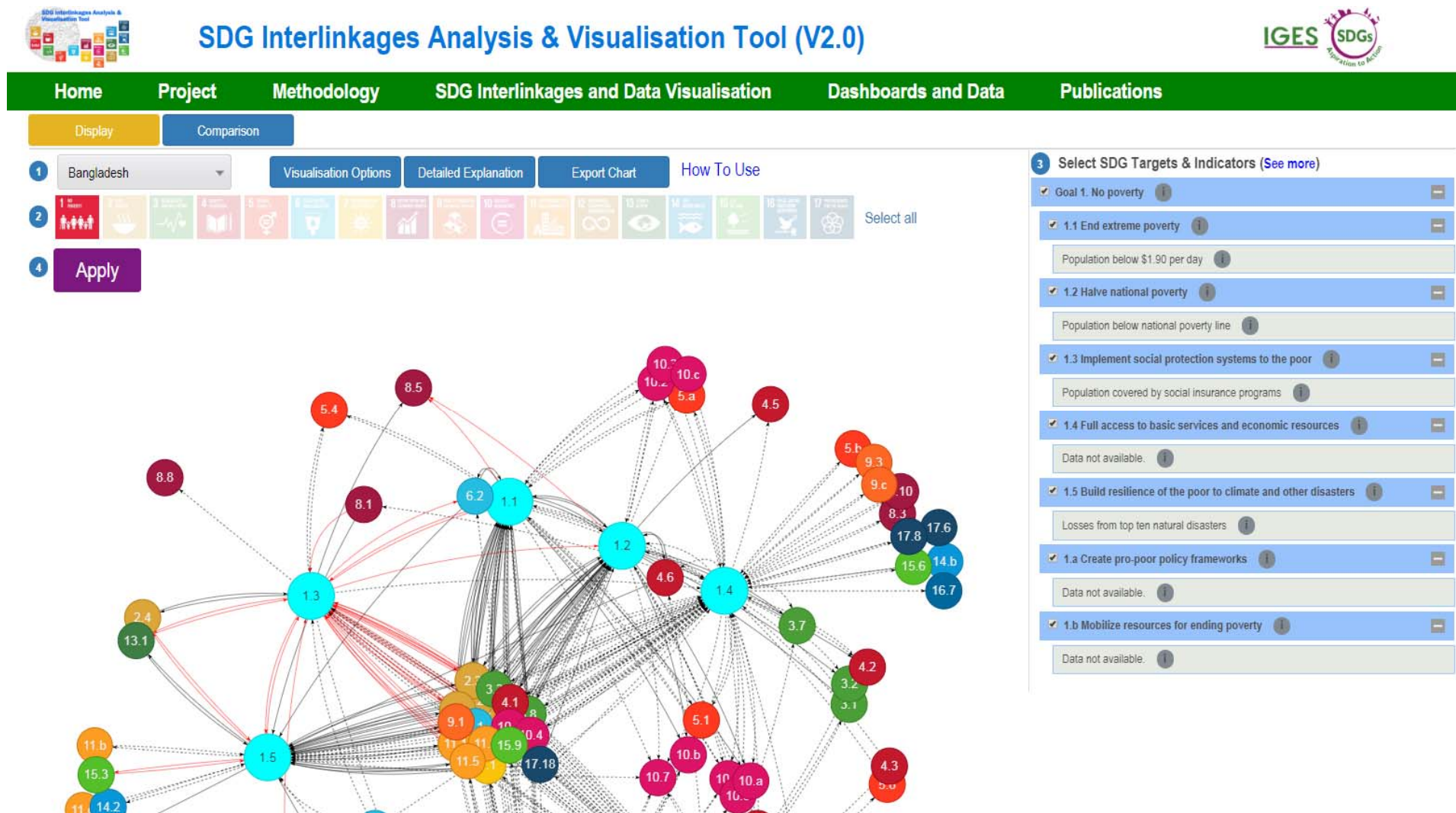
- 🌐 232 indicators of the Global Indicators Framework adopted by the UN General Assembly in July 2017 are used.
- 🌐 Identification of target-level indicators with trackable time-series data is based on the following steps
  - Check major data sources for data availability for the SDG/proxy indicators
    - UNSD SDG indicators database
    - World Bank SDG database
    - Other UN/World Bank databases
    - Other sources
  - Identification of the best representative indicator (only one) for each of the targets

# 94 SDG indicators and data sources



# IGES SDG Interlinkages Analysis & Visualisation Tool (V2.0)

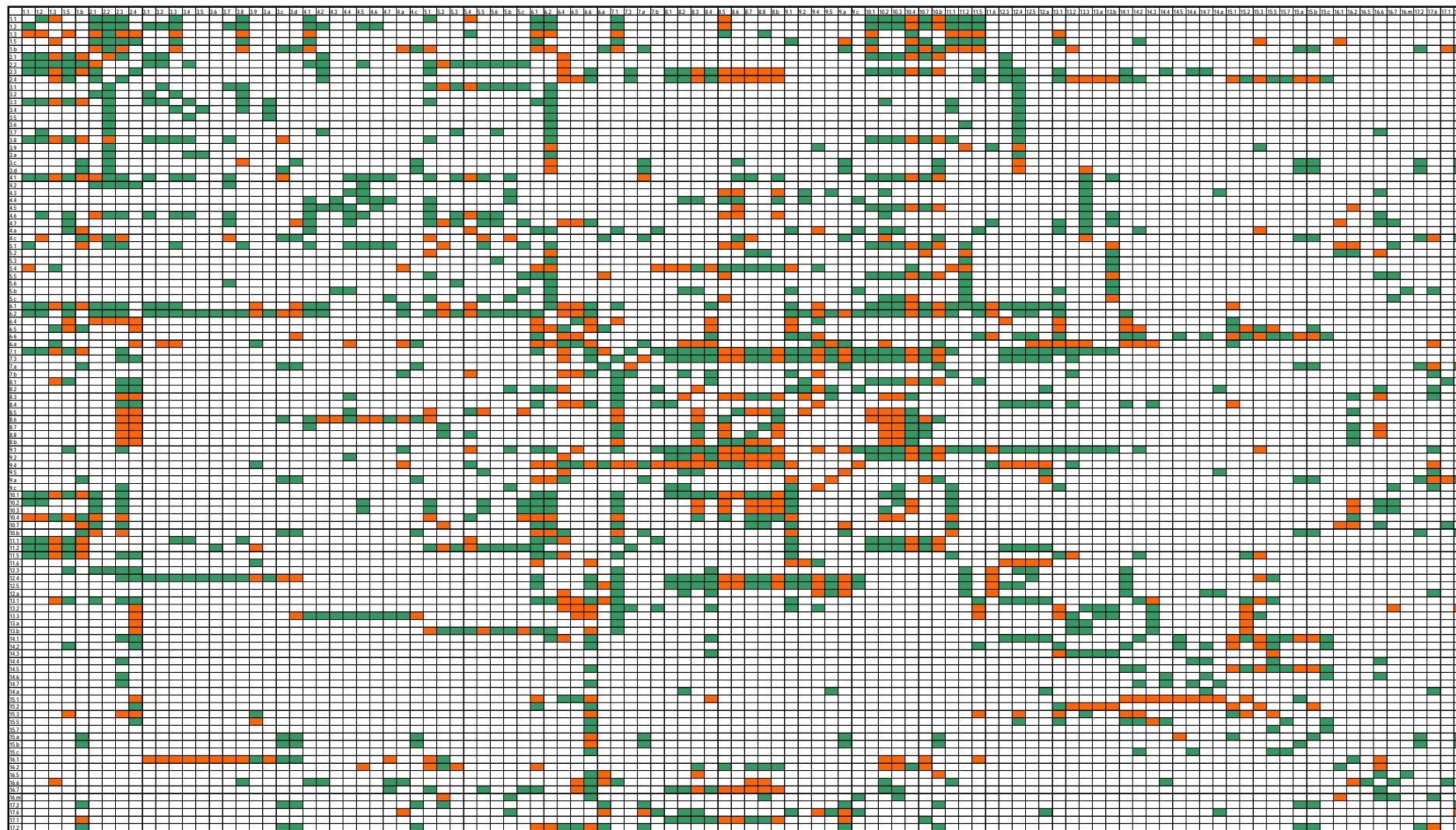
(<https://sdginterlinkages.iges.jp/visualisationtool.html>)



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 & Moinuddin, 2017. IGES Research Report No. RR1602.

[https://sdginterlinkages.iges.jp/files/IGES\\_Research%20Report\\_SDG%20Interlinkages\\_Publication.pdf](https://sdginterlinkages.iges.jp/files/IGES_Research%20Report_SDG%20Interlinkages_Publication.pdf)

## Strategic targets identified by ranking various centrality metrics using network analysis techniques

Ranking	indegree	outdegree	degree	weighted indegree	weighted outdegree	weighted degree	closness centrality	betweenes scentrality	eigencentrality	Key targets
1	2.3	17.18	17.18	2.3	17.18	2.3	17.18	6.2	10.a	1.1
2	6.2	2.3	2.3	6.1	2.3	17.18	2.3	2.3	6.1	1.2
3	6.1	6.2	6.2	2.2	7.1	6.1	6.2	17.18	12.2	1.3
4	10.b	7.1	6.1	10.b	6.2	7.1	2.4	12.2	1.1	1.5
5	2.2	2.4	7.1	7.1	6.1	6.2	7.1	17.9	9.a	2.1
6	6.4	6.1	2.4	6.2	2.4	2.2	12.2	6.1	3.3	2.2
7	2.1	7.3	2.2	8.5	7.2	2.4	7.2	2.4	6.2	2.3
8	7.1	7.2	12.2	10.a	1.2	1.2	7.3	10.b	3.2	2.4
9	8.5	12.2	2.1	2.1	7.3	10.b	6.a	8.1	2.4	2.5
10	10.a	1.2	10.b	2.4	4.1	7.2	6.1	2.a	11.1	3.3
11	3.3	3.8	6.4	3.3	3.8	2.1	17.9	7.1	8.5	3.8
12	2.4	3.b	7.2	1.3	1.3	8.5	9.4	8.6	1.3	3.b
13	12.2	4.1	3.3	3.2	3.b	1.3	8.4	10.a	8.1	4.1
14	9.a	9.4	8.1	13.1	1.1	10.a	4.1	6.4	1.5	5.1
15	8.6	6.a	9.a	1.2	3.c	3.8	1.2	2.2	7.1	6.1
16	8.1	2.2	8.5	8.1	2.2	1.1	8.7	9.a	8.4	6.2
17	1.5	2.1	10.a	1.5	2.1	3.3	2.a	3.b	2.a	7.1
18	13.1	8.1	2.a	3.1	2.5	13.1	4.b	3.c	3.1	7.2
19	2.a	2.a	13.1	11.1	1.5	8.1	2.1	2.1	2.3	8.1
20	1.3	3.c	8.6	2.5	8.1	1.5	3.b	2.5	2.1	8.5
21	2.5	9.a	7.3	1.1	13.1	7.3	2.5	8.5	13.1	9.a
22	3.2	13.1	1.2	7.2	17.9	3.b	9.a	6.a	5.1	10.a
23	7.2	3.3	3.8	8.a	11.1	2.5	10.b	5.b	3.8	10.b
24	1.2	1.3	1.5	3.8	4.6	4.1	3.8	4.1	6.4	11.1
25	3.8	17.9	3.b	17.9	17.8	11.1	8.6	13.1	1.2	12.2
26	5.1	1.1	9.4	3.b	10.b	17.9	1.1	8.7	7.2	13.1
27	11.1	6.4	4.1	8.2	3.3	3.c	5.1	9.4	8.6	17.9
28	3.9	1.5	1.3	8.7	8.5	3.1	13.1	4.2	10.b	17.18
29	8.2	2.5	17.9	9.a	14.5	3.2	8.1	5.1	2.2	
30	17.9	5.1	2.5	4.1	10.a	8.a	17.8	7.2	9.4	

**Bangladesh**

# Priority setting based on key targets for Bangladesh

## Targets that are identified by both GIU-PMO and IGES

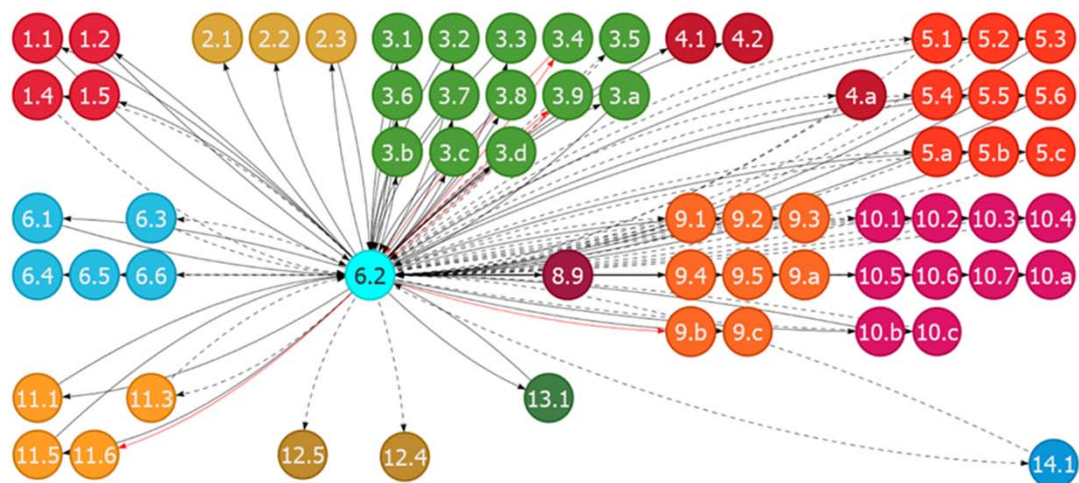
1.1 End extreme poverty	7.1 Universal access to energy
1.2 Halve national poverty	7.2 Increase renewable energy
2.2 End malnutrition	8.1 Sustain inclusive economic growth
2.4 Build sustainable food production systems	8.5 Decent work for all
6.1 Universal access to safe drinking water	13.1 Strengthen resilience to climate change
6.2 Universal access to sanitation and hygiene	

### GIU-PMO only

### IGES recommendations only

3.2 End preventable young children deaths	10.7 Improve equality of migrants	1.3 Implement social protection systems to the poor	10.b Encourage ODA to LDCs
3.6 Halve traffic deaths	11.2 Universal access to sustainable transport system	1.5 Build resilience of the poor to climate and other disasters	11.1 Universal access to urban housing and basic services
4.4 Increase skilled workers for decent jobs	12.5 Reduce waste generation	2.1 End hunger	12.2 Sustainable resource use
4.a Improve education facilities	14.5 Conserve 10 per cent of coastal areas	2.3 Double agriculture productivity	17.9 International support for sustainable development
5.3 Eliminate forced marriage	15.1 Sustainable use of terrestrial and inland freshwater	2.5 Maintain agricultural genetic diversity	17.18 Capacity building for developing countries in
5.5 Enhance women's participation in decision-making	15.3 Combat desertification and soil degradation	3.3 End epidemics of diseases	
8.6 Improve youth employment	16.9 Provide legal identity to all	3.8 Universal health coverage	
9.1 Develop resilient infrastructure	16.a Capacity building for preventing violence and terrorism	3.b Access to essential medicines	
9.2 Promote inclusive and sustainable industrialization	17.1 Capacity building for tax collection in developing countries	5.1 End gender discrimination	
9.c Universal and affordable access to ICT	17.8 Enhance ICT in LDCs	9.a Enhance international aid to build resilient infrastructure	
10.1 Income growth of bottom 40% population		10.a Special trade treatment for LDCs	

## *Institutional arrangements through SDG interlinkages for Bangladesh: An example of Goal 6*



### **Target 6.2 on sanitation and hygiene for Bangladesh**

- Mostly linked with social goals, some environmental goals and a few economic ones.
- Strong influence on Goal 3 on Good health and well-being
- Reinforce poverty reduction and fight against hunger
- Critical connection Goal 5 on gender equality
- Strongly linked with social inclusiveness

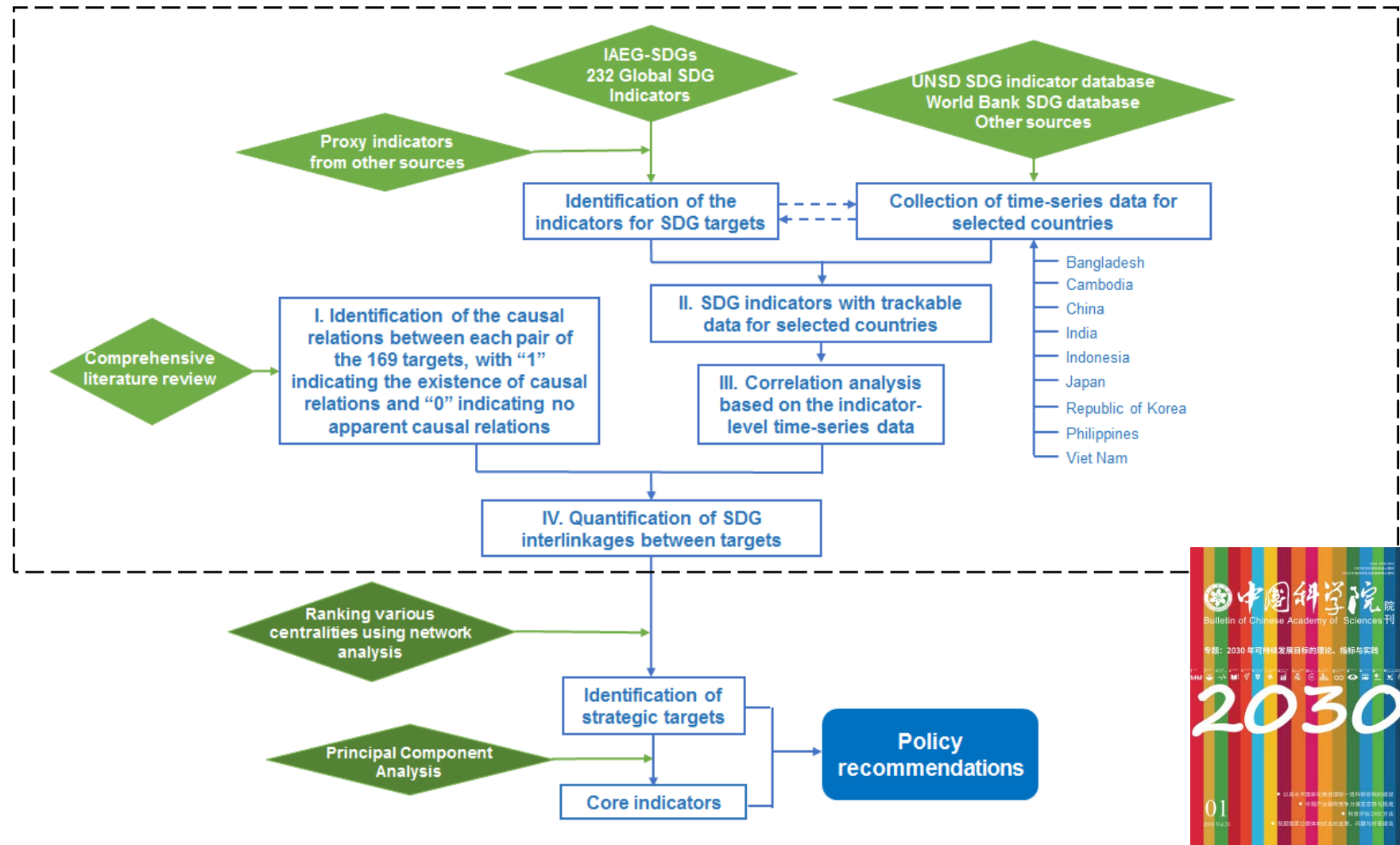


## ***Recommendation for institutional arrangement for Bangladesh: A case for Target 6.2***

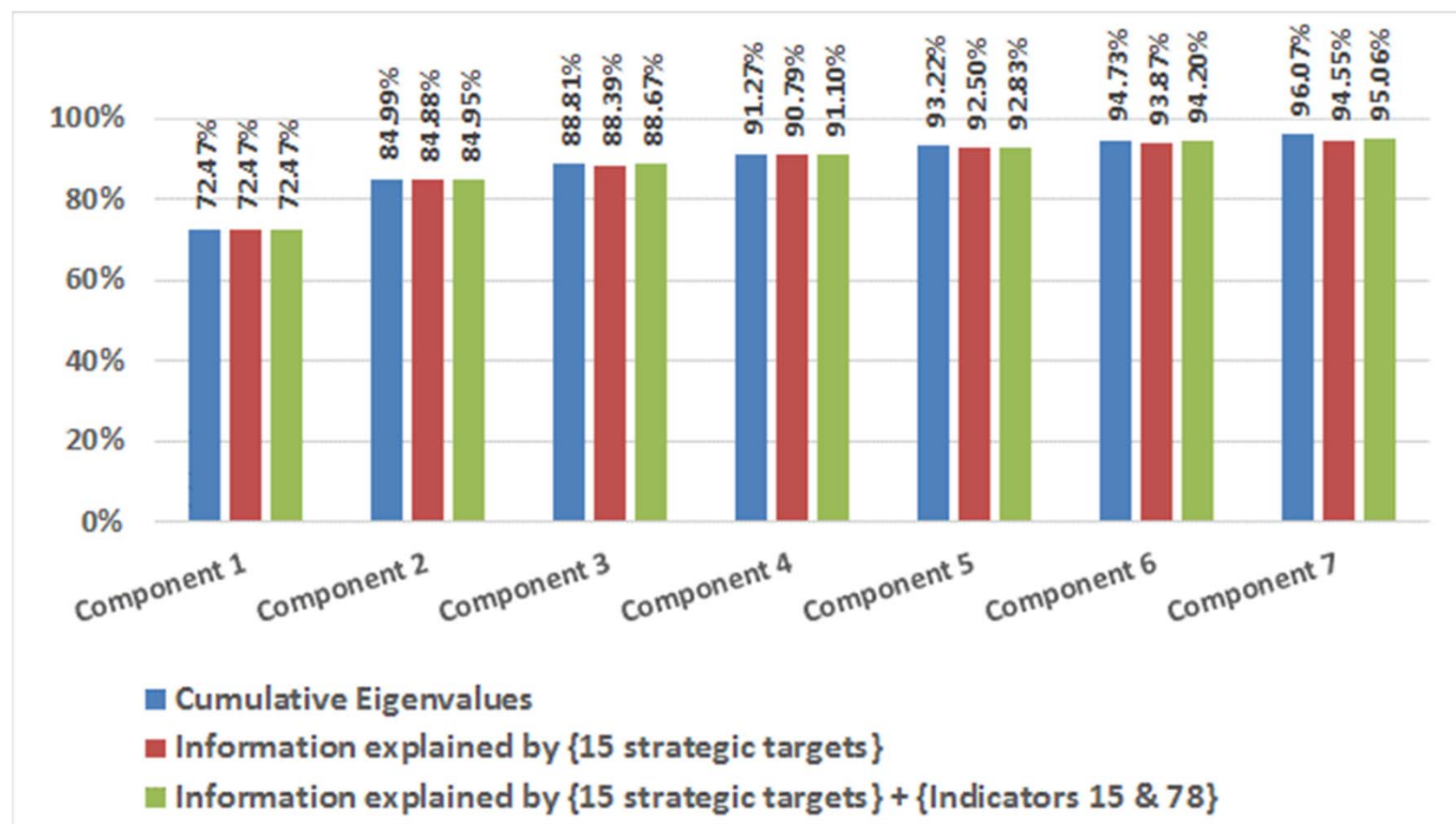
- 🌐 Appropriate institutional arrangements is important to practise integrated policy-making which will help strengthen the synergies and address the trade-offs.

Lead/Co-Lead	Associates	
Lead: LGD	<b><i>Ministries and divisions that are identified by both GED and IGES</i></b>	
	MoE; MoEF; MoF; MoHFW; MoPME; MoWCA; SID	
	<b><i>Additional provided by GED</i></b>	<b><i>Additional recommended by IGES</i></b>
	MoInf; PMO	<u>Strong links</u> CD; ERD; GED; ICTD; MoA; MoC; MoFL; MoInd; MoLE; MoST; MoTJ; PTD; RTHD  <u>Weak links</u> FD; LJD; MoCA; MoCAT; MoDMR; MoEWOE; MoFA; MoHA; MoHPW; MoSW; MoWR; RDCD

# Application: Identification of strategic targets and core indicators



## Identification of strategic targets and core indicators for Bangladesh



Indicator code	
	2
	3
	5
	6
	7
	14
	15
	21
	35
	36
	39
	40
	61
	62
	78
	88
	92

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





# Thank you!

Contact: [zhou@iges.or.jp](mailto:zhou@iges.or.jp)

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\\_SDG%20Interlinkages\\_Publication.pdf](https://sdginterlinkages.iges.jp/files/IGES_Research%20Report_SDG%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>.