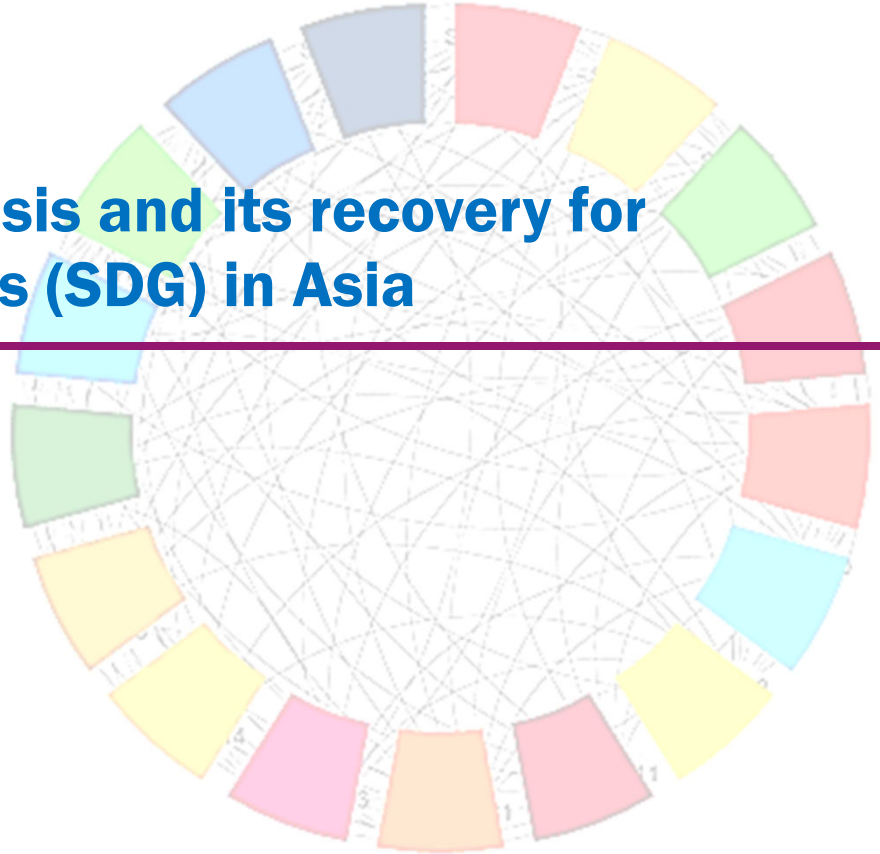
# Impacts and implications of COVID-19 crisis and its recovery for achieving Sustainable Development Goals (SDG) in Asia



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*JSPS-ICSSR Seminar on Understanding and Addressing Systemic Risks Behind the Socio-economic Impacts of COVID-19 in Japan and India: Developing a Roadmap for a Resilient and Sustainable Future*

*21 November 2022, Tokyo, Japan*

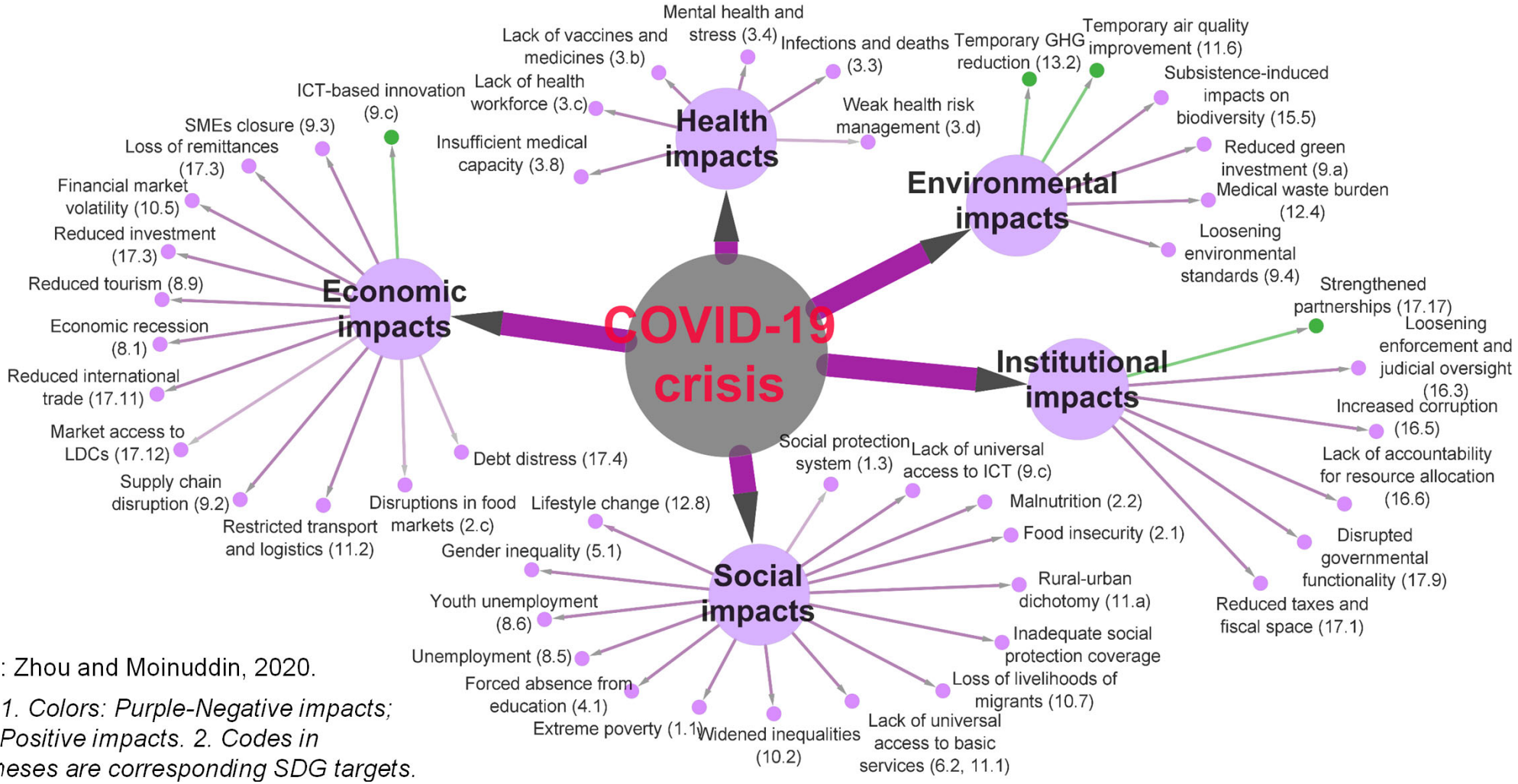
IGES

SDGs Aspiration to Action

# Background

- The rapid repercussion of the COVID-19 pandemic and its evolution into a global crisis reaffirm the indivisibility of the economy, society and environment and the importance of taking an integrated approach.
- Lessons learnt from the COVID-19 crisis and its responses are valuable for preparing and preventing the triple planetary crises (climate change, biodiversity loss and air pollution).
- The pandemic has exposed the weaknesses and loopholes in the global systems without addressing which the progress in SDGs will not be achieved.
- In the wake of the COVID-19 pandemic, the significance of SDGs is more relevant than ever and the recovery efforts need to be calibrated to address the gaps in achieving the SDGs.
- From an SDG interlinkage perspective, we suggest how the COVID-19 recovery measures can pave the road for building a resilient and sustainable future in Asia.

# COVID-19 pandemic and global repercussions



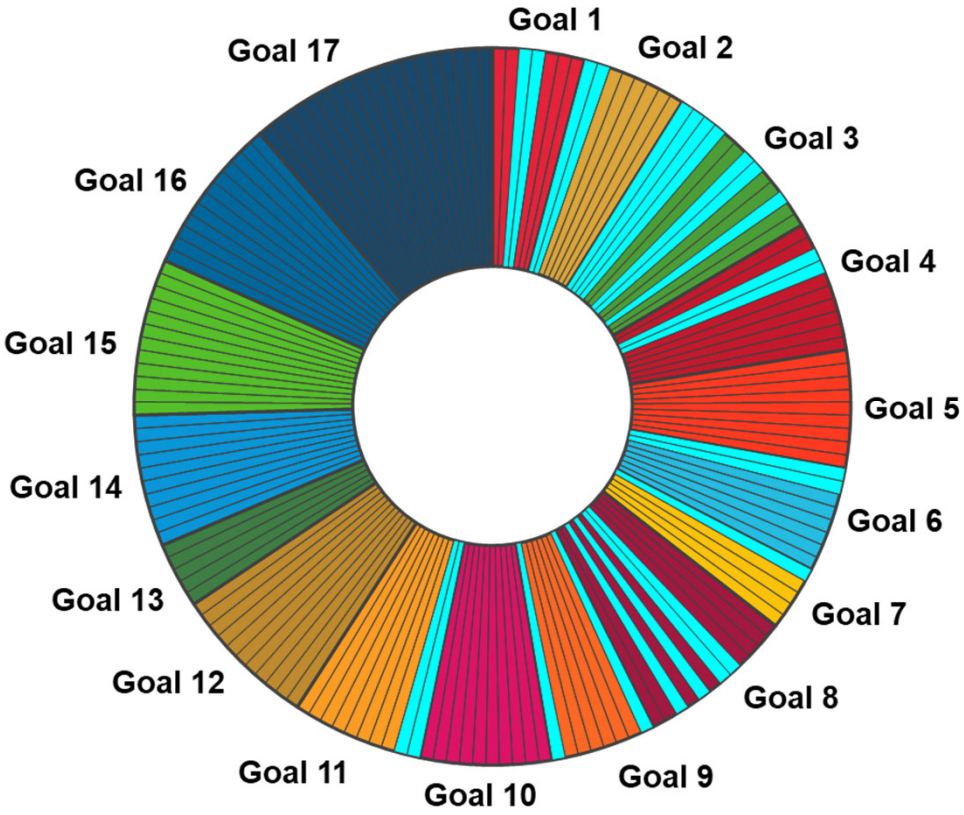

Source: Zhou and Moinuddin, 2020.

*Notes: 1. Colors: Purple-Negative impacts; Green-Positive impacts. 2. Codes in parentheses are corresponding SDG targets.*

## Framework for building resilience and sustainability (R&S) of human-environment systems

# Individual resilience and corresponding SDGs

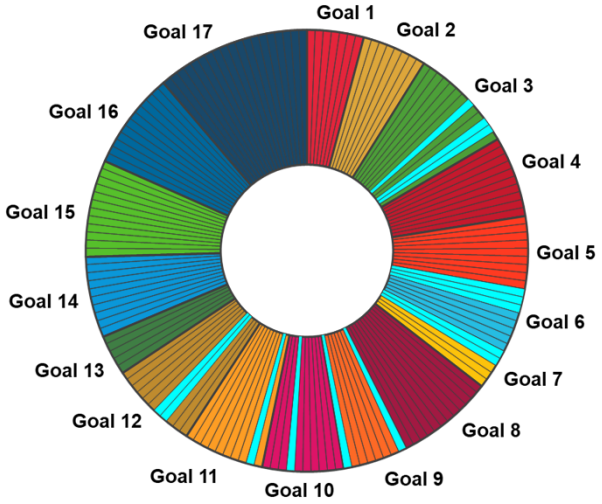
| R&S areas | Sub-areas | SDG targets |
|---|---|---|
| Individual resilience | Food security and nutrition | 2.1, 2.2 |
| | Good health | 3.1, 3.2, 3.3, 3.4 |
| | Access to basic services and economic resources | 1.4, 3.7, 3.8, 3.b, 6.1, 6.2, 7.1, 8.10, 9.1, 9.c, 11.1, 11.2 |
| | Stable job and decent work | 8.5, 8.6, 8.8 |
| | Social protection system | 1.3 |
| | Level of education attainment and skills | 4.3, 4.4 |
| | Migrants | 10.7 |



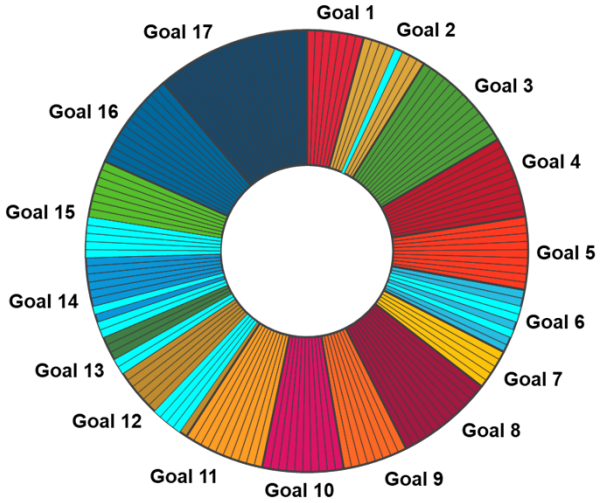

Individual resilience and mapped SDGs

# A Framework for building resilience and sustainability (R&S) of human-environment systems

| R&S areas | Sub-areas | SDG targets |
|---|---|---|
| Infrastructure resilience | Healthcare systems | 3.8, 3.b, 3.c |
| | Water and sanitation | 6.1, 6.2 |
| | Energy systems | 7.1, 7.2 |
| | Telecommunication systems | 9.c |
| | Transport systems | 9.1, 11.2 |
| | Municipal solid wastes management and sewage systems | 6.3, 12.4, 2.5 |
| Environmental sustainability | Freshwater systems | 6.3, 6.4, 6.6 |
| | Marine systems | 14.1, 14.2, 14.4 |
| | Terrestrial systems | 2.5, 15.1, 15.2, 15.3, 15.4, 15.5 |
| | Climate system | 13.1, 13.2 |
| | Resource use | 12.2, 12.3, 12.4, 12.5 |



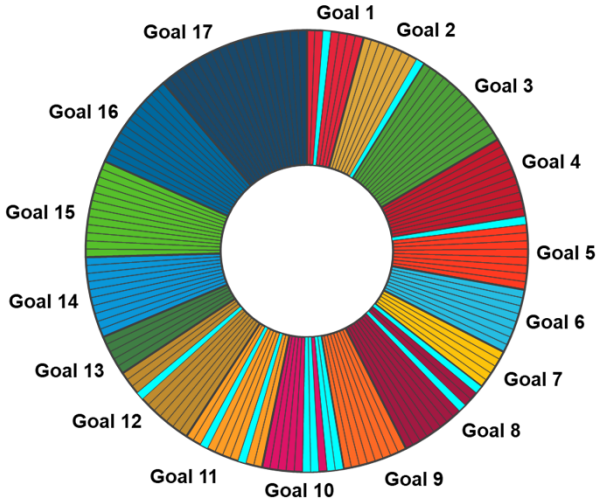

**Infrastructure resilience and mapped SDGs**



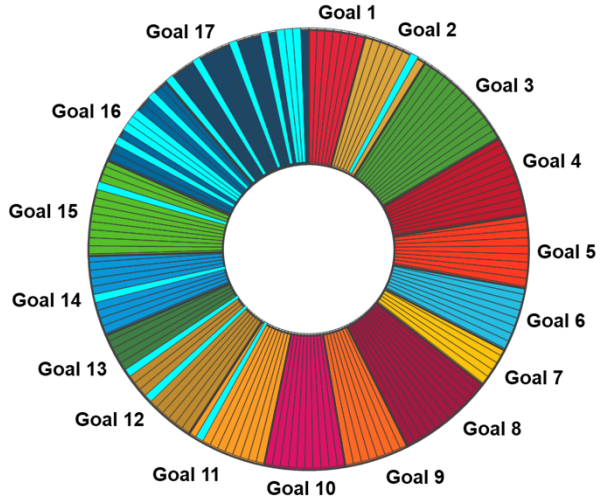

**Environmental resilience and mapped SDGs**

# A Framework for building resilience and sustainability (R&S) of human-environment systems

| R&S areas | Areas | SDG targets |
|---|---|---|
| Structural resilience | Social protection system | 1.3 |
| | Market systems | 2.c |
| | Gender equality | 5.1 |
| | Economic structure | 8.1, 8.4, 17.13 |
| | Social equalities | 10.1, 10.2, 10.4 |
| | Financial system | 10.5 |
| | Urbanisation and urban-rural linkages | 11.3, 11.a |
| | Lifestyles | 12.8 |
| | International trade | 17.11 |
| Institutional resilience | Mobilisation and allocation of resources | 12.7, 17.1, 17.5 (public expenditure) |
| | Policy-making, implementation and enforcement | 2.b, 12.c, 14.5, 15.9, 17.14, 17.18 |
| | Good governance | 16.3, 16.5, 16.6, 16.7, 16.10 |
| | Partnership | 17.10, 17.16, 17.17 |
| | DDR strategies for good preparedness | 11.b |

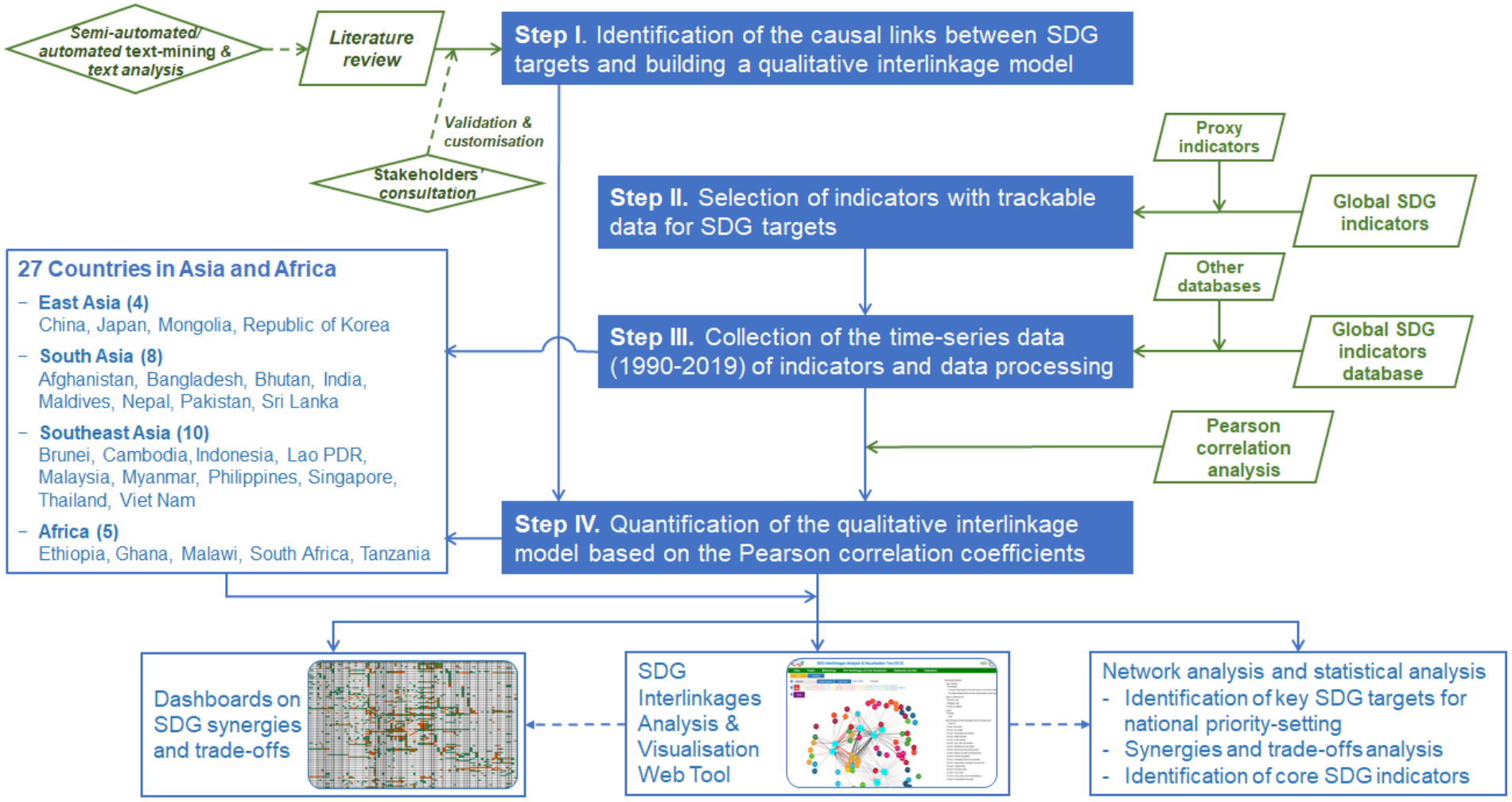


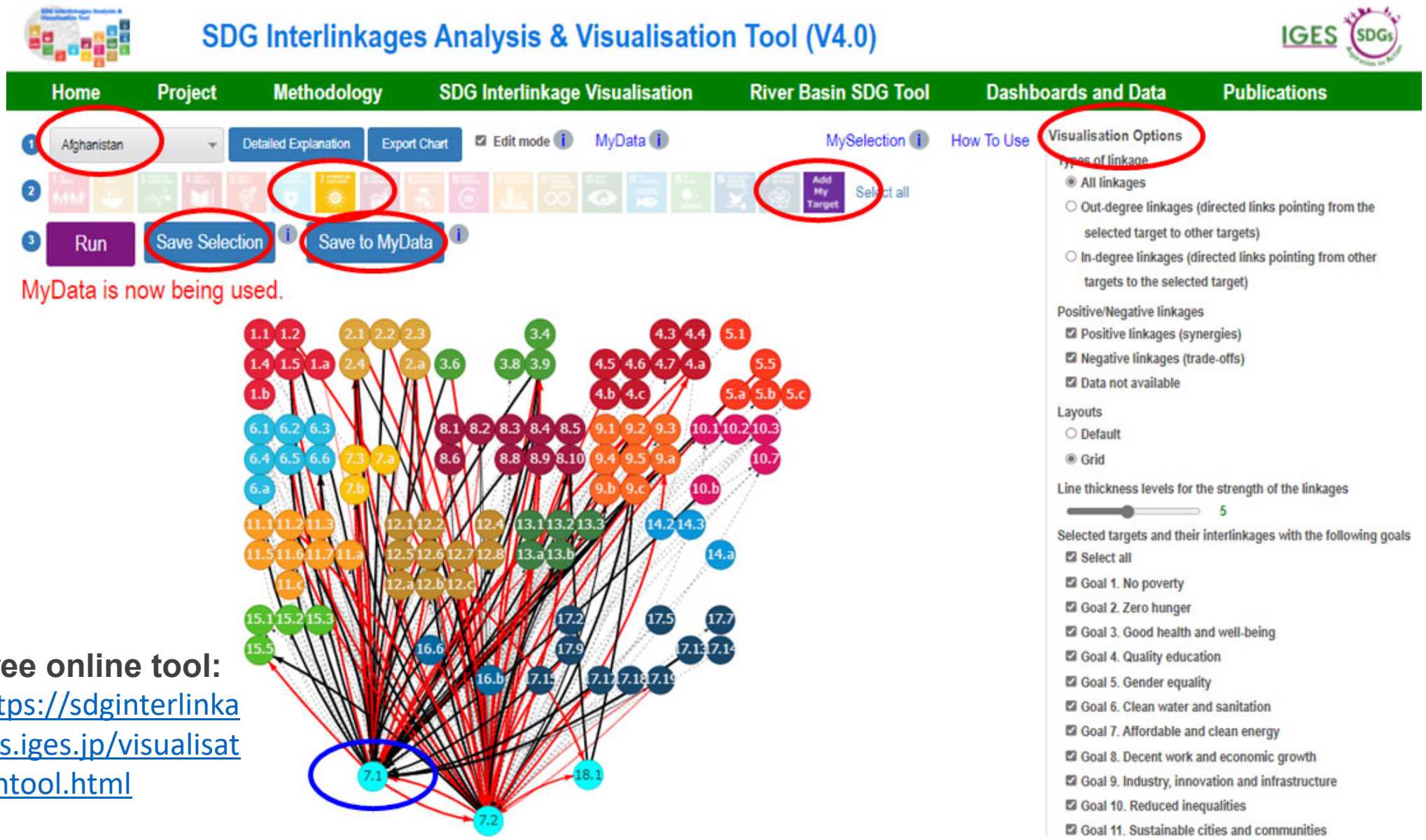

Structural resilience and mapped SDGs




Institutional resilience and mapped SDGs

# IGES developed a four-step methodology for identification and quantification of the SDG interlinkages






**Free online tool:**
https://sdginterlinkages.iges.jp/visualisationtool.html

# Classification of the SDG interlinkages

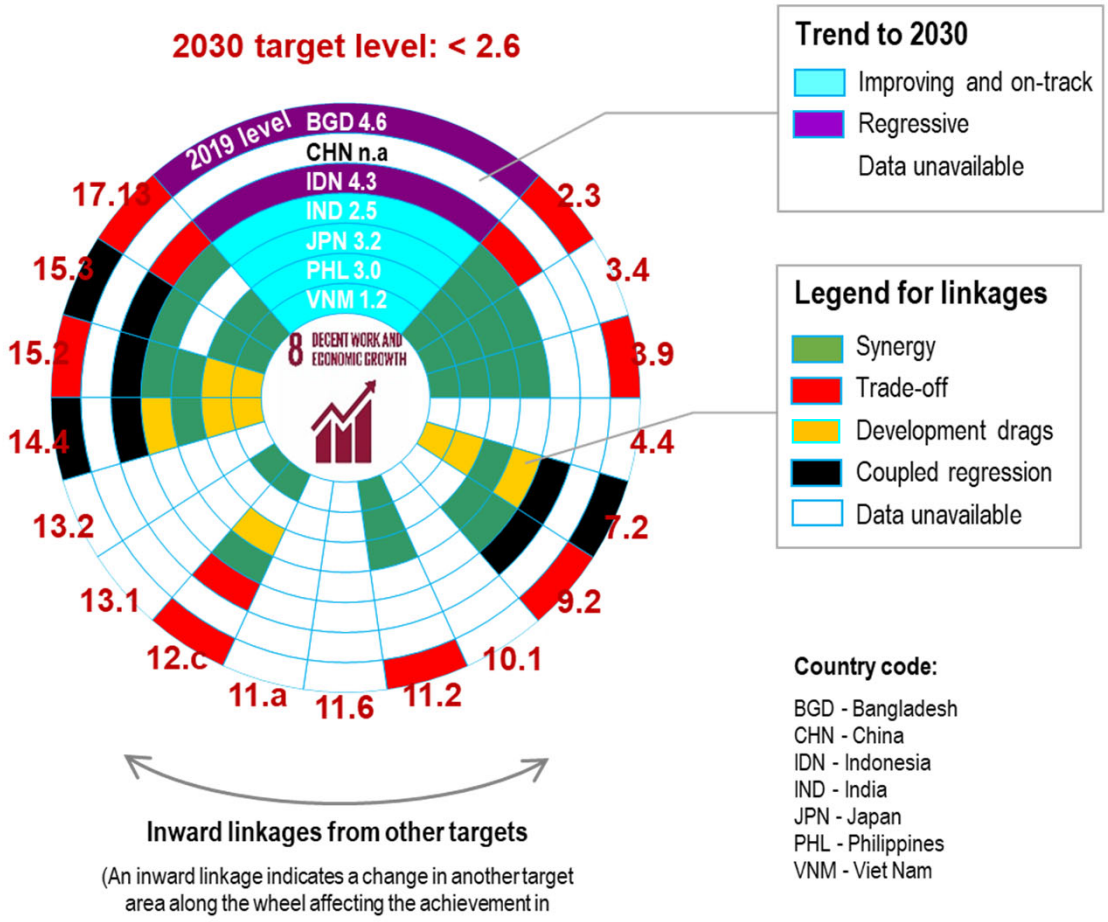
| Development trend of paired targets (*T1, T2*) | T2: Progressive ↗ | T2: Regressive ↘ |
|---|---|---|
| T1: Progressive ↗ | A Synergy ↗↗ | B Trade-off ↗↘ |
| T1: Regressive ↘ | C Development drag ↘↗ | D Coupled deterioration ↘↘ |

Source: Based on Zhou and Moinuddin (2021).

## Seven countries covering South Asia, Southeast Asia and East Asia

# SDG gaps in individual resilience: An example of Target 8.5 (decent work for all)

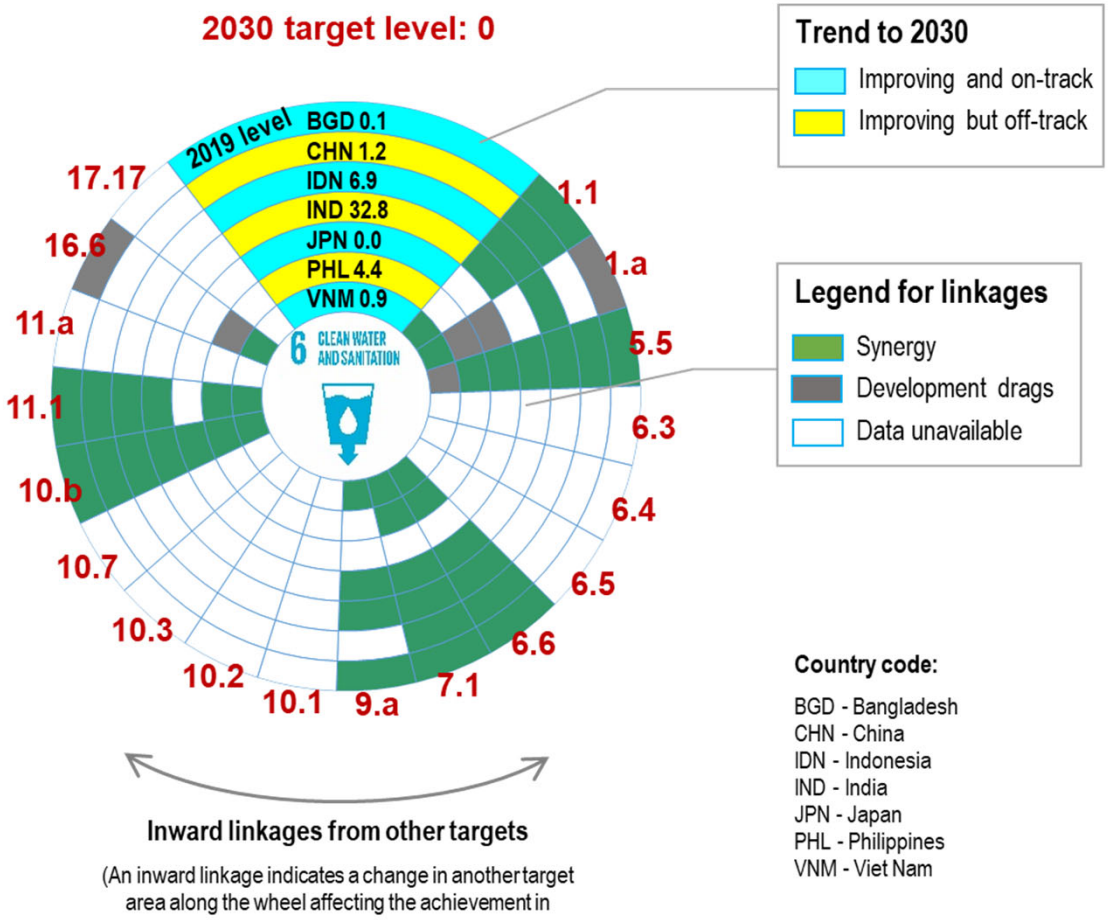
- Measured by the unemployment rate (%);
- Employment is an enabling condition for other individual resilience aspects;
- Asian countries are exposing to great vulnerability of individuals in COVID-19 crisis;
- Most countries are on track however the employment structure with 68% jobs in the informal sectors cause vulnerability.




Source: Based on Zhou and Moinuddin (2020).

# SDG gaps in infrastructure resilience: An example of Target 6.2 (access to sanitation and hygiene)

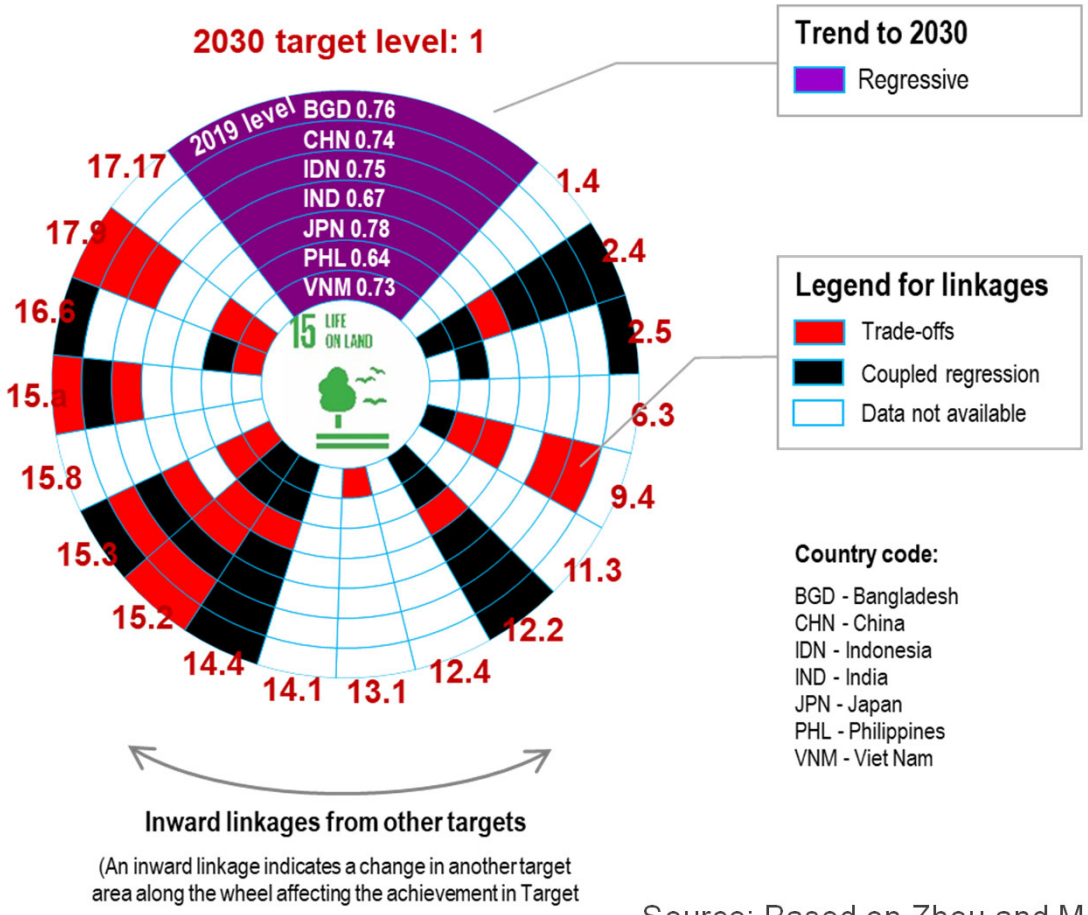
- Measured by the proportion of population practicing open defecation (%);
- Resilient infrastructure plays a vital role in enabling socio-economic progress and achieving sustainable development;
- The COVID-19 pandemic pronounced even more significance of sanitation and hygiene.
- Asian countries in general performed well related to this target.
- Insufficient investment due to lack of financial resources is a development drag to achieve resilient infrastructure for all.




Source: Based on *Zhou and Moinuddin* (2020).

# SDG gaps in human-environment interactions: An example of Target 15.5 (biodiversity)

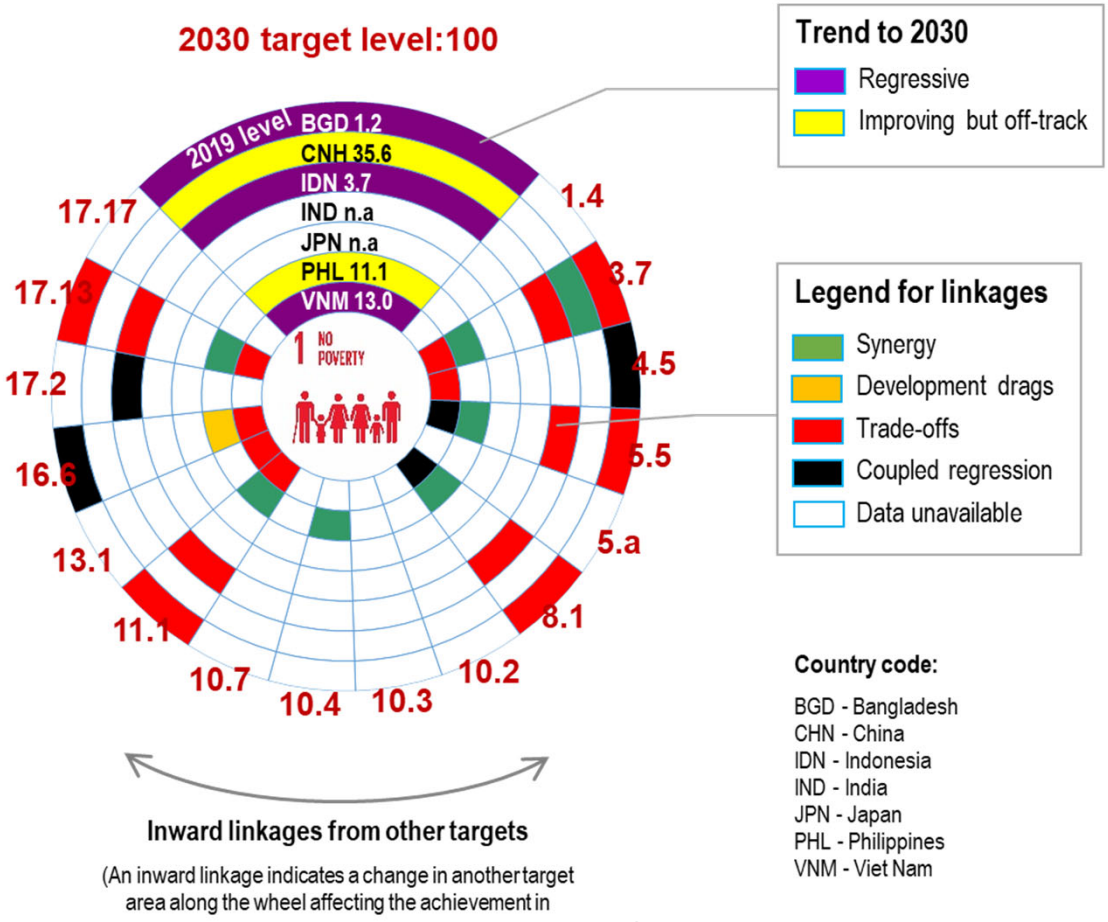
- Measured by the Red List Index;
- Regressive in all countries;
- Driven by unsustainable agricultural and industrial production and fisheries and the interactions with various ecosystems and coupled with unsustainable resource use.




Source: Based on *Zhou and Moinuddin* (2020).

# SDG gaps in structural resilience: An example of Target 1.3 (social protection systems)

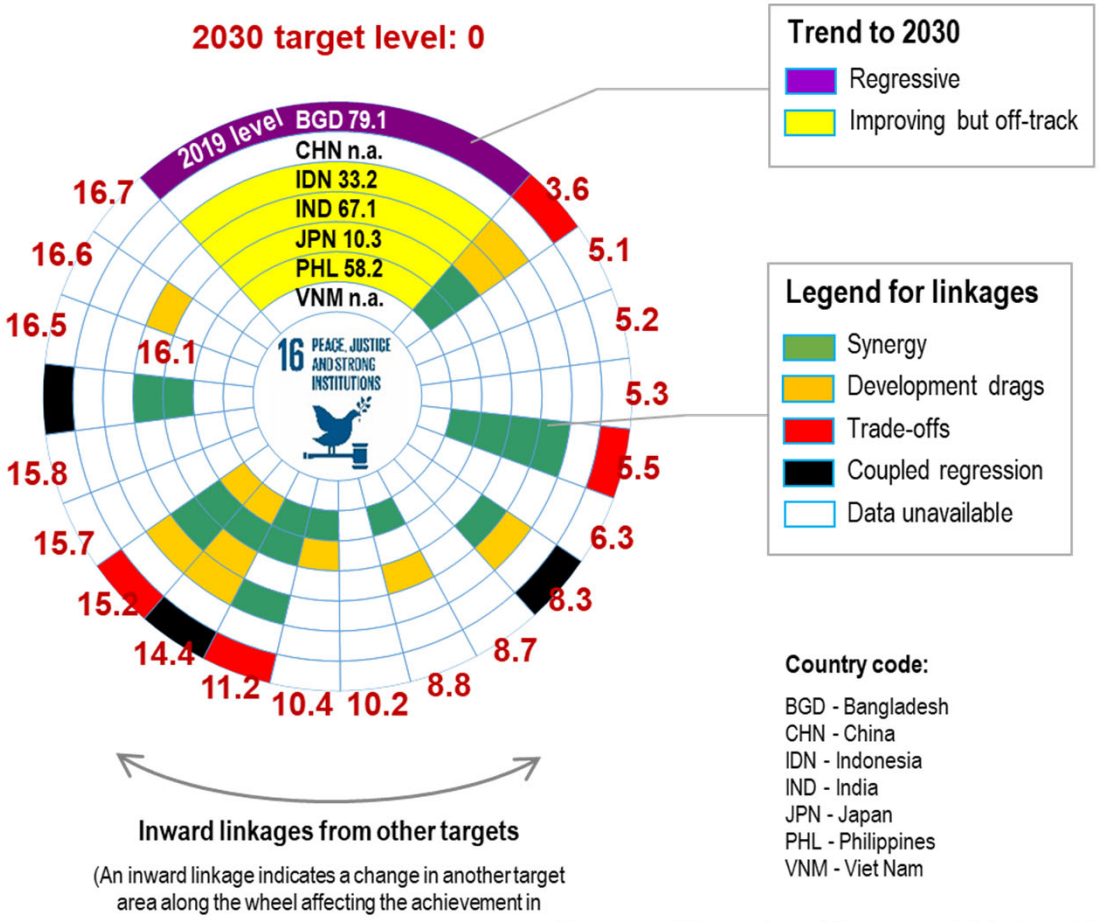
- measured by proportion of population covered by social insurance programs (%);
- Fundamental for systems resilience maintaining systems functions in the face of a sudden shock and adapt to the changes.
- Building structural resilience, such as social protection system and gender equalities, is a long-term and critical strategy for developing Asian countries.




Source: Based on Zhou and Moinuddin (2020).

# SDG gaps in institutional resilience: An example of Target 16.3 (promoting the rule of law)

- Measured by unsentenced detainees as a proportion of overall prison population (%);
- Through building strong governance, it is an important enabler to support SDGs;
- The existing progress has remained far from the 2030 target;
- Through outwards linkages, progress in this area provided development impetus to achieve other targets such as gender equality and reducing traffic accidents, etc.
- However, lack of progress in some countries has become a coupled regressive force or a developmental drag to some areas, e.g. formalization of the informal sectors and overfishing.




Source: Based on Zhou and Moinuddin (2020).

# Priority setting for COVID-19 recovery

| | Individual resilience | Infrastructure resilience | Environmental sustainability | Structural resilience | Institutional resilience |
|---|---|---|---|---|---|
| **SDG targets** | 11.2 (2) | 11.2 (2) | 12.2 (9) | 8.4 (12) | 16.6 (30) |
| | 11.1 (8) | 9.c (25) | 15.5 (17) | 8.1 (15) | 17.18 (29) |
| | 9.c (25) | 7.2 (28) | 15.1 (23) | 17.13 (43) | 16.7 (33) |
| | 8.5 (44) | 7.1 (49) | 15.2 (26) | 11.a (1) | 17.14 (36) |
| | 7.1 (49) | 9.1 (6) | 13.2 (4) | 11.3 (3) | 17.17 (38) |
| | 9.1 (6) | | 13.1 (10) | 5.1 (14) | 16.5 (40) |
| | 10.7 (7) | | 14.2 (20) | 10.2 (16) | 17.16 (41) |
| | 1.4 (11) | | 15.3 (39) | 12.8 (24) | |
| | 8.6 (47) | | | 10.1 (45) | |

Source: Based on Zhou and Moinuddin (2020).

# Key messages

- The COVID-19 crisis call for urgently address the root causes in the existing unsustainable social-economic systems which link with the gaps in SDG achievements.
- To address the weaknesses and loopholes, we proposed five areas for building the resilience and sustainability (R&S) in Asia and closing the gaps for achieving the SDGs.
- Based on IGES SDG interlinkages analysis, we provided a list of key areas together with corresponding SDGs in each R&S area.
- Prioritising and directing COVID-19 recovery in these key areas will provide opportunities for the transformation towards a resilient and sustainable Asia and accelerating SDG achievements.

# Thank you very much!

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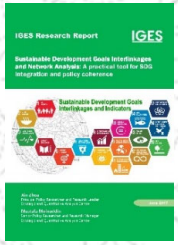
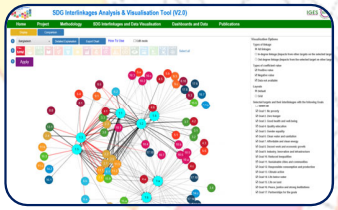



Zhou, X., Moinuddin, M., 2017. Sustainable Development Goals Interlinkages and Network Analysis: A practical tool for SDG integration and policy coherence. IGES Research Report. Hayama: IGES. Available at: https://sdginterlinkages.iges.jp/files/IGES_Research%20Report_SDG%20Interlinkages_Publication.pdf.



Zhou, X., Moinuddin, M., Li, Y., 2021. SDG Interlinkages Analysis & Visualisation Tool (V4.0). Hayama: IGES. Available at: https://sdginterlinkages.iges.jp/visualisationtool.html.

Zhou, X. and Moinuddin, M. (2021) 'Impacts and implications of the COVID-19 crisis and its recovery for achieving Sustainable Development Goals in Asia: A review from an SDG interlinkage perspective', in A.L. Ramanathan et al. (eds) *Scenarios of Environmental Resilience and Transformation in Times of Climate Change: Effects and Lessons from the COVID-19*. Elsevier.

IGES SDGs Aspiration to Action