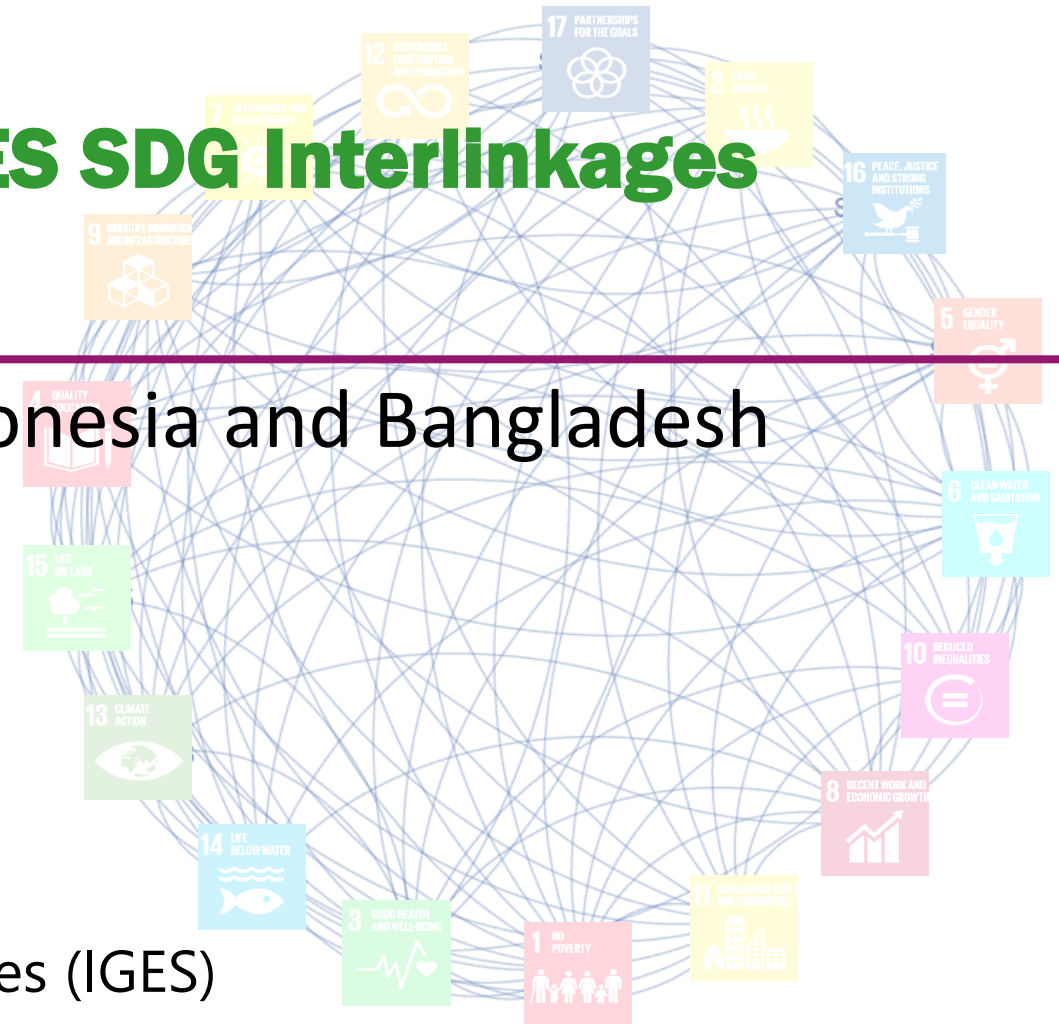


# Practical application of the IGES SDG Interlinkages Tool for policy support

Case studies in Indonesia and Bangladesh

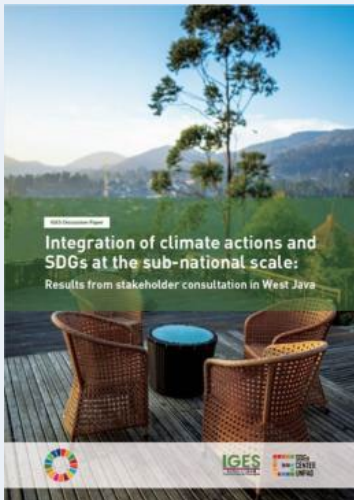
**Dr. Mustafa Moinuddin**  
Deputy Director

Integrated Sustainability Centre  
Institute for Global Environmental Strategies (IGES)



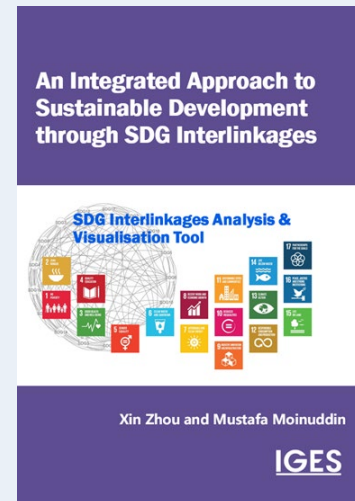
# Practical application of the IGES SDG Interlinkages Tool

- **The IGES SDG Interlinkages Tool and its methodology have been used for application through a couple of case studies.**
- **I will introduce two case studies in Indonesia and Bangladesh.**

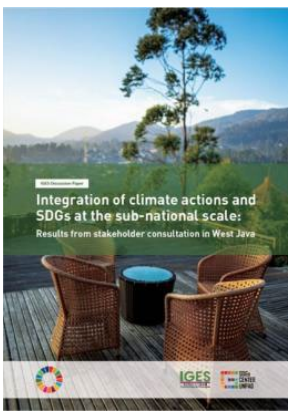


**“Integration of climate actions and SDGs at the sub-national scale: Results from stakeholder consultation in West Java”**

**(IGES Discussion Paper, November 2021)**



**Case study in Bangladesh: Application of the SDG interlinkage model to inform integrated SDG planning**  
**(IGES Flagship Report Chapter (not yet published))**



# Background: IGES activity related to integrating climate actions and SDGs in West Java, Indonesia

**Output:** “Integration of climate actions and SDGs at the sub-national scale: Results from stakeholder consultation in West Java” (IGES Discussion Paper, November 2021)

## Rationale

- Implementing climate actions while achieving the SDGs
  - A systems approach is needed to address the trade-offs and leverage the synergies
- Particularly relevant at the local level, where integrated planning is feasible
  - Smaller size and lesser number of agencies
  - Limited availability of financial and human resources
- However, integrated policymaking is often absent at local levels.

## Purpose and objective of this study

- To develop a qualitative approach to identify the synergies and trade-offs between climate actions and SDGs through local stakeholders’ engagement.
- West Java was selected for empirical analysis, due to Indonesia’s diversity and commitment to climate and SDG agenda.

# Background: IGES activity related to integrating climate actions and SDGs in West Java, Indonesia (cont'd)

## Methodology used: Stakeholders' consultation

- Online survey (100 participants) to identify the challenges, synergies & trade-offs between climate actions and the SDGs
- Focus group discussion (20 participants) to validate the results and receive feedback.

## Potential impact

- By integrating the local context through stakeholder engagement, the results of this study can be used to support practical policymaking based on a systems approach at the local levels.

# Partnership



Institute for Global Environmental  
Strategies (IGES), Japan



Center for Sustainable  
Development Goals Studies  
(SDGs Center) Universitas  
Padjadjaran



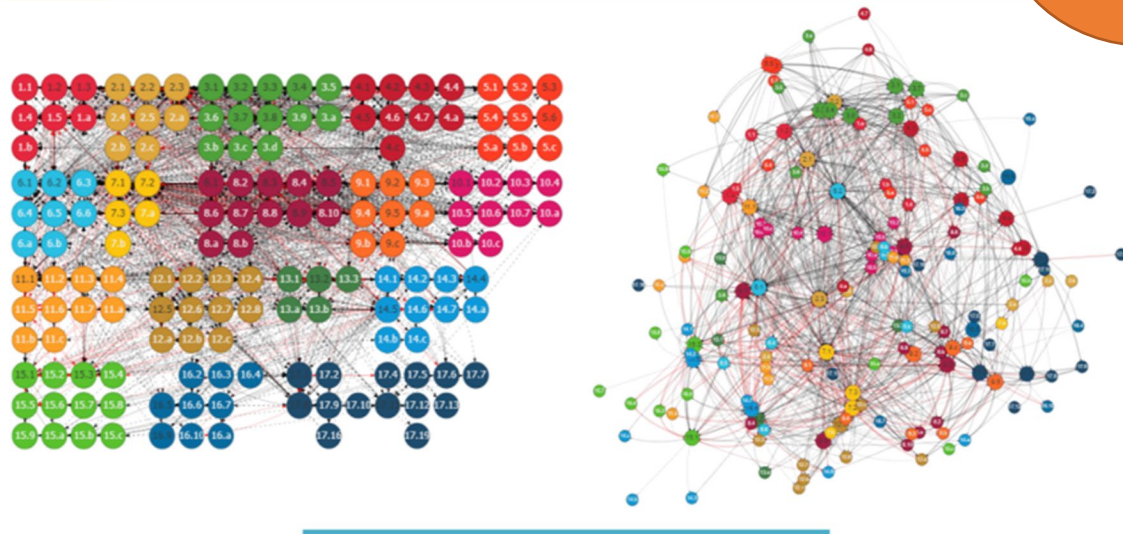
# Even before this study, IGES has already contributed to the SDG process in Indonesia

## Contributions to Indonesia's SDGs Roadmap and VNR/2021/2019

Indonesia SDGs Roadmap

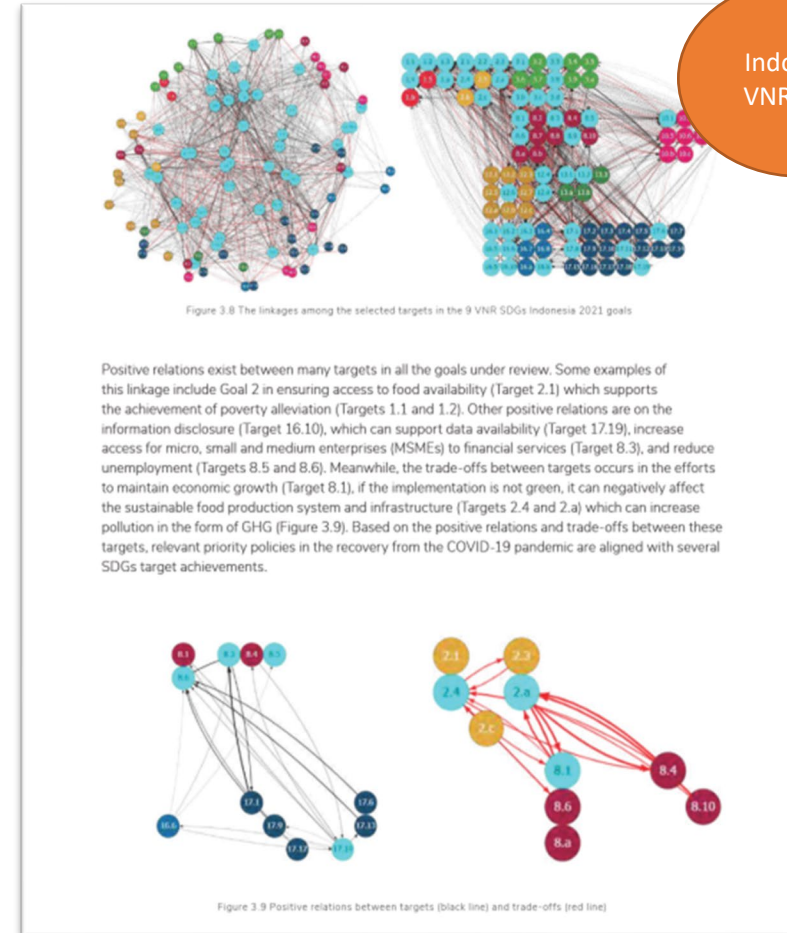
3.4

### MAPPING OF INTERLINKAGES



The results of the analysis of the 43 SDGs targets indicate that there are **17 targets** of **9 goals** that have strong influence to other targets, with a low level of dependency. These targets are called to have the high driver power.

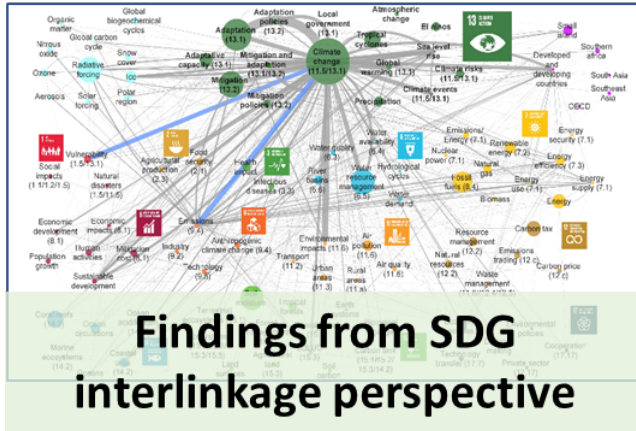
Source: BAPPENAS (2019). Roadmap of SDGs Indonesia: A Highlight.



Source: Indonesia Voluntary Local Review (VNR) 2021

In Indonesia's VNR 2021 (p.25-26), IGES Interlinkages Tool was used to visualise positive relations (e.g. access to food and poverty reduction) and trade-offs between pursuing economic growth and impacts on sustainable food production and infrastructure).

# Stakeholders consultation in West Java

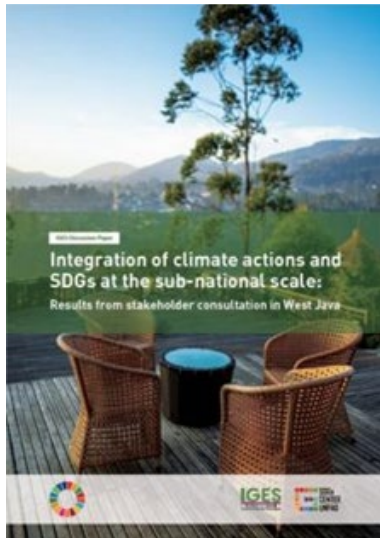


**Stakeholders' consultation on the synergies and trade-offs of climate actions with the SDGs**

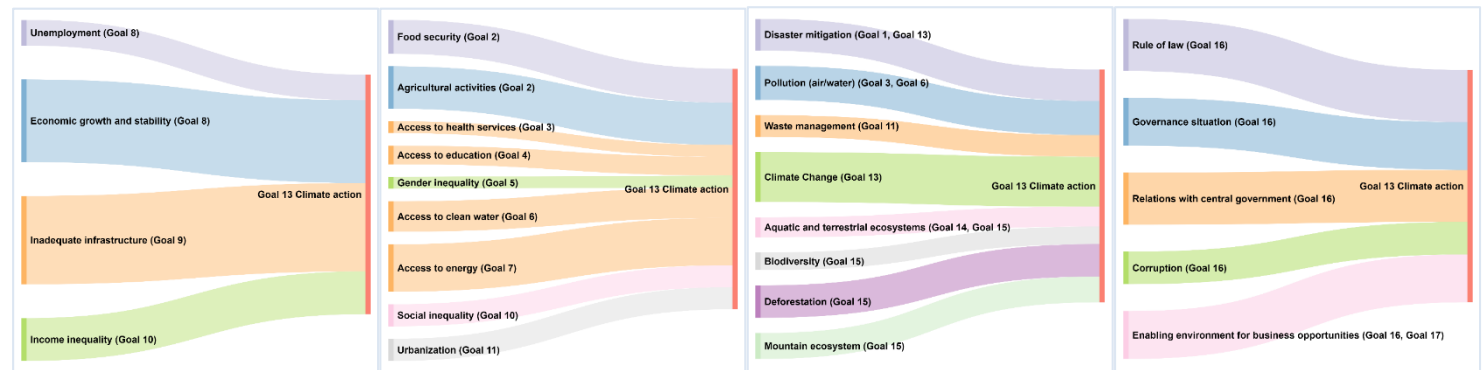
**Online questionnaire survey (100 respondents)**

**Focus group discussion (20 participants)**

**Raise awareness and co-generation knowledge on CC-SDG linkages**



**IGES Discussion Paper (Moinuddin et al., 2021)**



**Economic links**

**Social links**

**Environmental links**

**Governance links**





# Major topics covered in the survey questionnaire

**Queries related to the respondents' institution (type of business, familiarity with and relevance of SDGs and climate change issues)**

**Relationships of planning and implementation of SDGs at the national level and at the regional/provincial/local levels**

**SDG planning and implementation at national and provincial levels**

**Major progresses and challenges in SDG implementation**

**Agencies involved in SDG implementation in West Java**

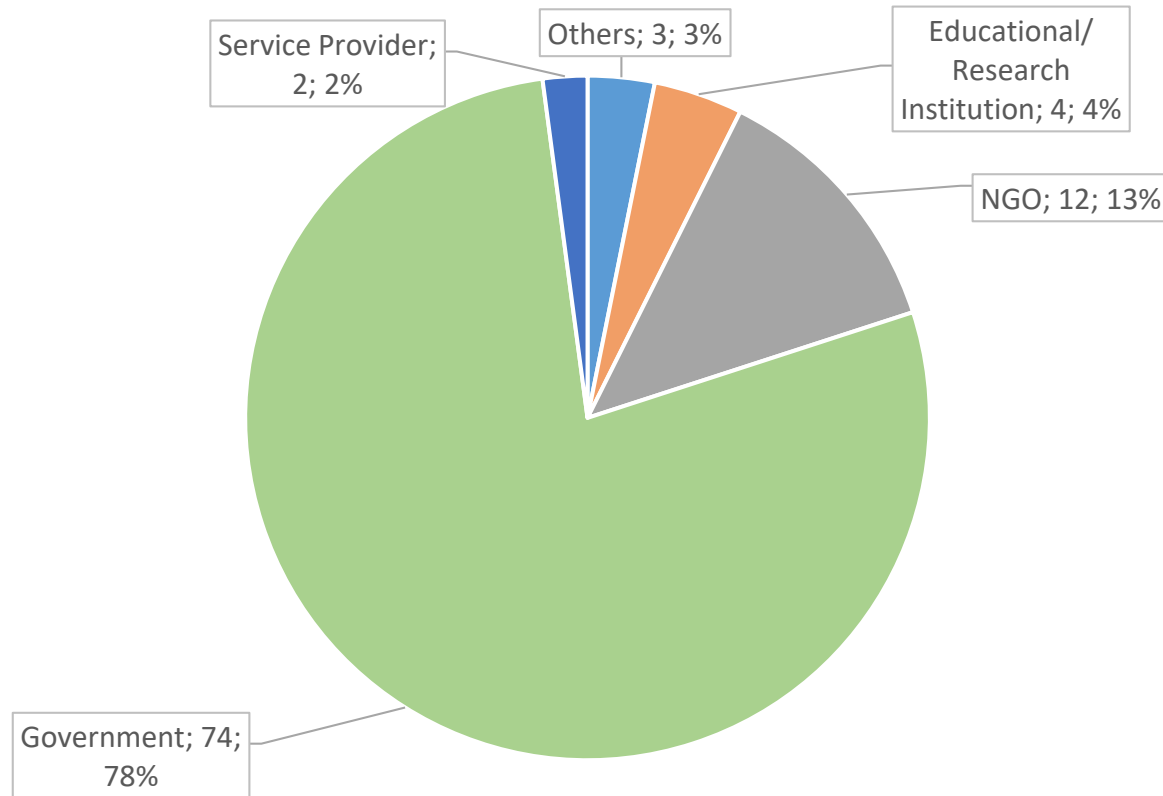
**Involvement of stakeholders in SDG promotion and implementation**

**Major agriculture, industry and service sectors in West Java**

**Major economic, social, environmental, climate, and governance-related issues and challenges in West Java, including their linkages with the 17 SDGs**

**Relevance and significance of climate change for West Java**

# Multistakeholders participation

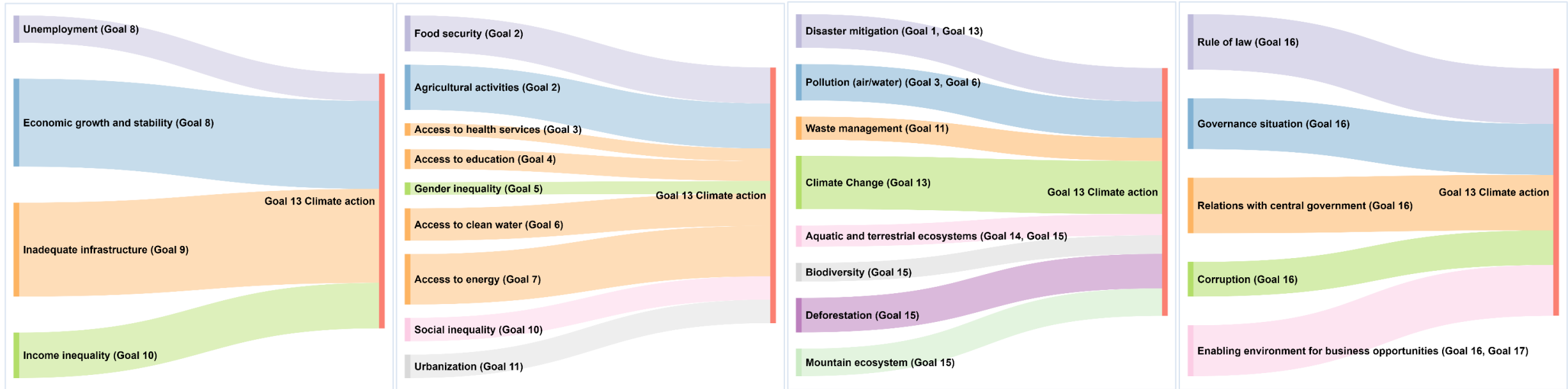


Type of Institutions	Field of Work
<b>Educational/research institution</b>	<ul style="list-style-type: none"> <li>Improving Human Development Index</li> <li>Training, research and community empowerment</li> <li>SDGs localization</li> </ul>
<b>NGOs</b>	<ul style="list-style-type: none"> <li>Policy advocacy</li> <li>Promoting gender equality.</li> <li>Disaster management.</li> <li>Community development</li> <li>Research</li> </ul>
<b>Government</b>	<ul style="list-style-type: none"> <li>Planning, monitoring, evaluation, research and development.</li> <li>Advocacy</li> <li>Provision of public services</li> <li>Drugs eradication</li> <li>Food provision</li> </ul>
<b>Private sectors</b>	<ul style="list-style-type: none"> <li>Energy and water management</li> <li>Managing airport</li> <li>Service provider</li> </ul>

# Core issues and problems identified by the experts at the FGD meeting

Economy	Society	Environment and climate change	Governance
<ul style="list-style-type: none"> <li>• Low human resources quality.</li> <li>• Lack of job opportunity.</li> <li>• Dependence of economic sector of informal activities.</li> <li>• Low concern to environmentally safe development approaches.</li> <li>• Economic development inequality</li> </ul>	<ul style="list-style-type: none"> <li>• High poverty rate.</li> <li>• Low human resources quality due to low education service quality.</li> <li>• Social and economic inequality.</li> <li>• Gender inequality.</li> <li>• Inequality in access to education.</li> </ul>	<ul style="list-style-type: none"> <li>• Pollution-related problems (industrial waste and domestic waste)</li> <li>• Major resource-use related problems</li> <li>• Conservation-related problems</li> <li>• Other environmental problems</li> </ul>	<ul style="list-style-type: none"> <li>• Corruption is the most important problem in West Java.</li> <li>• It is strongly correlated with low integrity of the personnel of West Java Government.</li> </ul>

# Interlinkages of key economic, social, environmental and governance issues in West Java with climate change



## ECONOMY

All four key economic issues – especially infrastructure and economic growth and stability – are linked with SDG 13 on climate action.

## SOCIETY/COMMUNITY

Many social issues are linked with climate actions (almost 30% respondents highlighting access to energy as a major area)

## ENVIRONMENT

Environmental issues linked with climate actions and other SDGs. Climate action itself was linked with health, water, poverty and hunger, energy, and biodiversity.

## GOVERNANCE

Rule of law and relations with the central government are highly relevant in West Java's climate actions



# Takeaways from this study

- **Overlapping nature of sustainable development and climate actions**
  - Integration and co-development of their implementation plans needed
- **Understanding these interactions needed to integrate SDGs and climate actions**
  - Stakeholder consultations can help design the integrated approach: socio-economic and biophysical characteristics, priorities/challenges facing the region within broader national development plans.
- **Integrated approaches can bridge the gap between national and local policy processes.**
- **Important to provide support for localising the SDGs and climate actions (enabling conditions, such as strengthened governance, institutional arrangements and clarified budget lines)**
- **Empowering civil society can boost accountability for spending and policy decisions on climate and SDGs**
- **Essential knowledge gained for science-based studies, such as an in-depth SDG interlinkage analyses, which can provide important insights and support for local policy processes including the development of Voluntary Local Reviews**
- **Further, the experience gained from this stakeholder engagement activity is expected to feed into similar activities other regions, cities and provinces within and beyond Indonesia**

# Integrated priority setting for SDGs: A case study on Bangladesh

- Bangladesh – an early starter in SDGs implementation
  - Strong political support, SDGs integrated in the national development plans, adopted various SDG strategies
- Governance Innovation Unit of the Prime Minister's Office (GIU-PMO) developed a draft SDG priority list (38 country-specific indicators mapping with 33 official targets across all 17 SDGs) in 2018
- IGES involvement
  - Consultation meeting between the GIU-PMO and IGES (Dhaka, May 2018)
  - IGES to conduct
    - an SDG interlinkages analysis to identify key targets for Bangladesh and compare with this draft priority list
      - IGES SDG Interlinkages methodology, SNA techniques (various centrality measures)
    - review one specific target (SDG 6.2 on sanitation and hygiene) in more detail including suggestions for the institutional arrangements for its implementation.
  - The IGES analysis aimed at providing scientific background to SDG prioritisation that can help communication with line ministries and other agencies

# Priority / key Targets for Bangladesh

## Priority targets that are identified by both GIU-PMO and IGES

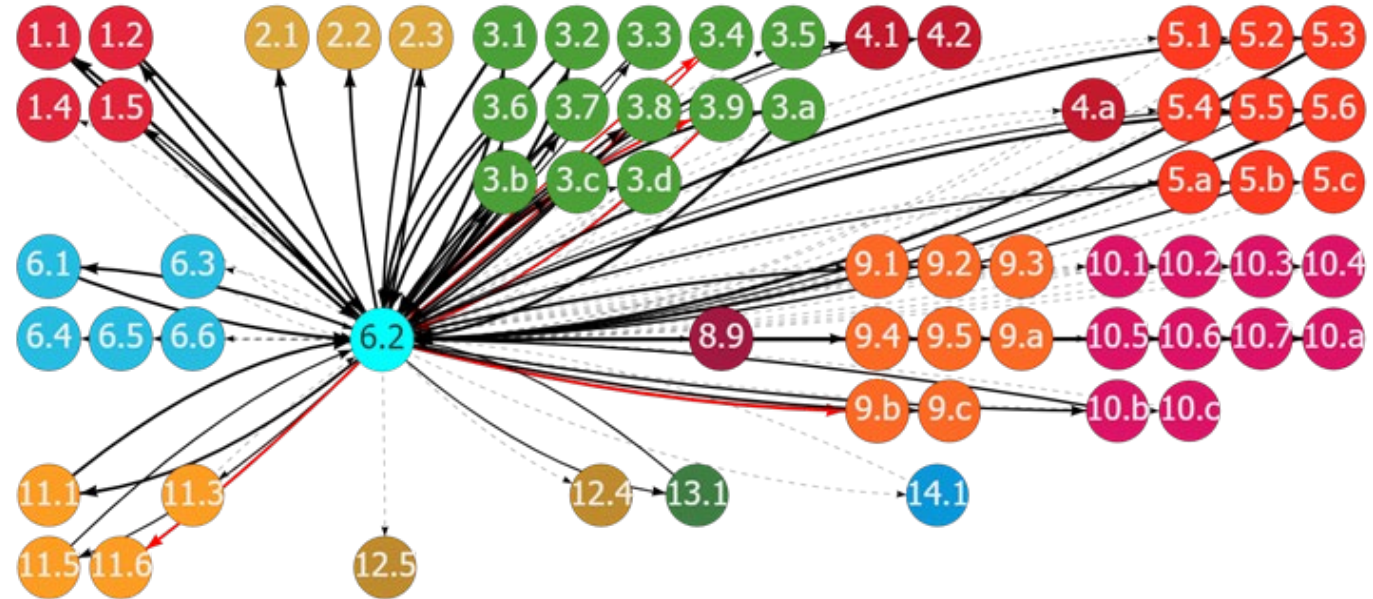
- |  |   |
|--|---|
| 1.1 End extreme poverty                              | 7.1 Universal access to energy  |
| 1.2 Halve national poverty                           | 8.5 Decent work for all   |
| 2.2 End malnutrition                                 | 8.6 Improve youth employment  |
| 2.4 Build sustainable food production systems        | 10.1 Income growth of bottom 40% population 10.7 Improve equality of migrants |
| 5.5 Enhance women's participation in decision-making | 11.2 Universal access to sustainable transport system                         |
| 6.1 Universal access to safe drinking water          | 15.1 Sustainable use of terrestrial and inland freshwater                     |
| 6.2 Universal access to sanitation and hygiene       |   |

### GIU-PMO draft priority targets

### IGES recommended key targets

- |   |   |   |   |
|---|---|---|---|
| 3.2 End preventable young children deaths               | 12.5 Reduce waste generation                                      | 1.5 Build resilience of the poor to climate and other disasters       | 9.a Enhance international aid to build sustainable infrastructure |
| 3.6 Halve traffic deaths                                | 13.1 Strengthen resilience to climate change                      | 2.1 End hunger  | 11.5 Reduce losses from disasters                                 |
| 4.1 All for free primary and secondary education        | 14.5 Conserve 10 per cent of coastal areas                        | 2.3 Double agriculture productivity                                   | 11.a Strengthen development planning for sustainable cities       |
| 4.4 Increase skilled workers for decent jobs            | 15.3 Combat desertification and soil degradation                  | 3.4 Reduce pre-mature mortality from non-communicable diseases        | 12.8 Enhance awareness of sustainable lifestyles                  |
| 4.a Improve education facilities                        | 16.9 Provide legal identity to all                                | 4.5 Estimate gender disparities in all levels of education            | 13.2 Integrate climate change measures into national policies     |
| 5.3 Eliminate forced marriage                           | 16.a Capacity building for preventing violence and terrorism      | 4.7 Acquire knowledge needed for sustainable development              | 14.2 Sustainable management of marine ecosystems                  |
| 7.2 Increase renewable energy                           | 17.1 Capacity building for tax collection in developing countries | 5.c Strengthen policies for gender equality                           | 15.2 Sustainable management of forests                            |
| 8.1 Sustain inclusive economic growth                   | 17.8 Enhance ICT in LDCs  | 6.4 Increase water use efficiency                                     | 16.6 Develop accountable institutions                             |
| 9.1 Develop resilient infrastructure                    |   | 9.4 Resource-efficient and clean technology-based industrial retrofit |   |
| 9.2 Promote inclusive and sustainable industrialization |   |   |   |
| 9.c Universal and affordable access to ICT              |   |   |   |

# Target-level interlinkages analysis and institutional arrangements for Bangladesh: An example of Goal 6 (Water)



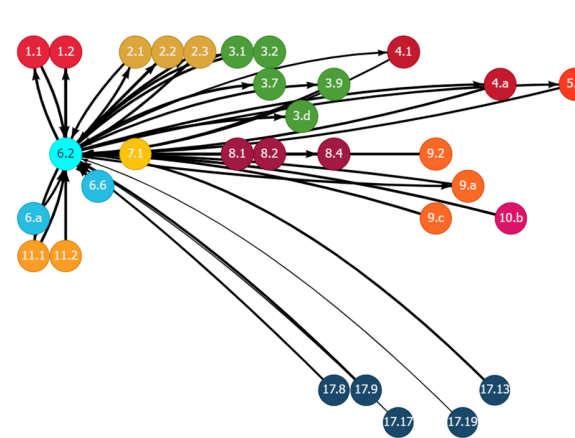
## Key target analysed under this Goal

 Target 6.2 Universal access to sanitation and hygiene

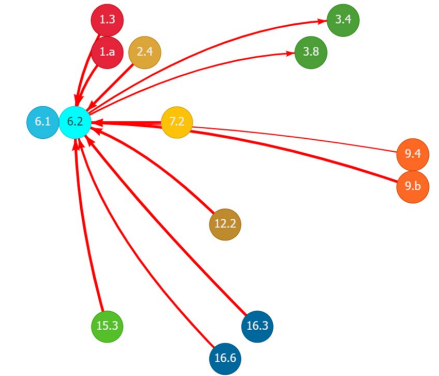


# Sanitation and hygiene: Positive and negative linkages of Target 6.2

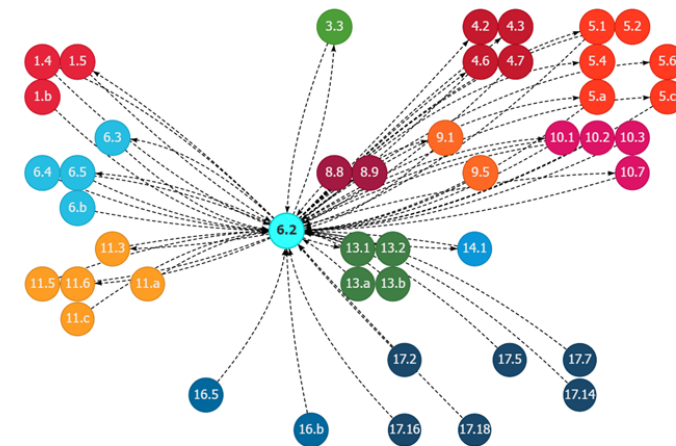
- Sanitation and hygiene (Target 6.2) is connected to 87 SDG targets across the goals.
- If we focus on the impact of progress in sanitation and hygiene, we see that Target 6.2's reinforcing effects will be across several SDGs: Goals 1, 2, 3, 4, 5, 6, 8, 9 and 11.
- On the other hand, this progress may negatively affect a few targets (4 in total) under Goal 3.
- Target 6.2 is also linked with the remaining targets, but due to data unavailability, the nature (synergistic or conflicting) could not be identified.



Positive out-degree linkages of Target 6.2



Negative out-degree linkages of Target 6.2



Out-degree linkages of Target 6.2 without data available

# Initial recommendations for institutional arrangements for Target 6.2 in Bangladesh

- Appropriate institutional arrangements needed for effective implementation
- Governmental mapping of relevant ministries/divisions (target level)
- Inst. arrangement could be further enhanced based on SDG interlinkages analysis results

Lead/Co-Lead	Associates	
Lead: Local government division	<i>Ministries and divisions that are identified by both GED and the authors</i>	
	<u>Ministries:</u> Education/ Primary and mass education; Environment; Food; Health; Women and children <u>Other organisations:</u> Statistics and information division	
	<i>Additional provided by GED</i>	<i>Additional recommended by IGES</i>
	<u>Ministries:</u> Information <u>Other organisations:</u> Prime Minister's Office	<u>Ministries:</u> Agriculture; Commerce; Fisheries; Foreign affairs; Health; Housing and public works; Industries; Labour; Land; Railways; Science and technology; Social welfare; Textile; Water resources <u>Divisions:</u> Cabinet; Economic relations; finance, General economics; ICT; Posts; Road transport; Law and justice; Legislative and parliamentary affairs; Programming

# Takeaways from this study

- Adopting an integrated approach requires a solid understanding of **the trade-offs** and **synergies** associated with the goals/ targets. Innovative instruments such as the IGES SDG Tool can help identify these interlinkages among the goals and targets.
- This study builds upon the results from the IGES SDG Interlinkages Tool to provide recommendations of **key targets** for Bangladesh from an interlinkages perspective. The results thus reconcile the **draft priority list of GIU-PMO** by identifying the common and different targets in the two lists.
- **Inter-agency collaboration** is needed for policy coherence and integrated implementation of the SDGs, for example in the implementation of Target 6.2. This will help **minimise conflicting policies** across the targets, and improve the overall integrated implementation by **fostering synergies, synchronising the activities** of various ministries, and **avoiding repetitive works** by various agencies.
- **Ensuring data availability** and management will help monitor the country's progress in implementing the SDGs and adjust policies accordingly.

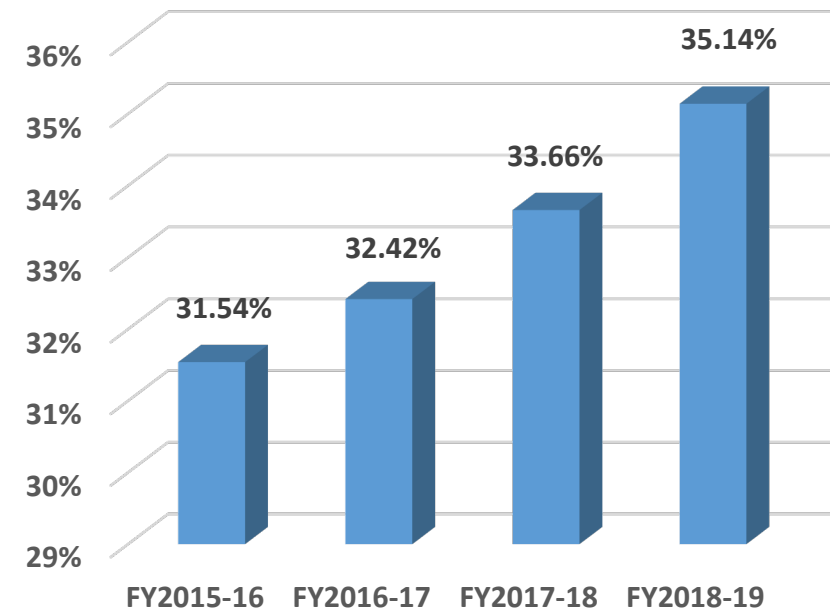
# Leveraging the potential of the industry sector in achieving the Sustainable Development Goals in Bangladesh

Presentation at the discussion meeting with the Ministry of Industries of Bangladesh

- 🌍 Bangladesh emphasizes industrialization as the **cornerstone for sustainable economic development and social progress**
- 🌍 Major challenge: How to make the country's industrial development **inclusive and sustainable**

***We provided recommendations for industry transition in Bangladesh from SDG interlinkages perspective***

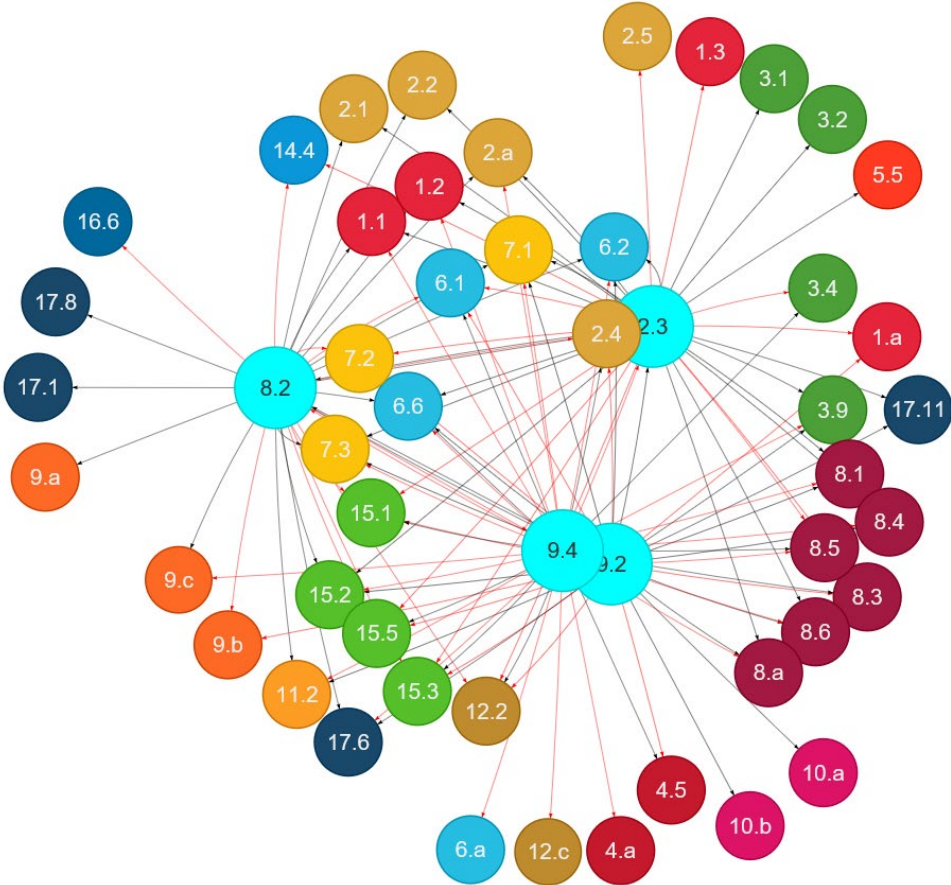
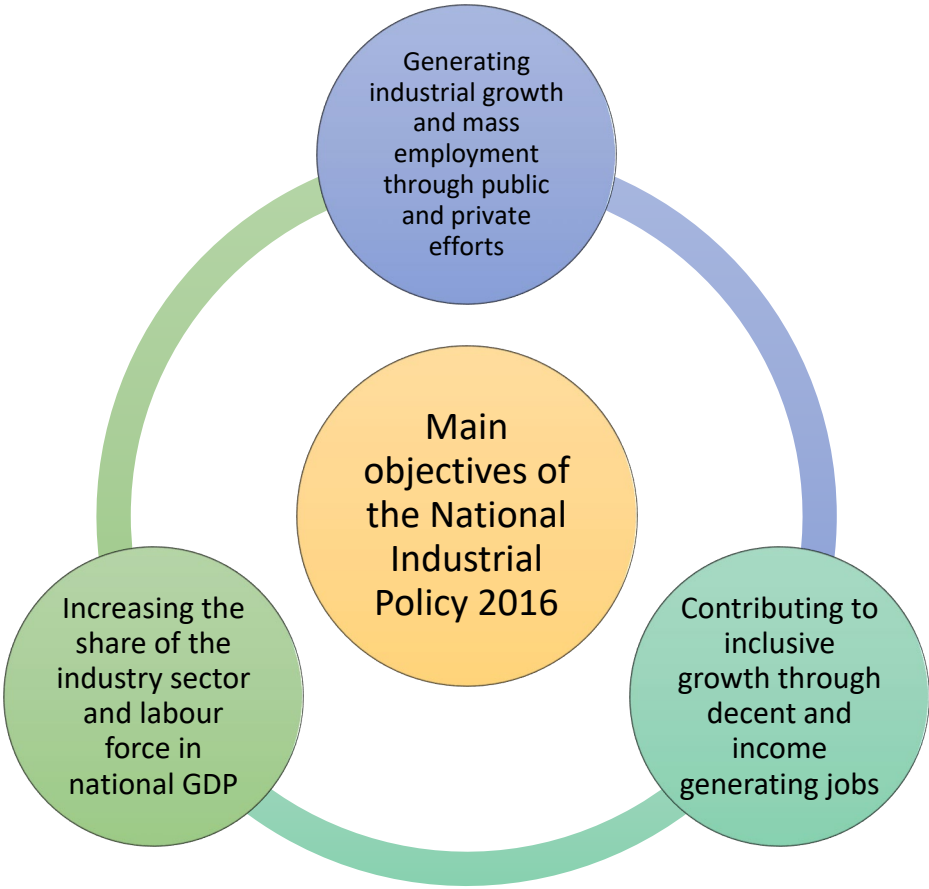
Contribution of the industry sector to GDP (%)



Source: Bangladesh Economic Review (2017, 2019)



# Leveraging the potential of the industry sector in achieving the Sustainable Development Goals from SDG interlinkages perspective

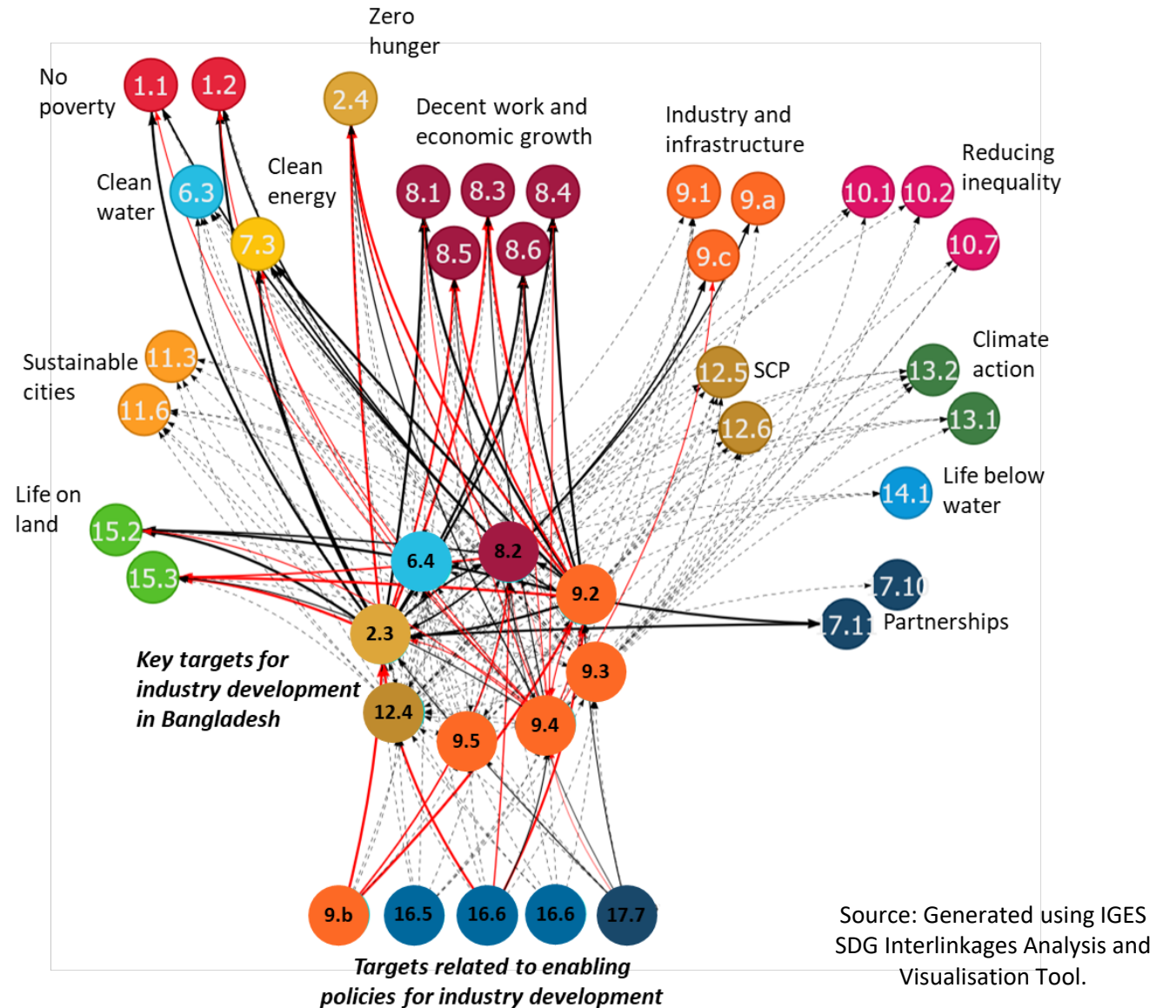


Source: Generated using IGES SDG Interlinkages Analysis and Visualisation Tool.

# Interactions between industry transition and other SDGs for Bangladesh

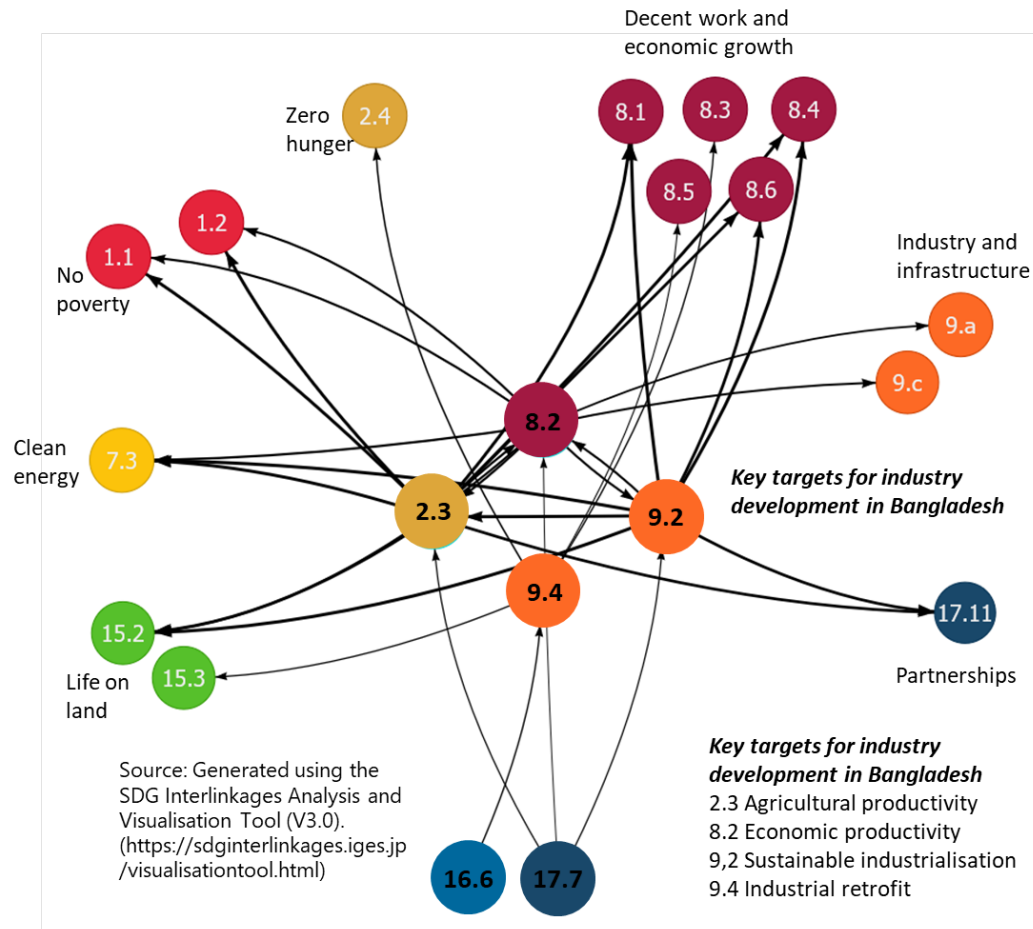
## Key targets for industry development in Bangladesh

- 2.3 Agricultural productivity
- 6.4 Water-use efficiency
- 8.2 Economic productivity
- 9.2 Sustainable industrialisation
- 9.3 Access to finance
- 9.4 Industrial retrofit
- 9.5 R&D for industry
- 12.4 Chemical/waste management

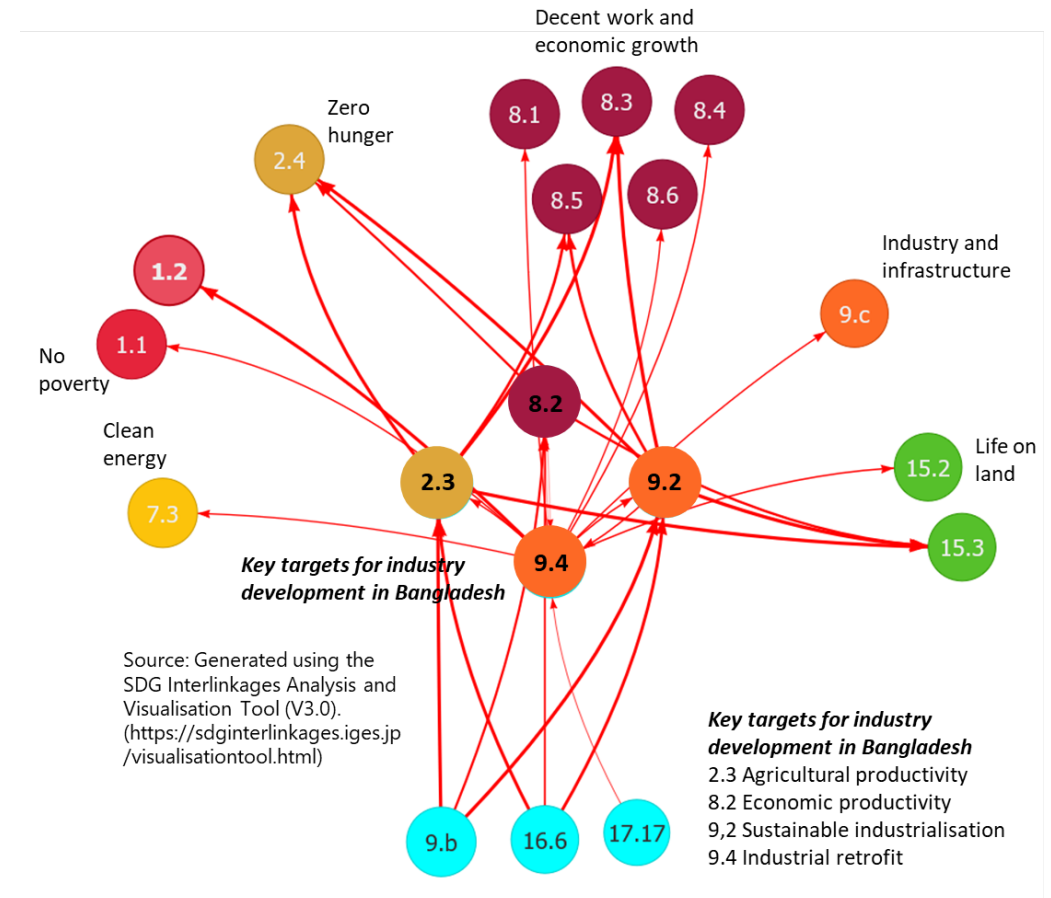


# Interactions between industry transition and other SDGs for Bangladesh

## – Synergies and trade-offs



**Synergies**



**Trade-offs**

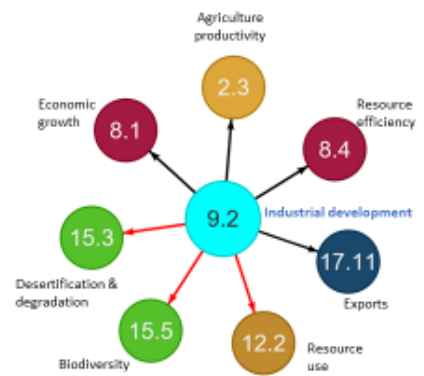
# Interlinkages analysis and institutional arrangement for each of the industry-related SDG targets

## Interlinkages or Target 9.2 on promoting Inclusive and sustainable Industrialization



Strategic and Quantitative Analysis Centre (QAC), IGES

## Interlinkages or Target 9.2 on promoting Inclusive and sustainable Industrialization



Strategic and Quantitative Analysis Centre (QAC), IGES

Example of synergies and trade-offs with some

## Institutional arrangement for Target 9.2

Lead/Co-Lead	Associates	
Lead: Ministry of Industries (MoInd)	Ministries and divisions that are identified by both GED and IGES	
	GED; MoC; ICTD; MoTI	
	Additional provided by GED	Additional recommended by IGES
	BFID (BB); FD; SID	<p>Moderate to strong links EMRD; ERD; FD; LGD; MoA; MOEF; MoFA; MoFL; MoL; MoLE; MoPME; MoR; MoST; MoSW; MoWR; MoYS; PD; RTHD</p> <p>Other possible links BFID; LJD; MoE; MoEWOE; MOFA; MoHPW; MoS; MoWCA</p>

Strategic and Quantitative Analysis Centre (QAC), IGES

www.iges.or.jp



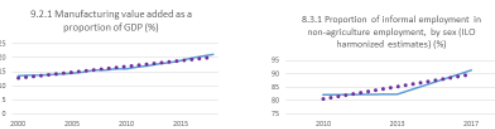
# Key insights/recommendations for industry transition in Bangladesh from SDG interlinkages perspective

## Key insights for industry transition in Bangladesh from SDG interlinkages perspective

- Industry to play a crucial role in Bangladesh's SDG implementation
  - Linked with all the 17 SDGs/associated targets
  - Policies must not focus only on the economic side of development
    - Already addressed to some extent in Bangladesh's National Industrial Policy 2016
- Targets led/co-led by the Ministry of Industries
  - Clear interactions with and influences on the goal areas and targets related to the main objectives of the 2016 Industrial Policy
  - These links include, among others
    - Targets related to decent work, job creation, youth employment, and economic growth (Goal 8), industry and infrastructure (Goal 9), international trade and public-private partnership (Goal 17) (Industrial growth and mass employment)
    - Targets related to poverty reduction, reducing hunger, addressing inequality, and generating incomes (Inclusive growth through income generation)
  - In addition, this selected set of industry-related targets also interacts with and affect a range of social and environmental targets including the ones related to developing a sustainable food production system (Goal 2), resource efficiency (Goals 6, 7 and 8) making urbanization more sustainable (Goal 11), addressing climate change (Goal 13), and biodiversity and ecosystems (Goals 14 and 15).

## Key insights for industry transition in Bangladesh from SDG interlinkages perspective

- However, as the red lines in the figure in Slides 29 and 32 indicate, existing trends and policy measures may not always be conducive enough to reinforce attaining some, if not many, of the economic, social or environmental goals.
  - For instance, even though progress has been made in Target 9.2 on inclusive and sustainable industrialization, this trend is not observed in creating decent jobs
- The links marked in red colored lines in Slide 25 lines may need special attention



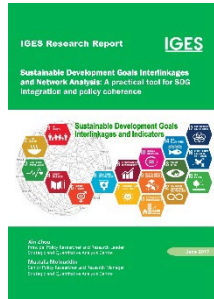
## Key insights for industry transition in Bangladesh from SDG interlinkages perspective

- Major challenge in the labour market
  - How to limit job losses
  - How to create green jobs to make industry transition more sustainable
- Promoting green industries
  - Important as many challenges related to industrial development are environmental in nature (GEO-6)
  - Can play an important role in SDG implementation
  - Involves not only energy-intensive industries but also the ones related to agriculture, water and NRM
    - GEO-6 report on green industries in Asia-Pacific region
- Strengthening the SMEs
  - Plays an important role in inclusive growth by curbing unemployment, women's empowerment, and forex earning, to name a few
  - They also face the hardest challenges to become more sustainable
  - Helping the SMEs to navigate the transition to sustainable development
    - Through net-zero emission scenarios
- Management of chemicals and wastes
  - With rapid industrialization, Bangladesh will face increased challenges concerning managing industrial chemicals and wastes. The relevant SDG Target 12.4 affects a broad range of goals areas in all the three dimensions of sustainability. An efficient and effective management system therefore is important to make Bangladesh's industry transition more sustainable.

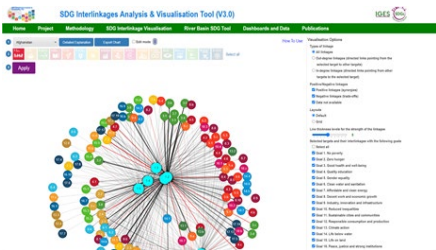
## Key insights for industry transition in Bangladesh from SDG interlinkages perspective

- Institutional arrangement
  - The industry-related SDG targets led by the ministry will affect, and will be affected by, targets from many other goals areas.
    - Coordination among the relevant ministries and other governmental agencies necessary
  - Commendable work from GED on mapping of ministries for SDG implementation
  - Additional recommendations on institutional arrangements from interlinkages perspective
    - Can help minimise conflicting policies across the targets
    - Facilitate the improvement the overall integrated implementation by fostering synergies, synchronising the activities of various ministries, and avoiding similar repetitive works by various agencies
    - Suggested institutional arrangements for each of the SDG targets led by the Ministry of Industries provided in Annex I of this presentation
- Last but not the least, implementing the industry-related SDG targets will also require relevant enabling policies focusing on not only industrial value addition but also ensuring the good governance and development of accountable institutions, inclusive decision-making, multi-stakeholder partnerships.

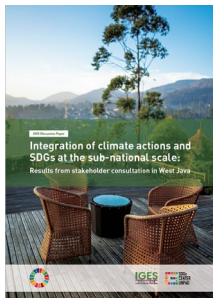
Contact: [moinuddin@iges.or.jp](mailto:moinuddin@iges.or.jp)



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., 2021. SDG Interlinkages and Data Visualisation Web Tool (V4.0). Hayama: IGES. Available at: <https://sdginterlinkages.iges.jp/visualisationtool.html>.



Moinuddin, M., Zhou, X., Anna, X. and Satriatna, B. 2021. Integration of climate actions and SDGs at the sub-national scale: Results from stakeholder consultation in West Java. IGES Discussion Paper. Hayama: IGES. Available at: [https://www.iges.or.jp/en/publication\\_documents/pub/discussionpaper/en/11837/West-Java\\_Integrating-climate-and-SDGs\\_Nov2021.pdf](https://www.iges.or.jp/en/publication_documents/pub/discussionpaper/en/11837/West-Java_Integrating-climate-and-SDGs_Nov2021.pdf)