Systemic links between COVID-19 and development: Developmental implications

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COVID-19 and the subsequent global crisis have reversed decades of progress in many developmental areas



Source: Based on data/information from United Nations Sustainable Development Report 2022

Integrated Sustainability Centre, IGES

Countries around the world have adopted a wide array of measures to recover from the crisis



Economy-related

Stimulus packages, tax measures etc.



Society-related



Environment-related

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Miscellaneous

Other measures

Food, social security, employment, healthcare etc Energy-specific, environmental measures etc.

- These measures can stimulate progress in many pandemic-hit SDG areas, which will also exert synergistic effects across many other SDGs.
 - Depends on the design and efficiency of the implementation
- However, ignoring the broader and longer-term sustainable development perspectives may lead these measures to further intensify the existing trade-offs among the SDG areas, particularly in the environmental domain.

An empirical study on the impact of COVID-19 and its recovery on the SDGs

- At IGES, we proposed and applied an SDG interlinkage analysis methodology to assess the impact of COVID-19 and its recovery on the SDGs.
- While COVID-19 is a global tragedy, implementing an effective recovery may put the world on the path toward resilience and sustainability.
- This study aims at contributing to seizing this opportunity in Asia.
- Empirical analysis of the study was conducted on two Asian countries – Bangladesh and the Republic of Korea.



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.

Methodology

Literature review

- Impacts of COVID-19
- Adopted and planned recovery measures of the case study countries

Sources include various UN agencies, other international organisations and think tanks. Recovery measures until August 2020 were included in the study

Mapping with SDGs

 Key aspects mapped with SDGs at the target level

The mapping of the measures with the SDGs is conducted by the authors. The mapping provided the basis for the synergies and trade-offs analysis in the next step.

SDG interlinkage analysis

- Impacts of COVID-19 on SDGs
- Implications of COVID-19 recovery measures on SDGs

IGES SDG Interlinkages Analysis & Visualisation Tool (v3.0) was used identify the synergies and trade-off of the COVID-19 pandemic and recovery measures.

- The identified synergies and trade-offs were then reviewed in terms of
 - (i) the effectiveness of the recovery measures in addressing their impacts on SDGs, and
 - (ii) the implications for building long-term resilience and sustainability.

IGES SDG Interlinkages Analysis & Visualisation Tool

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

	SDG Interlinkages Analysis & Visualisation Tool (V4.0)						
Home	Project Methodology	SDG Interlinkage Visualisation	River Basin SDG Tool Da	ashboards and Data	Publications		
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Source: A snapshot taken from IGES SDG Interlinkages Analysis and Visualisation Web Tool (V4.0) (Zhou, Moinuddin and Li, 2019)

• The IGES <u>SDG Interlinkages Analysis &</u> <u>Visualisation Tool</u> to help identify, quantify and visualise the interlinkages among the SDGs at the target level



recovery.

Impact assessment from SDG interlinkages perspective



Trajectories of achieving the SDGs in the pre-and-post-COVID-19 eras

- COVID-19 shock could change the trajectories of the COVID-hit SDG targets
- Impact of the shock can be either <u>negative</u> (for example, on economic growth [SDG Target 8.1]), or <u>positive</u> (for example on innovation [SDG Target 9.3])
- Deceleration or acceleration of a given target depends on pre-existing trajectories of that target
- Other interlinked targets are affected on the basis of their association with the COVIDhit targets
- Impact of countermeasures is assessed by replacing the COVID-hit targets with the targets mapped for countermeasures for the case study countries

Derived impacts of COVID-19 and mapped SDG targets



Note: Codes in brackets are the mapped SDG targets. Purple-Negative impacts; Green-Positive impacts.

Derived impacts of COVID-19 from SDG interlinkages perspective: Bangladesh



- Most of the 44 COVID-hit targets received negative shocks from the pandemic
- Past progresses in many areas including poverty reduction will be decelerated, with derived impacts on other areas.
- Existing gaps in certain lagged areas such as social protection or informal sector may further widen due to tightened public resources during the pandemic
- Some improvements in the area of the environment are temporary (result of economic slowdown, not structural change or innovation.
- Some progress in innovation and partnership will strengthen synergies with efficiency improvement in other areas.
- COVID-hit targets with pre-existing regressive trends (for example full and productive employment) will intensify development drag in other interlinked areas (such as poverty eradication).

Derived impacts of COVID-19 from SDG interlinkages perspective: Republic of Korea



- 16 out of 44 COVID-hit targets followed a progressive trend in the pre-pandemic time, and the negative shock will also weaken their synergies with other associated areas including hunger and malnutrition.
- Some improvements in the area of the environment are temporary (result of the economic slowdown).
- Positive shocks on innovation will accelerate its development and derived impacts will strengthen synergies for example in improving gender parity in education.
- COVID-hit targets with pre-existing regressive trends (for example healthcare coverage) will intensify development drag in other interlinked areas (such as social protection).
- Major concerns related to the derived impacts are in the SDGs related to health, economic, growth, SMEs, inequalities and environment-related targets.

Major COVID-19 measures are identified and mapped with the SDG targets

- The COVID-related policy measures adopted and planned by Bangladesh and the Republic of Korea are identified by reviewing several sources:
 - ADB (2020); IISD et al.
 (2020); IMF (2020); KPMG
 (2020).
- The mapping of the measures with SDGs is done by the authors.

Bangladesh

 TABLE 24.5
 Summary of major COVID-19 measures for Bangladesh.

Domain	Type of measures	Description	Mapped SDG targets		
Economy-related	Economic stimulus	Stimulus package for exporting industries:			
	packages	 Working capital loan facilities to the affected industries, including SMEs; 	9.2, 9.3		
		 Enhancing the Export Development Fund and pre-shipment credit refinance scheme; 	17.11		
		 Agriculture refinance scheme and incentives for farm mechanization; 	2.3, 2.a		
		 Low-interest credit facilities for self-employment ventures and refinancing scheme for low-income traders and farmers in the agricultural sector; 	9.3, 2.a		
		 Promotion of payment services including mobile payment options. 	9.c, 8.10		
	Direct/indirect tax measures	Lifting of import tax on medical equipment and extension of filing/payment of tax returns.	3.3, 3.8, 9.3, 17.11		
Society-related	Direct benefits	Direct cash transfer to selected families.	1.1, 1.3, 2.1, 10.1		
	Employment/social • Workers' layoff prohibition, mandatory salary payment (one security month);	8.5, 8.8, 1.3			
		 World Bank's COVID-19 Emergency Response and Pandemic Preparedness Project; 	3.3, 3.8, 3.c		
		 ADB's assistance to fight the pandemic. 	3.c		
	Healthcare	Advance payment from banks for imports of life-saving drugs.	3.8, 3.b		
Environment- related		Tax exemption for private power generation companies.	7.1, 7.2		
Miscellaneous	Other measures	Loan for working capital of the national airlines.	8.5, 11.2		

Major focus: Livelihood and economic recovery.

Republic of Korea

Domain	Type of measures	Description	Mapped SDG Targets
Economy-related	Economic Stimulus packages	 Korean New Deal focusing on digital economy, green technology and social safety nets; 	1.3, 8.1, 8.2, 8.4, 9.2, 9.4, 9.5, 9.c, 13.2,
		 Loans/assistance for SMEs; 	9.3, 10.5
		 Monetary Policies (purchasing local bonds, lowering of interest rates and loan facilities for small companies); 	17.1, 17.3, 10.5, 17.4
		 Equity support through the creation of a stock market stabilization fund; 	17.3, 10.5
		 Key industry stabilization fund (airlines, shipping, shipbuild- ing, autos, general machinery, electric power, and communica- tions). 	9.2, 17.5
	Direct/indirect tax measures	 Various tax support for rental business owners, SMEs and for overseas' companies return to Korea; 	9.3, 17.1, 17.5
		 Temporary relief for value-added tax; 	9.3, 17.1
		Consumption tax reduction (temporary) on car purchases by individuals;	9.2, 9.3, 9.c, 12.8, 12.c
		 Increase (temporary) in income tax deduction rate for credit card/other expenses; 	9.2, 9.3, 12.8
		 Increase (temporary) of the limitation amount for entertainment expenses; 	8.9, 9.3
		 Various customs measures (delayed duty payment, suspension of Customs audits suspension, paperless duty drawback, etc.). 	17.11, 17.1, 17.10
Society-related	Food, social security	Emergency caring support for vulnerable citizens including pregnant women;	1.1, 2.1, 3.8, 10.1, 3.1
	Employment	New job creation (1.9 million jobs expected);	8.5, 8.6
	Healthcare	 Comprehensive testing and tracking; 	3.3, 3.8
		 Export ban (temporary) on certain medical items; 	3.3, 17.11, 3.8, 17.10
Environment-related	Energy-specific	Financing for clean energy infrastructure, including for improv- ing energy infrastructure in industries;	7.2, 7.b

Major focus: Korea New Deal, offering a vision for a sustainable future

Impacts of COVID-19 measures on achieving SDGs in Bangladesh



- 20 SDG targets were mapped with COVID-19 measures
- 12 targets followed progressive trend in pre-pandemic time (poverty reduction, ending hunger etc.). Stimulating the
 progress in these targets may strengthen the existing synergistic effects in other areas especially in the social
 dimension (health, basic services etc).
- 4 targets were in regressive trends (healthcare, renewables etc.). The countermeasures can help mitigate their existing trade-offs or development drags especially in the social and economic dimensions.
- However, the environmental aspects are largely absent in Bangladesh's COVID measures. Accelerating the progress
 in the mapped targets may intensify some of the existing trade-offs with environmental SDGs and deteriorate
 biodiversity and ecosystems.

Impacts of COVID-19 measures on achieving SDGs in the Rep. of Korea



- 43 SDG targets were mapped with COVID-19 measures
- 16 targets followed progressive trend in pre-pandemic time (for example, renewable energy, resource efficiency etc.). Stimulating the progress in these targets may strengthen the existing synergistic effects in other areas especially in the productive sectors, health, and basic services. This will also intensify trade-off between some targets such as renewable energy and economic growth)
- 9 targets were in regressive trends (healthcare, SMEs etc.). The countermeasures can help mitigate their existing trade-offs or development drags especially in health and productive sectors like agriculture and industry.
- Some of the measures such as tax reduction may negatively impact government revenue and fiscal stability, which
 can weaken existing synergies in areas related to public investment, macroeconomic stability and assistance to
 developing countries.

Implications for building long-term resilience and sustainability

- COVID-19 exposed the vulnerability of individuals, communities, societies, and many global systems such as the global value chains
- Growing call for building back better with enhanced resilience and sustainability
- Our interlinkage analysis demonstrates the significance of resilience building
 - For example, the poor and marginalised in both countries are vulnerable to the crisis.
 - In Bangladesh, the poor were directly hit by derived impacts: health damage, disrupted agricultural production and food insecurity, school dropouts, interrupted basic services, or losing jobs and incomes. The country's inadequate social protection system exacerbates the compounding effects of poverty).
 - In the Republic of Korea, the existing regressive trend in poverty elimination will be worsened due to the hit by COVID-19 and through derived impacts: damaged healthcare system, education interruption, and contracted economic growth.
- COVID-19 crisis suggests that governmental plans and recovery policies should include resilience building to enhance the preparedness for future crises, such as those induced by climate change. The Korean New Deal appears to provide a broader, longer-term framework incorporating resilience building, particularly for building environmental resilience.

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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%20Interlinka ges 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/We st-Java_Integrating-climate-and-SDGs_Nov2021.pdf