



#### Research Article

# Mapping the Focus of the Sustainable **Development Goals in Resolving the COVID-19 Pandemic's Impacts: An Overview** of Asia

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#### Abstract.

The outbreak of the COVID-19 virus forced some changes in the strategy to achieve the Sustainable Development Goals in some Asian countries. Applying a systematic literature review and middle-range theory of several previous studies from journal articles in the Science Direct database, this qualitative study aims to do the mapping of the focus of Asian countries in resolving the COVID-19 pandemic through their efforts to achieve SDGs. The results of this research will give recommendations to the governments of Asian countries regarding the focus of SDGs.

Keywords: Sustainable Development Goals, COVID-19, Pandemic, Asia

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## 1. Introduction

Since 2015 all member countries of the United Nations have agreed on the direction of their national goals. The development goals are stated by United Nation Development Programme (UNDP) into 17 items of Sustainable Development Goals (SDGs) that must be achieved by 2030. The seventeen items consist of: (1) no poverty; (2) zero hunger; (3) good health and well-being; (4) quality education; (5) gender equality; (6) clean water and sanitation; (7) affordable and clean energy; (8) decent work and economic growth; (9) industry, innovation, and infrastructure; (10) reduced inequalities; (11) sustainable cities and communities; (12) responsible consumption and production; (13) climate action; (14) life below water; (15) life on land; (16) peace, justice, and strong institutions; (17) partnerships for the goals.

Within four years, all members of the UN had been preparing some plans and making various efforts to achieve the 17 SDGs items. But unexpectedly, a major disaster in

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the form of a pandemic suddenly hit the world in 2019. The pandemic, known as the Coronavirus Disease, or better known as COVID-19, has shaken the world by causing an extraordinary number of victims. According to data released by World Health Organization (WHO) as per November 26, 2021, there have been 259,502,031 confirmed cases of COVID-19 globally. This number includes 5,183,003 cases of death. It is also reported that there have been 44,495,432 confirmed cases of COVID-19 in South-East Asia. This tremendous number makes South-East Asia be in the third highest of regional rank of COVID-19 cases in the world<sup>1</sup>

Huge number of COVID-19 confirmed cases are found in several Asian countries. As per November 30, 2021, it is reported that India is in the second highest global rank with the number of confirmed cases is 34,587,822. While Indonesia is in the fourteenth rank with 4,256,112 confirmed cases, followed by Philippines with 2,832,375 in the nineteenth rank, and Malaysia in the twentieth rank with 2,627,903 confirmed cases<sup>2</sup>.

Globally, COVID-19 is not only a health nuisance, but also a catastrophe to the entire world in all aspects of human life, including economy. To reduce the massive spread of COVID-19, governments in several countries have set various restrictions on activities for their people. However, it brings tremendous impacts on economic activities in all over the world. The COVID-19 outbreak was then followed by a global crisis and a world economic recession. This crisis can hinder the achievement of the SDGs in 2030, one of which is poverty eradication. In 2020, there were additional 100 million people in developing countries living in extreme poverty compared to the forecast at the beginning of 2020. The prediction of global economic growth has not been achieved, and even it has become the worst economic forecast since the World War II. The achievement of the SDGs in the short and medium term will suffer. These uncertain conditions will hinder investment in infrastructure and innovation sectors. It leads to a high increase in long-term financing needs globally<sup>3</sup>. COVID-19 has caused economic recession and contraction with the declining of per capita income that leads to poverty issue<sup>4</sup>.

The impacts of global crisis due to COVID-19 also hit Asian countries. The Asian Development Bank (ADB) revised its economic growth forecast for developing countries in Asia. Economic growth fell to 7.1% in 2021 compared to the Asian Development Outlook (ADO) in April which was at 7.3%. However, economic growth will increase to 5.4% in 2022 compared to the previous which was at 5.3%. Meanwhile, inflation will be 2.2% in 2021 and will increase to 2.7% in 2022<sup>5</sup>.

The International Monetary Fund (IMF) cut its 2021 economic growth forecast for the countries in Asian region. This revision was carried out because COVID-19 cases had



spiked sharply in several Asian regions due to the Delta variant. The IMF forecasted the growth of Asian economies would be 6.5% in 2021. It is lower than the previous forecast in April of 7.6%. The increase in COVID-19 cases has forced restrictions for some business activities. This situation gave burdens to service sectors and caused some factories to close as well. According to the IMF, it will reduce the outlook for the Asian economy, even when demand for exports is strong. Countries in Asia were relatively successful in stemming COVID-19 cases in 2020, but in 2021 several countries, such as India, Malaysia, and Vietnam, have had to struggle against the new variant. While on the other hand, vaccination is running slowly<sup>6</sup>.

Asia consists of many developing countries, and the developing countries are vulnerable to the impacts of the pandemic, especially in terms of the economy. Thus, these difficult situations have been forcing Asian countries to find new effective strategies as efforts to achieve the 17 items of SDGs. Asian countries need to reset the most priority items to be addressed urgently to resolve the COVID-19 pandemic impacts.

The purpose of this study is to do the mapping of the focus of Asian countries in resolving COVID-19 pandemic through their efforts in achieving SDGs. This study is expected to produce recommendations to the governments of Asian countries, so that they can take focus of their current development programs on the most urgent issues out of the seventeen goals in SDGs.

### 2. Methods

This conceptual paper is a publication of an early stage of study. A Systematic Literature Review (SLR) was deployed to do the analysis in this study. SLR is commonly applied to start research as the beginning and important step. On this stage, the researcher selects the publications of previous research that have relevant topics to this current study and makes synthesis of the results of those relevant publications.

SLR is a literature review technique of sorting references from the same database with certain keywords. In this study, the researcher sorts the relevant references by taking previous articles from the Science Direct database. The keywords applied in sorting the sources are "SDGs; COVID-19; Asia" and "SDGs; COVID 19; Asia". The filter used to sort the files is the year of publication and the accessibility. Only the articles those are published in 2021 and open access for the full text that can be considered of being the main references of this study. Thus, there are fifteen articles obtained from the database that are most relevant to this topic and taken as the main references to be analysed further using middle-range theory.



The middle-range theory is commonly used in social research to formulate a conceptual framework in building a new model. It is a technique to formulate a local theory within a contextual and homogenous group by finding the similar constructs among the members of the group<sup>7</sup>

### 3. Results

Taking source of references from Science Direct database with keywords of "SDGs; COVID-19; Asia" and "SDGs; COVID 19; Asia" and published only within 2021, the researcher found fifteen articles those are most relevant with the topic of this study. After selecting the main references, then the researcher did a content analysis using middle-range theory to find the constructs based on the identification of the problems faced by Asian countries due to COVID-19 pandemic and the initiatives of each country in efforts to achieve SDGs. The constructs are then categorized into the group to do the mapping of SDGs focus to resolve COVID-19 pandemic impacts in Asia. Table 1 shows the result of the mapping.

Based on the results of the systematic literature review, then the researcher synthesized those fifteen articles through a middle-range theory. Middle-range theory is a content analysis technique that is carried out by finding the same constructs among the objects and synthesizing them into a model. The constructs used in this study are the seventeen items of SDGs. The results of content analysis using middle-range theory can be seen on Table 2.

Based on Table 2, we can see that the most-concerned SDGs are *No Hunger* (SDG2) and *Clean Water and Sanitation* (SDG6) which are discussed by 7 publications. The next most-concerned SDGs is *Good Health* (SDG3) which is discussed by 6 publications, and followed by *No Poverty* (SDG1) which is discussed by 5 publications, *Life on Land* (SDG15) which is discussed by 4 publications, and followed by *Good Jobs and Economic Growth* (SDG8), *Sustainable Cities and Communities* (SDG11), *Responsible Consumption* (SDG12), *Climate Action* (SDG13), *Life below Water* (SDG14) which are discussed by 3 publications, *Renewable Energy* (SDG7), *Innovation and Infrastructure* (SDG9), *Peace and Justice* (SDG16), *Partnerships for the Goals* (SDG17) which are discussed by 2 publications, and the least-concerned SDGs are *Quality Education* (SDG4), *Gender Equality* (SDG5), and *Reduced Inequalities* (SDG10).



TABLE 1: Mapping of SDGs Focus to Resolve COVID-19 Pandemic Impacts in Asia.

Authors	Countries/ Regions in Asia	Problems to be solved	Initiatives	Focus on SDGs Item
(8)	India	a decline in agricultural wages, critical losses of produce, shortages of food supplies, dramatically increased prices, poverty	new sustainable agro-policies and	No Poverty (#1); No Hunger (#2)
(9)	Myanmar	low-income households, the impacts of COVID-19 on poultry sector, long-term farmworkers were laid off, the slow supply response of layer farms, higher egg prices for consumers	responsiveness and resilience of different chicken and	No Hunger (#2); Good Jobs and Economic Growth (#8)
(10)	Pacific Island, Timor-Leste	unemployment and eco- nomic contraction, long- term consequences for food value chains, disruptions to tourism, labour migration, and remittances,	food systems vulnerabilities, impacts, and opportunities for supporting resilience	and Economic Growth (#8); Climate Action
(11)	China	Lockdown due to COVID-19 showed reduction in environmental pollution. The quality of air and water improved in metro cities and in rivers during COVID-19.	energy, sustainable industrialization, well organized waste	. ,
(12)	Malaysia	the tourism industry has been hit hard as national borders are closed with restricted travels permitted	sustainable tourism, mass tourism, and	vation and Infrastructure
(13)		The needs of WASH services for infection prevention and control (IPC)		
(14)	India	increased plastic pollution during COVID-19 pandemic, o degradation of a broad range of habitats and ecosystems, destructions of natural functions, water quality, and environmental sustainability	assessment, support and appropriate short- and long-term mitigation and the policy measures of plastic waste	(#6), Sustainable Cities and Communities (#11), Responsible Consumption (#12), Climate Action (#13), Life Below Water (#14), Life

# 4. Discussion

The results are in accordance with The World Bank Group's response to COVID-19 pandemic. The World Bank Group's response is targeted into four key areas of concern,



TABLE 2: (Continued).

Authors	Countries/ Regions in Asia	Problems to be solved	Initiatives	Focus on SDGs Item
(15)	Bangladesh, India, Nepal	COVID-19 pandemic threaten the nutritional status of populations in Low- and middle- income countries (LMICs)	the COVID-19 affects diets, nutrition and food security can	No hunger (#2); Good Health (#3)
(16)	ASEAN countries	vulnerabilities of the supply chain of food system	open for foods and for rural workers, further strengthening social protection and safety nets, continuing to invest in research and infrastructure, better regulations of wet markets and wildlife, and influencing consumer behaviour towards more sustainable and healthier foods.	No Hunger (#2)
(17)	Bangladesh	density and lack of	different sanitation management policy	Good Health (#3); Clean Water and Sanitation (#6)
(18)	Philippines, Israel, Lebanon, Cambodia	The aging population and the countries that host the most international travellers. The aging population and people exposed to air pollution are vulnerable to COVID-19 globally.	analyses of the aging population with air travellers and air pol-	Good Health (#3)
(19)	China	water pollution	· · · J · · · · · · · · · · · · · · · ·	Clean Water and Sanitation (#6)
(20)	Nepal	job loss, disruption in the food supply chain	generating employment and income-earning opportunities to build a resilient food system	All 17 items of SDG

they are: (1) saving lives threatened by pandemic; (2) protecting the poor and vulnerable; (3) encouraging save jobs and businesses; (4) building a more resilient recovery (4).



TABLE 3: (Continued).

Authors	Countries/ Regions in Asia	Problems to be solved	Initiatives	Focus on SDGs Item
(21)	Bangladesh	fled from Myanmar	socio-psychological values and cultural narratives and recommends a set of guidelines for policymakers and aid agencies to build	Health (#3); Clean Water and Sanitation (#6)
(22)	Bangladesh	deforestation, a significant reduction in income and employment, leading to collapse of the tourism industry.	forestating conserva-	Good Health (#3); Life on Land (#15)

Source: processed data (2021)

TABLE 4: The Results of Middle-Range Theory.

SDGS Item	Authors	Number of Publications
SDG#1	(8); (10); (12); (20); (21)	5
SDG#2	(8); (9); (10); (15); (16) ; (20); (21)	7
SDG#3	(14); (15); (18); (20); (21); (22)	6
SDG#4	(20)	1
SDG#5	(20)	1
SDG#6	(11); (13); (14); (17); (19); (20); (21)	7
SDG#7	(11); (20)	2
SDG#8	(9); (10); (20)	3
SDG#9	(12); (Joshi et al., 2021)	2
SDG#10	(20)	1
SDG#11	(12); (14); (20)	3
SDG#12	(11); (14); (20)	3
SDG#13	(10); (14); (20)	3
SDG#14	(10); (14); (20)	3
SDG#15	(10); (14); (20); (22)	4
SDG#16	(12); (20)	2
SDG#17	(10); (20)	2

Source: processed data (2021)

During the hard time due to COVID-19 pandemic, most of Asian countries keep struggling to achieve all items of seventeen SDGs. According to the results of this study, it is shown that the most-concerned items of SDGs that are in the top priority to be addressed are *No Hunger*, *Clean Water and Sanitation*, *Good Health*, and *No* 



*Poverty.* Thus, we can suggest the government of Asian countries to pay more attention and focus on the efforts of improving food supply chain, cleanliness of environment, water, sanitation, hygiene (WASH) services, and poverty eradication. While the items of *Quality Education, Gender Equality,* and *Reduced Inequalities* are in the lowest priority during the COVID-19 pandemic in Asia.

## 5. Conclusion

Among the seventeen items of SDGs, *No Hunger* (SDG2), *Clean Water and Sanitation* (SDG6), *Good Health* (SDG3), and *No Poverty* (SDG1) are top-priority issues to be solved during COVID-19 pandemic in Asia. It shows that the recovery of pandemic impacts in Asia must be focused on basic needs of human, i.e. food and health.

Since this conceptual paper is still on the early stage of research, so that it has some limitations that must be improved in the future. This study leads to implications for further research in the form of quantitative empirical studies to validate the mapping of the focus on SDGs items to resolve COVID-19 pandemic impacts in Asia.

### References

- [1] World Health Organization. WHO Coronavirus (COVID-19) Dashboard. https://covid19.who.int/. 2021.
- [2] ravenpack.com. Geographical Exposure. https://coronavirus.ravenpack.com. 2021.
- [3] OECD. Global Outlook on Financing for Sustainable Development 2021 [Internet]. OECD; 2020 [cited 2021 Dec 1]. Available from: https://www.oecd-ilibrary.org/development/global-outlook-on-financing-for-sustainable-development-2021\_e3c30a9a-en
- [4] The World Bank. World Bank Group COVID-19 Crisis Response. https://www.worldbank.org/en/news/infographic/2020/11/17/world-bank-group-covid-19-crisis-response. 2020.
- [5] Asian Development Bank. Asian Development Outlook Update, September 2021 Economic Forecasts. https://www.adb.org/outlook. 2021.
- [6] Indonesia CN. Kabar Buruk, IMF Pangkas Proyeksi Pertumbuhan Ekonomi Asia. https://www.cnbcindonesia.com/news/20211020092742-4-285190/kabarburuk-imf-pangkas-proyeksi-pertumbuhan-ekonomi-asia. 2021.
- [7] Swanson RA, Chermack TJ. Theory Building in Applied Disciplines. San Francisco: Berrett-Koehler Publishers, Inc.; 2013.



- [8] Kumar P, Singh SS, Pandey AK, Singh RK, Srivastawa PK, Kumar M, et al. Multi-level impacts of the COVID-19 lockdown on agricultural systems in India: the case of Uttar Pradesh. Agric Syst. 2021;187:187.
- [9] Fang P, Belton B, Zhang X, Win HE. Impacts of COVID-19 on Myanmar's chicken and egg sector, with implications for the sustainable development goals. Agric Syst. 2021:190:190.
- [10] Davila F, Bourke RM, McWilliam A, Crimp S, Robins L, van Wensveen M, et al. COVID-19 and food systems in Pacific Island Countries, Papua New Guinea, and Timor-Leste: opportunities for actions towards the sustainable development goals. Agric Syst. 2021 Jun;191:103137.
- [11] Singh V, Mishra V. Environmental impacts of coronavirus disease 2019 (COVID-19). Bioresour Technol Rep. 2021 Sep;15:100744.
- [12] Goh HC. Strategies for post-Covid-19 prospects of Sabah's tourist market Reactions to shocks caused by pandemic or reflection for sustainable tourism? Research in Globalization; 2021. p. 3.
- [13] Giné-Garriga R, Delepiere A. COVID-19 water, sanitation, and hygiene response: Review of measures and initiatives adopted by governments, regulators, utilities, and other.
- [14] Mallick SK, Pramanik M, Maity B, Das P, Sahana M. Plastic waste footprint in the context of COVID-19: reduction challenges and policy recommendations towards sustainable development goals. Sci Total Environ. 2021 Nov;796:148951.
- [15] Picchioni F, Goulao LF, Roberfroid D. The impact of COVID-19 on diet quality, food security and nutrition in low and middle income countries: A systematic review of the evidence. Clin Nutr. 2021.
- [16] Fan S, Teng P, Chew P, Smith G, Copeland L. Food system resilience and COVID-19
  Lessons from the Asian experience. Glob Food Secur. 2021;28:28.
- [17] Shermin N, Rahaman SN. Assessment of sanitation service gap in urban slums for tackling COVID-19. Journal of Urban Management. 2021;10(3):230–41.
- [18] Abbas HS, Xu X, Sun C, Ullah A, Gillani S, Raza MA. Impact of COVID-19 pandemic on sustainability determinants: A global trend. Heliyon. 2021 Feb;7(2):e05912.
- [19] Qiao X, Schmidt AH, Xu Y, Zhang H, Chen X, Xiang R, et al. Surface water quality in the upstream-most megacity of the Yangtze River Basin (Chengdu): 2000–2019 trends, the COVID-19 lockdown effects, and water governance implications. Environmental and Sustainability Indicators. 2021;10.



- [20] Joshi T, Mainali RP, Marasini S, Acharya KP, Adhikari S. Nepal at the edge of sword with two edges: the COVID-19 pandemics and sustainable development goals. J Agric Food Res. 2021 Jun;4:100138.
- [21] Akter S, Dhar TK, Rahman Al, Uddin MK. Investigating the resilience of refugee camps to COVID-19: A case of Rohingya settlements in Bangladesh. J Migr Health. 2021 Jun;4:100052.
- [22] Rahman MdS. Alam MdA, Salekin S, Belal MdAH, Rahman MdS. The COVID-19 pandemic: A threat to forest and wildlife conservation in Bangladesh? Trees For People. 2021