# The Takeaway

Policy Briefs from the Mosbacher Institute for Trade, Economics, and Public Policy

# Humanitarian Response to COVID-19

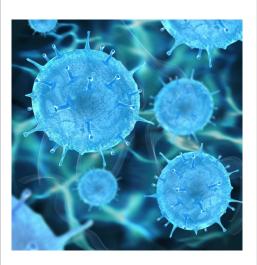
## A Discussion of Challenges in Disaster Management for Developing Countries

ANDRES F. JOLA-SANCHEZ Mays Business School, Texas A&M University

With unprecedented travel bans, full lockdowns, supply chain disruptions, and business shutdowns, COVID-19 is proving to be one of the most significant global threats after WWII. In this article, I discuss challenges for developing countries along the disaster management lifecycle, and propose public policy actions to support their disaster management strategy.

The COVID-19 spread has scored extraordinary hits to the global economy, with cost estimates upwards of trillions of dollars.<sup>1</sup> While the pandemic is striking the economy with unparalleled force, policymakers should recall that COVID-19 is primarily a *humanitarian crisis*, a global threat that is leaving thousands of deaths and hundreds of thousands of victims.

*Developing countries*<sup>2</sup> are at the most risk in this disaster. Clearly, developed nations also suffer and struggle to contain the disease, but developing nations are home to 85% of the global population and have the weakest response systems.



### WHAT'S THE TAKEAWAY?

COVID-19 will cost the global economy trillions of dollars and exacerbate unrest and violence in developing nations.

Policy recommendations:

- Pre-position COVID-19 testing infrastructure in high-risk regions.
- Improve multiagency coordination systems.
- Address food chain vulnerabilities.
- Provide relief for small and informal businesses.
- Boost cross-country cooperation and communication.

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COVID-19 is the second pandemic of the 21st century. The first was the 2009-2010 swine flu pandemic that left at least 100,000 dead. Mortality rates from previous pandemics indicate that developing nations are at the most risk.<sup>3</sup> As COVID-19 spreads globally—reaching fragile, conflict-torn countries in in Africa, Asia, the Middle East, and Latin America—travel bans, lockdowns, and social distancing policies may exacerbate social unrest and violence.<sup>4</sup>

Disasters such as COVID-19 raise critical challenges across the disaster management lifecycle. Figure 1 illustrates the dynamic of the four components of this cycle: (i) preparedness, (ii) response, (iii) rehabilitation, and (iv) mitigation. These components carry forward the relief and development strategy.<sup>5</sup>

#### PREPAREDNESS

Governments typically prepare by reducing the expected impact of a disaster. Reducing the impact of COVID-19 is particularly challenging in developing countries because these countries face critical capacity and coordination issues.

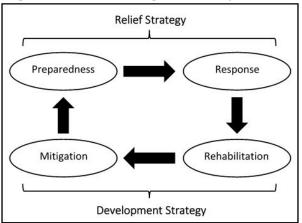
Some developing countries simply cannot provide the minimum sanitary conditions to contain COVID-19 or properly care for their victims. Research led by Johns Hopkins University finds that nearly one-third of hospitals in developing countries lack running water. These hospitals truck in water or use rainwater.<sup>6</sup>

COVID-19 spreads silently using asymptomatic virus carriers, so the virus spreads fast and undetected. To contain COVID-19 infection, health experts recommend early and systematic testing, but the lack of infrastructure, shortage of medical equipment, and scant COVID-19 labs make that very difficult in developing countries. For many, it is merely unaffordable. For others, it is simply inconvenient amidst ongoing conflicts, where the virus can be an instrument of military or political power. Thus, in fragile and conflict contexts with rising indebtedness<sup>7</sup> and a rising US dollar,<sup>8</sup> many countries lack the purchasing power or managerial capacity to enhance their response infrastructure.

Developing countries should prioritize strict measures to prevent and stop the propagation of the virus. To reduce delays in containing the disease, those that can afford capacity expansions, should work to match supply with potential demand by pre-positioning COVID-19 testing infrastructure in high-risk regions.

Preparing the response strategy requires multiagency coordination, a feature lacking in many developing countries where corruption and political instability run rampant. Responding to COVID-19 requires that multiple organizations-both public and private-share inforand responsibilities. Developingmation country governments should prepare information-sharing systems that provide central planners and essential response officers the data needed for adequate decision-making during a disaster. Research shows that multiagency coordination organizations—like US healthcare coalitions—can improve the public sector's dis-





Source: Based on Tomasini and Van Wassenhove (2009).

aster response capacity, especially when agencies face binding capacity constraints.<sup>9</sup>

#### RESPONSE

At the response phase, governments aim to address the urgent needs of the population. The COVID-19 spread poses various challenges for the distribution of critical inventory and aid. Supply chain disruptions around the world impede adequate stockpiling of strategic inventory to contain the disease and treat the victims.

With global value chains disrupted and imports unaffordable, developing countries rely on local supply chains to maintain adequate levels of food and essential items. In these countries, however, food production and distribution rely on a large number of small producers and involve a large number of food handlers, leaving the food chains exposed to unhygienic environments and possible contamination.<sup>10</sup> The coronavirus disease may, therefore, spread quickly with the distribution of food and essential items.

Governments should guarantee that the most vulnerable populations get their supplies from sources meeting the government's quality standards by improving supplier-buyer communications and having agencies implement food safety guidelines and mechanisms to trace food chain handling.

#### REHABILITATION

During the rehabilitation stage, governments aim to restore the quality of life and rebuild. While rich countries have a better chance of a fast recovery, developing countries, including conflict and fragile nations, are disproportionally affected by the pandemic and have timesensitive rehabilitation needs. All sectors of the economy are hit by the COVID -19 spread—from tourism and airlines, to automotive and consumer products. With full lockdowns on the way, small businesses will take the hardest hit, and many of them will have difficulties restarting operations due to binding operational and capital constraints. In developing countries, the problem can be overwhelming because small and informal businesses are the majority, and governments cannot afford the audacious stimulus plans that wealthy nations offer to their small businesses. As a result, developing countries can fall into a spiral of poverty and inequity spanning generations.

To avoid a long-term "poverty trap," developing countries, with the help of the international community, should rush the recovery phase, helping both the informal and formal sectors of the economy. Research shows that when the recovery phase is slow, economic pain and deprivation costs are much more profound, partially because these families have precarious livelihoods even before a disaster strikes.<sup>11</sup>

#### **MITIGATION**

Finally, mitigation is the crucial stage to plan for reducing the risk of future disasters. Researchers cannot tell whether there will be multiple waves of the same (or a mutated) virus. The scientific community is also unsure of the virus' seasonality. If the spread of COVID-19 doesn't hit a barrier as summer approaches, or if a mutated virus appears, mitigating the impact of future waves of the disease will be very challenging.

With this uncertainty, mitigation success depends on the knowledge we can collect now about what we can do better tomorrow knowledge about the response strategy, the humanitarian logistics, the medical protocols,



etc. Humanitarian operations research suggests that knowledge and better practices emerge after high-impact disasters such as armed conflicts.<sup>12</sup> The problem is then how to disseminate this knowledge to developing nations. To improve communications, health agencies around the world should expand their cooperation and information-sharing with agencies in developing countries. The developed world should also work to establish communication channels to facilitate the continuous transmission of knowledge and best practices.

#### **FINAL REMARK**

In a world more connected than ever, it seems safe to assume that the virus is here to stay. Decisive public policy actions are needed to help the developing world *prepare, respond, rehabilitate, and mitigate* the potentially devastating and long-lasting consequences of this pandemic. We hope developed nations are now learning how to deal with this disaster more efficiently and effectively and recognize that sharing that knowledge and collaborating with the countries in the most need is essential for their own relief and development strategy. Andres F. Jola-Sanchez is Assistant Professor of Information and Operations Management at the Mays Business School at Texas A&M University and a Mosbacher Research Fellow. His research explores war and urban crisis in the field of operations management.

#### Notes:

<sup>1</sup> https://www.bloomberg.com/graphics/2020-coronavirus-pandemic-globaleconomic-risk/

<sup>2</sup> I define developing countries as low and middle-income countries.

<sup>3</sup> Murray, C. J., Lopez, A. D., Chin, B., Feehan, D., & Hill, K. H. (2006). Estimation of potential global pandemic influenza mortality on the basis of vital registry data from the 1918–20 pandemic: A quantitative analysis. *The Lancet, 368* (9554), 2211-8. DOI: 10.1016/S0140-6736(06)69895-4

<sup>4</sup> The coronavirus outbreak has sparked protests and violence in countries such as Brazil, Colombia, Egypt, Ukraine, and Venezuela. In Colombia, 23 people died on March 21, 2020, after tensions escalated at Bogota's largest jail.

<sup>5</sup> Tomasini, R., & Van Wassenhove, L. (2009). *Humanitarian Logistics*. UK: Palgrave Macmillan.

<sup>6</sup> Chawla, S.S., Gupta, S., Onchiri, F.M., Habermann, E.B., Kushner, A.L., & Stewart, B.T. (2016). Water availability at hospitals in low-and middle-income countries: Implications for improving access to safe surgical care. *Journal of Surgical Research*, 205(1), 169-178. DOI: 10.1016/j.jss.2016.06.040

<sup>7</sup> https://www.worldbank.org/en/news/press-release/2019/10/02/debt-stocks \_of-developing-countries-rose-to-78-trillion-in-2018-world-bank-international\_ debt-statistics

<sup>8</sup> https://www.cnn.com/2020/02/22/investing/us-dollar-three-year-high/ index.html

<sup>9</sup> Mills, A.F., Helm, J.E., Jola-Sanchez, A.F., Tatikonda, M.V., & Courtney, B.A. (2018). Coordination of autonomous healthcare entities: Emergency response to multiple casualty incidents. *Production and Operations Management*, *27*(1), 184-205. DOI: 10.1111/poms.12790

<sup>10</sup> <u>https://www.who.int/foodsafety/publications/guidelines-food-control/en/</u>
<sup>11</sup> <u>https://unchronicle.un.org/article/economic-recovery-after-natural-</u>
disasters

<sup>12</sup> Jola-Sanchez, A.F., Pedraza-Martinez, A.J., Bretthauer, K.M., & Britto, R.A. (2016). Effect of armed conflicts on humanitarian operations: Total factor productivity and efficiency of rural hospitals. *Journal of Operations Management*, 45, 73-85. DOI: 10.1016/j.jom.2016.06.002

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The Mosbacher Institute was founded in 2009 to honor Robert A. Mosbacher, Secretary of Commerce from 1989-1992 and key architect of the North American Free Trade Agreement. Through our three core programs–Global Markets and Trade, Energy, and Governance and Public Services–our objective is to advance the design of policies for tomorrow's challenges.

#### Contact:

Cynthia Gause, Program Coordinator Mosbacher Institute for Trade, Economics, and Public Policy Bush School of Government and Public Service 4220 TAMU, Texas A&M University College Station, Texas 77843-4220

Email: bushschoolmosbacher@tamu.edu Website: http://bush.tamu.edu/mosbacher



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