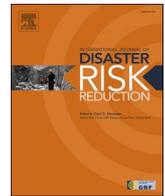




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## Editorial: Root causes and policy dilemmas of the COVID-19 pandemic global disaster

## 1. Introduction

Today the term “pandemic” is both a metaphor for a global process and a specific instance of that process. The process in question is a distorted form of development, whose expression in neoliberalism has produced in “pandemic” fashion colossal but highly concentrated wealth, enormous inequality and vast environmental destruction, with profound implications for the construction of risk to natural and anthropogenic hazards globally [1]. The specific instance is the COVID-19 pandemic, a global disaster the scale of which transcends ecological regions, national borders, economies, and societies, overwhelming their specific capacities to address disruption of societal functions. The current toll in total cases exceeds 32 million cases, 987,000 deaths [2], as of this writing, and could cost the global GDP up to \$82 trillion over five years [3].

The pandemic lays bare the interdependence, complexity and inequality created by the global system, linked in driving the catastrophe. With the increasing globalization of trade and migration, the intensification of linkages is also driving a globalization of biophysical phenomena that is creating problems, including disasters, across scales in space and in time [4]. As such, in addition to its epidemiology, we argue here that the COVID-19 pandemic should be analyzed holistically as a disaster.

## 2. A forensic perspective

Although disasters traditionally were depicted as sudden, unpredictable events, acts of nature, fate or some divine power, since the 1980s disasters have come to be understood not as one-off events, but rather as socially constructed processes unfolding over time, intimately related to ongoing social processes often associated with misinformed development [5]. Disaster triggering events obviously differ, but analogous approaches to development, privileging economic growth over social and environmental values and priorities are key factors in their occurrence. As in all disasters, the pandemic represents the materialization of underlying risk conditions. In that context, disasters in general now constitute a pandemic because a global population is facing a set of similar social and economic processes that coupled with systemic environmental hazards, generate disasters.

Understanding the COVID 19 pandemic as a disaster establishes relevance for policies for managing the multifaceted dimensions of risk. This understanding requires a transdisciplinary and integrated perspective based on the proposition that the causes of any problem must be addressed in order to develop effective solutions. Such a forensic approach seeks to identify the root causes that energize the risk

drivers that are ultimately expressed in conditions of vulnerability and exposure [5–9].

## 3. The configuration of risk

A forensic approach frames hazard, exposure and vulnerability as the central components of disaster risk. Derived from long-term historical and contemporary social, economic, cultural, political, environmental and institutional processes, disaster risk and disasters are directly linked to power structures and political and economic systems (Blaikie et al., 1994; [5]). The risk associated with the pandemic has accumulated through the concatenation of a range of processes, within and across territorial and governance scales.

### 3.1. Hazard

The virus is not in itself a hazard, until it encounters an exposed and vulnerable population. Due to the rapid exposure to the virus, however, and inadequate initial responses in many national contexts, COVID-19 poses a risk that is extensive, global and transnational in character. Moreover, the pandemic has characteristics of sequential and cascading risk of mortality and morbidity, overwhelming stress on public health systems, and widespread interruption of economic activity and social services.

### 3.2. Exposure

Exposure to COVID-19 is mediated through the structure of the global economic system. The degree and nature of integration of countries and their cities into the global economy modulate flows of people and, therefore, of contagion, primarily, but not exclusively, through air travel. The populations of metropolitan cities like New York or London likely suffered greater exposure because they live in key nodes in the global economy at high density levels [10]. By virtue of their strategic importance, greater connectivity was stimulated by the development of global markets. However, that connectivity is also characterized by social inequalities that skew development towards some and away from others. In addition, international travel, voluntary and involuntary human displacements, including those of refugees, migration patterns and population hubs effectively involve a notion of places as coupled, in which those social interactions construct greater exposure [11].

Exposure is also configured by the organization of territory, urban space and land use. When people live crowded in small housing units in multi-family buildings in dense urban slums and informal settlements serviced mostly by public transport, social distancing becomes next to

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impossible. Occupations, such as service workers in general, and many in informal sector activities involve close contact with the public has imposed greater risk on specific populations in a pandemic. In the United States, for example, the exposure of African Americans through their occupations in lower paid service jobs is underscored by fatality rates well beyond their representation in the total population [12]. Cultural and social interactional forms and patterns also may modify exposure and may also support or undermine policies such as social distancing. Governments, in turn, have in some cases shown themselves to be unwilling to institute strategies that run counter to specific ideological frames and local cultural norms.

### 3.3. Vulnerability

As is well known, disaster risk is also shaped by the vulnerability of individuals and social groups. In the COVID 19 pandemic everyone is susceptible to the virus, but not everyone is vulnerable in the same way or to the same degree. Some aspects of susceptibility in the pandemic are related to genetics, aging and morbidity, but can be exacerbated by socially constructed conditions such as, malnutrition, addiction and poverty which are dimensions of vulnerability rooted in processes such as corruption, inequality, lack of access to services such as healthcare, sanitation, and education due to public and private sector funding policies and development priorities. While these factors may combine with pre-existing conditions, particularly among the elderly, exposure to the hazard may increase in low income nations of the South with younger populations, due to poverty and related health conditions, thus also increasing the pandemic's impact.

### 4. Policy responses

The massive response to COVID-19 can be explained, at least in its first wave, because the pandemic has affected principally those nations that play powerful roles in the world economy. It is arguable that the political and economic imperative to manage the COVID-19 pandemic arises from the priorities of critical nodes in the world economy and its value chains [10]. Thus far there have been two main types of risk management policies. Policies have been implemented, with varying degrees of success or failure, primarily to address the risks of morbidity and mortality through forms of epidemiological control, policies of confinement, social distancing, mask wearing and through strengthening public health services to avoid system collapse. A second type of risk management policies, launched by many governments and regional and multilateral organizations, basically aims at ameliorating the economic impacts of the first set of strategies and include fiscal and monetary measures to mitigate the impact of health risk management actions. Deferral of tax payments, partial payment of salaries, and injection of liquidity into financial systems have also been used to diminish the impact of lost revenues on both the population and the economic system. While unquestionably effective in staving off the most acute economic impacts for impacted populations, the political viability of such options has placed the necessary continuation of many of these strategies in doubt as the pandemic progresses into subsequent phases.

Since health care is a universal human right [13], the dilemma at the most basic level is how to reconcile these two sets of policies without diminishing the effectiveness of either, such as it is so far. This tension is further complicated by the fact that morbidity and mortality are experienced locally, but the economic impacts are also national and global. Moreover, both sets of policies obviously bring with them their own sets of risks that are experienced differently in each country and within different social groups. The economic and social risks of prolonged confinement are likely to be much greater for informal workers, migrants, and homeless people, amongst others, who lack space to work remotely and care for children at home. For these sectors, it is possible that reducing the risk of infection from COVID-19 ends up creating more risk than does ignoring recommendations for confinement to ensure

income and daily sustenance.

From this perspective, the supposedly neutral and technocratic management of risk to lives, health systems and the economy foregrounds the conflict between a health care system designed to heal and an economic system that considers monetary loss as the greater danger. Hardly concealed is a transfer of risks from those social and economic sectors that will most benefit from flattening the curve and economic reactivation to those who will face more risks and receive fewer benefits. However, the huge operational dilemma between addressing the mortality and morbidity from COVID-19 and the ensuing massive social and economic loss and damage from economic slowdown need to be unpacked carefully and shown to be a false choice. Without a healthy producing and consuming population, there will be little economic recovery.

### 5. Future challenges

The ongoing disaster cannot be explained by a virus per se but rather as a consequence of preexisting risk conditions and management policies. Disasters generally reveal that without reducing inequality, poverty, and exclusion, those most affected will see their risk increase [14]. The COVID 19 pandemic demonstrates this point at a global level. In that context, transforming the underlying risk factors is a global challenge. There is a tension that all post disaster reconstruction efforts face between reinstalling the flawed prior system and addressing its endemic problems that created the disaster in the first place. Specifically, should public intervention aim to restore the same economic model that consistently prioritizes short term gain over long term human and environmental security, or rather, direct efforts toward transforming the model toward reducing future risk and addressing social inequalities exposed by the pandemic and other types of disaster and crisis? Such a transformation means seriously addressing and eliminating current inadequacies of governance, the economic system, global inequities in economic, social, racial, cultural, gender and other domains; protection and preservation of the global environment, security, displacement of populations, and others. The magnitude of addressing these root or underlying causes is enormous and the challenge of coming to grips with such endemic conditions, deeply embedded and entrained in and through national and international systems, is daunting to say the least.

Yet, perhaps there is hope to be found in some of the initial responses to the emergence of the COVID 19 virus and pandemic. The pandemic has revealed that what was "normal" is the source of vulnerability and exposure, thus requiring policies to enact the necessary transformational responses to health, climate, and other disaster risks now. The early stages of the pandemic also showed that financial resources can be made available at a level thought impossible as little as six months ago. It has also revealed that a significant political will, normally conspicuously absent in dealing with other global issues can be mobilized to address a global crisis. And it has shown that strong and effective measures to reduce contagion risk can be made where social institutions and political structures are competent, well organized and supported. The longer term durability of such measures, however, is absolutely essential for success in combatting the virus. While the epidemiological perspective is obviously essential, framing the pandemic as a disaster alerts us to the significance of the causal chain of root causes and risk drivers and their interactions with existing or novel hazards, both across and within territorial and governance scales.

The inescapable political character of social constructs thus reflects strong global centrifugal forces urging a transformational change. An integrated comprehension of the global and the local as different but complementary spheres of action, in which phenomena such as Climate Change [15] and the COVID-19 pandemic are framed as socially constructed risks is essential to move to a new and different normal, transforming the way the global geopolitics and economics are constructed. Unquestionably, the pandemic will change the world: perhaps

for the better, if it leads to policies that address the underlying risk drivers, or for worse if it furthers greater authoritarianism, suppression of individual guarantees and rights, exacerbation of inequality and protection of entrenched economic and financial interests over and above human security. In effect, the pandemic has both demonstrated a dire need and opened a window of opportunity to move both national and global systems toward more just and equitable conditions.

#### Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

#### References

- [1] T. Dickinson, I. Burton, The disaster epidemic: research, diagnosis, and prescriptions, in: U. Fra Paleo (Ed.), Risk Governance, Springer Science+Business Media, Dordrecht, 2015, pp. 185–200.
- [2] JHU (Johns Hopkins University), COVID-19 dashboard by the center for systems science and engineering (CSSE) at Johns Hopkins University (JHU). <https://coronavirus.jhu.edu/map.html>.
- [3] Centre for Risk Studies (University of Cambridge, Judge Business School), The GDP@Risk over Five Years from COVID-19 Could Range from \$3.3 Trillion to \$82 Trillion, Says the Centre for Risk Studies, 2020. <https://www.jbs.cam.ac.uk/insight/2020/economic-impact/>.
- [4] C.S. Holling, An ecologist's view of the malthusian conflict, in: K. Lindahl-Liessling, H. Landberg (Eds.), Population, Economic Development and the Environment, Oxford University Press, New York, 1994.
- [5] B. Wisner, Blaikie, T. Cannon, I. Davis, At Risk: Natural Hazards, People's Vulnerability and Disasters, second ed., Routledge, New York, 2004.
- [6] I. Burton, Forensic disaster investigations in depth: a new case study model, Environment 52 (5) (2010) 36–41.
- [7] I. Burton, The forensic investigation of root causes and the post-2015 framework for disaster risk reduction, International Journal of Disaster Risk Reduction 12 (2015) 1–2.
- [8] A. Oliver-Smith, I. Alcántara-Ayala, I. Burton, A.M. Lavell, Forensic Investigations of Disasters (FORIN): a Conceptual Framework and Guide to Research (IRDR FORIN Publication No.2), Integrated Research on Disaster Risk, Beijing, 2016, p. 56.
- [9] A. Oliver-Smith, I. Alcántara-Ayala, I. Burton, A.M. Lavell, The social construction of disaster risk: seeking root causes, International Journal of Disaster Risk Reduction 22 (2017) 469–474.
- [10] A. Lavell, A. Maskrey, E. Mansilla, F. Ramirez, The Social Construction of the COVID-19 Pandemic: Disaster, Risk Accumulation, and Public Policy, 2020. <http://desenredando.org>.
- [11] K. Newland, Lost in transition, Science 368 (6489) (2020) 343, 24 Apr 2020.
- [12] APM Research Lab, The Color of Coronavirus: COVID 19 Deaths by Race and Ethnicity in the US, 2020. <https://www.apmresearchlab.org/covid/deaths-by-race>.
- [13] T.A. Ghebreyesus, Health Is a Fundamental Human Right. Human Rights Day Statement 2017, WHO, Geneva, 2017.
- [14] J. von Braun, S. Zamagni, M. Sánchez Sorondo, The moment to see the poor, Science 368 (6488) (2020) 214, 17 Apr 2020.
- [15] D. Rosenbloom, J. Markard, A COVID-19 recovery for climate, Science 368 (6490) (2020) 447, 01 May 2020.

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