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COVID-19, poverty and inclusive development

Joyeeta Gupta *, Maarten Bavinck, Mirjam Ros-Tonen, Kwabena Asubonteng, Hilmer Bosch, Edith van Ewijk, Michaela Hordijk, Yves Van Leynseele, Mieke Lopes Cardozo, Esther Miedema, Nicky Pouw, Crelis Rammelt, Joeri Scholtens, Courtney Vegelin, Hebe Verrest

Amsterdam Institute for Social Science Research (AISSR), University of Amsterdam, Nieuwe Achtergracht 166, Postbus 15629, 1001 NC Amsterdam, The Netherlands

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ABSTRACT

The COVID-19 epidemic provides yet another reason to prioritize inclusive development. Current response strategies of the global community and countries expose a low level of solidarity with poorer nations and poorer people in all nations. Against this background, this paper addresses the question: What are the development challenges that the COVID-19 pandemic lays bare and what lessons can be learnt for the way recovery processes are designed? Using an inclusive development and DPSIR lens to assess the literature, our study finds that, first, the current response prioritises the 'state' and 'impact' concerns of wealthier classes at the expense of the remainder of the world population. Second, responses have ignored underlying 'drivers' and 'pressures', instead aiming at a quick recovery of the economy. Third, a return to business-as-usual using government funding will lead to a vicious cycle of further ecological degradation, socio-economic inequality and domestic abuse that assist in exacerbating the drivers of the pandemic. We argue instead for an inclusive development approach that leads to a virtuous cycle by emphasizing human health, well-being and ecosystem regeneration. We conclude that the lost years for development did not commence in 2020 with the onset of COVID-19; the downward trend has actually been waxing over the past three decades. From this perspective, COVID-19 may be the shock needed to put the last first and transform vicious into virtuous cycles of inclusive development.

1. Introduction: COVID-19 and development

COVID-19 has exposed the weaknesses of societal governance and critical flaws in the global socio-economic system. When this crisis passes, will global governance systems be redesigned, or return to business-as-usual and relegate COVID-19 as an inconvenient episode in history? This is the larger development question facing us.

The international Agenda 2030 (UNGA, 2015: #26) and its Sustainable Development Goals (SDGs) aims to "accelerate the pace of progress made in fighting ... communicable diseases and epidemics," and increase "access to affordable essential medicines and vaccines" (#3b), end epidemics by 2030 (Target 3.3) and achieve universal health coverage (Target 3.8). This schedule, that was established before the pandemic unfolded, provides only a short time span within which to achieve health goals. More fundamentally, it lacks a conceptually-grounded analysis to address issues of social, ecological and relational inclusiveness, which lie beneath the present crisis.

Against this background, we argue that COVID-19 has not just presented a crisis in itself, but more fundamentally, it has exposed and illuminated a series of underlying crises that were already present in the pre-COVID system. This paper therefore addresses the question: What are the development challenges that the COVID-19 pandemic reveals and what lessons can be learnt for the future? Applying an inclusive development lens and the DPSIR framework (see Section 2) we review the literature to assess the Drivers (indirect causes) and Pressures (direct causes) of the pandemic; the State or human exposure to risk, and Impact or effect on humans (see Section 3). We then examine the Response strategies which should theoretically be tailored to address drivers, pressures, state and impact and their effects on society (see Section 4). Methodologically, our approach has been to undertake an interdisciplinary discursive review of the literature in line with our framework. Since the team of authors have different specializations within international development studies ranging from environmental

* Corresponding author.
E-mail addresses: J.Gupta@uva.nl (J. Gupta), J.M.Bavinck@uva.nl (M. Bavinck), M.A.F.Ros-Tonen@uva.nl (M. Ros-Tonen), K.O.ASUBONTENG@uva.nl (K. Asubonteng), H.J.Bosch@uva.nl (H. Bosch), e.vanewijk@uva.nl (E. van Ewijk), M.A.Hordijk@uva.nl (M. Hordijk), Y.P.B.vanLeynseele@uva.nl (Y. Van Leynseele), T.A.LopesCardozo@uva.nl (M. Lopes Cardozo), E.A.J.Miedema@uva.nl (E. Miedema), N.R.M.Pouw@uva.nl (N. Pouw), C.F.Rammelt@uva.nl (C. Rammelt), J.Scholtens@uva.nl (J. Scholtens), c.l.vegelin@uva.nl (C. Vegelin), H.J.L.M.Verrest@uva.nl (H. Verrest).

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studies, poverty and inequality studies, gender studies, health studies, education studies we have each combed the literature in our own fields that was relevant for this analysis. Our analysis of the literature reveals that a key underlying driver (i.e. the narrow focus on GDP recovery) of biodiversity loss and COVID-19 and two key causes of vulnerability (inadequate public health systems and securitization of the problem) are being inadequately addressed in the current recovery process which focuses on the symptoms of the problem, rather than considering the structural underlying causes (see Section 5).

2. An inclusive development (ID) and DPSIR framework for COVID-19

2.1. Introduction

We choose the inclusive development (ID) lens because it defines three interlinked dimensions - social inclusiveness, ecological inclusiveness, and relational inclusiveness, which are then used to assess (economic) challenges. By foregrounding the well-being of marginalized nations and people, and treating ecosystem regeneration as a public and merit good, ID proposes an alternative response to COVID-19. ID challenges the mainstream sustainable development debate and its social, ecological and economic pillars, arguing that making trade-offs between these pillars generates solutions that frequently prioritize economic growth (or 'weak sustainability', Gutés, 1996). Growth calculated through national accounting systems ignores Nature's Contributions to People (NCP) (Díaz et al., 2018) and aggregates data assuming that maximizing individual wealth translates into maximum social welfare (Pouw, 2020). However, if economic growth often drives environmental problems (Ekins et al. (eds.), 2019), and neo-liberal capitalism often concentrates wealth, externalizes socio-ecological harm and promotes both lean governments and deregulation (Büscher & Fletcher, 2020), then an *a priori* and unconditional commitment to economic growth should be rejected. Economic growth as measured by GDP in an increasingly deregulated world cannot be both a driver of unsustainable and exclusionary development and an element that one wishes to maximize. While a rise in lower incomes is desirable and will translate into expanding GDP, GDP growth does not necessarily mean poverty reduction. As many as 70% of the world's poor inhabit countries that have experienced strong GDP growth rates but have not necessarily benefited from them (Sumner 2016). Moreover, while economic issues are important, if the economy does not serve the interests of half the world population living on less than $5.50 per day and comes at the cost of the environment, then it is time to revisit our economic system.

However, policymakers are afraid to delink growth from development as GDP remains a flagstone indicator and a key to membership and voting power in global institutions (Fioramonti, 2013). Countries and institutions therefore increasingly adopt 'inclusive growth' as a more social driven growth agenda, aiming to include the poor into market production (de Mello & Dutz, 2012; Anand et al., 2014). ID, in contrast, emphasizes poverty thresholds and sustainability constraints and proposes non-market solutions instead. This ambivalence between the need to transform development (leaving no one behind) and the need for growth is evident in Agenda 2030 (UNGA, 2015), which - despite its 41 references to inclusion - mentions growth 16 times (Gupta & Vegelin, 2016). The creative compromise between those prioritizing socio-ecological issues and those emphasizing economic growth, masks deeper contradictions (Koehler, 2016; Fletcher & Rammelt, 2017; Spencer et al., 2018). The distribution of growth, i.e., concerning the just distribution of income and wealth, as well as the quality of growth, i.e. concerning the social and environmental conditions, under which growth is realized, matter more than growth per se.

Hence, others discard 'growth' in favour of the paired term 'inclusive development'. ID is defined as "development that includes marginalized people, sectors and countries in social, political and economic processes for increased human well-being, social and environmental sustainability, and empowerment" (Gupta et al., 2015, p. 546). ID goes beyond established standpoints, which stop at social inclusiveness and pro-poor policy under the banner of inclusive growth (UNDESA, 2010; de Mello & Dutz, 2012; World Bank, 2013) and insists that without ecological and relational inclusiveness, development will be one-sided (Bavinck & Gupta, 2017; Gupta et al., 2015; Pouw & Gupta, 2017). ID ensures access to the minimum means of living a dignified life and the fair allocation of remaining resources, risks, and related responsibilities (Gupta & Lebel, 2010/20).

2.2. Social Inclusiveness/justice

The COVID-19 pandemic raises uneasy questions pertaining to equity, equality and distributional justice. The latter has two dimensions: access and allocation (Gupta & Lebel, 2010, 2020). Social inclusiveness would enable people to *access*, inter alia, public goods and services critical for a dignified life and takes a rights-based approach especially as 1.9 and 3 billion people have less than USD (PPP) 3.20 and 5.50 respectively a day (World Bank, 2018) to cover their basic needs. Basic needs include food, water, energy, health, education, income and work, and other tangible and intangible items (Raworth, 2017; Agenda 2030). Social inclusiveness also refers to the fair *allocation* of remaining resources, risks and responsibilities among social categories, countries and generations. Without fair *allocation*, meeting *access* becomes very difficult (Gupta & Lebel, 2020). Enhancing social inclusiveness goes beyond an understanding of who is vulnerable: it analyses the drivers that lead to such vulnerability and allow others to dominate access and command over resources in the market and non-market domains (Mikulewicz, 2018: Eriksen et al., 2015; Klepp & Chavez-Rodriguez, 2018).

Specifically regarding health, social inclusiveness implies that people should have access to a minimum of water/sanitation/hygiene (WASH) services, food, shelter, education, energy, ICT, and affordable/free healthcare services. Good basic health reduces vulnerability to disease. Furthermore, vulnerability requires examining risk exposure (Bassett & Fogelman, 2013; Barrowman & Kumar, 2018).

2.3. Ecological Inclusiveness/justice

Ecological inclusiveness is about the ability to rely on Nature's Contribution to People (NCP), which includes the material, non-material and regulating services of nature and redefines the existing concept of ecosystem services (Díaz et al., 2018). About 70% of the poorest 1.2 billion people in the world survive using NCPs; 2.5 billion derive livelihoods from NCPs; 3.2 billion people are affected by land degradation (Ekins et al., 2019). Human beings, and especially the poor, depend on clean air and water, fertile land, free seeds, healthy biodiversity with pollinators, a predictable weather system and the services of nature in terms of disease control. The SDGs (UNGA, 2015) emphasize access to clean water and living environments, land and green spaces, and access to marine and coastal resources for artisanal fishers. Human rights law increasingly recognizes rights with respect to a clean environment and climate change. Allocation questions include: How will the remaining land, water, forests, fisheries, and biodiversity and other material services be distributed and benefits shared? How are risks divided? How will the responsibilities for material, non-material and

regulating services be arranged? If markets allocate the remaining resources, the wealthy can monopolize them; in fact the richest 1% already control 65% of global land resources (IAASTD, 2019).

In the field of health, about 25% of the global burden of disease can be attributed to environmental degradation (Landrigan et al., 2017); 7 and 1.4 million people die annually from preventable air and water pollution respectively; and disasters killed 0.7 million people and affected 1.7 billion people between 2005 and 2015 (Ekins & Gupta, 2019). Zoonotic disease, mentioned above, is also a key challenge, not least because unlike other health impacts, such disease is infectious and can travel around the world. The worst impacts fall on those with poor health, who are very young or very old, and who live in informal settlements (Arabindoo, 2016; Verrest et al., 2020; Pouw et al., 2020). Such impacts can be translated into financial costs: air pollution leads to medical expenses (e.g. USD 21 billion in 2015), and productivity and income losses of USD 4.6 trillion. Loss of ecosystem functions may cost 7% of global GDP (USD 14 trillion) by 2050 (Ekins et al., 2019). Loss of biodiversity, a driver of zoonosis such as COVID-19 (see 3.2), can inflate the above-mentioned costs. Implementing the precautionary principle is critical here to ensure that risks are not externalized.

2.4. Relational Inclusiveness

Relational inclusiveness is about the relations between humans within households through to international relations and the underlying mechanisms that perpetuate socio-ecological exclusion and inequality: in 2018 the wealth of the poorest half of humanity fell by 11%, while billionaires' wealth' increased by $900 billion (Lawson et al., 2019). Relational inclusiveness is about access to recognition, representation, participation, decision-making and judicial remedies; and about how power is allocated from local to global levels. It is also about how countervailing powers (e.g. social movements) may emerge to control a possible abuse of power (e.g. through demanding Constitutions, rule of law, balance of power). Equity in healthcare delivery may entail equitable representation of stakeholders in key decision-making bodies such as national health care boards (Akmal & Gauld, 2021).

Relational inclusiveness sees health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948: 1). Health is affected by relational issues ranging from gender-based violence to the monopolies created by medical patents. Relational inclusiveness examines how the health sector affects health equity and intersects with other sectors (Spencer et al., 2018). Global health organizations formulate strategies for improving health conditions; in this light, the COVID-19 pandemic may require a reorganization of such strategies, with poorer countries having to move from a vertical public health system to public–private collaborations that are more horizontal and responsive (Khan et al., 2021); but these should also be affordable.

2.5. The DPSIR model

We combine the above ID-framework with the DPSIR model – which has been used for over 20 years by the European Environment Agency and UNEP – to analyse the environment and development challenges of the COVID-19 pandemic. This linear model has become increasingly circular (e.g. Elliott et al. 2017) and now integrates equity (Gupta et al., 2020) after long overreliance on aggregate data, a tendency to reproduce inequalities (Carr et al., 2007) and ignorance of contextual issues (Pascual et al., 2014). The model requires an assessment of the underlying drivers of a problem, the direct causes of a problem, the state of the environment or vulnerability to a problem, the impacts of the problem on people and response strategies that address each of these elements of the problem. Merely addressing the impacts of a problem or the pressures causing a problem results in a symptomatic approach; for a long lasting effect, the drivers and state of vulnerability need to be addressed.

2.6. Integrating Inclusive Development and DPSIR

Since the DPSIR model has been critiqued for being apolitical (Gupta et al., 2020), but enables a good analysis of existing problems, we combine our ID and DPSIR approach in order to provide a framework for our analysis of the literature (see Table 1). Although this framework is qualitative in nature, it embeds its normative stance firmly within the SDGs in Agenda 2030.

3. Drivers and Pressures, State and Impact of COVID-19

3.1. Drivers and Pressures

We now assess the literature on COVID-19 using an ID and DPSIR lens. COVID-19 is a zoonotic disease, transferred from animals to humans. Zoonotic diseases constitute about 60% of infectious diseases (Ekins et al. (eds.), 2019) and 75% of new infectious disease (Salyer et al., 2017). Between 1990 and 2010, zoonosis - also including yellow fever, SARS and ebola - killed about 1 million people annually (WHO EMRO, 2020), made billions ill, and cost billions of dollars (Karesh et al., 2012). It results partly from biodiversity loss and greater human-wildlife interaction (Chakroborty & Maity, 2020; Gillespie et al., 2008).

The Global Environment Outlook-6 shows that the drivers of biodiversity loss include the pursuit of economic growth as measured by GDP, technologies facilitating such growth, climate change, and demographic trends (Ekins et al. (eds.)(2019). Pressures are land-use change, pollution, resource overuse, and invasive species. These drivers and pressures can be attributed to: (a) systemic social and relational exclusiveness which leads to wealth concentration, land grabbing and unsustainable investment, production, distribution and consumption patterns (Dabla-Norris et al., 2015); and (b) ecological and relational externalization which ignores local to planetary boundaries by extracting rents from nature and externalizing risks (Ekins et al. (eds.), 2019: 6.4.1, 6.4.3; IPBES, 2019; Jones et al., 2013; Daszak, 2020).

3.2. State and Impact

Under state (or 'condition') we discuss factors that increase the vulnerability to COVID-19:

Underlying health challenges: People will be more vulnerable if they have heart and lung disease, cancer, and diabetes (Lai et al., 2020; Pineda & Corburn, 2020); are overweight (1.9 billion people); or suffer from malnutrition (Headey & Ruel, 2020). There are 462 million underweight adults with 47 million under-5 years olds wasted and/or stunted (WHO, 2020). People who suffer from indoor and outdoor air pollution are probably more vulnerable (Thornton, 2020). Disabled people may be four times more likely to be affected (Pineda & Corburn, 2020).

Limited access to hygiene: 2.3 billion people do not have access to WASH services and may be more vulnerable (Ekins et al. (eds.), 2019) as maintaining hygienic lives is difficult for them (Satterthwaite et al., 2019; Manderson & Levine, 2020; Wilkinson, 2020).

Limited access to social distancing options: About 0.9 billion people live in informal, congested settlements with limited social distancing options (Wilkinson, 2020) where infections spread rapidly (Gibson & Rush, 2020; Corburn et al., 2020). Analysis of how infec-

Table 1
An Inclusive Development framework for assessing COVID-19.

	Inclusive development			
	Access to	Allocation of		
	Minimum resources for a dignified life	Resources: Allocating health care resources equitably	Responsibilities: Need to address drivers, pressures, state and impact	Risks: Reducing vulnerability (State)
Social inclusiveness	To basic services (water, food, shelter, energy, health, education, ICT) to meet human rights & enable basic health To equal treatment (e.g. gender equity, sexual and reproductive rights, labour rights, protection from crime & (gender-based) violence) To credit, markets	Treating healthcare as a public good, not private commodity available only to those who can afford it Ensuring sharing of healthcare equipment, vaccinations, & medicines Ensuring that markets function within healthcare norms; Ensuring inclusive accounting methods & tools	Allocating responsibilities: - for direct healthcare (impact)– hospitals & nursing homes - for indirect healthcare (state) - for drivers & pressures of problems	Minimizing the exposure to healthcare risks Minimising the exposure of related risks
Ecological inclusiveness	Access to minimum NCPs: clean air, water, land, healthy biodiversity, stable climate	Addressing the drivers and pressures behind increasing ecological vulnerability	Governing and accounting for the drivers, pressures, state, impact and risks	Implementing the precautionary principle and minimizing risk
Relational inclusiveness	Access to more than equal treatment to be able to use participatory instruments	Addressing relations from household to international level Addressing local to global governance of the health sector Access to: capacity building, information; recognition, representation, participation; judicial remedy; representation; channels of dissent; input/output legitimacy and upward/downward accountability		

Source: Adapting from (Gupta and Lebel, 2020).

tious disease can be countered in Delhi slums where 13% of 13.8 million people live show that policies need to be tailored to slums as there are critical slum-specific attributes (Adiga et al., 2018).

Limited access to healthcare: About one third of urban residents and half of the global population lack healthcare access (WHO & World Bank, 2017); many have difficulty accessing 'free' public healthcare (Pouw et al., 2020). An unequal healthcare system world-wide, with growing privatization of healthcare facilities and rising health insurance costs increases vulnerability. Hospitals, even in rich countries, seem unable to raise the resources to address public health issues such as COVID-19 (see e.g. Armocida et al., 2020).

Limited access to labour protection in the healthcare industry: The healthcare industry combines well-paid doctors with poorly paid healthcare personnel: 70% of healthcare workers are women, with the average gender pay gap amounting to approximately 28% (Boniol et al., 2019). During the COVID-19 pandemic many doctors and nurses have worked without access to protective equipment (Arnetz et al., 2020; Hoernke et al., 2021).

Limited access to safety nets: Poor people rely on social networks for livelihoods and other kinds of support. Such networks lose relevance when impoverishment becomes widespread (Ahmed et al., 2020) and leads to 'shared poverty'(Geertz, 1963). Exposure to new risks such as COVID-19 may reinforce existing vulnerabilities (Alkire et al., 2020; Buggy & McNamara, 2016).

Become 'trapped' in domestic households: Many people are trapped in situations of intimate partner violence (IPV) and children and elder abuse, creating a 'pandemic paradox' (Bradbury-Jones & Isham, 2020). Within the first week of confinement, emergency calls to help lines rose by 40–50% in Brazil; 20% in Catalonia in Spain; and 30% in Cyprus (Graham-Harrison et al., 2020).

In terms of the actual *impact* of the disease (not policy measures), by the end of 2020, the total number of confirmed COVID cases and deaths amounted to 83.9 million and 1.8 million respectively (Coronavirus Resource Center, 2020). This is also affected by the condition of health care systems. We focus on the geographical distribution of the cases and deaths per 100,000 people worldwide on 31 December 2020 (see Fig. 1). For reasons mentioned above, the pandemic hit the poorest and vulnerable (e.g. homeless, refugees, undocumented migrants) hardest (Manderson & Levine, 2020; Ahmed et al., 2020; Douglas et al., 2020). Hospital staff are falling sick, hospitals are closing and cannot cope with patients who do not have money to pay for treatment. The disease is found world-wide: in absolute numbers India and Brazil are already the second and third biggest sites respectively of the disease at the time of submission (February 2021). Sickness forces people who have made progress back into poverty (WHO & World Bank, 2017) and this has been confirmed by recent literature.

3.3. Implications

We sum up the above DPSI (the next section looks at responses) analysis of COVID-19 linking it to inclusive development (see Table 2). It demonstrates that both the underlying causes of biodiversity loss and COVID-19 can be related to the way we pursue economic growth, but also that growing global vulnerability to such disease is related to unequal economic and health care systems.

4. Responses to COVID-19

4.1. Addressing drivers and pressures

A scan of the literature reveals that most contemporary policy responses are *not* focusing on the underlying drivers and pressures (see 3.2) that have caused this problem. The news reports that most governments wish to return to business-as-usual as fast as possible, while NGOs, for example, want any financial injection provided by the state to lead to meaningful changes for increased resilience and solidarity, and hence prioritize health and economic relief for workers and communities (350.org, 2020). The search for a scapegoat on whom to blame the disease (China, the elite, Jews, foreigners, the G-5 network (Evanega et al., 2020) resulted in an 'infodemic' of misinformation on the disease (Zarocostas, 2020; UDGC, 2020) and the vaccines which hinders discussing policies to address the underlying drivers and pressures. This is a serious problem.

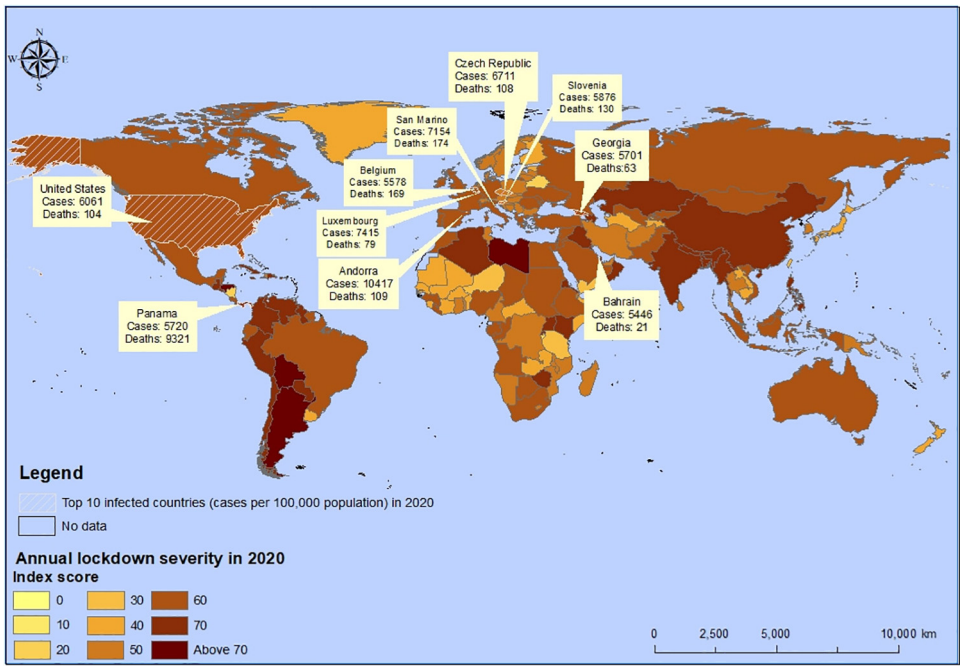

Fig. 1. World map showing the severity of COVID-19-related lockdowns based on the annual average score of the Government Stringency Index (Hale et al., 2020), and top ten countries with COVID-19 cases and death toll per 100,000 inhabitants in 2020 (Data source: Hale et al., 2020 and UN DESA 2019) (see Appendix 1 for details).

Table 2
COVID-19: Drivers, Pressures, State, Impact and Inclusive Development.

	Inclusive development assessment	Elements
Drivers	Processes of social exclusion lead to inequality which underlies and exacerbates the drivers and pressures and exacerbates state and impacts;	Growth-orientation, technology, climate change, population growth, and urbanization contribute to ecological damage, loss of biodiversity and increasing inequality
Pressures	Ecological externalization exacerbates biodiversity loss and air pollution which poses risks to lungs; and reduces access to hygienic water;	Land-use change, pollution, over-exploitation; climate change and invasive species; privatization of healthcare systems; public health systems undermined
State	Relational exclusion makes it difficult to prioritize social and ecological inclusiveness	Vulnerability to COVID-19 increases when people have: underlying health challenges; limited access to water and hygiene; social distancing options; limited access to healthcare; labour protection in the healthcare industry; safety nets; social networks; vaccines; and become 'trapped' in abuse situations in households
Impact		Impacts include: disease & death; stress on healthcare; increase of poverty levels and deprivation

4.2. Addressing state

In terms of state, policy measures focus on reducing infection risks through, for example, quarantine, testing, contact tracing; closure of schools and businesses, promotion of personal protective equipment (PPE) and vaccines. Such measures positively influence the rate of COVID-19 infection world-wide (Ghosal, Bhattacharyya & Majumder, 2020). However, the effect differs per measure and across locations and social groups. Moreover, measures come with significant economic, social, (physical and mental) health and political costs.

First, strategies for avoiding infection, such as social distancing, restrictions on social mobility, hand washing and access to PPE make little sense to slum dwellers, homeless people, day labourers, and refugees (see 3.2 and 3.3). 70 million forcibly displaced people who live in precarious circumstances are increasingly exposed to COVID-19 (EEAS, 2020). WHO recommendations to protect against infections do not take account of households that do not have direct (in-house) access to water and sanitary facilities, or to healthcare providers (Brown, Ravallion & van de Walle, 2020).

Second, many countries have focused on lockdowns to minimize the spread of infection. There have been geographical and temporal variations in response strategies – with some countries like the United States, Sweden, Brazil and Russia delaying action in the initial stages and other countries such as India issuing quick lock-downs and subsequently opening up. At the height of lockdown popularity in policy, the majority of countries had closed down most economic activity. Figure 1 reveals that by 31 December 2020 all countries worldwide were in some form of lockdown in a bid to restrict contacts, movements and transportations, and manage public health at entry points. No clear link is seen, however, between infection level and stringency of the measures, but this may also be because of the paucity of accurate data for many developing countries (see Fig. 1).

While lockdowns may have reduced the rate at which the infection spreads, lockdowns have further eroded local food systems by blocking people's access to their fields; compromised their access to inputs (e.g. fertilizers) because of disrupted food supply chains and increased prices; and reduced labour availability (Béné, 2020; Farcas et al., 2021). This may trigger social unrest and food rioting, as evidenced during the food price spikes in 2008 and 2011 (Barrett, 2020). The FAO food price index, based on the average of five commodity groups, initially dropped in the first half of 2020, but is on the rise since then, with the value in January 2021 (113.3) coming close to the 2008 value of 117.5 (FAO, 2021), potentially creating "a crisis within a crisis" (Aborode et al., 2020). The

position of supermarkets has often been strengthened vis-a-vis local food systems, further contributing to concentration of decision-making power in transnational corporations and erosion of governmental regulation (Clapp & Purugganan, 2020). Moreover, these measures have led to hunger, deprivation, police brutality, and millions of people walking to their villages, such as in India, where all transport was suspended. In the global North too, many self-employed and those with temporary, short-term and on-demand contracts were the first to lose their jobs (Douglas et al., 2020). However, while many global North countries did provide some relief to cushion the impact of job losses, this has overwhelmingly not been the case in the global South.

Third, vaccines are a critical measure to reduce vulnerability. There is still vast uncertainty regarding the distribution of vaccines to poorer countries within the next two years, with wealthier countries stockpiling vaccines for their populations (Baraniuk, 2021). In 2020, the term 'vaccine nationalism' emerged during the global effort to develop a vaccine against COVID-19. The term refers to an "act of reserving millions of doses of new vaccines for domestic use during a *trans*-national public health crisis" (Rutschman, 2021:1). The availability of vaccines does not mean accessibility per se (Su et al., 2021). In the race towards a vaccine, contracts were signed before the vaccines were even approved by the responsible agencies. As a result, in August 2020, the high-income countries representing 13% of the global population had ordered 2 billion doses, exceeding the initial global manufacturing capacity (Rutschman, 2021). This reflects and accentuates the public health inequalities between the global North and the global South. A similar pattern was shown during the H1N1 influenza virus in 2009 (Awadasseid et al., 2021). This is problematic as it is socially and economically counterproductive (Nhamo et al., 2020; Hafner et al., 2020), and the further dissemination of the virus can result in new mutations prolonging the pandemic and may backfire on the global North (Bollyky & Bown, 2020; Security Council, 2021). The solution to address the systemic inequality is being sought in the new WHO mechanism 'COVID-19 Vaccine Global Access Facility' (COVAX), having the commitment to deliver vaccines to cover 20% of participating countries' population (Rutschman, 2021; WHO, 2020).

Fourth, policy responses have also diverted resources from other health concerns, threatening the core functions of primary health care (Verhoeven et al., 2020; van Weert, 2020) which was weak in many parts of the world to start with. This also applies to sexual and reproductive healthcare, contributing to a surge in unplanned pregnancies and unsafe abortions (Todd-Gher & Shah, 2020; UNFPA, 2020). Also child nutrition schemes have been affected, exacerbating malnutrition (Upadhyay et al., 2020). Moreover, prolonged measures increase mental health issues, notably among those with increased income insecurity and youth (Pfefferbaum & North, 2020).

Fifth, stay-at-home orders have stimulated online education. However, in low-income households inadequate access to ICT facilities has brought education to a stand-still (Armitage & Nellums, 2020), exacerbating existing educational disparities, and leaving billions of children and youth without access to school meals and school-based (health)care (Cash & Patel, 2020; Treanor, 2020). Beyond differing levels of access to, and abilities to engage with, online modes of learning, research is increasingly showing that a lack of face-to-face education negatively impacts attainment levels and socio-emotional well-being of all children, particularly those of vulnerable backgrounds (Young Lives, 2021).

Finally, globally, the stay-at-home order has exacerbated the risk of domestic violence in situations of forced close proximity combined with economic disaster (Ndedi, 2020). Violence against children is growing, with increasing phone calls for help since schools have been closed (UNESCO, 2020). In other words, the bulk of measures to reduce vulnerability have had enormous side-effects especially on under resourced people.

4.3. Addressing Impact

In terms of impact, policy measures focus on cures and palliatives and promoting public healthcare. There is already a vast medical literature on the efforts to find cures and palliatives for COVID-19 (see e.g. Song et al., 2020 for a review). The media report on the difficulties of financing cures and treatments for those who cannot afford it and do not have insurance.

COVID-19 policies have also included many food, financial and employment measures to support those who cannot access food or are affected by the other policy measures. Some governments have food and income distribution programmes, but with limited coverage, especially in the global South. Social protection measures initiated by 144 governments (ILO, 2020b) focus on special social grants (17.3 per cent), unemployment protection (13.3 percent), miscellaneous social protection measures (12.9 percent), income/job protection (10.8 percent), housing and basic services (10.0 percent) and food allocation (9.6 percent). The question is whether governments can scale up and sustain these over the longer-term (ILO, 2020a), and in doing so do not exacerbate pre-existing social inequalities (Bambra et al., 2020).

4.4. Key issues

We sum up the above analysis in Table 3. What becomes apparent from the above analysis is that most COVID-19 prevention measures ranging from washing hands, lockdowns, to access to vaccines has adversely impacted the poorer section of the global population. This is either because they do not have access to hygiene options, live in small overcrowded informal settlements where social distancing is not an option, cannot access financial support because they are in the informal sector or because the support is not there, do not have internet facilities and so cannot either participate in online classes or shift their work online, and are at the end of the line for vaccinations. With respect to health care, a combination of lean government, deregulation and cost-efficiency principles have in past decades been weakening the resilience of public health systems. The overall vulnerability of the 'other half' has thus been exacerbated. Some policy measures may have had more deleterious effects than the disease itself. Early estimates suggest that COVID-19 policies in Sub-Saharan Africa and South Asia will exacerbate poverty and jeopardize the achievement of SDG1 to eradicate poverty before 2030 (Sumner et al., 2020). At the same time, some governments will be spending 1–10% of GDP on their COVID-19 response (European Commission, 2020a). But as US talk show host Trevor Noah explains: if you have food in a room with big and small dogs, who gets the food? Will government money go to the big multinationals and airline companies as is evident from newspaper stories? The ancient Islamic principle of 'priority of use,' is still used in water law and calls for prioritizing who gets water in times of drought. In the response to COVID-19, a similar 'priority of use' principle is needed.

Second, response strategies overall have been prioritizing national issues, undermining the need for global solidarity. Countries are sabotaging the trade in PPE – with some preventing their export, and vaccine nationalism is on the rise. Moreover, government vocabulary includes a war discourse with metaphors like 'the war on COVID-19′, 'the fight against the virus', 'war-time president', 'state of emergency', and 'the enemy' (Molnár et al., 2020). Such securitization talk may enable an all-hands-on-deck approach, but also justifies closing borders, emergency measures (Buzan et al., 1998), suspension of the rule of law, bypassing parliament, controlling journalists, enabling 'under-the-skin surveil-

Table 3
Existing response strategies focus on state and impact.

	Response	Impacts/relevance of responses
Drivers/pressure	Most policymakers are *not* addressing the drivers and pressures focusing on short-term solutions. The focus is on getting back to business-as-usual; NGOs, social movements and academics highlight the need for transformative change	Not addressing the drivers (esp. the focus on GDP) and pressures exposes the world to a rapidly mutating virus and more exposure to zoonotic disease; during the current crises – it may make sense to focus on immediate issues, but the recovery process needs to pre-empt future problems
State	Containment, testing, contact tracing, public health care	Reduced infection levels in the global North, but has ignored the heightened risk of domestic violence in situations of forced close proximity, combined with economic downfall; public health care systems deficient and unable to cope especially in the global South
	Rules on social distancing, hand washing; PPE (personal, protective equipment) & vaccines	Has neglected the difficulty of social distancing/ hand washing and access to personal protective equipment and non-accessibility to vaccines in the global South
	Lockdown	Has ignored the impacts on daily wage-earners, leading to poverty, migration and death on the street from police brutality, and has neglected the medium-term impacts of disrupted food supply chains, leading to hunger
	Shift to online teaching and work	Has neglected the access of poorer students/employees to ICT and long-term effect of closure of schools; Has had a small positive impact on some environmental conditions; but negative impact on national productivity and income
	Focus on national isolation; securitization	Surveillance, suspension of the rule of law, retreat from international cooperation, impeding global solidarity
Impact	Medical treatment Food kitchens; Social protection.	Countries and people competing for PPEs; Hospitals and hospital staff struggling to cope; Lack of clarity about affordability of eventual cures, palliatives and vaccines – while fake news leads to deaths; Unemployment benefits and rescue packages being subject to elite capture

lance' (Enloe, 2016; Harari, 2020), and using and misusing 'surveillance' technology for contact-tracing (Csernatoni, 2020). Securitization of infectious diseases is, however, not new (Metelmann et al., 2020) with the UN Security Council announcing in 2000 that HIV/AIDS could pose risks to security (UNSC, 2000), and in 2014 initiating peacekeeping to address Ebola (UNSC, 2014).

Third, COVID-19 is a crises with its roots in land use change and greater human wildlife contact. Pandemics such as COVID-19 join the list of socio-ecological challenges such as climate change, the sixth great biodiversity extinction, crossing the nitrogen planetary boundary, and large-scale land degradation. All these have their roots in the current design of economic growth and our extraction, production, consumption and disposal patterns combined with the focus on deregulation (Ekins et al. (eds.) 2019).

5. COVID-19 recovery processes

5.1. Introduction

Section 4 has shown that the world has responded to the onset of the pandemic and possibly succeeded in slowing down the rate of infection although we do not have a counterfactual. However, as in any emergency, it has focused less on the drivers and pressures of the problem, addressing more the state and impact thereof. We have concluded from our analysis that in the process, too little has been done to account for vulnerable groups and individuals and the system that exacerbates such vulnerability. From the above analysis, we identify one driver and two issues in relation to state that we think are essential for the recovery process.

5.2. Driver: Recovery needs to move from emphasizing growth and focus on wellbeing and inclusive development

Given our argument that a restoration of economic growth cannot be the sole objective of post-COVID-19 recovery (see 2.1 and 4.4), we foreground social, ecological and relational inclusiveness.

First, the focus on recovery through growth diverts attention from pre-pandemic global socio-ecological crises *like the* climate emergency, biodiversity loss, large-scale poverty and rising inequality. The current IMF prediction of a global recession (IMF, 2020), the accompanying breakdown of economic structures and logistical arrangements, and the difficulties in switching 'off' and 'on' companies and industries may now, however, provide the opportunity for change. Politicians confronted with the nightmare of GDP decline may be tempted to inject credit into a business-as-usual economy through heavy borrowing. But this could lead to increasing the risk of socio-ecological and economic breakdown in the future and threaten austerity measures on public services – the very same services that are 'vital' in the current crisis (Savini et al., 2020). Moreover, this avoids addressing drivers and pressures of crises, and enlarges socio-ecological vulnerability by maintaining the *relational* status quo. Although trillions of dollars are evaporating on stock exchanges (Forbes, 2020), those who actually lose are the 110–150 million who may slip back into extreme poverty in 2021 due to the COVID-19 crisis (World Bank, 2020).

Second, a focus on economic growth deflects attention to production quantity not quality; addresses aggregates and averages but not the median situation; measures formal cash, but not informal transactions; and externalizes the internet, free knowledge and ecological damage (Stiglitz et al., 2018). National accounting systems therefore require reconfiguring, for instance by building on Inclusive Wealth or the 'Wellbeing Economy Matrix' (Pouw, 2020). Value pluralism follows from redefining the economy as a social and politically embedded process of decision-making on resources, putting human wellbeing at the centre instead of GDP growth. The potential for this change has to be positioned in the COVID-19 context and the current call for a coordinated global health strategy and more responsive, science-driven governance (Nabyonga-Orem et al., 2021).

5.3. State: Recovery needs to reduce vulnerability through public healthcare

There is growing vulnerability of people to COVID-19 but also to a range of other health issues (see 2.3). Public healthcare systems

have been increasingly privatized since 1990, making it a luxury commodity for those who can afford it. But can private healthcare ensure basic health for all and address pandemics? "Could these deaths have been averted if only neo-liberalism had ... accepted market failure in the realm of public healthcare and the provisioning of such other public goods instead of commercialising them?" (Vijay & Gudavarthy, 2020:2). Based on computing seven different macroeconomic scenarios across high- and low-income countries McKibbin and Fernando (2020:2) recommend that countries in the global South should invest in public health now, rather than later, in order to lower costs in the short run. However, they warn that with higher population densities and weaker public health systems, these costs will be relatively higher in low-income countries. Looking from the bright side, the rise of progressive, redistributive governmental politics found in much of the global South may mitigate this effect in cases where pro-poor programmes are firmly embedded (Ferguson 2015). Ensuring health requires a continuous emphasis on the underlying barriers, e.g. inequality of access to merit and public goods, and the allocation of the remaining resources (see Table 1), and direct causal contributors to health, such as investments in public healthcare systems. Addressing health vulnerabilities requires a critical appraisal of the allocation of health services via the market (with or without health insurance) or via a public healthcare system. Applying the full-income approach shows that the benefits of universal health services in countries in the global South from 2015 to 2035 exceeds the costs by 9–20 times (Jamison et al., 2013). However, current cost-efficiency approaches have tended to steer decisions towards privatizing health and externalizing - and postponing - risks.

Financing public health calls for dispensing with the 'lean' government. First, in times of crisis (e.g. the recession of 2007 and now), people depend on the government to lead and protect. Second, access to merit goods (e.g. WASH, healthcare and quality education), which enable good basic health, requires government action, especially when markets will not supply services to impoverished millions who cannot afford to pay for them (Mitlin & Walnycki, 2020). Third, access to public goods like a healthy environment requires government intervention. Privatizing, commodifying and trading NCPs externalizes ecological deterioration and its social impacts especially on the poor – and implies their exclusion from purchasing them. Effective prevention of zoonotic disease requires the implementation of ecological principles that only the government can enforce (Karesh et al., 2012). Fourth, only the government can guarantee equal treatment and the rule of law. Fifth, in terms of resource allocation, if inequality and poverty drive the spread of COVID-19, then re-distribution of economic resources through tax justice approaches (Guliani, 2020) becomes critical – and this requires a strong and accountable government. Finally, the allocation of responsibilities for action, and the de facto allocation of risks to certain communities and spatial localities is for responsible and accountable governments to decide.

However, many governments perform poorly. Authoritarianism is growing. COVID-19 has shown the unequal effects of ignorance combined with police brutality in many countries. Equally, there are responsible governments who learn from their mistakes and tailor-make their response strategies to group needs. At present some governments show that they can put health above wealth at least temporarily.

Hence what is needed is greater investment in an accountable government within the context of a social contract with its people. Such a government follows the constitution and rule of law and has a clear balance of power between the executive, legislature and judiciary; a free press, and flourishing private and non-governmental sector; a healthy tax system, and accountability to all its people. A 'lean' government cannot ensure a flourishing democracy. Relational inclusiveness requires that issues such as access to recognition, representation, participation, decision-making and justice are well developed and that where people do not have the resources to participate, such resources are provided to both enhance their capacity to do so and are vested in instruments such as legal aid. Relational inclusiveness requires a government that promotes non-discrimination and upholds human rights.

5.4. State: Recovery requires solidarity and an accountable state, not securitization

While addressing COVID-19 requires international solidarity, most states are adopting a securitized approach. COVID-19 securitization emphasizes closing borders; repatriating citizens; sabotaging the trade in medical equipment; refusing to share medical equipment with others; and locking in infected people and people inhabiting informal, poor settlements as well as luxury cruise ships. This should not be the 'new normal'. Already there is declining multilateralism (Newman et al., 2006), a dubious merging of national security aims into international development policies (Lopes Cardozo & Novelli, 2018), and increasing 'westlessness' – western withdrawal from global politics but not a withdrawal of western values (Munich Security conference, 2020). This situation allows the neoliberal capitalist system to flourish in an increasingly deregulated world. Global monopolies demand deregulation and engage in large-scale tax evasion and avoidance – which further marginalizes states. The 'lean' government, if forced to involve the private sector in problem-solving through blended finance and public private partnerships, is unable to be a neutral arbiter, instead becoming complicit in decisions of the private sector. As a result, democracy itself becomes captive to the private sector.

The global economic system minimizes resources for public and merit goods and has increasingly privatized key sectors, including healthcare and education, coupled with commodification or externalization of the environment. This has led our healthcare systems, as well as interconnected environmental and educational systems, to be less resilient than they should be (Shah et al., 2019). This also implies ignoring the precautionary principle which requires that extraction, production, distribution, consumption and disposal systems do not externalize risks too much.

"The world-wide crisis risks reinforcing North/ South asymmetries and inequalities in all areas and societies ... the opposite of unity, of solidarity, of social justice and human dignity" (EADI, 2020). The European Union's international strategy aims to help health systems in fragile countries and increase epidemiological surveillance and mobile labs, enhance WASH programmes, provide budget support to governments and access to loans and guarantees (European Commission, 2020b). While increasing solidarity is necessary, a word of caution! While surplus money has led to negative interest rates in western countries, lending to the global South now seems to be lucrative. Prior to COVID-19, debt in the developing and emerging economies was at 170% of GDP in 2018 ($55 trillion), having increased substantially since 2010 (Kose et al., 2020). Post COVID-19 assistance to the South could lead to a new global debt crisis as sectors and countries with lower credit ratings face higher interest rates.

5.5. Turning a vicious cycle into a virtuous one

An attempt to integrate the aforementioned arguments might suggest that if recovery processes focus on business-as-usual to pursue economic growth, they will focus on the lean government, commodify merit and public goods, divert attention from the drivers and pressures underlying zoonosis to find a scapegoat (e.g. China, WHO), and focus on sovereignty and securitization – while using development aid to reproduce these very variables (c.f.

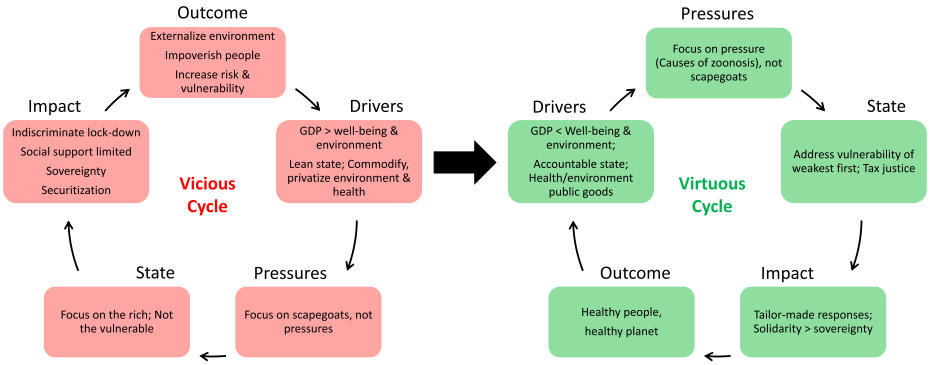

Fig. 2. Turning a vicious cycle into a virtuous cycle through inclusive development.

Scobie, 2020; Gonenc et al., 2020). We take a different perspective, emphasizing the need to break from the past and move towards a virtuous cycle which emphasizes well-being and ecosystems; treats health and the natural environment as vital merit/public goods which require accountable states and tax justice to finance it. A virtuous cycle focuses on the drivers and pressures that lead to zoonosis and other environment-related health challenges; and emphasizes not just the middle classes in its response strategies on state and impacts, but those in congested areas, who need daily incomes to survive. It emphasizes the reduction of vulnerability. This requires local to global solidarity (see Fig. 2). Transforming towards a virtuous cycle means committing to building human systems based on cooperation and shared responsibility, to sustained programmes delivering universal access to public/merit goods such as healthcare, clean water or education, as these create healthy, productive, and equitable societies (Mang & Haggard, 2016: 15). COVID-19 has helped such a transformation by making visible the "vital" professions of healthcare workers, educators and farmers (to name a few) and that states can prioritize, even if briefly, health over wealth. This includes investments in care provided by households and communities, outside the market domain.

COVID-19 is a health issue embedded in a process of globalization as the coronavirus does not respect borders (Jamison et al., 2013; Zhang et al., 2020). If the pandemic is not also addressed in poorer regions and countries, it will affect global travel, trade, and investment. Hence, it is in the global North's interest to promote a global COVID-19 resistant development strategy (c.f. Harari, 2020). There is no choice, but to develop joint ID visions to address the pandemic (Qian et al., 2020; Zhang et al., 2020) based on rights-based approaches and accountability of governments (Angel & Loftus, 2019).

Can we move out of the vicious cycle into a virtuous cycle? The coming together of different global crises may show the need for such a move. The COVID-19 recession may thereby have provided the shock needed to make future proof choices regarding where to invest during the recovery process. Moreover, COVID-19 has ironically provided a glimpse of a better world: dolphins are being sighted in Venice; elephants are walking the streets in India; pigs are visiting McDonald's restaurants; road kill is declining; and the air has everywhere become cleaner.

6. Conclusions

This paper examined the development challenges that the COVID-19 pandemic lays bare to identify lessons for the future, especially pertinent as Agenda 2030 and its SDGs seek to reduce epidemics by 2030 (see 2.1).

We conclude that the initial COVID-19 response has focused on state and impact, but tended to neglect the interests of the poor and the vulnerable. Most measures are meaningless, if not harmful, for daily wage-earners and those in informal settlements and refugee camps. Moreover, blanket responses exacerbate the problems of the poorest by disrupting food supply systems and the problems of the sick who cannot access hospitals. The existing response strategy does not yet appear to address the underlying drivers and pressures of COVID-19, instead aiming at a quick recovery of the economy.

We contend that a return to business-as-usual will lead to a *vicious* cycle of further ecological degradation, inequality, and domestic abuse that exacerbates both the drivers of the pandemic and the vulnerability of poorer populations. When this is accompanied by narratives of nationalism and securitization, and global systems head towards greater socio-ecological disruption, this 'new normal' becomes even more hazardous. We argue instead for an inclusive development approach that can lead to a *virtuous* cycle by emphasizing human health, well-being and ecosystem regeneration; by treating these as merit and public goods; by investing in accountable states and tax justice in order to address inequality; and by enabling greater global solidarity.

COVID-19 provides yet another reason to prioritize inclusive development. Paul Richard Fife of the Norwegian Agency for Development Cooperation has said that, "We fear that 2020 will be a lost year in global development" (GRIP, 2020). We would add that the period 1990–2020 may have been the lost decades of growing inequality between rich and poor, and that COVID-19 may be the shock needed to put the last first, and transform vicious into virtuous cycles of inclusive development.

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.

Appendix

Data and indicator computations for the global COVID19-related lockdown severity map (see Fig. 1). The map shows the severity of COVID19-related lockdowns measures adopted in countries around the globe in 2020 based on the "Government Stringency Index" (Hale et al., 2020) as a proxy for the severity of coronavirus preventive measures (see below for details); and case burden and deaths per hundred thousand inhabitants, using cumulative COVID-19 cases and deaths recorded in 2020 (Hale et al., 2020) and country population estimates for 2020 (UN DESA Population Division, 2019). We computed the annual severity index (ASI) by averaging the "Daily Government Stringency Index" (Hale et al., 2020) over 365 days (1 year) using the equation below:

$$ASI = \frac{1}{365}\sum_{i=0}^{365} GSI_i \quad (1)$$

Whereby

ASI = Annual severity index, a yearly average score of Government Stringency Index.

GSI = Government Stringency Index, a daily index score derived from the average of nine sub-indices representing individual policy indicators, each scaled between 0 and 100. The nine indicators are school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; and international travel controls; see (Hale et al., 2020) for more details.

$$\text{Cases per } 100,000 \text{ population} = \frac{\textit{Total number of cases}}{\textit{National population}} \times 100,000 \quad (2)$$

$$\text{Deaths per } 100,000 \text{ population} = \frac{\textit{Total number of deaths}}{\textit{National population}} \times 100,000 \quad (3)$$

The country case per 100,000 values were ranked and the top ten were selected for display in the map alongside their per capita death toll.

COVID-19, Poverty and Inclusive Development

The three main authors of the paper are Joyeeta Gupta, Maarten Bavinck, and Mirjam Ros-Tonen. The rest of the authors contributed equally to the paper.

The research was conducted at the Governance and Inclusive Development Programme Group, at the Department of Geography, Planning and International Development Studies of the Amsterdam Institute of Social Science Research, of the University of Amsterdam.

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