Brief report
COVID-19 and the environment
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Covid-19 and Environment: the need for new paradigms
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- Urbanization and density presents a public health challenge: Over 4 billion people around the world—more than half the global population— currently live in cities. Close to 1 billion people live in slums globally.
- A key feature of urbanization is density, which has many benefits in terms of enabling agglomeration economies, access to basic services, and to health care. However, without adequate investments in planning and infrastructure, density has downsides, particularly contagion and congestion. Especially in vulnerable settings such as slums, which often lack access to drainage, roads, streetlights, electricity, water, and sewerage, together with policing, waste disposal, and health care.
- With an estimated 90 percent of all reported COVID-19 cases, urban areas have become the epicenter of the pandemic.
- To follow public health measures such as social distancing and hygiene everyone needs access to adequate housing.
- As humans, we are part of the ecosystem. Interactions between humans and animals occur. Not only humans can be infected with the virus.
- The changes in the environment have a direct impact on human lives. Deforestation exposes humans to viruses and animals that threaten human lives, health and stability. Moreover, these changes pose pressure to our economic models that are affected by changes in the soil, lack of water, health deterioration and pollution.
- In terms of biodiversity, the exploitation of wildlife - for example in wet markets - increases the risk of exposure to viruses.
- The COVID-19 pandemic has revealed a collective failure to take pandemic prevention, preparedness and response seriously and prioritize it accordingly. It has demonstrated the fragility of highly interconnected economies and social systems, and the fragility of trust. It has exploited and exacerbated the fissures within societies and among nations. It has exploited inequalities, reminding us in no uncertain terms that there is no health security without social security.
- Positive impact of the pandemic through the lockdowns around the world on the

environment has been seen around the world with a decrease in CO_2 emissions, improvement in water quality, vegetation growth and return of fauna to their habitats and event to the cities.

- The pandemic has forced changes in human behavior. However, a return to normality could mean that the collateral improvements of the lockdowns will be just temporary.
- Changes in the environment facilitate the appearance and vector transmission of reemerging and emerging diseases putting human life at risk.
- For this reason, surveillance should be extended to the ecosystem, humans and animals.
- One Health is a collaborative, multisectoral, and transdisciplinary approach — working at the local, regional, national, and global levels — with the goal of achieving optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment.
- A new development model is required to tackle the challenges that our current models and behavior pose. Models that transform the current exploitative model of the environment and that target low emissions and respect for the other forms of life in the world.
- The strategic objectives leading these new models should be based on global common sustainable horizons rather than local concerns. New concepts of cities are required in which planning health and the environment lead the way.
- The need for green hospitals should also be addressed with health care facilities that strive to reduce CO_2 generation.
- An example in Bolivia regarding ecosystem assessment was discussed.
- The speaker concluded, stating that the goal is to build a society (with its human and natural systems) that is resilient from the point of view of health. This, in turn, will require a marked change in our development paradigms as well as in the social and economic development of global and local society, for human health benefit.

Global environmental public health governance in COVID-19
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- WHO Global Strategy on Health, Environment, and Climate Change has as its objectives primary prevention, cross-sectoral action, strengthening the health sector, building political and social support, enhancing evidence and communication, and monitoring.
- The PAHO Plan of Action 2020-2030 aims to reduce the burden of disease and inequity in health attributable to environmental risks in the Region and strengthen the capacity of health actors in all sectors to address and adapt to environmental determinants of health (EDH), prioritizing populations living in situations of vulnerability.
- The strategic actions PAHO plans to support are: Improve the performance of environmental public heath programs, strengthen environmental public health surveillance, foster an environmentally responsible and resilient health sector, and promote environmentally healthy and resilient cities and communities.
- The umbrella overarching the plan of action is the International Health Regulations (IHR) related to public and environmental health.

- Observed and potential impacts of COVID-19 on the environment and climate change are organized into negative, positive and neutral at the global, regional and global level and on the immediate, short and long-term.
- One example is that, as the pandemic hit the Region, an exponential reporting of exposure to cleaners and poisons was recorded.
- It is important to find a balance between the environmental and public health aspects.
- The technical response to COVID-19 is an important factor in fighting the pandemic. Supporting countries' MOH on a technical level regarding water sanitation, air pollution, hygiene and chemical safety is key to overcoming the crisis and recovering stability.
- Multisectoral cooperation with various partners is also crucial to broadening the response to the pandemic.
- Barriers to good governance with regards to environmental public health are: environmental public health policy processes informal and ambiguous; environmental public health is only slightly integrated in other health sector policies; it is a field with a chronic shortage of human, technical, and financial resources; and policies in sectors with relevance to health are set without recognition of their impacts on environmental public health.
- The integration of environmental public health into policy and currently into the pandemic response is extremely important for the protection of health of the population as well as the protection of the environment.
- Lessons from the pandemic regarding environmental public health are:
  - Environmental Public Health is not well integrated into the actions of the Health Systems, although it is essential to ensure the protection of the health of the population and the prevention of diseases.
  - Personal hygiene (hand washing, respiratory etiquette) is not within cultural norms.
  - There are no technical, human and financial resources for proper hand hygiene or infection prevention in health facilities.
  - The management of hospital waste is limited in most countries, increasing the risk of infections.
  - Community knowledge about the safe use of chemicals is inadequate to protect the population from accidental poisonings.
  - Ventilation in closed environments tends to be poor.
  - Many countries do not have experience in wastewater epidemiology which is important not only for the pandemic but for antimicrobial resistance and communicable disease surveillance.
- In order to prepare for the future we should:
  - Advocate for the importance of environmental public health in health systems and responses to outbreaks through active presence in sector tables and strengthening of intersectoral tables (Water Sanitation and Hygiene - WASH).
  - Strengthen Public Environmental Health entities in the countries to better integrate them into the response.
  - Implement environmental public health analysis of health facilities and disseminate their results widely.

- o Advocate in an integrated way with water and sanitation entities so that no one is left behind, and that everyone has access to safe water and sanitation services and appropriate solid waste collection systems.
  - o Ensure the availability of information on environmental public health and environmental infrastructure indicators through an integrated environmental public health information system.
- Finally, this is a shared responsibility. The environmental public health community can lead some of the challenges, but it is important to also take advantage of the power of partnerships and knowledge and to engage all relevant stakeholders.