

Protecting Nature Protects Humans

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A report resulting from a workshop on biodiversity and pandemics that was held virtually in July 2020 resulted in an executive summary available on the ipbes.net website. The document states “Without preventative strategies, pandemics will emerge more often, spread more rapidly, kill more people, and affect the global economy with more devastating impact than ever before.” This document was brought to this architect’s attention by a mention in The Green Building Research Institute (GBRI) newsletter. Why is information about pandemics and biodiversity being disseminated by a building organization? Architects and the industries surrounding their profession can make a huge impact on practices and products which are good for humans and the planet.

IPBES was established in 2012 by more than 94 governments which are Members of the United Nations. Its mission is “to strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development.”

The document continues “Pandemics have their origins in diverse microbes carried by animal reservoirs, but their emergence is entirely driven by human activities. The underlying causes of pandemics are the same global environmental changes that drive biodiversity loss and climate change. These include land-use change, agricultural expansion and intensification, and wildlife trade and consumption. “

The financial cost of pandemics is staggering. The report estimates “more than a trillion dollars in economic damages annually.” The report goes on to estimate that by implementing preventative measures like land-use change, and reducing wildlife trade, as well as calculating the change in the carbon footprint such measures would bring, the dollar figure would be “two orders of magnitude less than the damages pandemics produce.”

Much human activity, specifically land-use change, contributes to changes in biodiversity causing pandemics. Eliminating wetlands to expand urban environments reduces the land’s ability to adapt to flooding. Deforestation for agricultural expansion reduces earth’s natural filters to convert carbon dioxide. Burning of forests to clear land compromises biodiversity. “Destruction of habitat and encroachment of humans and livestock into biodiverse habitats provide new pathways for pathogens” and “Human health considerations are largely unaccounted for in land-use planning decisions.”

What can we do to proactively prevent pandemics? Audubon.org suggests protecting habitats could help. (<https://www.audubon.org/magazine/summer-2020/how-protecting-habitats-could-help-prevent-future>) One example of efforts to reverse the trend of bats, displaced by deforestation, roosting in urban trees is to restore native flowering trees to lure the bats back into the forests.

The production of palm oil, used in a huge number of consumer products ranging from food to beauty products, has caused large swaths of deforestation. We can reward sustainable forestry practices as consumers by purchasing only palm oil products verified to have been produced using sustainable practices. We can discourage deforestation related to palm oil use and encourage the sustainable farming of it.

As a country we can implement policies which discourage the use of cheap African and South American wood products produced using unsustainable deforestation and burning. Land use decisions that take into consideration human health might include building practices that utilize bamboo and other fast regenerating materials. Americans can support sustainable logging of smaller growth trees. We can discourage the use of Amazonian and other rainforest hardwoods in our buildings and wood products. Here in Colorado beetle-kill lodge pole pine can be used rather than old growth forest products. Waferboard can be produced from scrap and younger woods as an alternative to plywood, which requires much older growth woods. Waferboard can be used for I-joists, which is an alternative to large 2x10 and 2x12 structural lumber. Just down the road from us here in Estes Park is the Mountain Home Wood Products sawmill, which has reopened after evacuation due to the Cameron Peak Fire. We can choose to buy local and sustainable in our building materials whenever possible. As an architect I can and do specify materials that are sustainable whenever possible. It is the right thing to do for human health.

Beck, Thomas W. "[Protecting Nature Protects Humans](https://www.eptrail.com/2021/01/04/protecting-nature-protects-humans/)" *Estes Park Trail Gazette*, Friday January 4, 2021, <https://www.eptrail.com/2021/01/04/protecting-nature-protects-humans/>