

Global Fund for Pandemics and the *crucial ingredient missing from pandemic preparedness debates*

Deadly diseases are accelerating rapidly. Policymakers are focused on *containment*. Without addressing the drivers of new outbreaks, “preparedness” without *prevention* will be an expensive, deadly failure.

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There were [six times more](#) zoonotic spillovers of disease from animals to humans in 2010 than 1980.^{1 2} **Scientists report a [direct link](#) between zoonotic diseases and tropical deforestation.**³ Outbreaks are coming faster, and getting worse. The near-exponential acceleration illuminates the life-or-death importance of finally applying the lessons already learned: *We already know what to do* to definitively stop the pandemics of the future.

A G20 High Level Panel [reported](#) “The current pandemic was not a black swan event. Indeed, it may ultimately be seen as a dress rehearsal. ... There is every likelihood the next pandemic is coming within a decade or even in the next year, and could be even more profoundly damaging to human health and the global economy than COVID.”⁴ **Policymakers must anticipate, and plan for a pandemic sooner, rather than later,** that is as [contagious as COVID and as deadly as Ebola](#).⁵

Economists conservatively predict that COVID-19 will cost the U.S. economy at least [\\$16.2 trillion](#)⁶—*not including U.S. relief expenditures*. Global costs are vastly higher. Experts from [McKinsey](#) to the Harvard [Center](#) for Climate, Health, and the Global Environment agree that comparatively modest global investments of as little as \$20 billion annually will avert \$31-\$50 *trillion* in economic losses—and save millions of lives.^{7 8} **By all counts, insufficient action is overwhelmingly more expensive than even the boldest pandemic prevention plan. Yet, in 2021, a fundamental flaw is still embedded in nearly every proposal to stop future pandemics under discussion worldwide.**

CRUCIAL PRIORITY: PREVENTING PANDEMICS AT THE SOURCE

More than a year after COVID-19 exploded worldwide, policymaker discussions of “*pandemic preparedness*” **still, overwhelmingly, are focused exclusively on containment**—that is, detecting future outbreaks sooner, and responding faster to stop the spread of diseases. Containment *is* urgently important, as is every possible measure to support developing countries to fully implement an expanded International Health Regulations agenda. But, as COVID-19 has demonstrated repeatedly, even the most prepared, best resourced national containment plans are defeated in the face of increasingly aggressive viral antagonists we face—even more when factoring in vaccine hesitancy.

What is missing is action to stop outbreaks from happening in the first place. Global leaders seeking to stop pandemics must incorporate an additional, high-priority focus on tackling the environmental drivers of zoonotic spillover. Without true prevention measures, the globe is merely paying to send outmatched firetrucks to a raging conflagration. We propose instead models that stop the fire from ever igniting.

- A global fund for pandemics (known by many names) core investments must be both *containment* and *prevention*.
- Direct funding towards proven models to reduce deforestation by 80-90% and higher—bring these models to scale and replicate across all high-risk zoonotic spillover communities.
- Pandemic prevention includes significant knock-on benefits for health, human rights, climate, forests and wildlife.
- Keeping tropical forests intact *at the same time* we establish effective response systems is essential.

Congress and the Biden Administration should provide \$2.5 billion in emergency seed funding for a global pandemic preparedness and prevention fund to stop the next COVID-19.

Pandemics are a global threat, and prevention is a global good. The United States should not pay for global pandemic prevention and preparedness alone. For 0.125% of the \$16 trillion in economic costs borne by the U.S. economy due to COVID-19—[barely more than one-tenth of one percent](#)—a G20-based coalition and international partners should launch a Global Pandemic Prevention Fund and enormously reduce the probability of a new outbreak within five years. **For comparison, if the U.S. were to pay a full one-third of the \$20 billion annual cost of pandemic-proofing the planet, it would take 2,400 years for that annual cost to add up to one, single COVID-19-level event.**

\$2.5 billion is not all that is needed. But this sum demonstrates seriousness and leverages action from other donors. A new catalytic international financing mechanism, as per [National Security Directive 1](#), can advance the climate, health, and human rights goals of the Biden Administration, stop pandemics, and make a significant dent in climate change.

What the Pandemic Fund should fund:

- *Pandemic Containment and Prevention Plans* in low- and middle-income [tropical spillover hotspot](#) countries.⁹
- Meet International Health Regulations and Global Health Security Agenda targets to contain outbreaks within five years, building health systems, and moving towards the human right to health.

¹ Smith, K., Goldberg, M., Rosenthal, S., Carlson, L., Chen, J., Chen, C., Ramachandran, S. (2014). Global rise in human infectious disease outbreaks. *J R Soc Interface*, 11(101). Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4223919/>

² McKay, B., Dvorak, P. (2020). *A Deadly Coronavirus Was Inevitable. Why Was No One Ready?* | *The Wall Street Journal*. [online] Available at: <https://www.wsj.com/articles/a-deadly-coronavirus-was-inevitable-why-was-no-one-ready-for-covid-11597325213>

³ Bloomfield, L.S.P., McIntosh, T.L. & Lambin, E.F. Habitat fragmentation, livelihood behaviors, and contact between people and nonhuman primates in Africa. *Landscape Ecol* 35, 985–1000 (2020). <https://doi.org/10.1007/s10980-020-00995-w>

⁴ G20 High Level Independent Panel Report on Financing Pandemic Preparedness and Response, *A Global Deal for Our Pandemic Age*. [online] Available at <https://www.g20.org/wp-content/uploads/2021/07/G20-HIIP-Report.pdf>

⁵ Kiley, S., Formanek I., Kottasová, I. The Coming Contagion: Hunting for 'Disease X' CNN [online]. <https://www.cnn.com/2020/12/22/africa/drc-forest-new-virus-intl/index.html>

⁶ Powell, A. (2020, November 10). *What might COVID cost the U.S.? Experts eye \$16 trillion*. Harvard Gazette. [online] Available at <https://news.harvard.edu/gazette/story/2020/11/what-might-covid-cost-the-u-s-experts-eye-16-trillion/>

⁷ McKinsey & Company. *Not the last pandemic: Investing now to reimagine public-health systems*. Accessed online: 30 Nov 2020: www.mckinsey.com/industries/public-and-social-sector/our-insights/not-the-last-pandemic-investing-now-to-reimagine-public-health-systems

⁸ “Ecology and Economics for Pandemic Prevention,” Andrew P. Dobson, Stuart Pimm, Lee Hannah, Les Kaufman, Jorge A. Ahumada, Amy W. Ando, Aaron Bernstein, Jonah Busch, Peter Daszak, Jens Engemann, Margaret Kinnaird, Binbin Li, Ted Loch-Temzelides, Thomas Lovejoy, Katarzyna Nowak, Patrick Roehrdanz, and Mariana M. Vale; *Science*, July 24, 2020. Accessed online at <https://science.sciencemag.org/content/369/6502/379>

⁹ Allen, T., Murray, K.A., Zambrana-Torrel, C. *et al.* Global hotspots and correlates of emerging zoonotic diseases. *Nat Commun* 8, 1124 (2017). <https://doi.org/10.1038/s41467-017-00923-8> [online] <https://www.nature.com/articles/s41467-017-00923-8>

- Support community health, jobs training, and policy changes to halt deforestation and unsafe wildlife trade.
- U.S. contributions should be matched by other donors 2:1
- Repeat success by copying the Global Fund to fight AIDS, TB and Malaria’s lean structures of Secretariat / North-South-CSO Board /Country Coordinating Mechanisms (see below).

PREVENTION SUCCESS STORY: 13 years ago, a program in Indonesia asked Indigenous communities in the Borneo Rainforest, “What do you need to stop logging?” The community deliberated and finally responded that, in a deforestation-based local economy, they would need alternative livelihood training—new jobs. They also responded that the highest local costs to individuals was health care.

In response, Health in Harmony, the NGO leading the work, invested \$5.2 million over 10 years in an Indonesian medical center, as well as a locally operated jobs training program. The organization is now replicating this model, protecting nine million hectares of tropical forest at sites in Indonesia, Madagascar, and the Amazon—an area larger than the UK. Researchers from Stanford University analysed 10 years of data from the most mature site in Borneo, and published their findings in the Proceedings of the National Academy of Sciences.¹⁰

RESULTS of a \$5.2 million investment, in a catchment area of 120,000 residents, between 2007-2017:

- Near-complete halt of primary forest loss, and 21,000 hectares (50k acres) of forest regrowth;
- **67% decrease in infant mortality**, and significant declines in diagnosed cases of malaria, tuberculosis, neglected tropical diseases, chronic obstructive pulmonary disease and diabetes. Poverty alleviated.
- **90.6% drop in logging households—a overwhelming reduction in spillover risk;**
- Dramatic decline in opportunities for zoonotic transmission, as destruction, habitat displacement and fragmentation effectively ceased, and many fewer people worked in forest;
- **\$65.3 million in averted carbon loss**—not including carbon already in the ground that would have been lost had deforestation continued unabated—**this model more than pays for itself;**
- **No other model in literature has demonstrated remotely similar efficacy or cost-effectiveness.**

Tropical forest communities are the front lines of defense to prevent outbreaks. A global initiative should empower communities to articulate what they need to shift their local economies and protect the larger world, and then fund implementation of their requests, knowing that we owe our lives to these communities.

CRUCIAL FUND PRIORITY: HEALTH SYSTEMS TO CONTAIN OUTBREAKS BEFORE THEY SPREAD

This initiative cannot focus on prevention alone. While putting in place policies to *prevent* zoonotic spillover, countries and communities must still be prepared to *contain* outbreaks—including those that are not zoonotic in nature. Guidelines and tools exist to improve outbreak preparedness via WHO’s International Health Regulations (IHRs), a treaty that commits governments to putting systems in place to detect, prevent, and respond to outbreaks. IHRs are complemented by the U.S. sponsored Global Health Security Agenda (GHS). Compliance with IHR implementation is *already* measured by independent Joint External Evaluations (JEE), which produce reports identifying shortcomings in country preparedness, and generate plans at the country level to improve compliance.

Missing from the current model are two critical aspects. First, there is not **consistent funding** for country plans to improve compliance with IHRs. Second, there is not a mechanism in place to **include communities** to have input and ownership. The International Federation of Red Cross and Red Crescent has documented that community participation is vital to an effective response, and has been proven to result in better outcomes, as seen in Nigeria and Uganda’s experience quickly identifying and containing Ebola, or the swift and effective response to COVID seen in Taiwan and Mongolia.

Global Pandemic Prevention Fund operations:

To facilitate locally- designed, country-owned health systems and solutions that are effective and sustainable, a new pandemic prevention initiative can borrow pages from the Global Fund to Fight AIDS, TB and Malaria (GFATM):

- Donors contribute to a pool. Poor countries apply, jointly with civil society, FBOs and the private sector.
- The initiative’s board should include an equal number of donor and implementing countries, and include protected seats for civil society, Indigenous people, and communities disproportionately impacted by COVID-19 and future pandemics.
- Replicate GFATM’s “Country Coordinating Mechanism” to convene civil society, public institutions, and communities to create national and community-level Pandemic Prevention Plans and submit for funding.
- At the national- and community-level in zoonotic spillover hotspot countries, convene public sector health officials, civil society, faith-based organizations and public health institutions to devise costed country- and community- owned plans to to stop spillover events, and meet IHRs priority actions identified in JEE reports.
- Use online listening and training programs in conjunction with WHO to convene in-country teams to meet with Indigenous and local rainforest communities to hear the drivers and determine solutions to forest degradation.

BREAK DEADLY SILOS: Governments around the world have spent trillions of dollars in aid to developing countries to stop deforestation and detect and contain outbreaks. Yet we still face accelerating waves of new and more deadly pandemics, while 178 million hectares of forest have been lost over the last three decades.¹¹ Development and conservation work has been conducted in siloed sectors of health, security, agriculture, education, or micro-finance. **Global health and climate advocates rarely sit at the same table.** It’s time to assist Indigenous and local rainforest communities to stop zoonoses, and save the forests that are vital to the health and survival of us all—while funding impoverished countries to build the health systems needed to stop outbreaks.¹² It’s time for donor governments to fund an intersectoral systems-based approach. With global investment, significant, sustainable reductions in risk could be seen in one year, affordably protecting everyone, everywhere a COVID-19 sequel.

Health In Harmony is an international planetary health nonprofit dedicated to reversing deforestation of tropical rainforests

- **R2H Action [Right to Health]** is a grassroots movement of activists, scholars, health workers, COVID survivors and people who have lost loved ones organizing to stop COVID-19, build back better and prevent future pandemics.

¹⁰ Jones, I. J., & et. al. (2020, November 10). *Improving rural health care reduces illegal logging and conserves carbon in a tropical forest*. PNAS. <https://www.pnas.org/content/117/45/28515>

¹¹ *Deforestation has slowed down but still remains a concern, new UN*. (2020, July 24). UN News.

<https://news.un.org/en/story/2020/07/1068761#:~:text=The%20annual%20rate%20of%20deforestation,12%20million%20during%202010%202015.>

¹² Kinari, Webb. Reentering the Paris Climate Agreement is a must, but no panacea. The Hill, Dec 2020. [Online]

<https://thehill.com/opinion/energy-environment/530967-reentering-the-paris-climate-agreement-is-a-must-for-the-us-but>