



THE AGA KHAN UNIVERSITY

eCommons@AKU

Internal Medicine, East Africa

Medical College, East Africa

9-2021

Call for emergency action to limit global temperature increases, restore biodiversity and protect health: Wealthy nations must do much more, much faster

Lukoye Atwoli

Abdullah H. Baqui

Thomas Benfield

Raffaella Bosurgi

Fiona Godlee

See next page for additional authors

Follow this and additional works at: https://ecommons.aku.edu/eastafrica_fhs_mc_intern_med



Part of the [Community Health Commons](#)

Authors

Lukoye Atwoli, Abdullah H. Baqui, Thomas Benfield, Raffaella Bosurgi, Fiona Godlee, Stephen Hancocks, Richard Horton, Laurie Laybourn-Langton, Carlos Augusto Monteiro, and Ian Norman

Call for emergency action to limit global temperature increases, restore biodiversity and protect health

Wealthy nations must do much more, much faster

The UN General Assembly in September 2021 will bring countries together at a critical time for marshalling collective action to tackle the global environmental crisis. They will meet again at the biodiversity summit in Kunming, China, and the climate conference (COP26) in Glasgow, UK. Ahead of these pivotal meetings, we—the editors of health journals worldwide—call for urgent action to keep average global temperature increases below 1.5°C, halt the destruction of nature and protect health.

Health is already being harmed by global temperature increases and the destruction of the natural world, a state of affairs health professionals have been bringing attention to for decades (World Medical Association et al., 2020). The science is unequivocal; a global increase of 1.5°C above the pre-industrial average and the continued loss of biodiversity risk catastrophic harm to health that will be impossible to reverse (Intergovernmental Panel on Climate Change, 2018; Intergovernmental Science-Policy Platform on Biodiversity & Ecosystem Services, 2019). Despite the world's necessary preoccupation with COVID-19, we cannot wait for the pandemic to pass to rapidly reduce emissions.

Reflecting the severity of the moment, this editorial appears in health journals across the world. We are united in recognising that only fundamental and equitable changes to societies will reverse our current trajectory.

The risks to health of increases above 1.5°C are now well established (Intergovernmental Panel on Climate Change, 2018). Indeed, no temperature rise is 'safe'. In the past 20 years, heat-related mortality among people aged over 65 has increased by more than 50% (Watts et al., 2021). Higher temperatures have brought increased dehydration and renal function loss, dermatological malignancies, tropical infections, adverse mental health outcomes, pregnancy complications, allergies, and cardiovascular and pulmonary morbidity and mortality (Haines & Ebi, 2019; Rocque et al., 2021). Harms disproportionately affect the most vulnerable, including among children, older populations, ethnic minorities, poorer communities and

those with underlying health problems (Intergovernmental Panel on Climate Change, 2018; Watts et al., 2021).

Global heating is also contributing to the decline in global yield potential for major crops, falling by 1.8%–5.6% since 1981; this, together with the effects of extreme weather and soil depletion, is hampering efforts to reduce undernutrition (Watts et al., 2021). Thriving ecosystems are essential to human health, and the widespread destruction of nature, including habitats and species, is eroding water and food security and increasing the chance of pandemics (Intergovernmental Science-Policy Platform on Biodiversity & Ecosystem Services, 2019; IPCC, 2019; United Nations Environment Programme & International Livestock Research Institute, 2020).

The consequences of the environmental crisis fall disproportionately on those countries and communities that have contributed least to the problem and are least able to mitigate the harms. Yet no country, no matter how wealthy, can shield itself from these impacts. Allowing the consequences to fall disproportionately on the most vulnerable will breed more conflict, food insecurity, forced displacement and zoonotic disease—with severe implications for all countries and communities. As with the COVID-19 pandemic, we are globally as strong as our weakest member.

Rises above 1.5°C increase the chance of reaching tipping points in natural systems that could lock the world into an acutely unstable state. This would critically impair our ability to mitigate harms and to prevent catastrophic, runaway environmental change (Lenton et al., 2019; Wunderling et al., 2020).

1 | GLOBAL TARGETS ARE NOT ENOUGH

Encouragingly, many governments, financial institutions and businesses are setting targets to reach net-zero emissions, including targets for 2030. The cost of renewable energy is dropping rapidly.

© 2021 The Authors. *International Journal of Older People Nursing* published by John Wiley & Sons Ltd.

This editorial is being published simultaneously in many international journals. Please see the full list here: <https://www.bmj.com/content/full-list-authors-and-signatories-climate-emergency-editorial-september-2021>

This is an Open Access article distributed in accordance with the terms of the Creative Commons Attribution License, which permits others to distribute, remix, adapt and build upon this work, for commercial use, provided the original work is properly cited.

Many countries are aiming to protect at least 30% of the world's land and oceans by 2030 (High Ambition Coalition, 2021).

These promises are not enough. Targets are easy to set and hard to achieve. They are yet to be matched with credible short and longer term plans to accelerate cleaner technologies and transform societies. Emission reduction plans do not adequately incorporate health considerations (Global Climate & Health Alliance, 2021). Concern is growing that temperature rises above 1.5°C is beginning to be seen as inevitable, or even acceptable, to powerful members of the global community (Thunberg et al., 2020). Relatedly, current strategies for reducing emissions to net zero by the middle of the century implausibly assume that the world will acquire great capabilities to remove greenhouse gases from the atmosphere (Anderson & Peters, 2016; Fajardy et al., 2019).

This insufficient action means that temperature increases are likely to be well in excess of 2°C (World Medical Association et al., 2020), a catastrophic outcome for health and environmental stability. Critically, the destruction of nature does not have parity of esteem with the climate element of the crisis, and every single global target to restore biodiversity loss by 2020 was missed (Secretariat of the Convention on Biological Diversity, 2020). This is an overall environmental crisis (Steffen et al., 2015).

Health professionals are united with environmental scientists, businesses and many others in rejecting that this outcome is inevitable. More can and must be done now—in Glasgow and Kunming—and in the immediate years that follow. We join health professionals worldwide who have already supported calls for rapid action (World Medical Association et al., 2020; UK Health Alliance, 2021).

Equity must be at the centre of the global response. Contributing a fair share to the global effort means that reduction commitments must account for the cumulative, historical contribution each country has made to emissions, as well as its current emissions and capacity to respond. Wealthier countries will have to cut emissions more quickly, making reductions by 2030 beyond those currently proposed (Climate Action Tracker, 2021; United Nations Environment Programme, 2020) and reaching net-zero emissions before 2050. Similar targets and emergency action are needed for biodiversity loss and the wider destruction of the natural world.

To achieve these targets, governments must make fundamental changes to how our societies and economies are organised and how we live. The current strategy of encouraging markets to swap dirty for cleaner technologies is not enough. Governments must intervene to support the redesign of transport systems, cities, production and distribution of food, markets for financial investments, health systems, and much more. Global coordination is needed to ensure that the rush for cleaner technologies does not come at the cost of more environmental destruction and human exploitation.

Many governments met the threat of the COVID-19 pandemic with unprecedented funding. The environmental crisis demands a similar emergency response. Huge investment will be needed, beyond what is being considered or delivered anywhere in the world. But such investments will produce huge positive health and

economic outcomes. These include high-quality jobs, reduced air pollution, increased physical activity and improved housing and diet. Better air quality alone would realise health benefits that easily offset the global costs of emissions reductions (Markandya et al., 2018).

These measures will also improve the social and economic determinants of health, the poor state of which may have made populations more vulnerable to the COVID-19 pandemic (Paremoer et al., 2021). But the changes cannot be achieved through a return to damaging austerity policies or the continuation of the large inequalities of wealth and power within and between countries.

2 | COOPERATION HINGES ON WEALTHY NATIONS DOING MORE

In particular, countries that have disproportionately created the environmental crisis must do more to support low and middle-income countries to build cleaner, healthier and more resilient societies. High-income countries must meet and go beyond their outstanding commitment to provide \$100 bn a year, making up for any shortfall in 2020 and increasing contributions to and beyond 2025. Funding must be equally split between mitigation and adaptation, including improving the resilience of health systems.

Financing should be through grants rather than loans, building local capabilities and truly empowering communities, and should come alongside forgiving large debts, which constrain the agency of so many low-income countries. Additional funding must be marshalled to compensate for inevitable loss and damage caused by the consequences of the environmental crisis.

As health professionals, we must do all we can to aid the transition to a sustainable, fairer, resilient and healthier world. Alongside acting to reduce the harm from the environmental crisis, we should proactively contribute to global prevention of further damage and action on the root causes of the crisis. We must hold global leaders to account and continue to educate others about the health risks of the crisis. We must join in the work to achieve environmentally sustainable health systems before 2040, recognising that this will mean changing clinical practice. Health institutions have already divested more than \$42 bn of assets from fossil fuels; others should join them (Watts et al., 2021).

The greatest threat to global public health is the continued failure of world leaders to keep the global temperature rise below 1.5°C and to restore nature. Urgent, society-wide changes must be made and will lead to a fairer and healthier world. We, as editors of health journals, call for governments and other leaders to act, marking 2021 as the year that the world finally changes course.

CONFLICT OF INTEREST

We have read and understood BMJ policy on declaration of interests and FG serves on the executive committee for the UK Health Alliance on Climate Change and is a Trustee of the Eden Project. RS is the chair of Patients Know Best, has stock in UnitedHealth Group, has done consultancy work for Oxford Pharmagenesis, and is chair

of the Lancet Commission of the Value of Death. None further declared.

PROVENANCE AND PEER REVIEW

Commissioned; not externally peer reviewed.

Lukoye Atwoli Editor in Chief, East African Medical Journal¹

Abdullah H. Baqui Editor in Chief, Journal of Health, Population and Nutrition²

Thomas Benfield Editor in Chief, Danish Medical Journal³

Raffaella Bosurgi Editor in Chief, PLOS Medicine⁴

Fiona Godlee Editor in Chief, The BMJ⁵

Stephen Hancocks Editor in Chief, British Dental Journal⁶

Richard Horton Editor in Chief, The Lancet⁷

Laurie Laybourn-Langton Senior Adviser, UK Health Alliance on Climate Change⁸

Carlos Augusto Monteiro Editor in Chief, Revista de Saúde Pública⁹

Ian Norman Editor in Chief, International Journal of Nursing Studies¹⁰

Kirsten Patrick Interim Editor in Chief, CMAJ¹¹

Nigel Praities Executive Editor, Pharmaceutical Journal¹²

Marcel G. M. Olde Rikkert Editor in Chief, Dutch Journal of Medicine¹³

Eric J. Rubin Editor in Chief, NEJM¹⁴

Peush Sahni Editor in Chief, National Medical Journal of India¹⁵

Richard Smith Chair, UK Health Alliance on Climate Change⁸

Nicholas J. Talley Editor in Chief, Medical Journal of Australia¹⁶

Sue Turale Editor in Chief, International Nursing Review¹⁷

Damián Vázquez Editor in Chief, Pan American Journal of Public Health¹⁸

¹East African Medical Journal, Nairobi, Kenya

²Journal of Health, Population and Nutrition, Biomed Central

³Danish Medical Journal, Copenhagen, Denmark

⁴PLOS Medicine, PLOS, Carlyle House, Cambridge, UK

⁵The British Medical Journal, BMA House, London, UK

⁶British Dental Journal, Springer Nature, London, UK

⁷The Lancet, London, UK

⁸UK Health Alliance on Climate Change, C/O BMJ Publishing Group, London, UK

Email: laurie.laybourn@ukhealthalliance.org

⁹Revista de Saúde Pública, São Paulo, Brazil

¹⁰International Journal of Nursing Studies, Elsevier

¹¹Canadian Medical Association Journal, Ottawa, ON, Canada

¹²The Pharmaceutical Journal, Royal Pharmaceutical Society, London, UK

¹³Dutch Journal of Medicine, Amsterdam, The Netherlands

¹⁴The New England Journal of Medicine, Waltham, Massachusetts, USA

¹⁵National Medical Journal of India, All India Institute of Medical Sciences, New Delhi, India

¹⁶Medical Journal of Australia, Sydney, NSW, Australia

¹⁷International Nursing Review, Wiley

¹⁸Pan American Journal of Public Health, Pan American Health Organization, Washington, District of Columbia, USA

REFERENCES

- Anderson, K., & Peters, G. (2016). The trouble with negative emissions. *Science*, 354, 182–183. <https://doi.org/10.1126/science.aah4567>.
- Climate Action Tracker. (2021) Warming projections global update: May 2021. Retrieved from https://climateactiontracker.org/documents/853/CAT_2021-05-04_Briefing_Global-Update_Climate-Summit-Momentum.pdf
- Fajardy, M., Köberle, A., MacDowell, N., & Fantuzzi, A. (2019) "BECCS deployment: A reality check." Grantham Institute briefing paper 28, 2019. Retrieved from <https://www.imperial.ac.uk/media/imperial-college/grantham-institute/public/publications/briefing-papers/BECCS-deployment---a-reality-check.pdf>
- Global Climate and Health Alliance (2021). Are national climate commitments enough to protect our health? Retrieved from <https://climateandhealthalliance.org/initiatives/healthy-ndcs/ndc-scorecards/>
- Haines, A., & Ebi, K. (2019). The imperative for climate action to protect health. *New England Journal of Medicine*, 380, 263–273. <https://doi.org/10.1056/NEJMra1807873>.
- High Ambition Coalition. (2021). Retrieved from <https://www.hacfornatureandpeople.org>. (accessed Aug 17, 2021).
- Intergovernmental Panel on Climate Change (2018). Summary for policymakers. In: Global warming of 1.5°C. An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Retrieved from <https://www.ipcc.ch/sr15/>
- Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. (2019). Summary for policymakers: The global assessment report on biodiversity and ecosystem services. Retrieved from https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf
- Intergovernmental Panel on Climate Change. (2019). Summary for policymakers. Climate change and land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems. <https://www.ipcc.ch/srcll/chapter/summary-for-policymakers/>. (accessed Aug 17, 2021).
- Lenton, T. M., Rockström, J., Gaffney, O., Rahmstorf, S., Richardson, K., Steffen, W., & Schellnhuber, H. J. (2019). Climate tipping points—Too risky to bet against. *Nature*, 575, 592–595. <https://doi.org/10.1038/d41586-019-03595-0>.
- Markandya, A., Sampedro, J., Smith, S. J., Van Dingenen, R., Pizarro-Irizar, C., Arto, I. & González-Eguino, M. (2018). Health co-benefits from air pollution and mitigation costs of the Paris Agreement: A modelling study. *Lancet Planet Health*, 2(3), e126–e133. [https://doi.org/10.1016/S2542-5196\(18\)30029-9](https://doi.org/10.1016/S2542-5196(18)30029-9).
- Paremoer, L., Nandi, S., Serag, H., & Baum, F. (2021). Covid-19 pandemic and the social determinants of health. *BMJ*, 372, n129. <https://doi.org/10.1136/bmj.n129>.
- Rocque, R. J., Beaudoin, C., Ndjaboue, R., Cameron, L., Poirier-Bergeron, L., Poulin-Rheault, R.-A., Fallon, C., Tricco, A. C., & Wittman, H. O. (2021). Health effects of climate change: An overview of systematic reviews. *British Medical Journal Open*, 11, e046333. <https://doi.org/10.1136/bmjopen-2020-046333>.
- Secretariat of the Convention on Biological Diversity (2020). Global biodiversity outlook 5. Retrieved from <https://www.cbd.int/gbo5>
- Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan,

- V., Reyers, B., & Sorlin, S. (2015). Sustainability. Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223), 1259855. <https://doi.org/10.1126/science.1259855>.
- Thunberg, G., Neubauer, L., Charlier, A., De Wever, A., O'Connor, S., Castro, B., Burdukovska, V., Křáze, L., Ašmane, L., Anna Celma, D., Treimane, L., Lapinskis, A., Wicker, D., Motolese, C., Wicker, D., Axelsson, I., Schümmer, J., Warmenhoven, S., Schüller Zakas, R., Papatheodorou, M., ... & Kotěšovec, A. (2020). Climate strikers: open letter to EU leaders on why their new climate law is "surrender". Carbon Brief. <https://www.carbonbrief.org/climate-strikers-openletter-to-eu-leaders-on-why-their-new-climate-law-is-surrender>. (accessed Aug 17, 2021).
- UK Health Alliance. (2021). Our calls for action. Retrieved from <http://www.ukhealthalliance.org/cop26/>
- United Nations Environment Programme (2020). *Emissions gap report 2020*. UNEP.
- United Nations Environment Programme and International Livestock Research Institute. (2020). Preventing the next pandemic: Zoonotic diseases and how to break the chain of transmission. Retrieved from https://72d37324-5089-459c-8f70-271d19427cf2.filesusr.com/ugd/056cf4_b5b2fc067f094dd3b2250cda15c47acd.pdf
- Watts, N., Amann, M., Arnell, N., Ayeb-Karlsson, S., Beagley, J., Belesova, K., Boykoff, M., Byass, P., Cai, W., Campbell-Lendrum, D., Capstick, S., Chambers, J., Coleman, S., Dalin, C., Daly, M., Dasandi, N., Dasgupta, S., Davies, M., Di Napoli, C., ... Costello, A. (2021). The 2020 report of the Lancet Countdown on health and climate change: Responding to converging crises. *Lancet*, 397, 129-170. [https://doi.org/10.1016/S0140-6736\(20\)32290-X](https://doi.org/10.1016/S0140-6736(20)32290-X).
- World Medical Association, International Council of Nurses, ISDE International, World Federation of Public Health Associations, World Organization of Family Doctors (WONCA), European Respiratory Society, Standing Committee of European Doctors (CPME), Sociedad Iberoamericana de Salud Ambiental, Australian Medical Association, College of Intensive Care Medicine of Australia and New Zealand, ABRASCO - Associação Brasileira de Saúde Coletiva, Brazilian Thoracic Society, Sociedade Brasileira de Medicina de Família e Comunidade, Canadian Medical Association, German Society of Internal Medicine, Conseil national de l'Ordre des médecins, Indian Academy of Paediatrics, Public Health Foundation of India, Indonesian Rural and Remote Doctor Association - IRRDA, Federazione dei Medici Chirurghi e degli Odontoiatri (FNOMCeO), ... & MSF Southern Africa. (2020). In support of a #HealthyRecovery. <https://healthyrecovery.net>. (accessed Aug 17, 2021).
- Wunderling, N., Donges, J. F., Kurths, J., & Winkelmann, R. (2021). Interacting tipping elements increase risk of climate domino effects under global warming. *Earth System Dynamics Discussions*, 12, 601-619.

How to cite this article: Atwoli, L., Baqui, A. H., Benfield, T., Bosurgi, R., Godlee, F., Hancocks, S., Horton, R., Laybourn-Langton, L., Monteiro, C. A., Norman, I., Patrick, K., Praities, N., Olde Rikkert, M. G. M., Rubin, E. J., Sahni, P., Smith, R., Talley, N. J., Turale, S., & Vázquez, D. (2021). Call for emergency action to limit global temperature increases, restore biodiversity and protect health. *International Journal of Older People Nursing*, 16, e12422. <https://doi.org/10.1111/opn.12422>