



ACCELERATING EVIDENCE-INFORMED ACTION ON PLANETARY HEALTH

at The George Institute for Global Health





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Environmental change is the greatest health and humanitarian crisis the world has ever seen. Global heating and related environmental shifts are driving rising rates of illness and disease, and exacerbating deep-seated inequities, particularly in communities already experiencing marginalisation. The impact of environmental change is supercharged by unhealthy and unsustainable environments where people live, play, learn and work. The global food system, for example, promotes the consumption of poor diets that are fuelling a pandemic of non-communicable diseases (NCDs). It also contributes to environmental degradation through greenhouse gas emissions, unsustainable water extraction and deforestation.

The George Institute for Global Health is an independent research institute dedicated to improving the health of millions of people worldwide. We have major centres in Australia, China, India, and the United Kingdom. A planetary health lens is embedded into our research and advocacy, and we aim to lead by example through our internal sustainability efforts. The George Institute seeks to ensure that evidence informs

the development and implementation of social, economic, and environmental policies to address environmental change and other urgent global health challenges and to improve planetary health outcomes. Our Planetary Health research strategy aims to consolidate and accelerate our work by leveraging the strengths of our existing programs, building specialist capacity, and strengthening our partnerships with external experts and institutions.

We are committed to placing at the heart of our work the Traditional Knowledges of First Nations and Tribal Peoples and the voices of other communities experiencing marginalisation. We work closely with these communities, stakeholders, and policymakers at local, national, and global levels to address and reverse the impacts of ongoing environmental change on human health, food systems, and equity.

What follows is a summary of recent and ongoing activities that highlight our passion and commitment to improving planetary health.

Non-Communicable Diseases and Environmental Change

Multiple, mutually reinforcing environmental crises are having a significant impact on the rates and severity of non-communicable diseases, including cardiovascular and kidney diseases, mental health conditions, and injuries. The George Institute is leveraging its international expertise to build the evidence base on the impacts of environmental change on health outcomes, enabling us to develop innovative solutions to reduce and/or reverse these impacts.

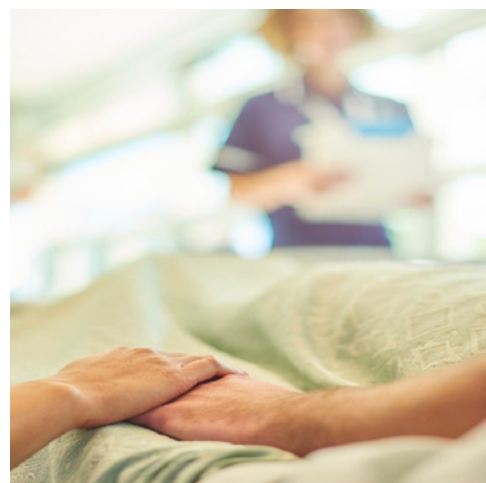
Global Health Research Centre on Non-Communicable Diseases and Environmental Change:

The George Institute has established a dedicated centre in collaboration with Imperial College London. Led by The George Institute in India, the centre is co-producing world-leading implementation research with local communities in Bangladesh, India, and Indonesia. Design is in collaboration with academics, policymakers, environmental agencies, communities, and health and medical service providers. The program of work focuses on a multi-pronged approach to strengthen primary care provision in each country and mitigate an environmental challenge in each context: air pollution in Indonesia; lack of dietary diversity in India; and water salinity in Bangladesh.



Climate Change and Dementia: The George Institute in collaboration with the Centre on Climate Change and Planetary Health at the London School of Hygiene and Tropical Medicine is exploring the links between climate change and dementia. We have already found that *as temperatures rise, the United Kingdom can expect to see increased emergency department dementia admissions.*

Climate Change and Kidney Disease: The George Institute is *working with coastal agricultural communities in Andhra Pradesh in India*, who are particularly vulnerable to climate change, and who face a very high burden of kidney disease with an unknown cause. We are assessing *kidney health risks due to environmental heat stress* and other risk factors, with a focus on improving occupational health policy.



Climate Change and Mental Health: The George Institute is *working with young people to understand their feelings regarding climate change and COVID-19*, including the changes they hoped to see after the pandemic and their role in bringing about these changes. In collaboration with the Chinese University of Hong Kong, we are engaging with young people in the Sundarbans in India and students in Hong Kong. The insights and interventions surfaced from these initiatives have the potential to influence global adaptation and mitigation practices and policies.

Effects of extreme heat on pregnancy and newborn health: The Institute is leading a multi-partner coalition of researchers across India and the United Kingdom to understand the effects of extreme heat on pregnancy, and influence policies to protect pregnant women across the globe. Working with communities in three sites in India (Haryana, Chhattisgarh, and Puducherry), we are capturing detailed microclimate exposure, along with a range of physiological, ultrasound, and placental markers, and using data collected in other studies to understand critical temperature thresholds in pregnancy.

Healthy and Sustainable Food and Water Systems

Billions of people around the world suffer from malnutrition in all its forms. The food system is one of the largest contributors to environmental degradation through greenhouse gas emissions, water use, and deforestation. It is also one of the sectors hardest hit by environmental change. The George Institute is using a range of expertise in clinical trials, digital tools, behaviour change, and regulatory tools to develop practical solutions at the intersection of diet-related disease and environmental degradation from food systems. We are collaborating with communities most impacted to advocate for the inclusion of unheard voices in decision-making processes.

Healthy Food, Healthy Planet, Healthy People Centre for Research Excellence: Access to information about the nutritional quality and environmental impacts of the food we eat is a basic consumer right yet is currently inadequate. The George Institute-led **Healthy Food, Healthy Planet, Healthy People Centre for Research Excellence** is delivering world-leading innovations in nutrient profiling algorithms and environmental indicators that estimate the human and planetary consequences of varying patterns of food and beverage consumption.



Planetary health rating for food products: The George Institute has launched a user-friendly new app – ecoSwitch – to help Australians **make food choices that are better for the environment**. The app uses data on the greenhouse gas emissions associated with a product's ingredients – a key driver of global warming – to assign a planetary health rating and suggest alternative products with a lower environmental impact.

CARISMMA (ChAracterizing, Revlving, Supporting, Monitoring and MAnaging) Sustainable Food Systems: This study in India is exploring Indigenous food systems and their agricultural, ecological, environmental, social, financial, and behavioural drivers and nutritional outcomes in Tribal communities. The evidence generated will be used to develop customised, culture-sensitive, sustainable food systems solutions to address food security and malnutrition, building models using machine learning and artificial intelligence.



Food and Water for Life Program in Australia:

This program is led by the Dharriwaa Elders Group (DEG) and Walgett Aboriginal Medical Service in Australia, in collaboration with DEG's University of New South Wales Yuwaya Ngarra-li partners and The George Institute. **The Food and Water for Life program** grew from projects developed in response to findings from **Walgett's Food Forum** in April 2019. It addresses a range of food and water security and environmental concerns affecting the First Nations Walgett community. The program aims to respond to immediate needs while also supporting sustainable, systemic changes.

Australia-Pacific Perspective on Unheard Voices in Food and Water Systems: The inclusion of Traditional Knowledges and First Nations and Pacific Island priorities in healthy and sustainable food and water systems is crucial. Ahead of the 2021 United Nations Food Systems Summit, The George Institute partnered with the Walgett Aboriginal Medical Service and Dharriwaa Elders Group in New South Wales, Australia, and the Pacific Research Centre for the Prevention of Obesity and Non-Communicable Diseases in Fiji, to develop the report '**Whose paradigm counts? An Australia-Pacific perspective on unheard voices in food and water systems**'.



Food Production and Supply: Around the world, food systems continue to be disrupted by the impacts of the COVID-19 pandemic and the climate crisis. Informed by our research, The George Institute developed guidance on how to improve systems to ensure a healthy, sustainable supply of food in times of crisis, *contributing a submission* and evidence to the New South Wales Parliament's Legislative Assembly Committee on Environment and Planning Inquiry into Food Production and Supply.



Food Insecurity and Climate Change:

In 2023, the Australian Department of Foreign Affairs and Trade funded a 12-month project focusing on food insecurity, health and the impacts of climate change and environmental degradation on the livelihoods of vulnerable communities living in flood-prone areas on the northern coast of Central Java, Indonesia. Project outcomes will target policy and service initiatives to mitigate the negative impacts of climate change on food security and health.



Diverse, healthy diets for all - How a focus on healthy diets can transform food systems and climate action: In March 2023, The George Institute attended the Health Climate Network workshop on "Putting nutrition and healthy diets at the heart of agrifood systems reform and action on climate change". Participants working across food and agriculture systems, climate change, nutrition, and health co-created a *four-point plan for delivering a diverse, healthy and climate positive system*.

Environmental Change and Injury

Environmental change affects habitats and increases the frequency and severity of extreme weather events. It results in changes to land use and human migration, which in turn shift human behaviours and create new areas of risk for human health. The George Institute is leveraging behavioural research and advocacy expertise to build the evidence base on these changes and recommend policy interventions to safeguard population health.

Snakebite Burden: Snakebite is responsible for up to 138,000 deaths worldwide every year, with nearly 2.7 million people suffering serious injuries and permanent disabilities. It is therefore a major public health challenge. An increase in the frequency and intensity of climate-related extreme weather events is *likely to modify snake-human-environment interactions*, leading to an increase in the snakebite burden. The George Institute has identified significant evidence gaps on the impact of climate change on snakebite burden, *calling for more transdisciplinary research on the issue.*

Lowering Speed on Streets: With a growing global population and increasing urbanisation, cities are facing huge pressures in terms of population density, transport, air quality, access to opportunities for physical activity, and climate change. The George Institute is exploring how these challenges intersect and has proposed *enforcing urban speed limits of 30km/h or less to reap co-benefits for human health and the planet.*

Drowning Epidemic: The frequency and severity of flooding events continues to rise as the climate crisis worsens. The World Health Organization reports nearly 372,000 drowning deaths each year, with more than half of these occurring in South-East Asia and the Western Pacific Region. Little is known about the impact on communities, both socially and economically. The George Institute is conducting research into better safety and education around water in Bangladesh, India, and Vietnam. In India, increases in the frequency and intensity of floods, cyclonic rainfall, droughts and increasing surface and streamflow water are associated with an elevated risk of drownings, but a lack of evidence leaves the specific level of risk unclear, necessitating further research to improve our understanding.



An Economy for People and Planet

A wellbeing economy prioritises the wellbeing of people and planet over unsustainable extraction and consumption, using indicators of wellbeing such as equity, happiness, and environmental outcomes, for current and future generations. The George Institute is leveraging its research, advocacy and policy expertise to engage with local and national governments on measures to support systemic shifts to wellbeing economy approaches.



Wellbeing Economy and Government:

The George Institute undertook an analysis of how a wellbeing approach could be *incorporated into the business of government*, drawing on a number of international case studies to consider the feasibility of a wellbeing economy in Australia. We also brought together experts from the health, community, environment, research, and youth sectors during a roundtable (*summarised here*) to discuss how a wellbeing economy might be implemented in Victoria, Australia.

We developed a *toolkit*, outlining practical guidance for governments to accelerate this approach, and hosted a virtual panel discussion exploring how a wellbeing economy might improve social, health, and environmental outcomes. This was completed in the context of the Australian Government developing a wellbeing framework, 'Measuring What Matters'.

The George Institute in Australia contributed two *written submission to the Australian Commonwealth Treasury on the consultation for the 'Measuring What Matters' Framework (the Framework)*. The submissions suggested the inclusion of a broader range of indicators that addressed equity and the social determinants of health. Learn more about the *power of a wellbeing economy for climate, health, and equity*.



Raising Awareness of Environmental Impacts on Health and Equity

Through advocacy and thought leadership, The George Institute is helping to drive a meaningful shift in the planetary health landscape at local, regional and global levels. We are engaging with key stakeholders, sharing insights and fostering discussions to stimulate debate, guide critical policy decisions and facilitate evidence-informed change.

Civil Society Collaboration: We work with a number of civil society networks to amplify our advocacy, build momentum and drive change, including the *Global Climate and Health Alliance* and the *WHO Civil Society Working Group on Climate Change and Health*. We are also a member of *COP2 (People x Planet)*, a growing community of organisations focused on strengthening societies' collective resilience to address and adapt to climate change, for which we co-lead the Regional Hub for Southeast Asia and the Western Pacific. Our advocacy around the United Nations Climate Change Conference (COP) in recent years has included calling for triple-win actions on climate, health, and equity to pull humanity back from the brink, and for a wellbeing economy focused on planetary health to be at the top of the agenda.



Intersectoral Action for Planetary Health: The George Institute hosted world-leading experts for a webinar on '*The intersectoral action needed for the future health of people and planet*' in 2021. The speakers went on to publish an *opinion article in the BMJ* on the same subject. A further *opinion article in the BMJ* called for a reframing of the narrative on the climate catastrophe, to focus on systems change, rather than individual action, to avoid letting the fossil fuel industry and governments off the hook. The George Institute in Australia has advocated for a National Climate and Health Strategy, calling for the consideration of climate change impacts on health to be integrated into government decision-making.

Human Rights and Environmental Change: Environmental change is having a significant impact on human rights and health outcomes. In 2020, The George Institute's Healthier Societies Director Professor Kent Buse and colleagues published an opinion article on *the connection between human rights and healthy, safe environments*. In 2021, we co-hosted an international conference on '*Health and Human Rights in the Climate Crisis*' with the Australian Human Rights Institute, UNSW Sydney and the Institute on Inequalities in Global Health, University of Southern California. We published an article with our co-hosts on '*The right to a healthy environment: making it matter*'.

Environmentally Friendly Menstrual Hygiene Practices: Greater awareness and uptake of environmentally friendly menstrual hygiene practices is urgently needed around the world. The George Institute developed a podcast, '*Perspectives, Practices, and Environmental Footprints of menstrual hygiene management in India*' on the different menstrual products and practices, highlighting the challenges and misinformation that exist in this space.



The George Institute Sustainability Audit: A planetary health approach requires that all of us step up. This includes the health sector, which is responsible for up to five percent of total global greenhouse gas emissions. The George Institute is committed to reducing its carbon footprint. Recently a sustainability audit was completed to identify strategies that can accelerate decarbonisation efforts across our operations and research programs. We are committed to sharing what we learn, including with other health and medical research stakeholders who may benefit from the insights we gain.





To find out more please visit our website or contact us at:

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