



Task Force 3
LiFE, Resilience, and
Values for Wellbeing



INDIA 2023



भारत 2023 INDIA

STRENGTHENING HEALTH SYSTEM RESPONSES TO CLIMATE RISKS IN MULTILATERAL PROCESSES

June 2023

Sakshi Bajpai, Project Associate, The Energy and Resources Institute (TERI)

Sisira P, Project Associate, The Energy and Resources Institute (TERI)

Smita Chakravarty, Research Associate, The Energy and Resources Institute (TERI)

Amlan Mishra, Research Associate, The Energy and Resources Institute (TERI)

Suruchi Bhadwal, Senior Fellow and Director, The Energy and Resources Institute (TERI)


वसुधैव कुटुम्बकम्

ONE EARTH • ONE FAMILY • ONE FUTURE



Abstract







Climate change, identified by the World Health Organization as the biggest health threat of the 21st century, has wide-ranging impacts on human health and well-being. These include direct effects like heatwaves from rising temperatures, and indirect effects such as respiratory disorders from air pollution. Economic consequences include increased unemployment, financial stress, and social inequalities. Additionally, global health systems face significant risks, such as the emergence of new diseases, frequent extreme weather events, and heightened vulnerability to existing

health challenges. As such, it is vital to strengthen health system responses to climate risks in multilateral processes to protect and promote public health.


This policy brief highlights the need for a robust monitoring and evaluation framework in healthcare, along with investment in surveillance systems and to digitise health data. It emphasises funding climate-resilient health infrastructure and supporting low- and middle-income countries. Indeed, by prioritising climate and health initiatives, the G20 can significantly protect global health.



The Challenge



1




Climate change is a major global threat that has directly and indirectly impacted human health. It has threatened the essential components of good health, including clean air, safe drinking water, nutritious food, and safe shelter, and has the potential to undermine decades of global health progress. Climate change is expected to cause approximately 250,000 additional deaths per year between 2020 and 2050 due to malnutrition, malaria, diarrhoea, and heat stress.¹ Research has shown that over five million deaths per year are directly linked to abnormally hot and cold temperatures globally.² Additionally, more than 20 million people have been compelled to relocate every year since 2008 due to weather-related events.³

While the physical impacts of these events are apparent, their impacts on mental health are difficult to quantify. These impacts pose an additional burden on the already overburdened health sector globally, particularly in low- and middle-income countries (LMICs) where health infrastructure and resources may already be limited.⁴ Climate change not only leads to increased and changing healthcare

needs, but also places undue strain on healthcare providers' operations through damaged facilities and disrupted supply chains. It aggravates pressing environmental, social and governance issues in healthcare, including health disparities, workforce burnout and the availability of key resources like water. Examples illustrating this include the UK issuing a level 4 heat-health alert, a significant 50 percent increase in heat-related ailments in India, and New York hospitals incurring recovery costs of US\$3.1 billion after Superstorm Sandy.⁵ This added burden can further exacerbate existing health inequities and make it difficult to achieve global health goals.


Health systems have the primary responsibility for addressing the increased health burden resulting from climate change. This includes managing the displacement, injuries, and illnesses experienced by affected populations due to the rise in frequent extreme weather events like heatwaves, storms, and floods. It also involves dealing with the disruption of food systems, the escalation of zoonotic diseases, and the spread of food-, water-, and vector-borne illnesses. Additionally, health systems must address the



mental health impacts associated with climate change. Evidence also highlights the adverse health impacts on vulnerable populations, such as low-income communities, indigenous peoples, those with pre-existing health conditions, and workers engaged in high-risk professions such as emergency responders and construction workers. Low-income countries with inadequate health infrastructure will face challenges in enhancing preparedness and responding effectively without assistance.⁶ The COVID-19 pandemic has also highlighted the crucial role of the health sector in protecting public health. It has underscored the importance of strong and effective health systems in preventing the spread of infectious diseases and safeguarding public well-being. However, the pandemic has also revealed gaps in healthcare, including shortages of supplies, inadequate infrastructure, and insufficient funding. These challenges have not only impacted pandemic management but also had broader implications for other health conditions.⁷

Despite countries having multiple plans, policies, and programmes in place to ensure the health and well-being of their citizens, health system

infrastructure across the world continues to face numerous challenges. One such challenge is the difficulty in providing access to quality healthcare, especially in LMICs. Additionally, the lack of funding and resources for public health programmes also limit their effectiveness in treating and preventing climate-change-related health impacts.⁸ While many global health initiatives now emphasise strengthening health systems, sustaining these systems will be challenging without a robust monitoring strategy. Such a strategy is necessary to enable decision makers to accurately track health progress and performance, evaluate impact and ensure accountability at national and international levels. There are also major gaps in data availability and quality, particularly in developing countries. For instance, few countries conduct regular national health accounts studies; however, data on health worker availability and distribution is often incomplete and inaccurate, service delivery monitoring systems are limited, and data on population access to essential services is scarce.⁹ Additionally, the complexity of healthcare systems and the involvement of multiple stakeholders make it difficult to enforce policies.



Taking India as an example, despite comprehensive visions and objectives outlined in national health policies and programmes, their implementation faces several bottlenecks. Most programmes aim to address national health issues but often neglect regional specificities and needs and lack focus on technology adoption to improve services and delivery monitoring. Quality indicators and timely execution are often limited to selective components, and the implementation is frequently restricted to documentation rather than practical ground-level execution.¹⁰

To minimise the adverse impacts of climate change on health, countries have initiated climate and health programmes targeting issues like heat-related illnesses. These programmes require coordination among stakeholders, including healthcare providers, policymakers and community members, to ensure efficient resource utilisation and tailored interventions. However, achieving coordination is challenging due to limited communication and collaboration, competing priorities and scarce

resources. Stakeholders often work independently, resulting in duplication of efforts, inefficiencies and service-delivery gaps. Furthermore, there is a lack of a well-designed framework for monitoring and evaluating the progress of such programmes. This absence hinders the ability to make informed decisions regarding resource allocation, policy development and programme implementation. Without this, the potential for successful prevention and management of climate-change-related health impacts might be limited.

There are data constraints too. The collection and analysis of health data is critical for effective decision making in health systems. Despite the availability of advanced tools and techniques for data collection in many LMICs, the quality of data remains an issue. The lack of digitalisation of data and information is a significant barrier to improving health outcomes globally. One of the significant challenges in health data collection is the absence of standardisation in the formats of collected data, thereby limiting its utility in decision-making processes.



The G20's Role

2





The G20 has recognised the importance of addressing global health challenges and taken steps to promote coordination in the health sector. In this regard, it is an important forum for addressing the challenges faced by health programmes and policies globally by encouraging countries to adopt a monitoring, evaluation, and learning (MEL) framework to drive better coordination in the health sector. In the recent years, the G20 has expanded its focus beyond finance and trade, with the first meeting of health ministers in Berlin, Germany, in 2017, addressing global health issues such as anti-microbial resistance (AMR), public health emergencies and universal health coverage (UHC). The meeting also emphasised the need for a more integrated and coordinated approach to address global health challenges, including the impacts of climate change on health by establishing the Health Working Group (HWG) to develop a shared international agenda on issues such as strengthening healthcare systems, reducing malnutrition, managing health crises, and scaling up the fight against pandemics.¹¹

G20 member countries have encountered various challenges associated with climate-sensitive

diseases in addition to issues of aging societies and non-communicable diseases. As a result, they have developed innovative strategies, frameworks, and policies to address these issues. Hence, G20 countries can contribute to improving global health outcomes by sharing their experiences in managing climate-related health impacts with other nations. Collaborative and cooperative approaches can be pursued by G20 countries to complement the roles of the G7 and World Health Assembly in addressing similar health issues.¹²

Studies have shown that MEL frameworks have a positive impact on health sector management. These frameworks help organisations monitor progress, identify gaps, and make informed decisions regarding programme implementation, resource allocation and policy development. Therefore, prioritising the development and implementation of comprehensive MEL frameworks in the health sector can enhance coordination and programme management.


Table 1 showcases a snapshot of ongoing climate and health programmes in select G20 countries to respond to the adverse impact of climate change.

Table 1: Climate and health initiatives in G20 countries

| S. No. | Geography | Climate and Health Initiatives | Monitoring, Evaluation, and Learning Frameworks | Notes |
|--------|-----------|--|--|--|
| 1 | US | NIH Climate Change and Health Initiative Strategic Framework (NIH, EPA, and CDC) | Adaptation and evaluation plan (CDC) | Dynamic, real-time web-based data system of indicators collected at different levels |
| 2 | EU | EuroHealthNet and other individual initiatives by member countries | Currently exploring collaboration on indicators | New proposed EU4Health programme that will seek to strengthen health security and prepare for future health crises |
| 3 | UK | Environment Public Health Surveillance System | Indicators not public yet | Specific focus on lead exposures in children |
| 4 | Canada | The Environmental Public Health Programme | Indicator based monitoring plan being developed | Built around the IPCC risk framework of vulnerability, sensitivity, and adaptive capacity |
| 5 | India | National Action Plan on Climate Change and Human Health (NAPCCHH) and National Programme on Climate Change and Human Health (NPCCHH) | Monitoring plan being developed, Centre of Excellences (CoEs) for various themes appointed | Entities such as TERI are working closely with National Centre for Disease Control (NCDC) to develop MEL framework |

Implementing an effective MEL framework can help foster coordination by providing a systematic approach to monitoring and evaluating health programmes and policies. By engaging all stakeholders in the development and implementation of MEL frameworks, healthcare providers, policymakers

and community members can work together towards a shared goal with a shared understanding of the importance of evaluating and learning from programme outcomes. By sharing best practices and knowledge, the G20 can help create viable opportunities for MEL frameworks to drive better coordination



in the health sector and ultimately improve the health outcomes of the global population.

The G20 can also play a crucial role in facilitating access to financial resources for public health programmes, particularly in LMICs. This includes investments in healthcare infrastructure, training healthcare workers and supporting research and development of new technologies and treatments. G20 countries have launched various initiatives under climate change and health impact has, such as the G20 Health and Development Partnership established in 2020. This partnership focuses on improving health outcomes in LMICs through increased investment in health systems and innovation.

Drawing on the experiences of COVID-19, the Indonesian G20 Presidency, in collaboration with the Pandemic Fund Secretariat, set up the Pandemic Fund. The objective of this fund is to increase the ability of LMICs to mitigate the risks of future global health threats by providing a dedicated source of long-term finance for pandemic prevention, preparedness

and response. Around 24 donors including a wide range of stakeholders, the World Health Organization (WHO), civil society organisations, and potential implementing entities have already committed US\$1.4 billion as initial funding.¹³ Additionally, G20 countries have already committed to strengthening health systems and promoting global health security through initiatives such as the Global Health Security Agenda to combat the increasing global burden of communicable and non-communicable diseases, while also striving to achieve the United Nations' Sustainable Development Goals (SDGs) by 2030, with a particular emphasis on SDG3, which seeks to ensure “health and well-being for all”, and SDG17, which aims to “strengthen partnerships”.¹⁴

The G20 member countries are also committed to raising funds for health research and innovation, which can help to inform the development of effective MEL frameworks for the health sector. Hence, by advocating for a stronger health response, G20 countries can have a significant impact on the well-being of the global population affected by climate change.



Recommendations to the G20

3



Strengthening healthcare preparedness in G20 countries


Establishing resilient and sustainable healthcare systems is crucial to effectively address the challenges posed by climate change challenges and improve community health. The WHO's operational framework promotes collaboration and capacity development for resilient health systems that address climate-related challenges, enhance preparedness and improve future capacity.¹⁵ By implementing these strategies, healthcare systems can provide high-quality affordable services, contribute to UHC and respond to the climate emergency.

G20 countries have the opportunity to capitalise on the commitments made by over 50 countries in developing climate resilient, sustainable and low-carbon health systems. This can be achieved through the COP26 Health Programme led by the UK COP presidency and the WHO. G20 countries can also enhance their efforts to assist countries in implementing these commitments.^{16,17} To do this, the G20 should lead by example through their own commitments and their implementation. They should prioritise funding for climate and health

initiatives in LMICs and adopt principles such as reducing vulnerability among vulnerable groups such as women, children and the disabled, striving for climate neutrality, developing climate-resilient capacities, and integrating health considerations in all policies. Joint MEL systems should also be established to track progress in reducing emissions and foster cooperation and knowledge-sharing among countries and health institutions for effective implementation of climate resilient and environmentally sustainable health systems.

Invest in integrated surveillance, monitoring and early-warning systems

The G20 countries need to adapt to climate change impacts for resilient health systems. Tailored resources and effective solutions are necessary due to geographical variations and differing coping capabilities. Integrating environmental and meteorological data with health information systems is a challenge, especially in low-income countries. Utilising advanced technology like remote sensing can help bridge this gap. Integrated risk monitoring, early warning systems and vulnerability assessments are crucial for climate-sensitive health information



systems but require capacity building and collaboration. Consideration of gender and socioeconomic indicators is vital to identify disproportionately affected populations.

Prioritise the digitisation of data in the health sector

The digitisation of health data is a critical step towards improving the quality and accessibility of data. This allows for the collection, storage, and analysis of data in a standardised format, making it easier to compare and analyse data across different regions and countries. It also enables real-time monitoring of health indicators and enhances the ability to identify emerging health risks quickly. Therefore, the G20 should prioritise the digitisation of health data, ensuring that data is collected in a consistent format across all G20 countries. This will enable granularity in the data, which will be valuable for understanding health risks and developing appropriate response mechanisms.


Multilateral processes on health and MEL framework to report on progress

A standardised MEL framework is necessary for documenting and tracking

progress in health-related programmes globally. G20 countries are taking the lead by designing MEL frameworks for monitoring their climate change and health programmes, which can be used as a model for other nations. These frameworks should incorporate cross-cutting issues like gender equality, youth, disabilities, climate change and human rights principles. MEL findings should inform evidence-based decision making, improve service delivery, and be accessible to stakeholders through a repository of public sector reports. Capacity development, standardised methods and knowledge sharing are crucial for effective MEL.

Driving development in G20 countries through an integrated project funding platform

The establishment of an integrated project-funding platform, specifically tailored for climate-resilient health infrastructure, presents a significant opportunity for G20 countries to attract public and private investments through a blended financing scheme. This platform offers a comprehensive range of services, including development facilities, de-risking facilities, financing facilities and an equity fund, which collectively streamline technical



assistance, mitigate risks, ensure a steady pipeline of climate-smart health infrastructure projects and secure diverse and sustainable funding sources. By leveraging this platform, G20 countries can effectively develop and implement healthcare projects that improve accessibility, quality and resilience, while also exploring additional funding options such as crowd funding to further support their initiatives.

Prioritising the protection of human rights and the development and health of vulnerable groups from climate change impacts

Climate change threatens fundamental human rights globally, including the right to life and freedom. The commitment of the 197 Parties to the United Nations Framework Convention on Climate Change in 1992 to protect the climate system for the benefit of present and future generations was based on principles of fairness and justice. The Paris Agreement in 2015 further emphasised the importance of intergenerational equity. The UN Human Rights Council also recognises the

potential of human rights obligations and standards to strengthen climate change policies and ensure coherence, legitimacy, and sustainable outcomes. Integrating a rights-based approach into climate change actions, as advocated by the Declaration on the Right to Development, can further enhance the protection of human rights in climate change adaptation and mitigation efforts. The G20 can play a crucial role in promoting a human-rights-based approach to climate change by raising awareness among member countries and in collaboration with international organisations advocating for the integration of human rights into climate strategies.

Integrating climate concerns into the existing HWG

The HWG of G20 is responsible for providing a forum for member countries to discuss and collaborate on global health issues. By integrating climate concerns into the existing HWG, member countries can better address the health impacts of climate change and work towards the development of more resilient health systems.

- The working group should include experts in climate science and policy, specifically in areas such as air quality, heat stress and vector-borne diseases, to ensure that climate concerns are properly integrated into health policies and programmes.
- The group should foster collaboration between health professionals and climate experts. This could include joint research projects, cross-disciplinary training programmes and joint policy advocacy efforts.
- Clear indicators to monitor progress on climate-related health goals should also be established by including indicators related to air quality, heat stress, vector- and water-borne diseases, and other climate-related health risks.
- The group can also foster knowledge sharing of best practices, data on climate and health as well as developments in information and technology among the member countries.

Prioritising health components in national adaptation plans

G20 countries should advocate for including health in national adaptation plans, addressing connections between environmental changes and physical/mental health. They should also emphasise on inter-ministerial collaboration and preparedness plans to address urgent and long-term health risks.

Attribution: Sakshi Bajpai et al., “Strengthening Health System Responses to Climate Risks in Multilateral Processes,” *T20 Policy Brief*, June 2023.

Endnotes

- 1 “Climate Change,” World Health Organization, accessed January 25, 2023, https://www.who.int/health-topics/climate-change#tab=tab_1.
- 2 Qi Zao et al., “Global, Regional, and National Burden of Mortality Associated with Non-Optimal Ambient Temperatures from 2000 to 2019: A Three-Stage Modelling Study,” *The Lancet Planetary Health* 5, no. 7 (July 2021): e415–25, [https://doi.org/10.1016/s2542-5196\(21\)00081-4](https://doi.org/10.1016/s2542-5196(21)00081-4).
- 3 Shanoor Seervai, Lovisa Gustafsson, and Melinda K. Abrams, “The Impact of Climate Change on Our Health and Health Systems,” *Commonwealth Fund*, May 2022, <https://www.commonwealthfund.org/publications/explainer/2022/may/impact-climate-change-our-health-and-health-systems>
- 4 A J McMichael, S Friel, A Nyong, and C Corvalan, “Global Environmental Change and Health: Impacts, Inequalities, and the Health Sector,” *BMJ* 336, no. 7637 (January 24, 2008): 191–94, <https://doi.org/10.1136/bmj.39392.473727.ad>.
- 5 Kavitha Hariharan, Adrienne Cernigoi, Claudio Saffioti, and Cheryl Cosslett, “It’s time for healthcare to accelerate its climate journey,” *World Economic Forum*, August 12, 2022, <https://www.weforum.org/agenda/2022/08/it-s-time-for-healthcare-to-accelerate-its-climate-journey/>.
- 6 Seervai, Gustafsson, and Abrams, “The Impact of Climate Change”
- 7 Abraham Haileamlak, “The Impact of COVID-19 on Health and Health Systems,” *Ethiopian Journal of Health Sciences* 31, no. 6 (November 2021): 1073–74, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8968362/>
- 8 World Health Organization, “Strengthening Health Resilience to Climate Change,” WHO, 2015, <https://www.afro.who.int/publications/strengthening-health-resilience-climate-change>.
- 9 World Health Organization, “Monitoring the Building Blocks of Health Systems: A Handbook of Indicators and Their Measurement Strategies.” WHO, 2010, <https://apps.who.int/iris/handle/10665/258734>.
- 10 Nanda Kumar Bidare Sastry, Monisha Madhumitha, Arkalgud Ramaprasad, and Thant Syn, “National Healthcare Programs and Policies in India: An Ontological Analysis,” *International Journal of Community Medicine and Public Health* 4, no. 2 (January 25, 2017): 307, <https://doi.org/10.18203/2394-6040.ijcmph20170001>.

- 11 “Global Health,” Organization for Economic Co-operation and Development, accessed March 2023, <https://www.oecd.org/g20/topics/global-health/>.
- 12 Hidechika Akashi et al., “The Role of the G20 Economies in Global Health,” *Global Health & Medicine* 1, no. 1 (October 31, 2019): 11–15, <https://doi.org/10.35772/ghm.2019.01008>.
- 13 “G20 Hosts Official Launch of The Pandemic Fund,” World Bank, accessed November 13, 2022, <https://www.worldbank.org/en/news/press-release/2022/11/12/g20-hosts-official-launch-of-the-pandemic-fund>.
- 14 “Home,” G20 and G7 Health & Development Partnership, accessed May 24, 2023, <https://g20healthpartnership.com/>.
- 15 World Health Organization, “Operational Framework for Building Climate Resilient Health Systems,” WHO, June 10, 2015, <https://www.who.int/publications/i/item/9789241565073>.
- 16 Nick Watts et al., “Health and Climate Change: Policy Responses to Protect Public Health,” *The Lancet* 386, no. 10006 (November 2015): 1861–1914, [https://doi.org/10.1016/s0140-6736\(15\)60854-6](https://doi.org/10.1016/s0140-6736(15)60854-6).
- 17 Clare Wenham, Mark Eccleston-Turner, and Maike Voss, “The Futility of the Pandemic Treaty: Caught between Globalism and Statism,” *International Affairs* 98, no. 3 (May 2022): 837–52, <https://doi.org/10.1093/ia/iia023>.



वसुधैव कुटुम्बकम्

ONE EARTH • ONE FAMILY • ONE FUTURE