

Health & Well-being

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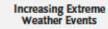
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Major Health Risks Associated with Climate Change

Increasing Levels of Carbon Dioxide and Short-Lived Climate Pollutants

Rising Temperature











Demographic, Socioeconomic, Environmental, and Other Factors That Influence the Magnitude and Pattern of Risks

Geography Ecosystem change Baseline air and water quality Agricultural and livestock practices and policies

Warning systems Socioeconomic status Health and nutritional status Access to effective health care

EXPOSURE PATHWAYS

Extreme Weather Events

Heat Stress

Air Quality Water Quality and Quantity

Food Supply and Safety

Vector Distribution and Ecology

Social Factors





EXAMPLES OF HEALTH OUTCOMES



Injuries

 Fatalities · Mental health effects



Heat-related illness and death



- Exacerbations of asthma and other respiratory diseases
- Respiratory allergies
- Cardiovascular disease



- Campylobacter infection
- Cholera Cryptosporidiosis
- · Harmful algal blooms
- Leptospirosis



- Undernutrition Salmonella food
- poisoning and other . Encephalitis foodborne diseases
- Mycotoxin effects



- Dengue
- (various forms) Hantavirus infection
- Lyme disease
- Malaria
- · Rift Valley fever
- West Nile virus infection
- Zika virus infection



Physical and mental health effects of violent conflict and forced migration (complex and context-specific risks)

> Source: Haines & Ebi 2019



Locations most Sensitive to Climate Change-related Health Risks

- Health risks are unevenly distributed
- Sub-Saharan Africa will be most affected by undernutrition
- The tropics will be affected most by food and waterborne infection
- Extreme events will affect most exposed and vulnerable

		DIRECT IMPACTS		ECOSYSTEM-MEDIATED			HUMAN INSTITUTION- MEDIATED
		HEAT AND COLD	FLOODS AND STORMS	VECTOR- BORNE DISEASE	FOOD AND WATERBORNE INFECTION	AIR QUALITY	UNDERNUTRITION
	Geographies of greatest impact	Lower latitudes	Low-lying areas/ flood plains	Tropics—variable by disease	Tropics	SE Asia	Sub-Saharan Africa
		Cities	Coasts	Dengue: South American cities	Subtropics	Cities	East Asia and Pacific
		South Asia	Tropics	Leishmaniasis: desert	SE Asia	India	Latin America
		Sub-Saharan Africa	Asia	Encephalitis: Europe, Russia, Mongolia, China	Low-lying areas	China	Sahel
			Africa	Upland mountains with population pressure	Food insecure regions	Pakistan	Conflict zones
			Central/South America		Cholera—SE Asia	Sub-Saharan Africa household pollution	Upland mountains with population pressures
			Atolis				



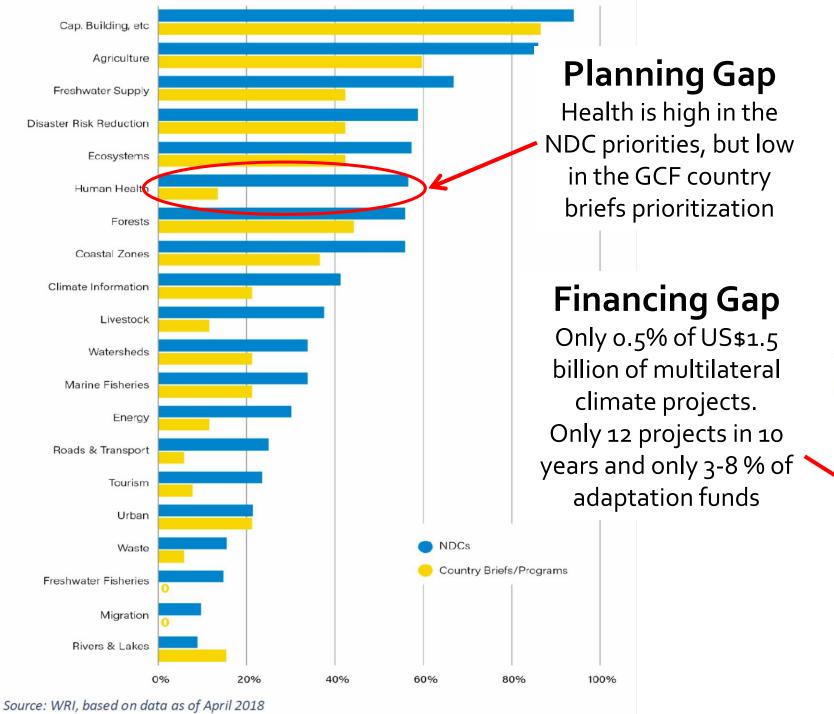
Where is the Sector Today?

- Health systems are not climate adaptive and not climateresilient
 - Includes population health and health care facilities
- Few communities are protected from the health and wellbeing risks of climate change
- GHG emissions from health care facilities are about 4.4.-4.6% of worldwide emissions

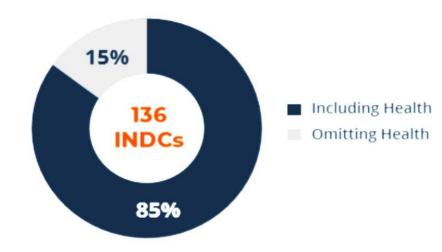


Barriers to Adaptation and Mitigation in the Health and Wellbeing Sector

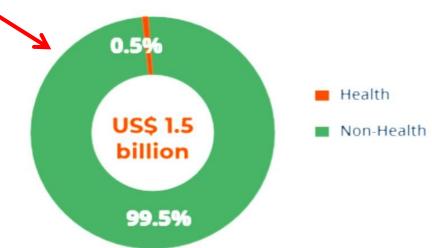
- Limited awareness of and information on the health risks of climate change and the benefits of adaptation, within and outside the health and wellbeing sector
- Insufficient technical knowledge and capacity
 - Insufficient surveillance and monitoring of climate-sensitive health outcomes
 - Limited expertise in data management and analysis
- Limited efforts to build partnership with local communities
- Insufficient collaborative mechanisms
- Financial and economic barriers include the availability of baseline resources available to the health sector



Inclusion of health in INDCs by Low and Middle-Income Countries



Disbursement of Multilateral Climate Finance



Paradigm Shifting Pathways

PATHWAY 1

Promoting climate resilient health systems and services

Climate adaptive health systems and service

Health services preparedness and climate risk management for extreme events

DESIRED TRANSFORMATION

Health systems become climate resilient, low-carbon, and sustainable.



PATHWAY 2

Facilitating climateinformed advisory and risk management services and community action Climate informed advisory and risk management services

Community action in climate and health

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DESIRED TRANSFORMATION

Collection and integration of climate change and health data into climate-informed advisory and risk management services



Finance

- Delivering the paradigm shift for health and wellbeing will require mobilisation of finance at scale
- GCF has a role in delivering this, due to flexibility of financing instruments and ability to take more risks (test, demonstrate, unlock finance)
- Given nature of Health and wellbeing area (public goods, low revenue potential) grant finance will often be important, but are opportunities for loans, co-financing, blended and private finance
- Note that some aspects covered in related sector guide: Infrastructure (including Energy & Energy Efficiency) – for mitigation, Climate Information and EWS, WASH, Agriculture and food security



Financial Barriers

- Existing domestic budget deficits and availability
- Political economy Ministries of Health in climate finance landscape
- Market failures (barriers to private investment)
 - Information
 - Positive externalities social return higher than private return
 - Imperfect markets
- Lack of financial viability
- Access to finance at local and for most vulnerable

Case study

Global Clean Cooking Program – Bangladesh (FPo70)

GCF funding: USD 20 m

Total project funding: USD 20 m

Accredited Entity: The World Bank

Cross-cutting Bangladesh





- Climate drivers: About 66 percent of Bangladesh' population live in rural areas, where women predominantly do the cooking using traditional, wood fueled stoves. Burning wood for cooking releases carbon dioxide, methane and black carbon. It also leads to deforestation and negative health impacts, causing an estimated 46,000 casualties every year in Bangladesh.
- Project: scaling up investments in improved cookstoves to increase demand and help extend the existing supply chain, together with technical assistance support to produce improved cook stoves, raise awareness, and carry out research and development of the stoves

Case study (Non-GCF)

Africa: Solar for health

GCF funding: N/A

Total project funding: N/A

Accredited Entity: N/A

Zimbabwe, Zambia, Libya, Namibia, Sudan, and South Sudan





- Context: Energy poverty prevents access to healthcare for millions of vulnerable people around the world. Health clinics, maternity wards, surgery blocks, medical warehouses, and laboratories rely on electricity to refrigerate medicines, power the lights and operate life-saving medical devices. Intermittent or unreliable power source puts lives at risk.
- **Project**: support governments to install solar systems in health centres and clinics in rural areas to reach underserved communities, increasing climate resilience while contributing to climate mitigation, and generating economic savings on energy



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