

Climate and Health in CAREC

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Climate change





Vulnerability factors

- · Demographic factors
- · Geographic factors
- . Biological factors & health status
- · Sociopolitical conditions
- · Socioeconomic factors

Vulnerability

Exposure pathways

- · Extreme weather events
- · Heat stress
- · Air quality
- · Water quality and quantity
- · Food security and safety
- Vector distribution
 & ecology



- · Leadership & governance
- · Health workforce
- · Health information systems
- · Essential medical products & technologies
- · Service delivery
- Financing

Climate-sensitive health risks

Health outcomes



Injury and mortality from extreme weather events



Heatrelated illness



Respiratory illness



Water-borne diseases and other water-related health impacts



Zoonoses

Vectorborne diseases



Malnutrition and foodborne

diseases



Noncommunicable diseases (NCDs)



Mental and psychosocial health

Health systems & facilities outcomes



Impacts on healthcare facilities



Effects on health systems

Impact of Climate Change on Health



WHO calls climate the "Biggest health threat of the 21st century and beyond" 5.6 billion people
affected and \$1.5
trillion lost due to
climate change in past
30 years

\$ 2-4 billion direct damage costs* per year to health by 2030

Only 0.5% of multilateral climate funding is allocated to projects that explicitly address human health.

*Direct damages refer to the physical or structural impact caused by the climate change such as the destruction of infrastructure caused by the force of high winds, flooding or ground shaking

Source: World Health Organization: WHO. (2023, October 12). Climate change. https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health

Health Sectors Contribution to Climate Change



The healthcare sector would be the 5th largest emitter on the planet, if it was a country



footprint
equivalent to
annual GHG
emissions from
514 coal-fired
power plants



Healthcare produces 5.9 million tons of medical waste per year



Supply chain contribute to 71% of the health sector's carbon footprint



Health sector
emissions to
triple by 2050
reaching 6
gigatons per year
in case of inaction

Source: Health care's climate footprint how the health sector contributes to the global climate crisis and opportunities for action. (2019). Healthcare Without Harm and Arup. https://noharm-global.org/sites/default/files/documents-files/5961/HealthCaresClimateFootprint 092319.pdf

Key Climate and Health Issues in the CAREC Region

Heat Stress

- Heatwaves that will increase heat stress and heat related morbidity and mortality, including non-communicable diseases
- Without effective adaptation measures taken, annual heat-related mortality in the Central Asian region might rise by 139% by 2030 and 301% by 2050. (1)

Vector distribution

• Emergence of novel infectious diseases (e.g. COVID-19), rising occurrences of zoonotic diseases and spill-overs and an encroachment of infectious disease vectors into previously unaffected geographic locations and altitudes. Risk that some diseases might be reintroduced after having successfully been eradicated (e.g. Malaria).

Food Security and Safety

• Various impacts on food systems through water scarcity, droughts, melting glaciers, desertification can lead to declines in agricultural productivity, resulting in increased malnutrition and climate change migration.

Extreme Weather events

• Climate change threatens health security by increasing the frequency, length, and intensity of public health emergencies, or by creating compound disasters with severe and widespread adverse effects. Climate change has also been identified as a multiplier, which can exacerbate existing threats to human health and inequities that result in more severe consequences for vulnerable populations.

(1) Honda Y, Kondo M, McGregor G, Kim H, Guo Y-L, Hijioka Y, Yoshikawa M, Oka K, Takano S, Hales S (2014) Heat-related mortality risk model for climate change impact projection. Environ Health Prev Med 19:56–63

CAREC Health Strategy 2030

Strategic Framework



PILLAR 1

Leadership and human resource capacity

Knowledge exchange on health and climate change

Integration of climate change and health security into prevention, preparedness response plans e.g., in NAPHS

Governance structure with legal and regulatory framework (national focal points on health and climate change in all sectors)

Develop workforce capacity on climate change and health

PILLAR 2

Technical preparedness (Surveillance and Labs)

Develop country capacities on sex-disaggregated climate-related disease and risk surveillance and assessment on health and climate change.

Develop database on sexdisaggregated climate change-related health outcomes

Research genderdifferentiated effects of climate change on health

PILLAR 3

Access to Supplies and Surge Capacity

PILLAR 4

Vulnerable population groups and border health

Community-level awareness and resilience on climate and health

Low carbon and climate resilient and low carbon health facilities in border areas

Climate Change and Health Actions