World Health Organization

Technical Webinar Series Climate Change and Health

WHO Operational Framework for building climate resilient and low carbon health systems

15 May 2024

9:30 – 11:00

15:00 – 16:30

WHO Technical Webinar Series

https://www.who.int/news-room/events/detail/2024/04/24/default-calendar/who-technical-webinar-series-on-climate-change-and-health

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Date & time (CEST)	Topic*
24th April 2024	Getting started: climate change and health vulnerability & adaptation assessments
30th April 2024	WHO as an Accredited Implementing Entity of the Adaptation Fund; Accessing AF funding for Climate Change and Health
15th May 2024	WHO Operational Framework for building climate resilient and low carbon health systems
12th June 2024	Developing a Health National Adaptation Plan: Introduction
19th June 2024	GIS and risk mapping in climate change and health vulnerability & adaptation assessments
10th July 2024	Climate resilient and environmentally sustainable health care facilities
17th July 2024	Quantitative approaches for Vulnerability & Adaptation assessments: sensitivity analyses and projecting future health risks of climate change
18th Sept 2024	Integrating health in NDCs and LT-LEDS
25th Sept 2024	Developing a Health National Adaptation Plan: Quality criteria for HNAPs
16th Oct 2024	Conducting a gender analysis for climate change and health vulnerability & adaptation assessments

Interpretation

AM session: English, French and Arabic
PM session: English, French and Spanish

To activate interpretations (in English):

1. Click on the interpretation icon.
2. Select ”English”
3. **Optional :** mute original audio

Pour activer les interprétations (en français):

1. Cliquez sur l'icône d'interpretation
2. Sélectionnez ”Français”
3. **Facultatif :** couper le son d'origine

Para activar interpretación (en español)

1. Haga clic en el icono de interpretación.
2. Seleccionar ”Español”
3. **Opcional:** silenciar el audio original

لتفعيل التفاسير باللغة العربية

1. اضغط على أيقونة التفسير.
2. اختر "العربية"
3. اختياري: كتم الصوت الأصلي

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Time	Agenda item	Speaker
9:30 – 9:35 (5 minutes)	Opening remarks	Dr Diarmid Campbell-Lendrum, Unit Head, Climate Change and Health Unit, WHO
9:35 – 10:05 (30 Minutes)	WHO Operational Framework for building climate resilient and low carbon health systems	Elena Villalobos Prats, Capacity Building and Country Support Lead, Climate Change and Health Unit, WHO
10:05 – 10:20 (15 minutes)	Country experience: using the Operational Framework	Dr Meelan Thondoo, WHO Asia-Pacific Centre for Environment and Health in the Western Pacific Region Dr Bonifacio Magitibay, WHO Philippines
10:20 – 10:45 (25 minutes)	Interactive activity	
10:45 – 10:55 (10 minutes)	Group feedback	Breakout group volunteer Moderated by Elena Villalobos Prats
10:55 – 11:00 (5 minutes)	Close webinar	Dr Amy Savage, Technical Officer, Climate Change and Health Unit, WHO

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Time	Agenda item	Speaker
15:00 – 15:05 (5 minutes)	Opening remarks	Dr Diarmid Campbell-Lendrum, Unit Head, Climate Change and Health Unit, WHO
15:05 – 15:35 (30 minutes)	WHO Operational Framework for building climate resilient and low carbon health systems	Elena Villalobos Prats, Capacity Building and Country Support Lead, Climate Change and Health Unit, WHO
15:35 – 15:50 (15 minutes)	Country experience : using the Operational Framework	Dr Nada Al Marzouqi, Ministry of Health and Prevention, United Arab Emirates Dr Maria da Luz Lima Mendonça, Ministry of Health, Cabo Verde
15:50 – 16:15 (25 minutes)	Interactive activity	
16:15 – 16:25 (10 minutes)	Group feedback	Breakout group volunteer Moderated by Elena Villalobos Prats
16:25 - 16:30 (5 minutes)	Close webinar	Dr Amy Savage, Technical Officer, Climate Change and Health Unit, WHO

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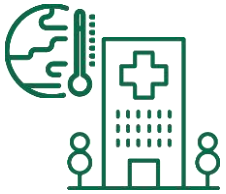
Climate Change and Health Planning

Operational Framework for building climate resilient and low carbon health systems

By the end of this training module learners will be able to:

Understand the WHO Operational Framework for building climate resilient and low carbon health systems, including its components, objectives, and outputs.



Understand the key concepts related to climate resilient low carbon health systems.

Explain pathways for synergistically building climate resilience and lower the GHG emissions for different health system contexts.

Use the WHO Operational Framework for climate change and health planning.

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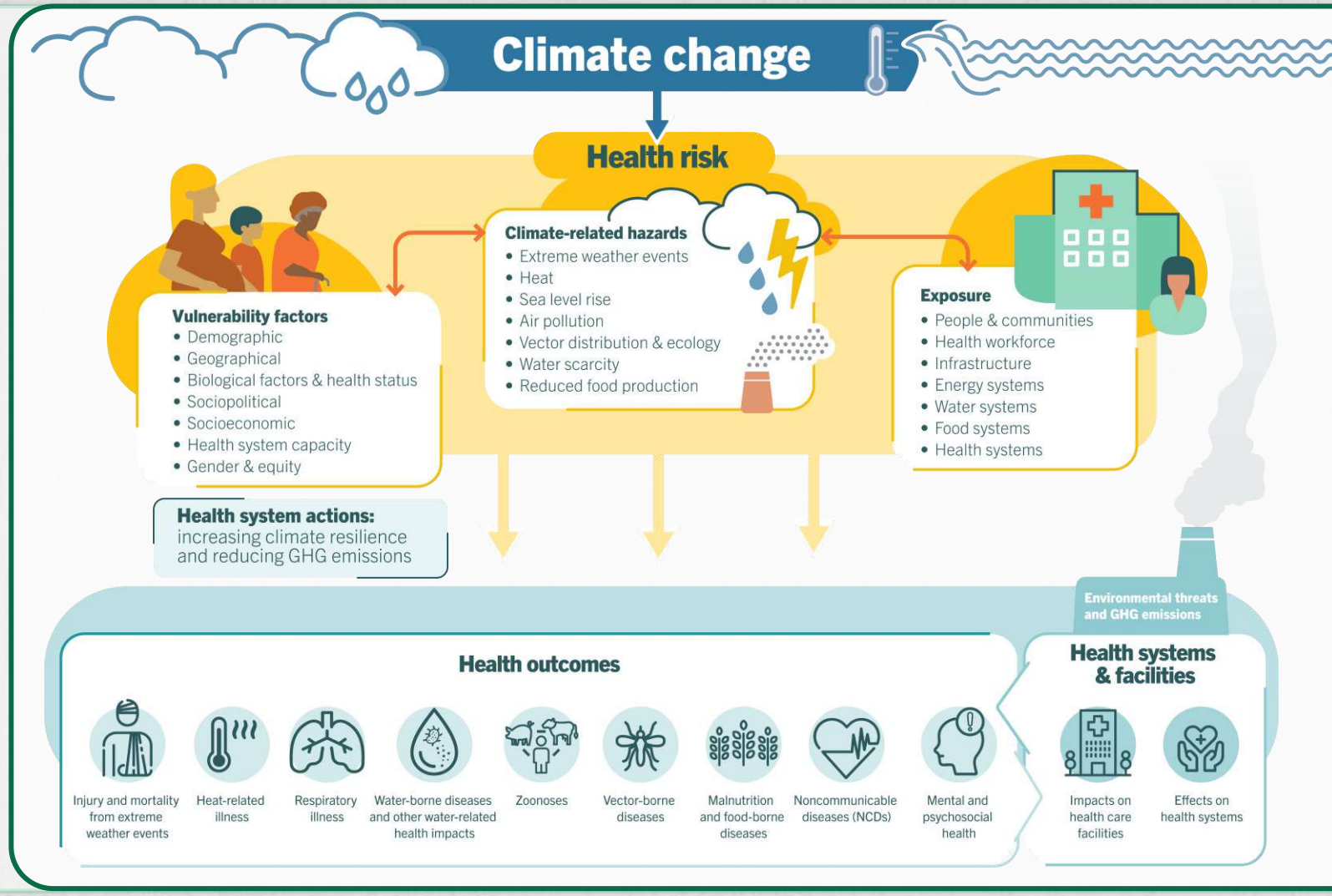
ⓘ Start presenting to display the joining instructions on this slide.

slido

How familiar are you with the WHO Operational Framework? (please choose the one that applies best to your situation)

ⓘ Start presenting to display the poll results on this slide.

How can we manage the health risks of climate change?



Health systems

deliver quality care and protect the health and wellbeing of present and future generations

Climate Resilient

...health systems are those capable of **anticipating**, **responding** to, **coping** with, **recovering** from, and **adapting** to climate-related shocks and stress, to bring about sustained improvements in population health, despite an unstable climate...

Low Carbon

...health systems are those capable of implementing transformative strategies towards **reducing GHG emissions** in their operations, **reducing** short- and long-term **negative impacts** on the local and global **environment**…

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How to strengthen resilience?

Managing climate-related health risks

Prepare for and respond to current and future hazards, exposures, and vulnerabilities.

Developing health system capacity

Build capacity to recognize, monitor, anticipate, communicate, and prepare for changing climate-related health risks.

Have long-term vision and adaptive management

Implement structured and iterative decision-making processes to improve health system performance in the short, medium, and long term.

Applying a climate resilience approach to health systems

Enhance responsiveness and resilience by bringing together evidence and actions.

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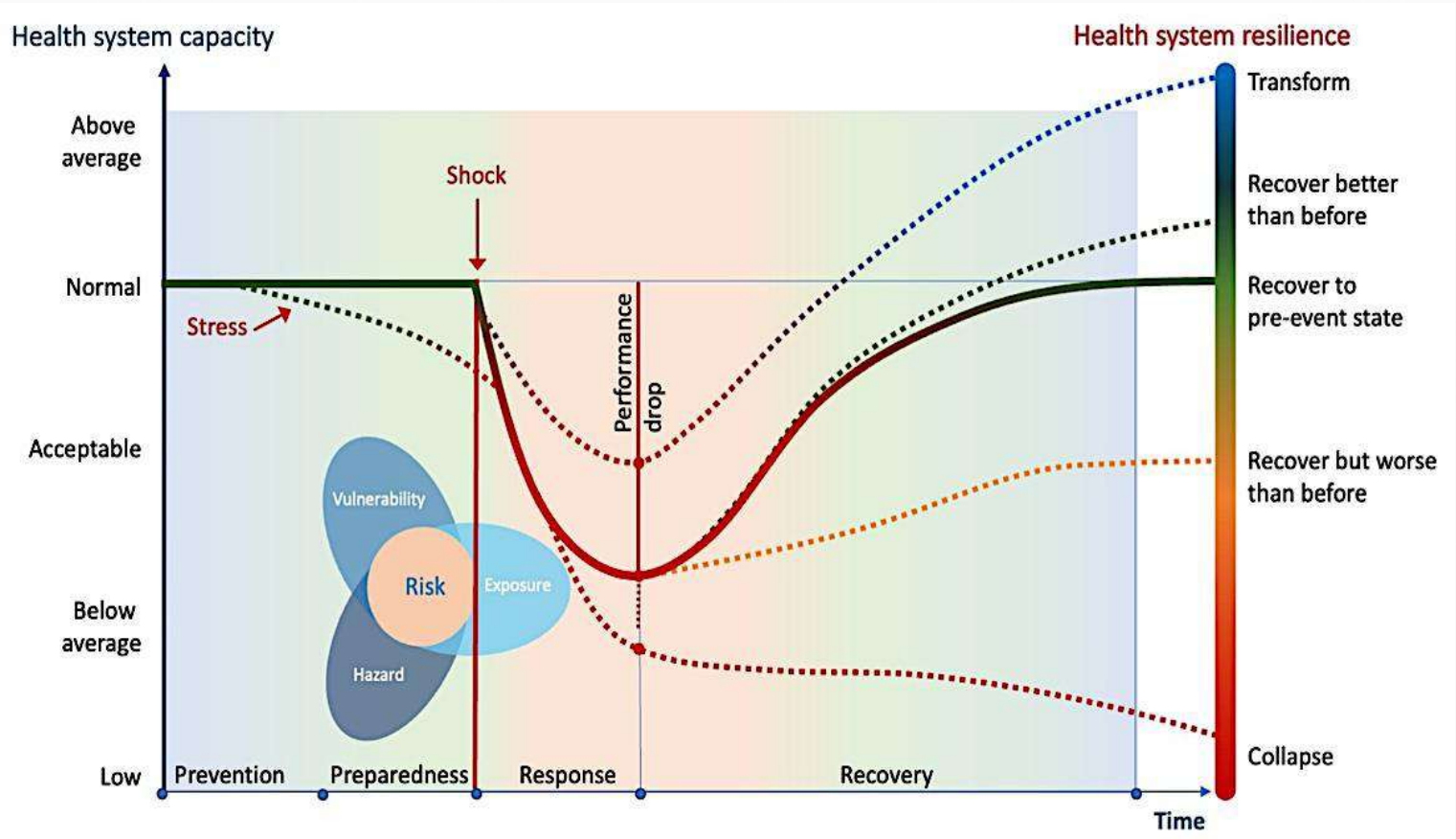
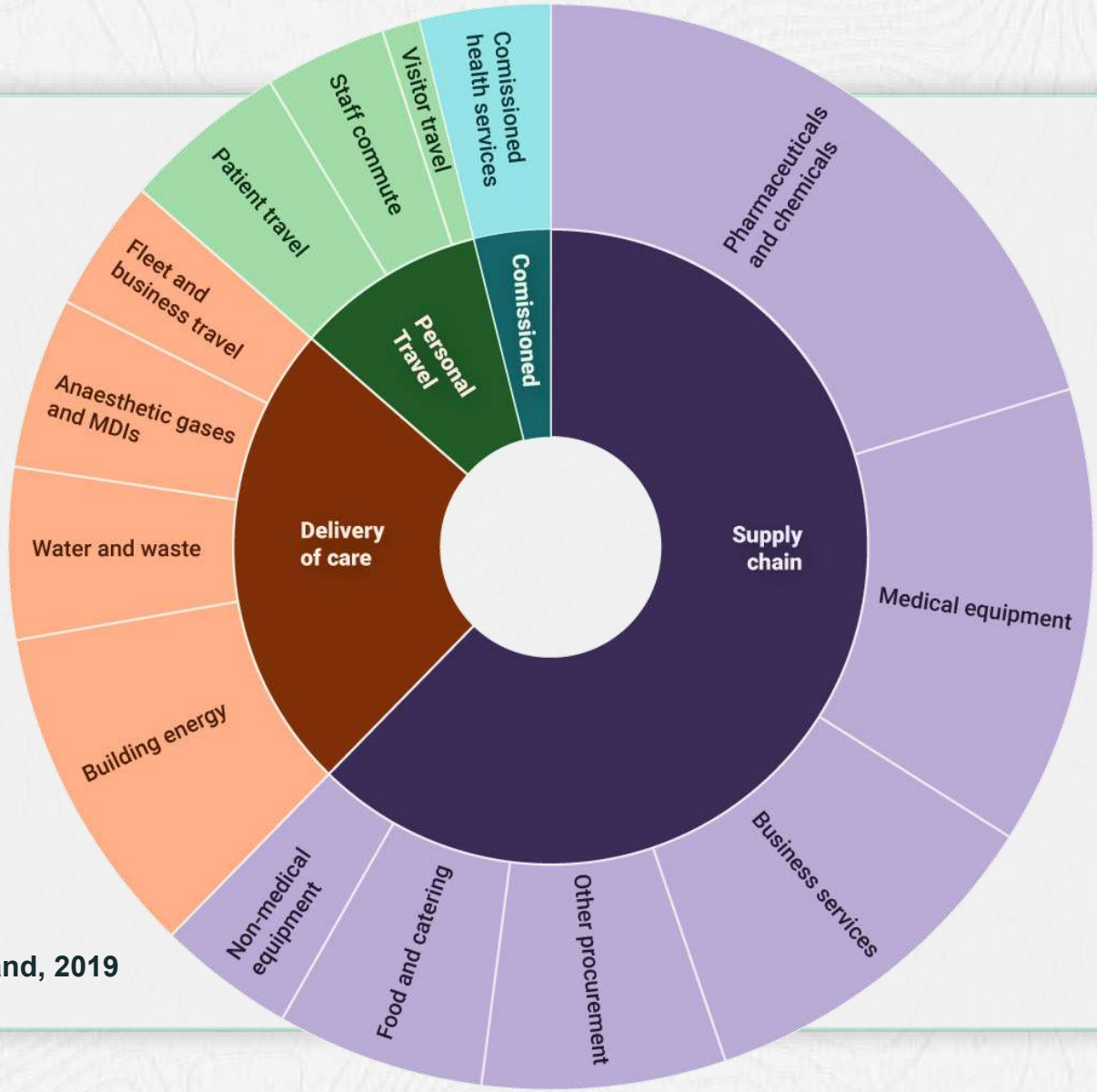
What is a climate resilient health system?



Health sector's climate footprint

- 5.2% of the world's GHG emissions are from the health sector
- Emissions equal to over 500 coal gas-fired thermal power plants
- Over 70% of the global climate footprint is from supply chain procurement



Contribution of different sectors to the greenhouse gas emissions of the NHS England, 2019

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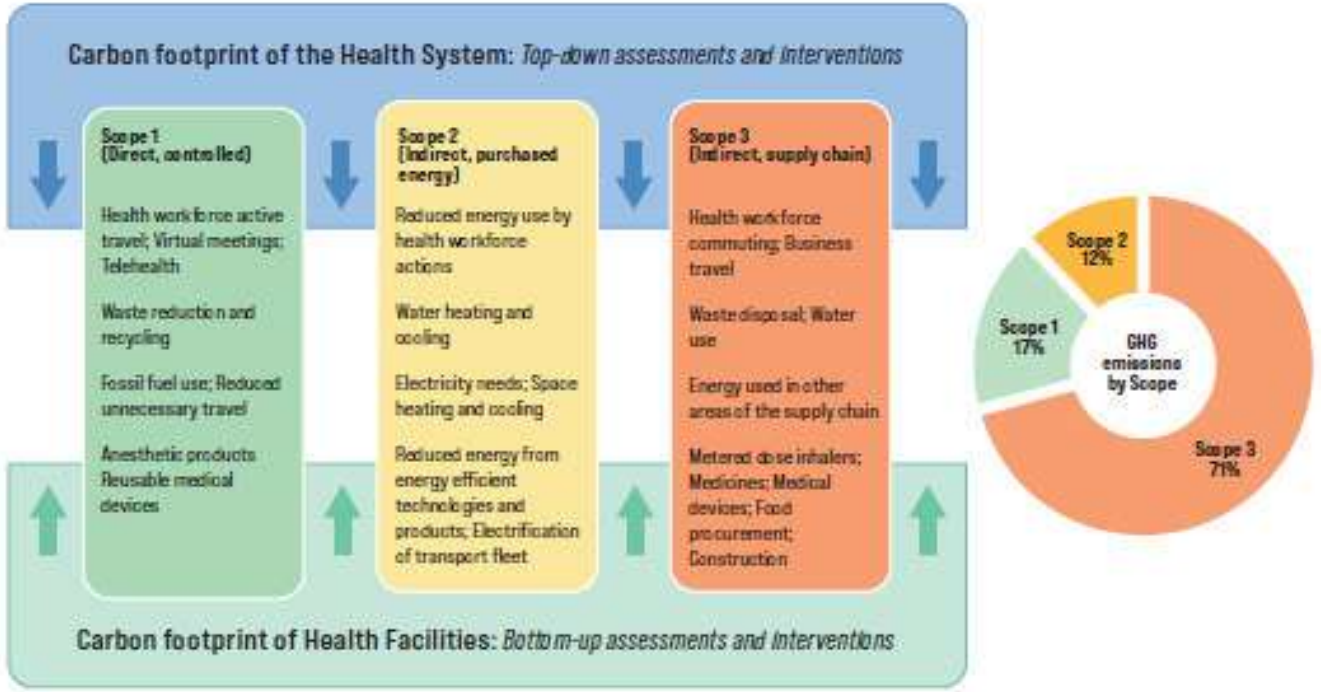
Reference: Romanello, Marina, et al. "The 2022 report of the Lancet Countdown on health and climate change: health at the mercy of fossil fuels." The Lancet 400.10363 (2022): 1619-1654.

Applying a low-carbon approach to health systems

Fig. 4.1. Conceptual framework for low carbon health systems and health facilities (linking health system areas, Scopes, and approaches, with selected examples)

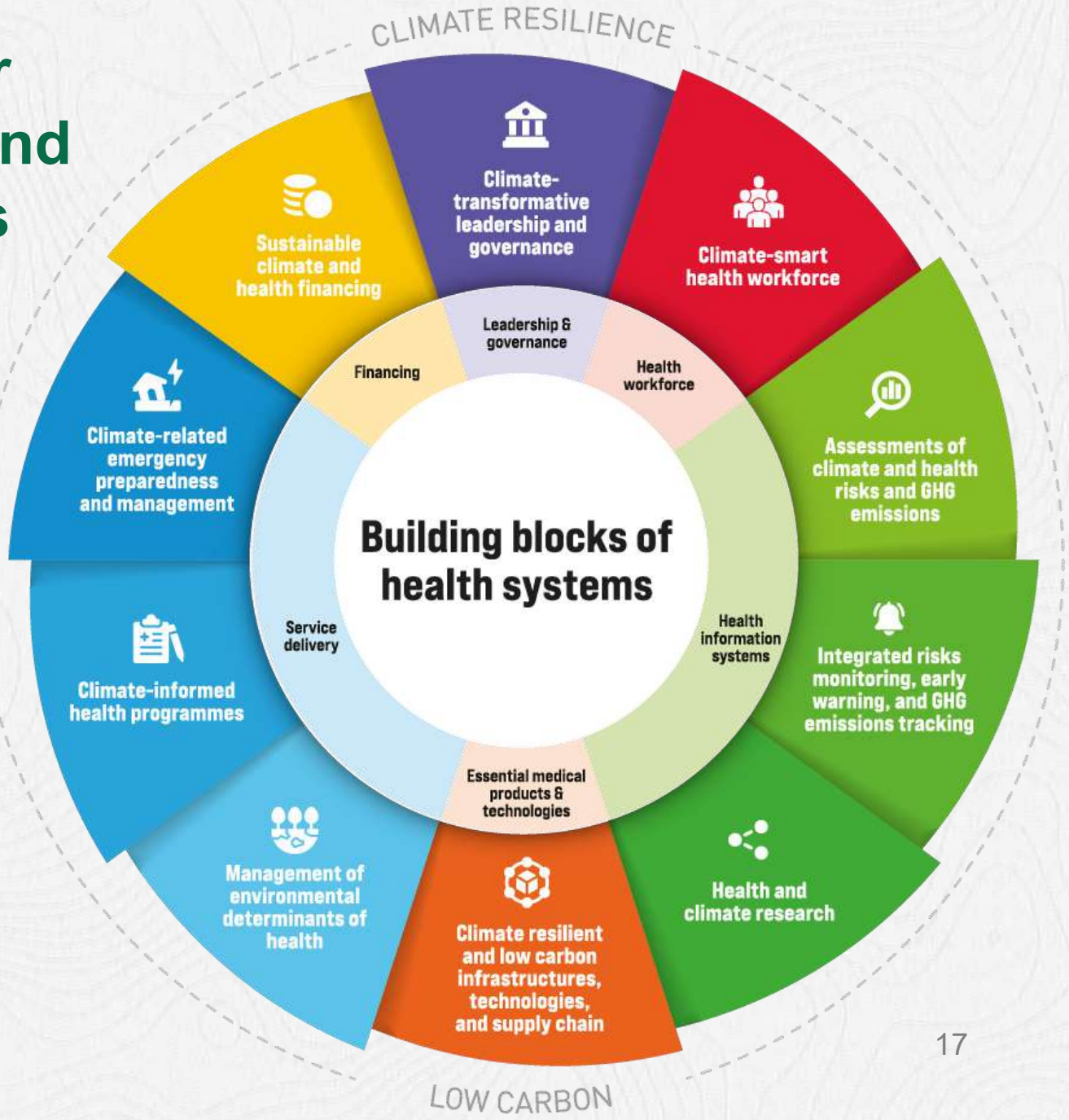


Note: A hybrid model allows for both top-down and bottom-up assessments and interventions together for increased accuracy and targeted action.

Source: Pie chart based on reference 30.

Operational Framework for building climate resilient and low carbon health systems

- Describes how to **prepare for the health risks** of climate change
- Provide **structure** and **guidance** in developing plans and strategies
- Supports **health adaptation and mitigation planning** in a comprehensive and long-term way
- Supports the development of **specific interventions** in the health system and health-determining sectors



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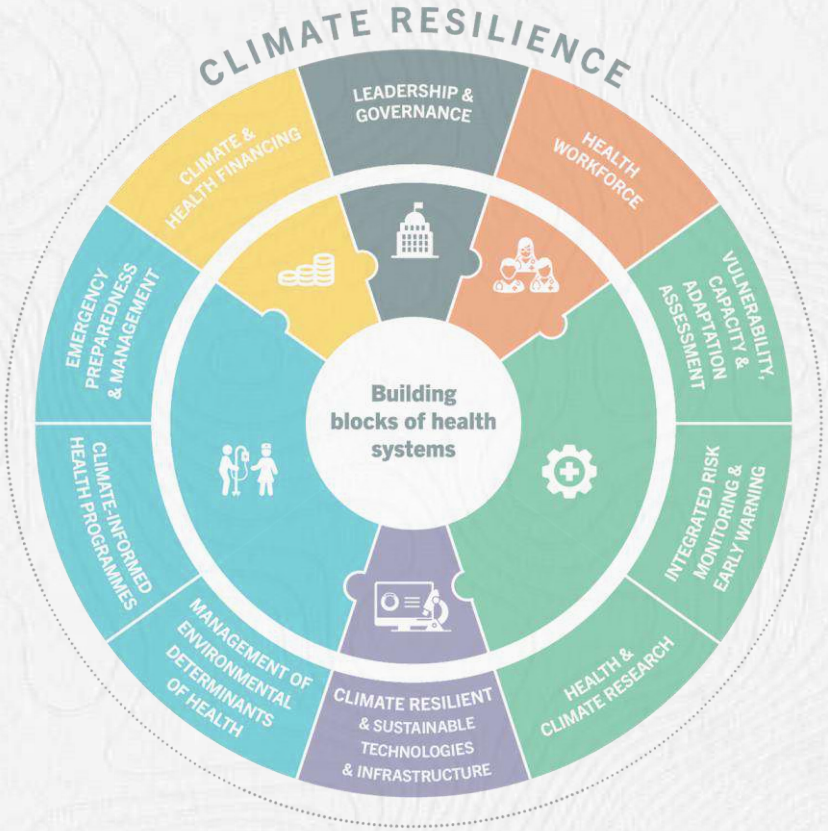
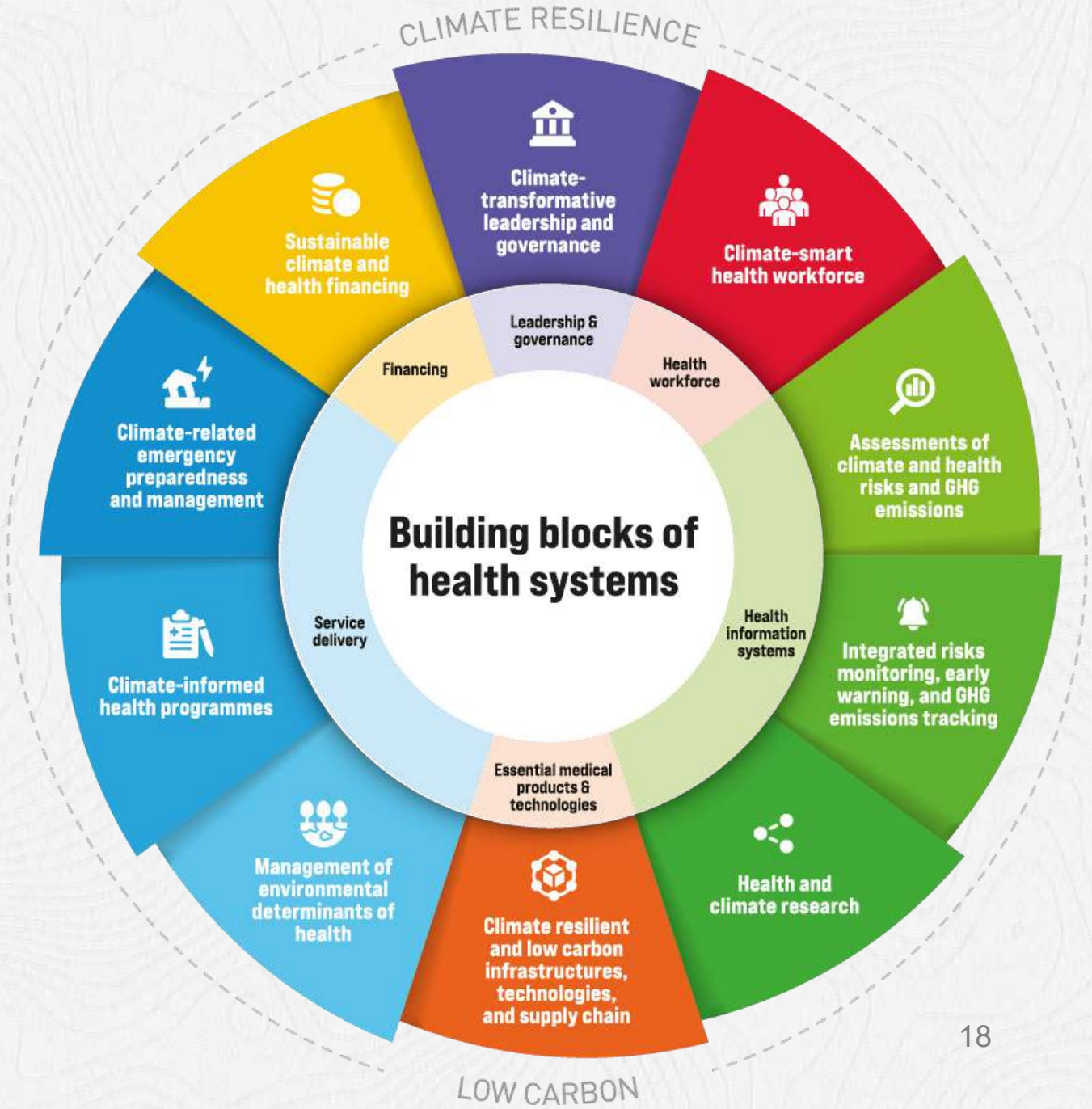
What has changed since the last publication?





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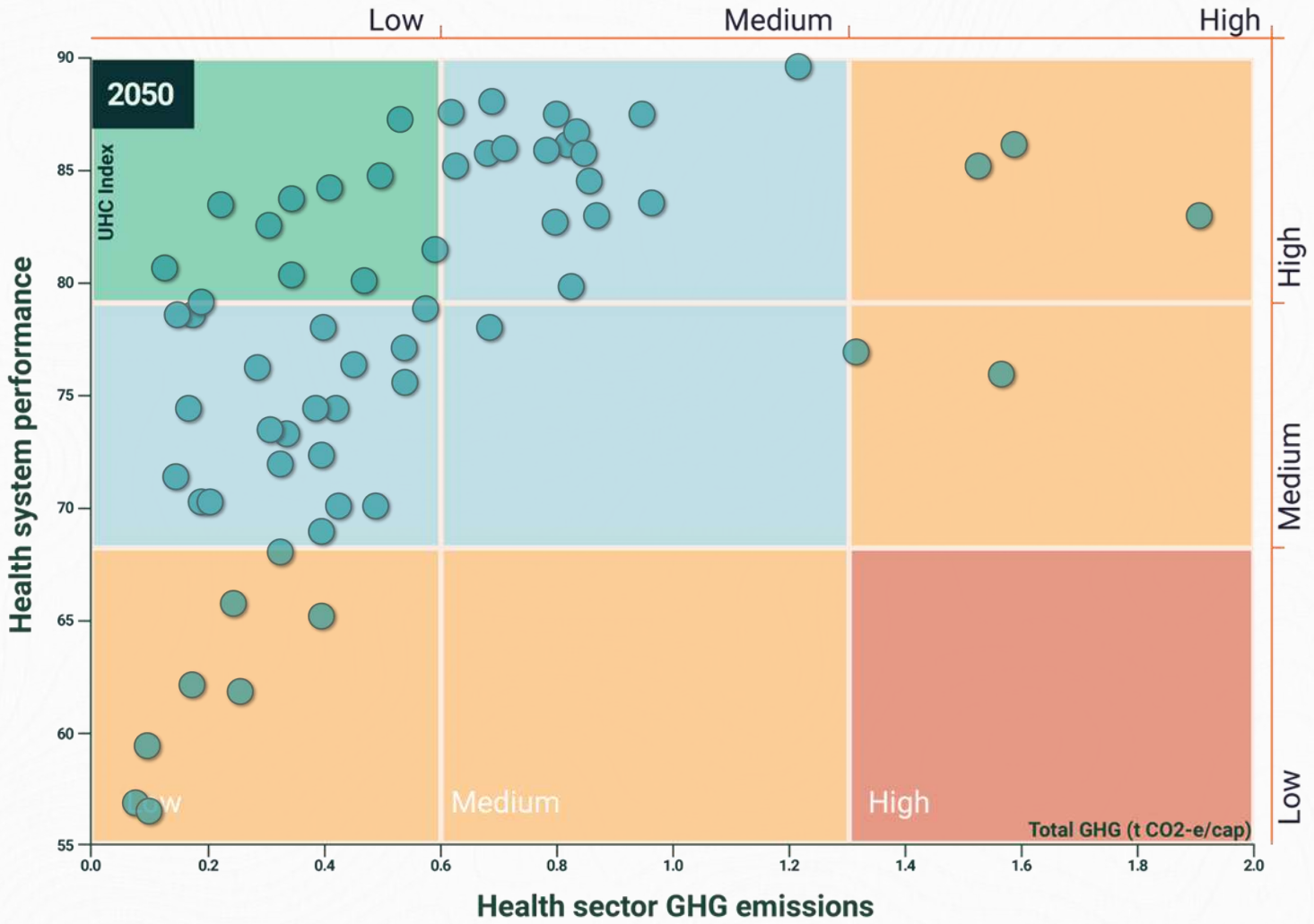
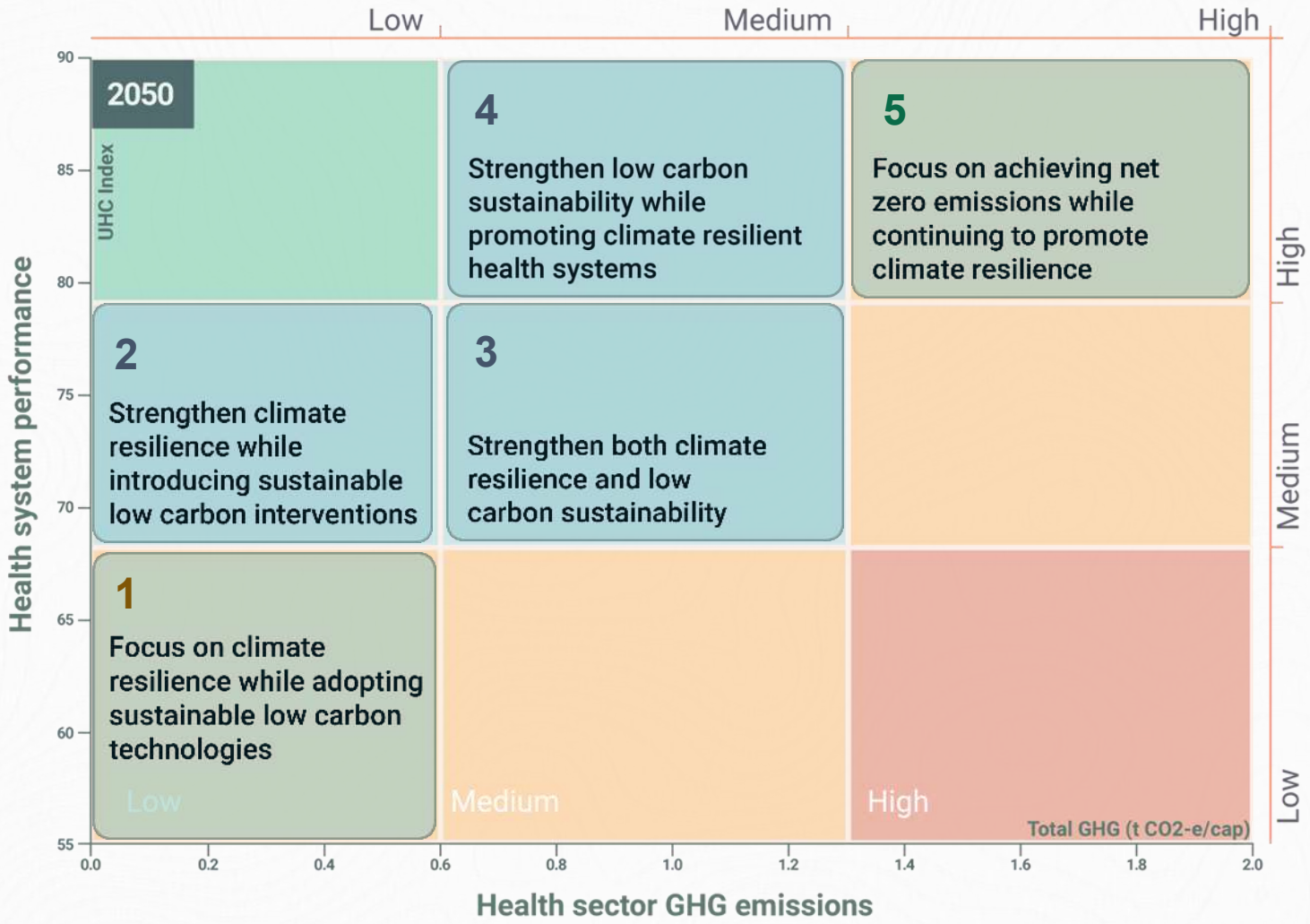
Health systems performance x Health sector GHG emissions



Universal health coverage index by health GHG per capita emissions

World Health Organization

Pathways to maximize health systems performance - strengthening climate resilience while minimizing GHG emissions

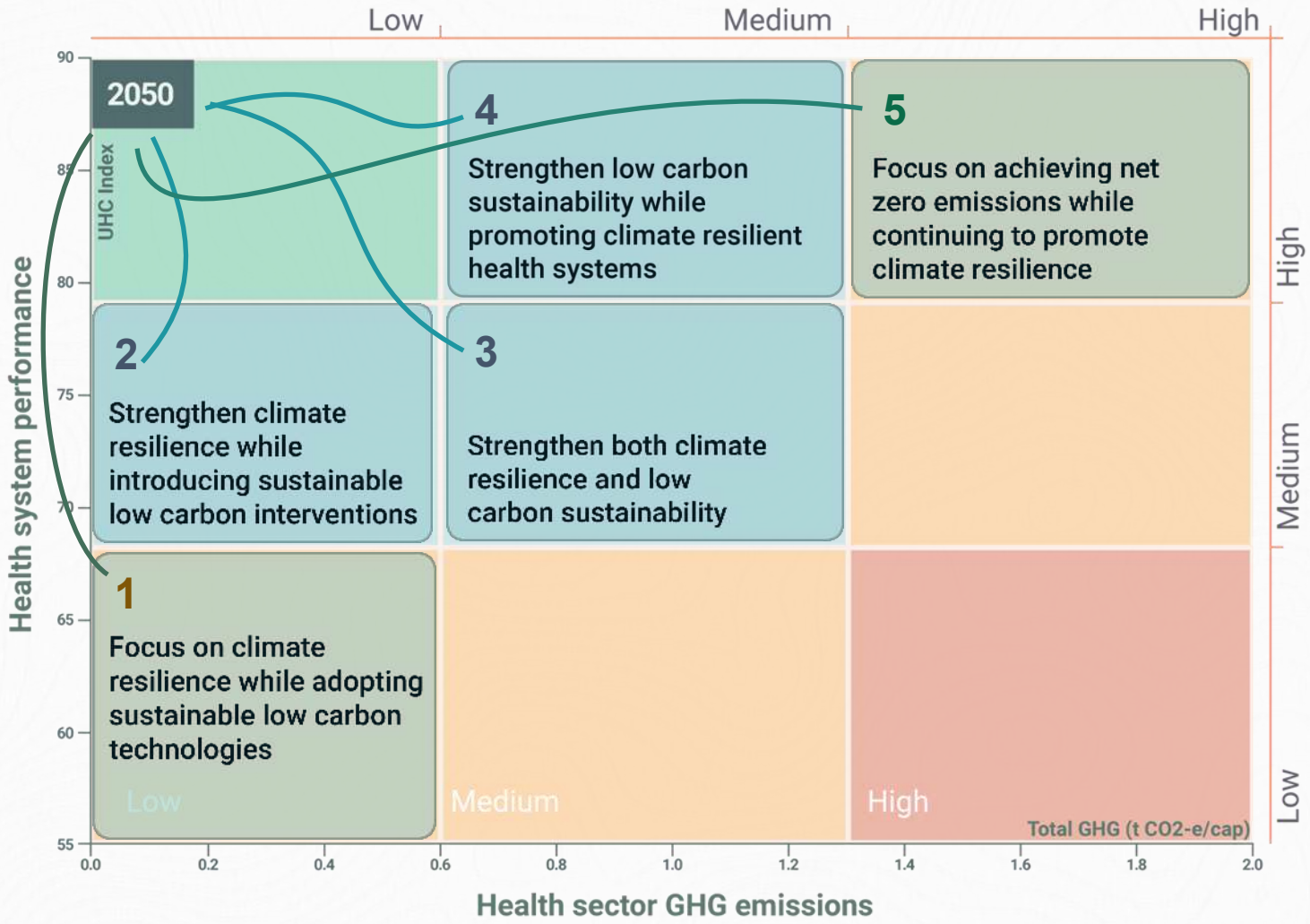


Universal health coverage index by health GHG per capita emissions

World Health Organization

Pathways to strengthen climate resilience and low carbon sustainability :

differences across countries



Universal health coverage index by health GHG per capita emissions

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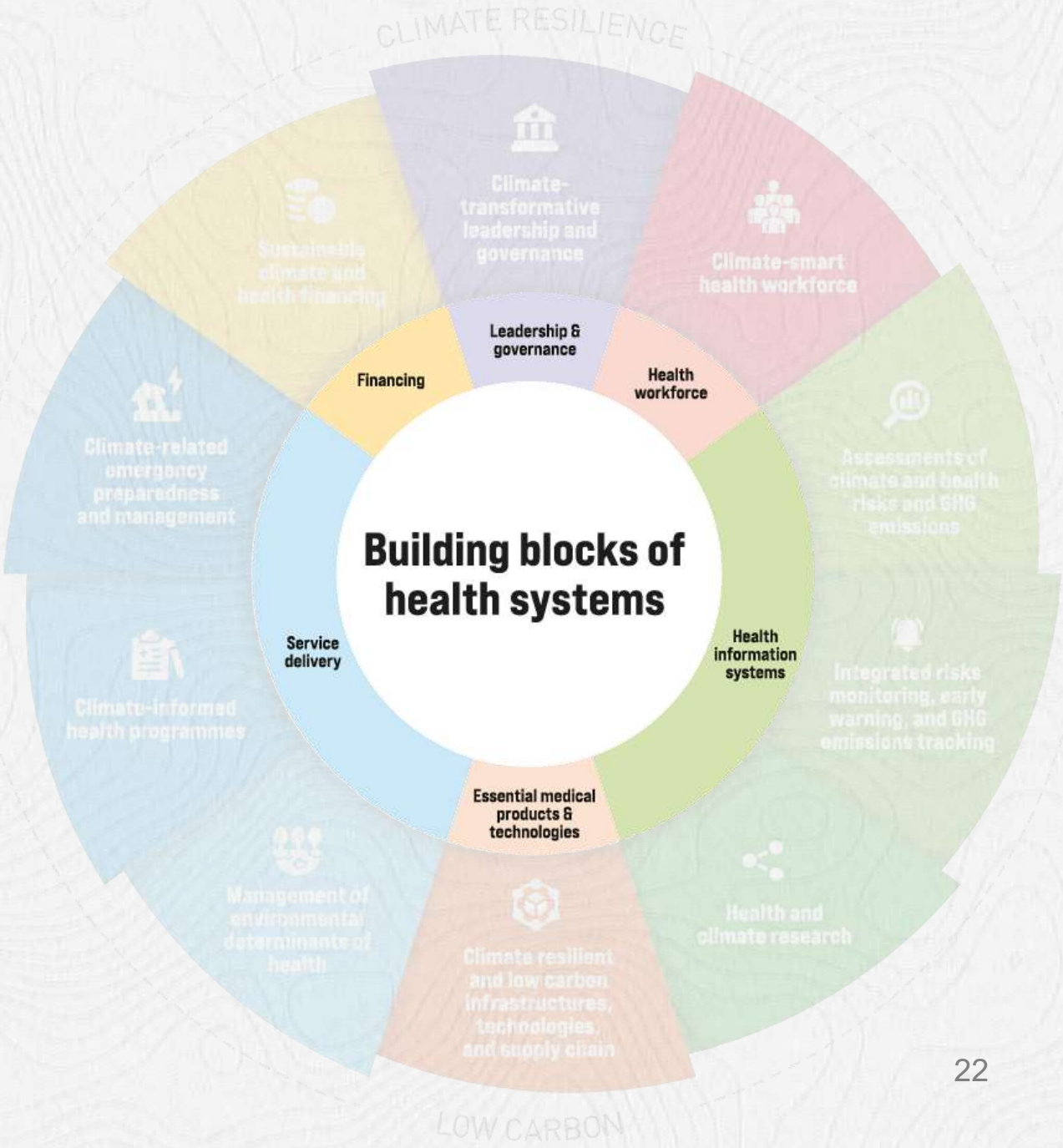
Introducing the Operational Framework

The 6 building blocks are common and relevant to all health systems, and are needed to support the delivery of **Universal Health Coverage (UHC):**

1. Leadership and governance;
2. Health workforce;
3. Health information systems;
4. Essential medical products and technologies;
5. Service delivery;
6. Financing.



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Component 1:

Climate-transformative leadership and governance

Objectives for the implementation of this component:

- **Governance**
- **Policy development**
- **Cross-sectoral collaboration**

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Component 1:

Climate-transformative leadership and governance

Example actions:

- **CCH focal point** in the Ministry of Health with specific responsibilities and budget
- **Health engagement in national climate change processes** eg. National Adaptation Plan (NAP), National Communications (NCs), Nationally Determined Contributions (NDCs), and long-term low-emission development strategies (LT-LEDS)
- The health component of **HNAP developed** and integrated as a chapter in the overall NAP

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Integrating climate risks into health planning: Lao PDR case study

Lao PDR have prioritized health in their national climate change strategy, integrating climate change considerations into health planning, based on the HNAP.

Source: © WHO

Strengthening institutional capacity has been key to success:

- **Strong leadership and coordination** between health, environment, and transport ministries, provincial authorities, and other sectors;
- Establishing improved **interministerial communication** mechanisms and data sharing;
- **Increasing capacity** in the community by developing context-specific training modules for staff.

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Component 2:
Climate-smart health workforce

Objectives for the implementation of this component:

- **Health workforce capacity**
- **Organizational capacity development**
- **Information, awareness and communication**

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Component 2:
Climate-smart health workforce

Example actions:

- Climate change and health covering both resilience and low carbon sustainability incorporated in **university curricula**.
- Specific climate change and health capacity building initiatives at early stages of **professional health training**.

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Development of an innovative model for Primary Care professionals and community training: Brazil case study

A pilot massive open online course (MOOC) in PH was created in Brazil in 2020 **reaching + 7,500k**

This MOOC capitalized on the **global online pivot**, to make the course accessible to a broader audience, **+ 2,000k around the world**

Planetary Health

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WHO Academy:
Climate change and health programme

WHO Academy

- Online interactive course
- 6 modules (coming soon)
- Early release Module 1 available now: **Introduction to climate change and health**
- WHO Academy Award of Completion

Enroll now!

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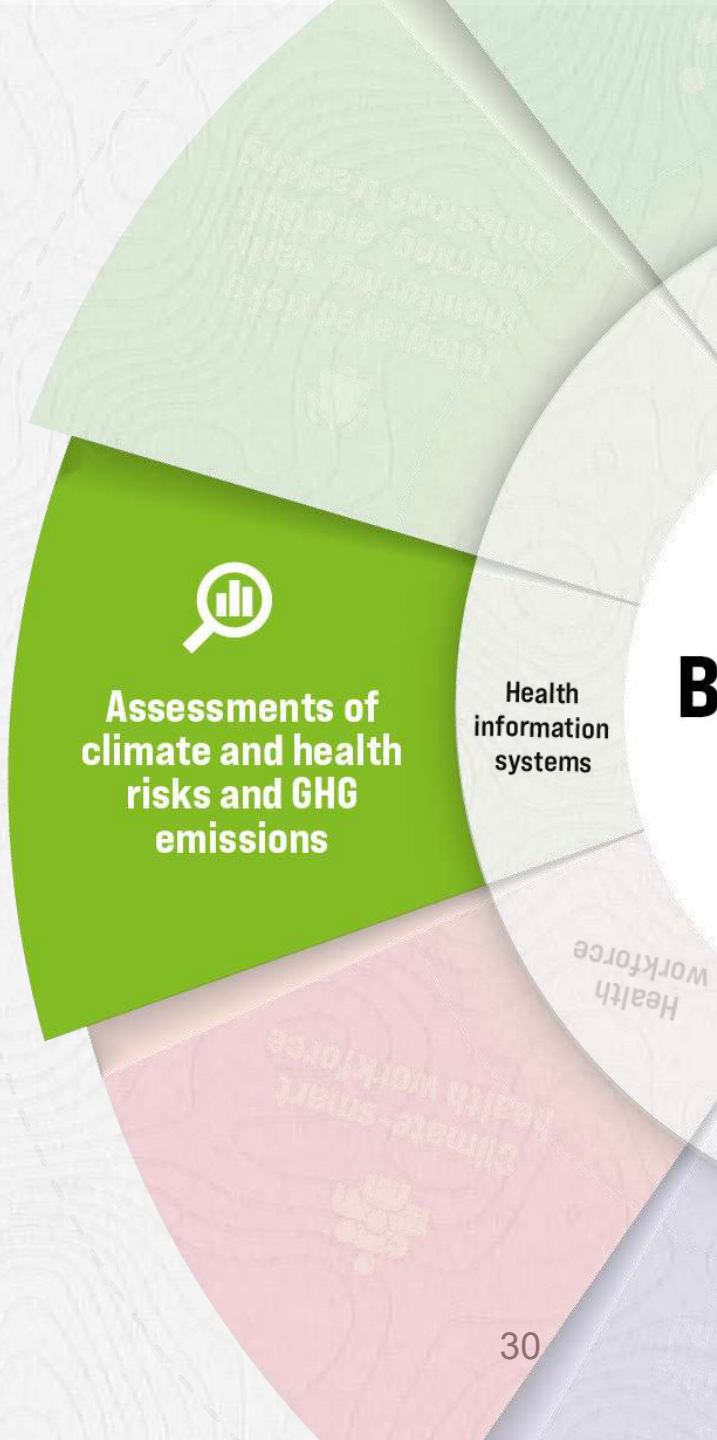
Component 3:

Assessments of climate and health risks and GHG emissions

Objectives for the implementation of this component:

- **Health risks**
- **GHG emissions**
- **Progress tracking**



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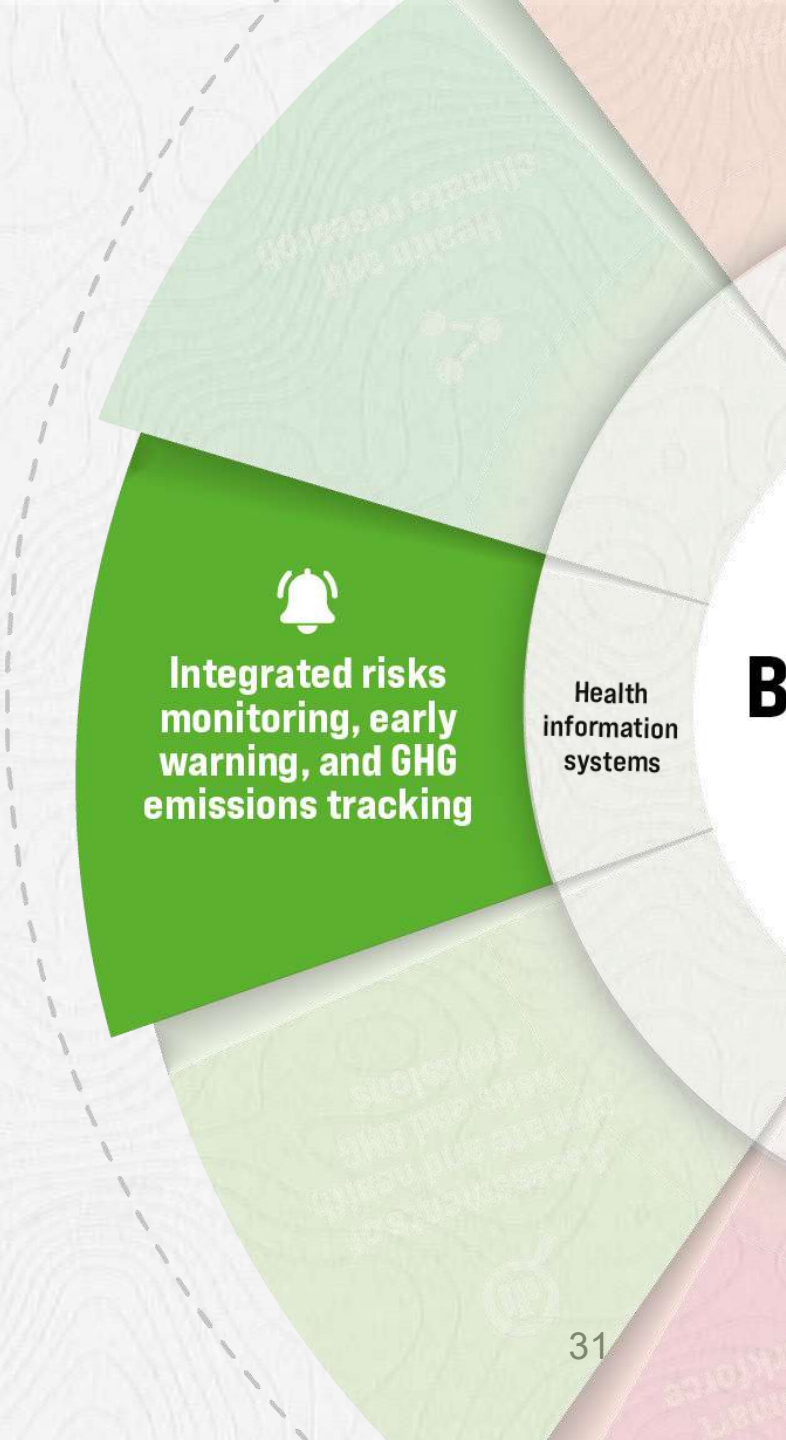
Component 4:
Integrated risks monitoring, early warning, and GHG emissions tracking

Objectives for the implementation of this component:

- **Integrated disease surveillance and early warning**
- **Monitoring and progress**
- **Communication**



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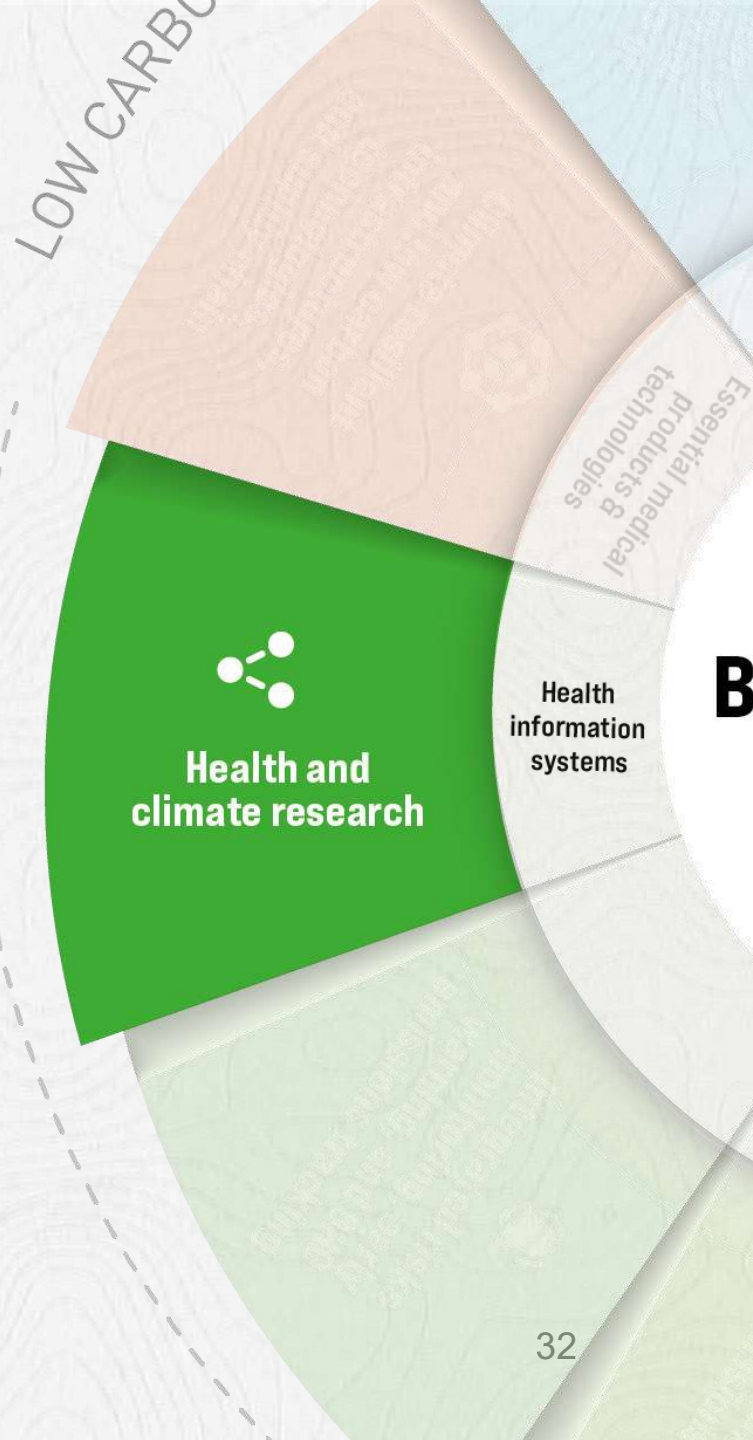
Component 5:
Health and climate research

Objectives for the implementation of this component:

- **Research agenda development and implementation**
- **Research capacity**
- **Research into policy**



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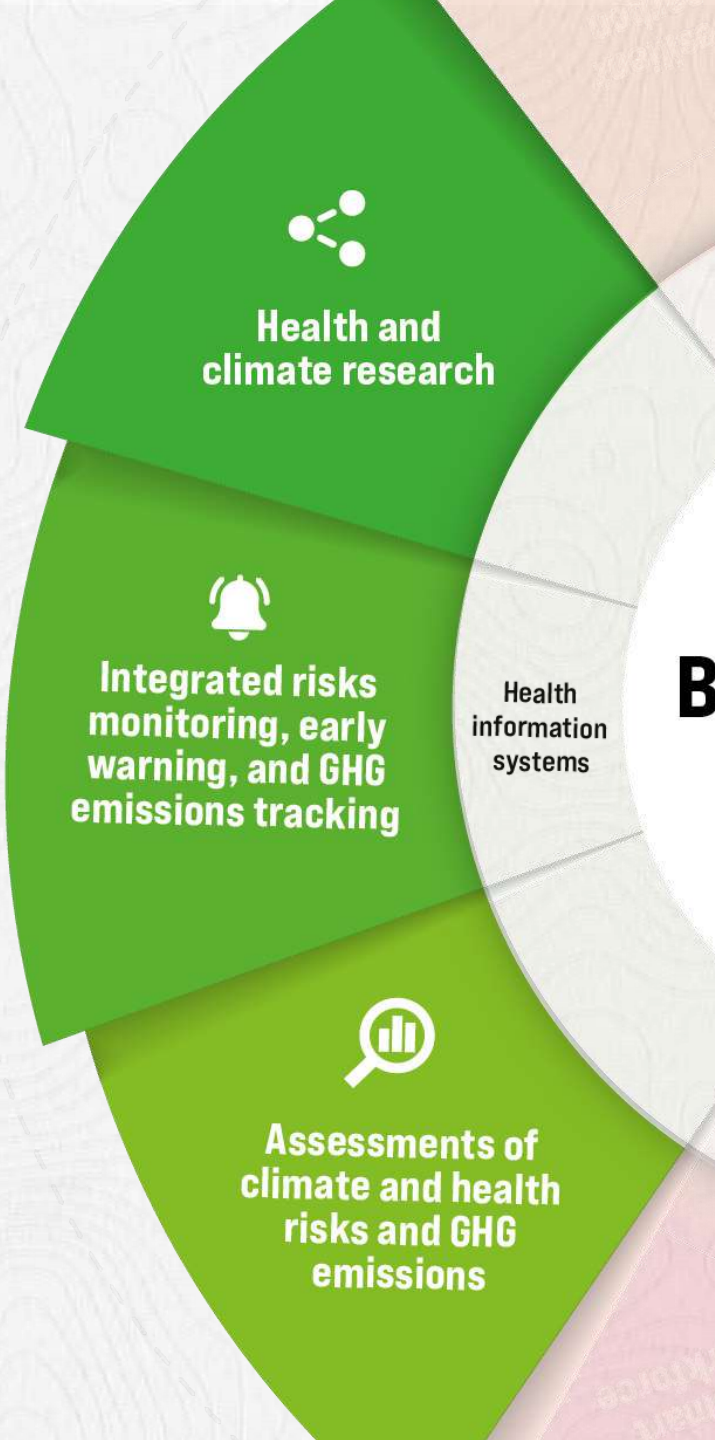
Components 3, 4 and 5

Example actions:

- Conduct a CCH **V&A assessment** and assessment of health sector **GHG emissions**.
- Establish a **climate-informed health surveillance and early warning system** (EWS).
- Develop a **national research agenda** on climate change and health.



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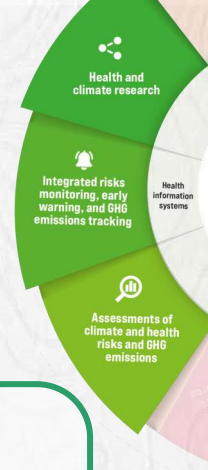
Strengthening public health surveillance and early warning systems: Ethiopia case study



Problem: Climate variability and change alter the incidence and distribution of many climate-sensitive diseases

Intervention: Use of climate and weather data and health data to identify disease hotspots (risk mapping) and predict outbreaks of malaria in 47 districts.

Outcomes: Allows the health sector to prepare for specific malaria outbreaks in advance to avoid or reduce impact, including loss of life, and prepare for an effective response.

Source: © WHO

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Component 6:

Climate resilient and low carbon infrastructures, technologies, and supply chain

Objectives for the implementation of this component:

- **Adaptation of current infrastructures, technologies, and supply**
- **Promotion of new technologies**
- **Environmental sustainability of health operations**

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Components 6:

Climate resilient and low carbon infrastructures, technologies, and supply chain

Example actions:

- Specifications for **siting and construction of HCFs** iteratively reviewed and revised in line with projected climate risks.
- Promote **access to renewable energy** in HCFs.

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Solar power increases climate resilience and reduces GHG emissions: Somalia case study

Source: © WHO

Problem: Electricity shortages resulted in **unstable** delivery of life-saving medical therapies; use of diesel generators was **costly** and further contributed to GHG emissions.

Intervention: Multi-lateral agencies, supported by WHO Innovation hub and the WHO Country Office, installed solar powered energy in HCFs, used for critically-ill patients who require supplementary **oxygen**, and also to protect the **vaccine** cold-chain.

Outcome: A more **resilient** health system which contributes fewer GHGs; reduced mortality and hospitalization time; and reduced HCF costs.

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Cutting emissions from anaesthetic gases – ending the use of desflurane: NHS England case study

Desflurane, an anaesthetic gas routinely used in surgery, is more than 2500 times more potent as a greenhouse gas than carbon dioxide.

"We presented the science behind the harm desflurane causes, a plan to stop using it and communication of these with anaesthetists and theatre staff, which enabled a smooth switch from desflurane to alternatives such as lower-carbon volatile agents or total intravenous anaesthesia (TIVA)"

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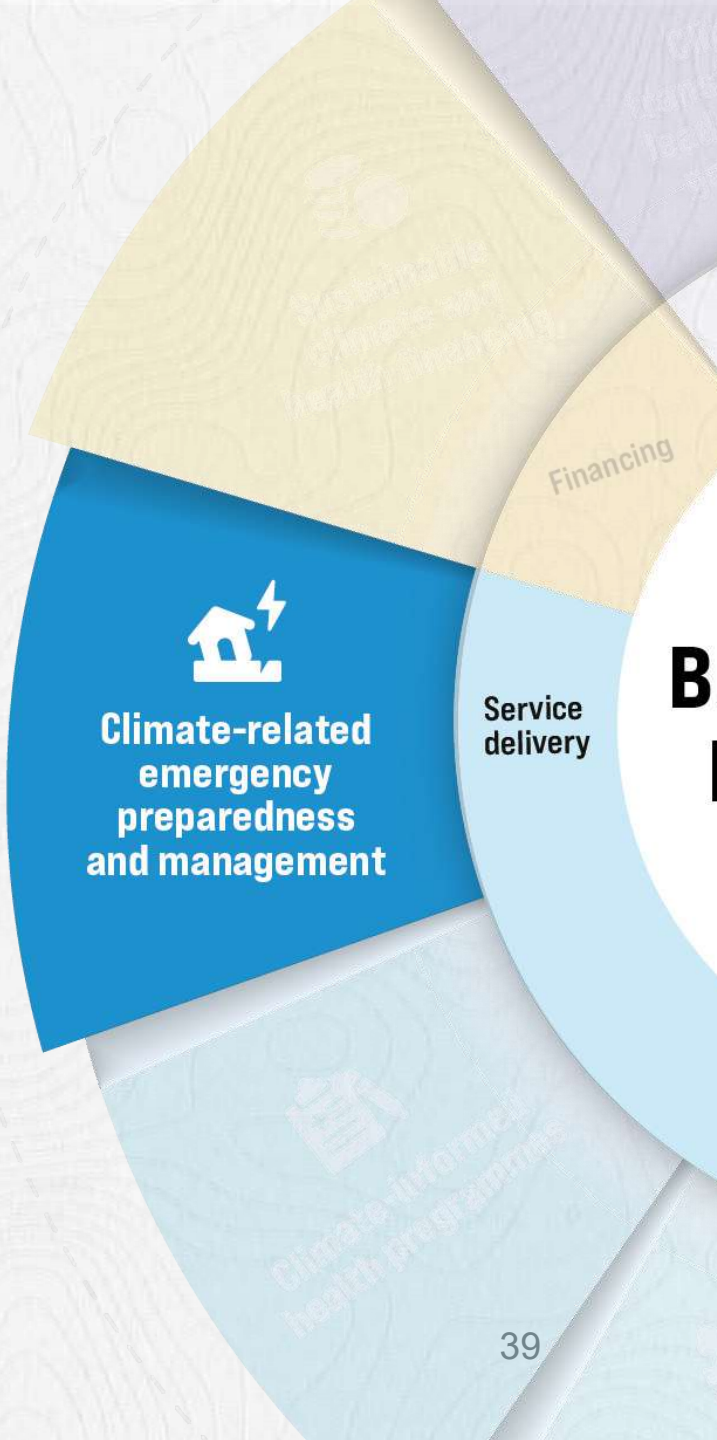
Component 7:
Management of environmental determinants of health

Objectives for the implementation of this component:

- **Monitoring**
- **Regulatory mechanisms**
- **Coordinated cross-sectoral management**



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Component 8:
Climate-informed health programmes

Objectives for the implementation of this component:

- **Health programming**
- **Delivery of interventions**

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Component 9:

Climate-related emergency preparedness and management

Objectives for the implementation of this component:

- **Policies and protocols**
- **Risk management**
- **Community empowerment**

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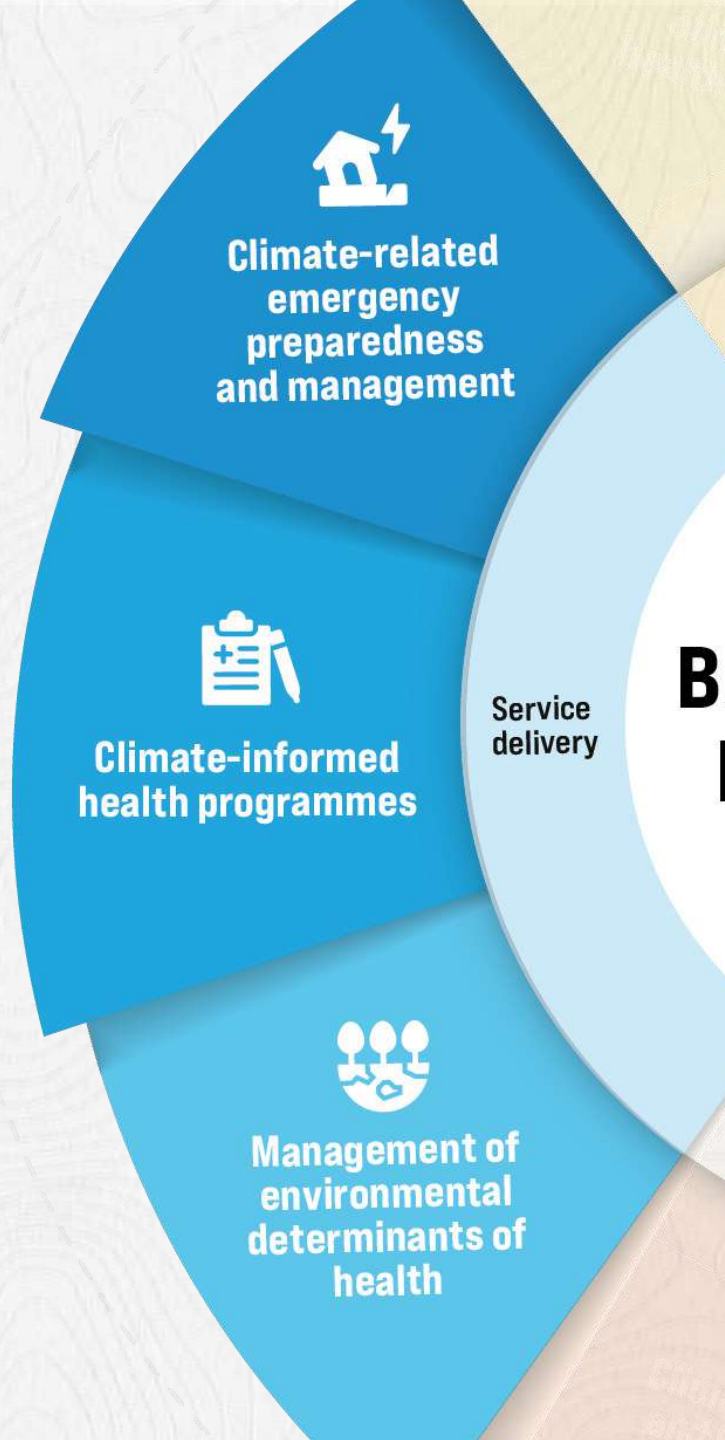
Components 7, 8 and 9:

Example actions:

- Development of **climate-resilient water safety plans**.
- Integration of climate change considerations in the **malaria programme**.
- Development of **health sector contingency plans** for extreme weather events.



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Delivering climate-resilient water and sanitation: Bangladesh case study

Problem: Droughts significantly affect water availability and quality, for drinking and agriculture.

Intervention: An app to monitor data in the field for enhanced water safety planning.

Outcomes: Identify vulnerabilities within the system linked to climate change, like lower flow rates, which was indicative of aquifer depletion during the dry season.

Source: © WHO

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Component 10:

Sustainable climate and health financing

Objectives for the implementation of this component:

- **Health specific funding and financing mechanisms**
- **Climate change funding streams**
- **Funding and financing for health-determining sectors**

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Component 10:

Sustainable climate and health financing

Example actions:

- **Domestic budget allocated** to climate change and health.
- Submit **CCH projects** to international climate change funding mechanisms (e.g. Green Climate Fund (GCF), the Global Environment Facility (GEF), the Adaptation Fund (AF) and bilateral donors.

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WHO supports countries to access funding from international climate funds

The WHO is a **GCF Readiness Partner** and is **accredited to the Adaptation Fund** and can support countries applying for funds to implement health-related climate adaptation or mitigation programmes.

Key tips for success include:

- Liaise early with the NDA
- Start early and submit early
- Be ambitious but realistic
- Share the draft concept note early with the GCF and WHO (for GCF projects)
- Utilize the WHO toolkit.

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How do we know if our health system is more climate resilient?

Framework to assist health authorities to measure and monitor progress towards climate resilient health systems

i) upstream determinants of exposure and vulnerability;

ii) climate resilience of health system functions; and

iii) outcomes of health system resilience.

Indicators will need to be identified based on the country context – priorities, relevance, data availability etc.

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Resources

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Thanks!

Country experience (1): Using the Operational Framework

AM Session

Dr Meelan Thondoo
WHO Asia-Pacific Centre for Environment and Health in the Western Pacific Region

World Health Organization

WHO ACE

WHO Asia-Pacific Centre for Environment and Health in the Western Pacific Region

Implementation Gaps for Climate resilient and Low Carbon Health Systems in WPR

Delivered by Dr. Meelan Thondoo, Technical Officer,
on behalf of WHO Asia-Pacific Centre for Environment and Health (ACE)
and University of Melbourne

15 May 2024

World Health Organization
Western Pacific Region

ACE Backbone

Vision

Healthy Planet, Healthy Environment, Healthy People:
The environment of the WHO Western Pacific Region support all people to attain the highest possible level of health and well-being on a changing planet

GDSO Status

Globally Dispersed Specialized Office (GDSO) from WPRO, located in Seoul (ROK)

A Centre of Excellence

- healthier and safer environments
- community resilience to climate and environmental change for health
- health equity for all people of the WHO Western Pacific Region

Objective 01

Strengthen scientific information and evidence for policy-making on existing and emerging climate change and environmental determinants of health

Objective 02

Provide member States support in developing and implementing policies to protect and promote health and well being by addressing climate and environmental determinants of health across sectors

Objective 03

Support Member States in developing and strengthening technical capacities and programs working with stakeholders

Climate Change and Health

Air quality, Energy and Health

Living environment (chemicals, noise, waste)

WASH

ACE: A strategic and operational arm for WPRO

GDSO specialization

Strategic location

Long-term funding

Technical expertise

Established recognition

Integrated approach

Expert network

- Full potential of GDSO specialization and unique status
- Strategic location and optimize relationship with ROK
- Long-term funding until 2028 with strong donor support
- Advanced technical expertise and specialized regional hub
- Established recognition in responding to MS requests
- Motivated team with an integrated approach to strengthening health systems
- Mobilized expert network and technical advisory groups specialized in CCE in WPR

Context of the Western Pacific Region

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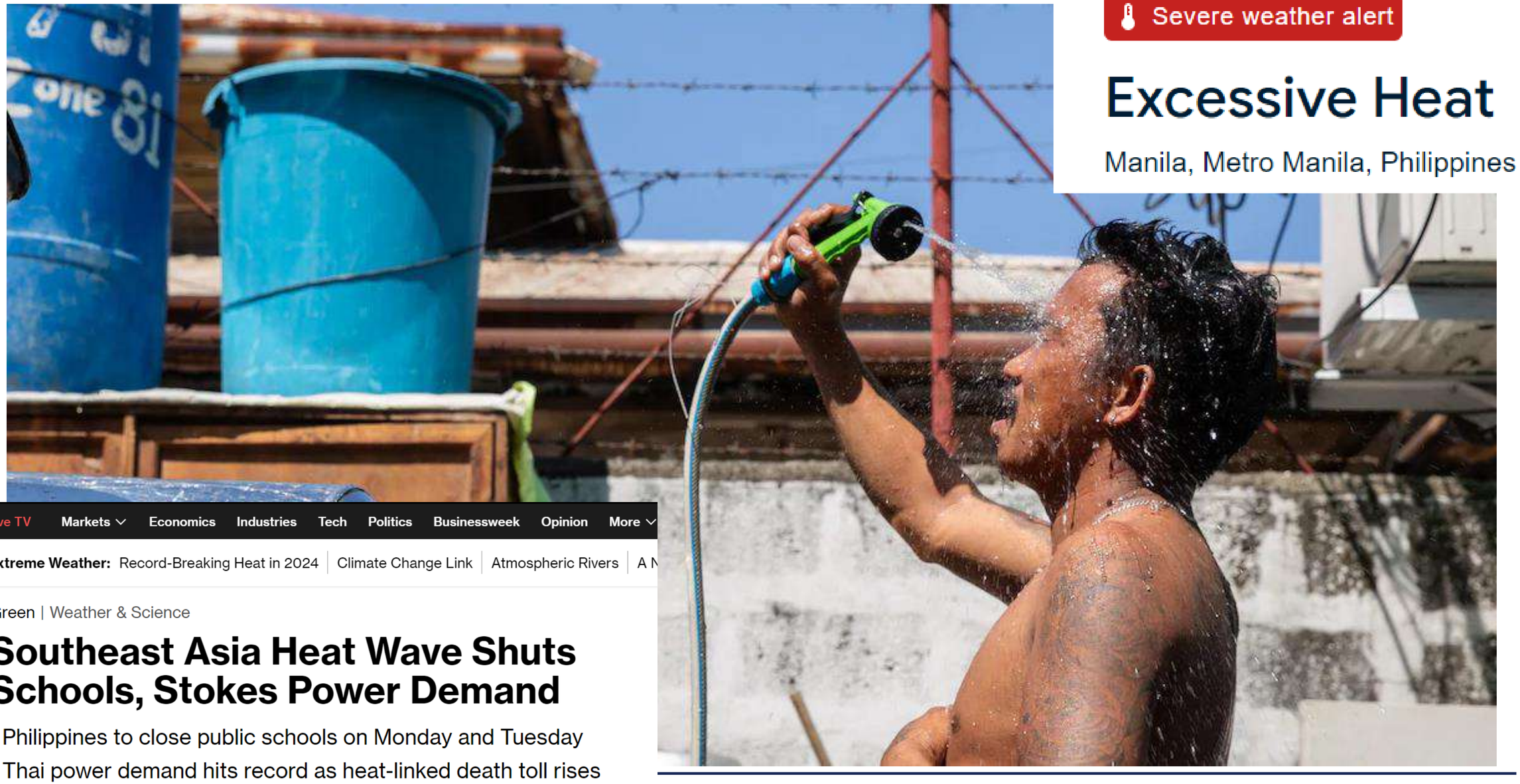
Western Pacific Region



Severe weather alert

Excessive Heat

Manila, Metro Manila, Philippines

Live TV | Markets | Economics | Industries | Tech | Politics | Businessweek | Opinion | More

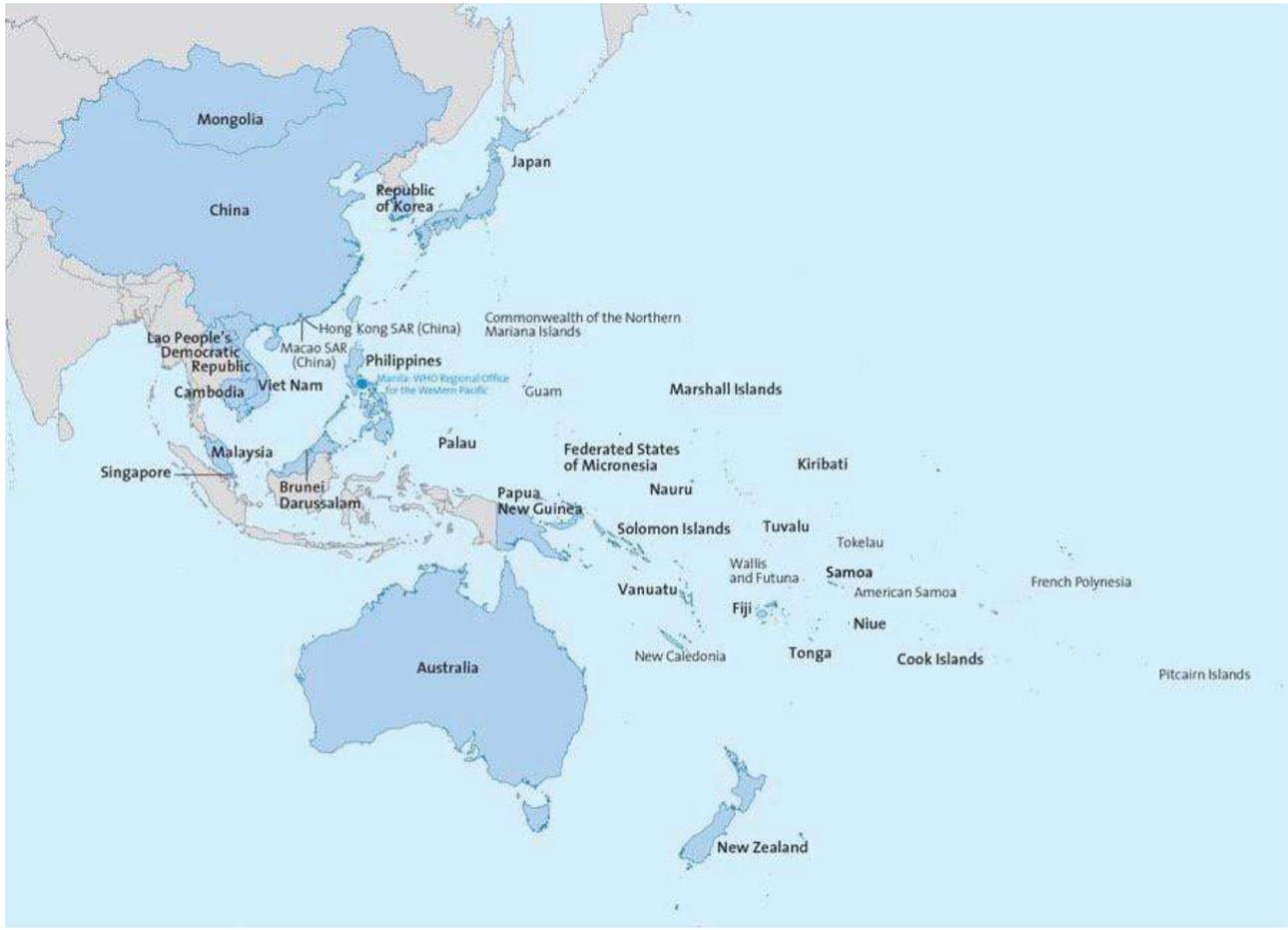
Extreme Weather: Record-Breaking Heat in 2024 | Climate Change Link | Atmospheric Rivers | A N

Green | Weather & Science

Southeast Asia Heat Wave Shuts Schools, Stokes Power Demand

- Philippines to close public schools on Monday and Tuesday
- Thai power demand hits record as heat-linked death toll rises

Western Pacific Region: Diversity and Potential



Burden of disease

Bioregions and Climate profiles

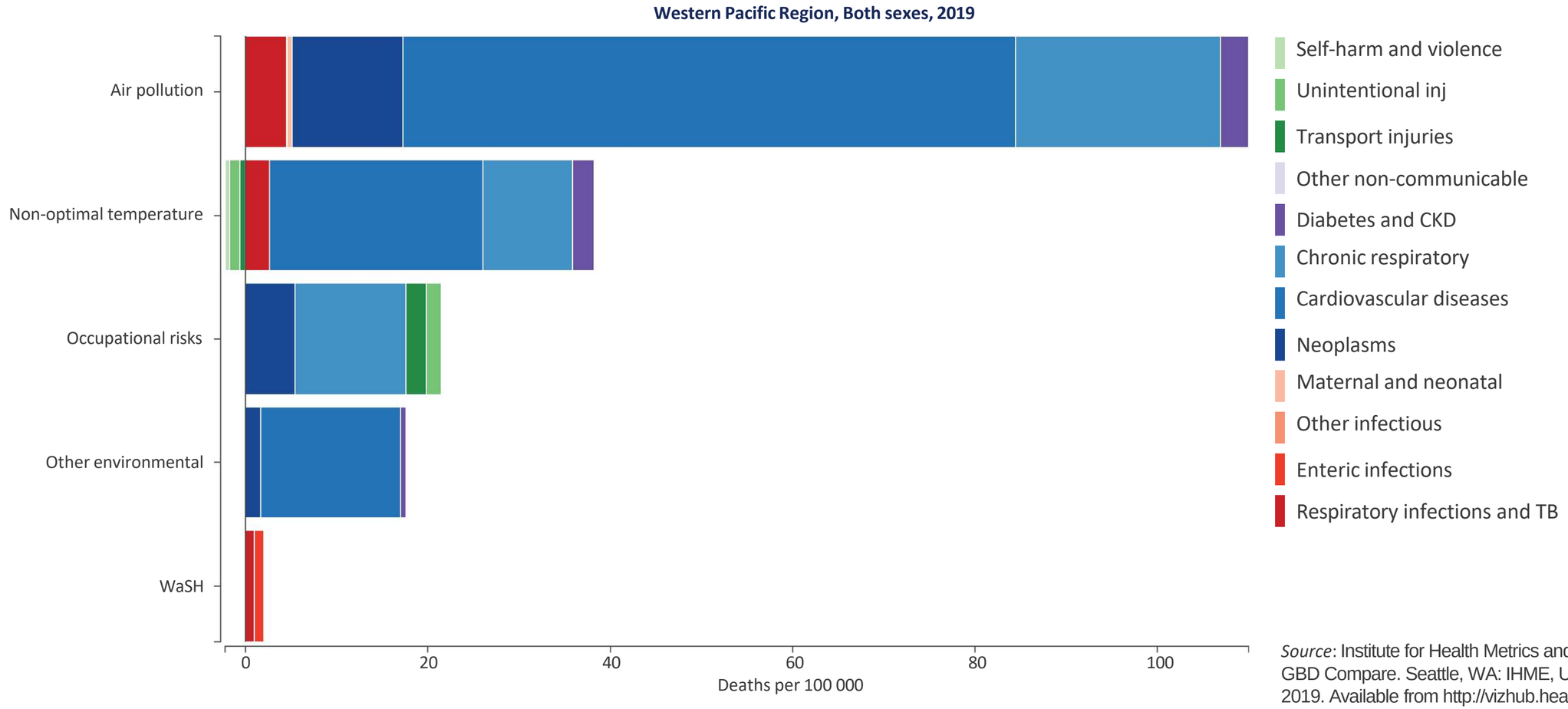
Air Pollution Exposure

Economic status

Urbanizations trends

PICs

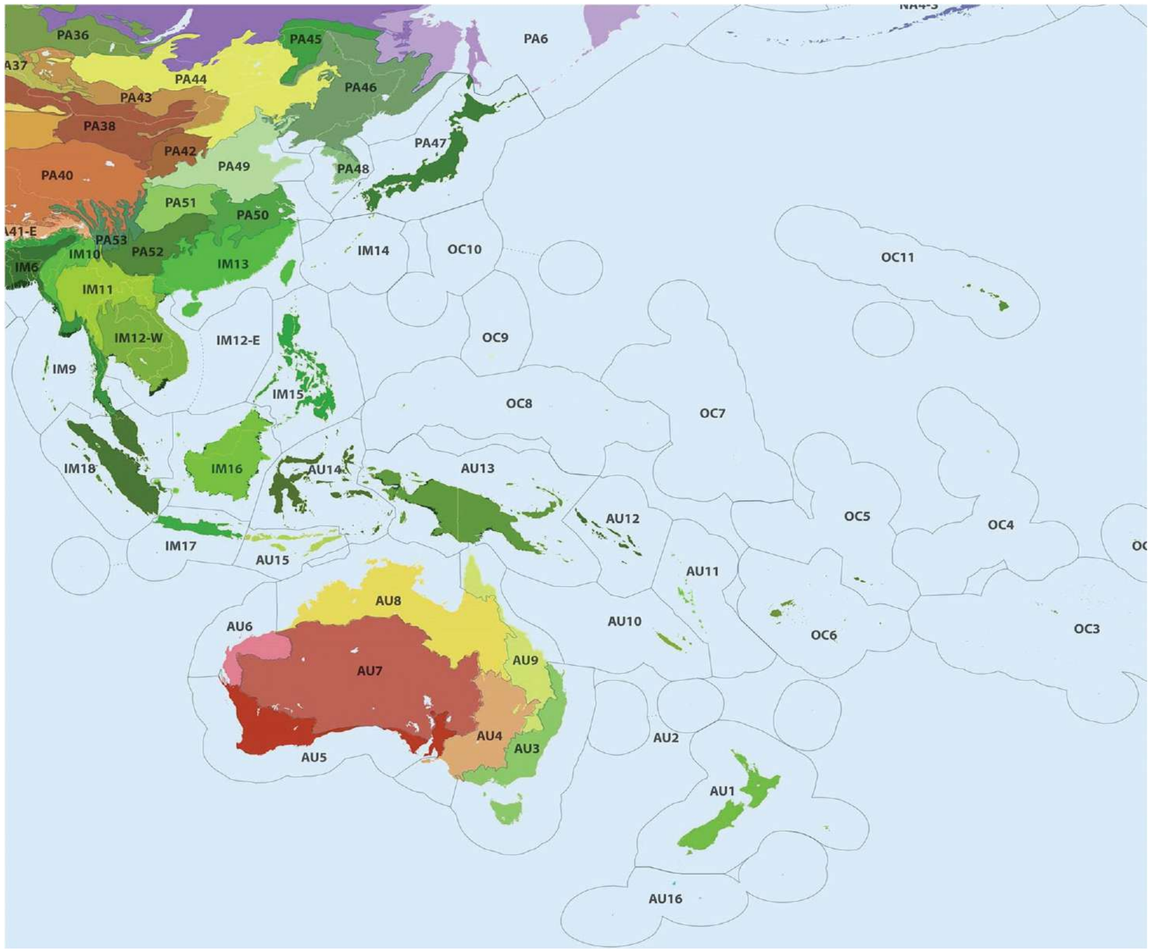
Exposure to environmental risk factors



Source: Institute for Health Metrics and Evaluation (IHME). GBD Compare. Seattle, WA: IHME, University of Washington, 2019. Available from http://vizhub.healthdata.org/gbd-compare. (Accessed [02/10/2024])

Environmental risk factors contributed to 3.66 million (2.81 – 4.50) deaths in WPR in 2019

Bioregions and Climate Profiles



- Deserts & Xeric Shrublands (rust)
- Mountain Grasslands & Shrublands (beige)
- Temperate Grasslands, Savannas & Shrublands (yellow)
- Tropical & Subtropical Grasslands, Savannas & Shrublands (orange)
- Flooded Grasslands & Savannas (light blue)
- Mangroves (pink)
- Mediterranean Forests, Woodlands & Scrub (red)
- Temperate Broadleaf & Mixed Forests (dark green)
- Temperate Conifer Forests (grey-green)
- Tropical & Subtropical Coniferous Forests (light green)
- Tropical & Subtropical Dry Broadleaf Forests (olive green)
- Tropical & Subtropical Moist Broadleaf Forests (bright green)
- Boreal Forests/Taiga (medium blue)
- Tundra (teal)

Source: Olson, David M., et al. "Terrestrial Ecoregions of the World: A New Map of Life on Earth: A new globa l map of terrestrial ecoregions provides an innovative tool for conserving biodiversity." BioScience 51.11 (200 1): 933-938.

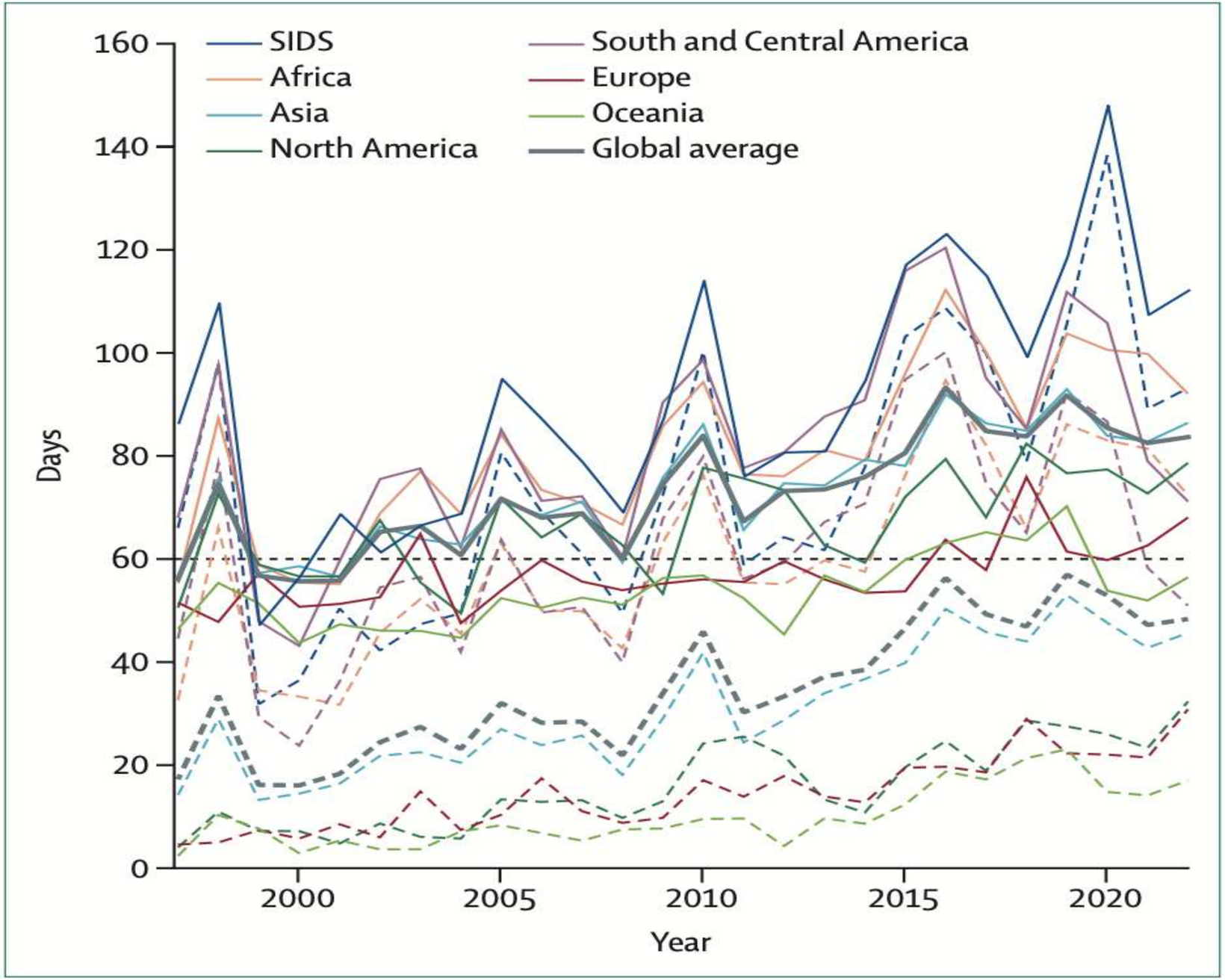


Figure 2: **Population-weighted days of exposure to temperatures above the 84th percentile for 1986–2005**

Heat-related deaths
from 2018-2022

+370%

85% Heat-related mortality (65+)

39-42% Dengue transmission potential

Droughts - 18% to 47 %

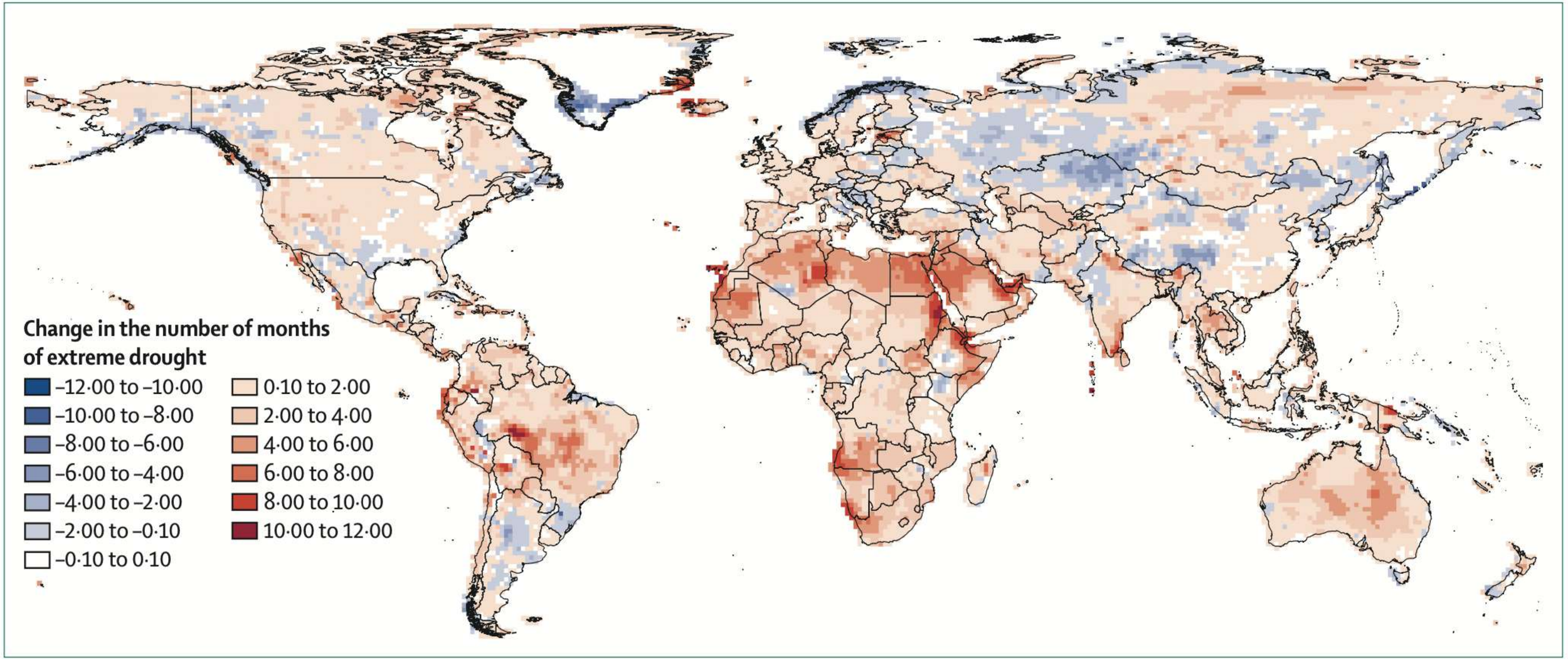


Figure 3: Change in the number of months of extreme drought per year from 1951–60 to 2013–22

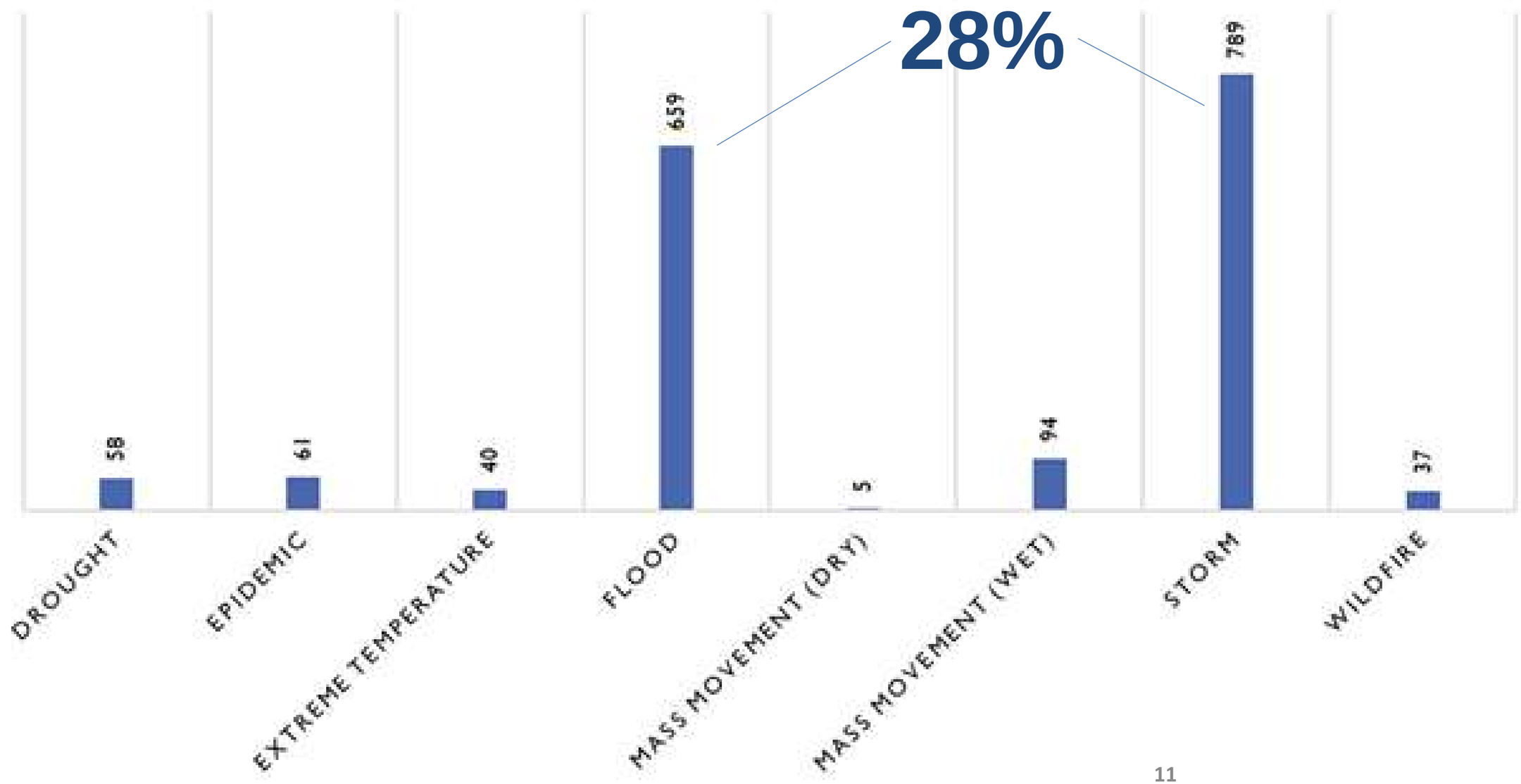
31 1.4 billion diarrhoeal diseases

24.9 million malnutrition

27 million food insecurity

Source: The Lancet Report 2023

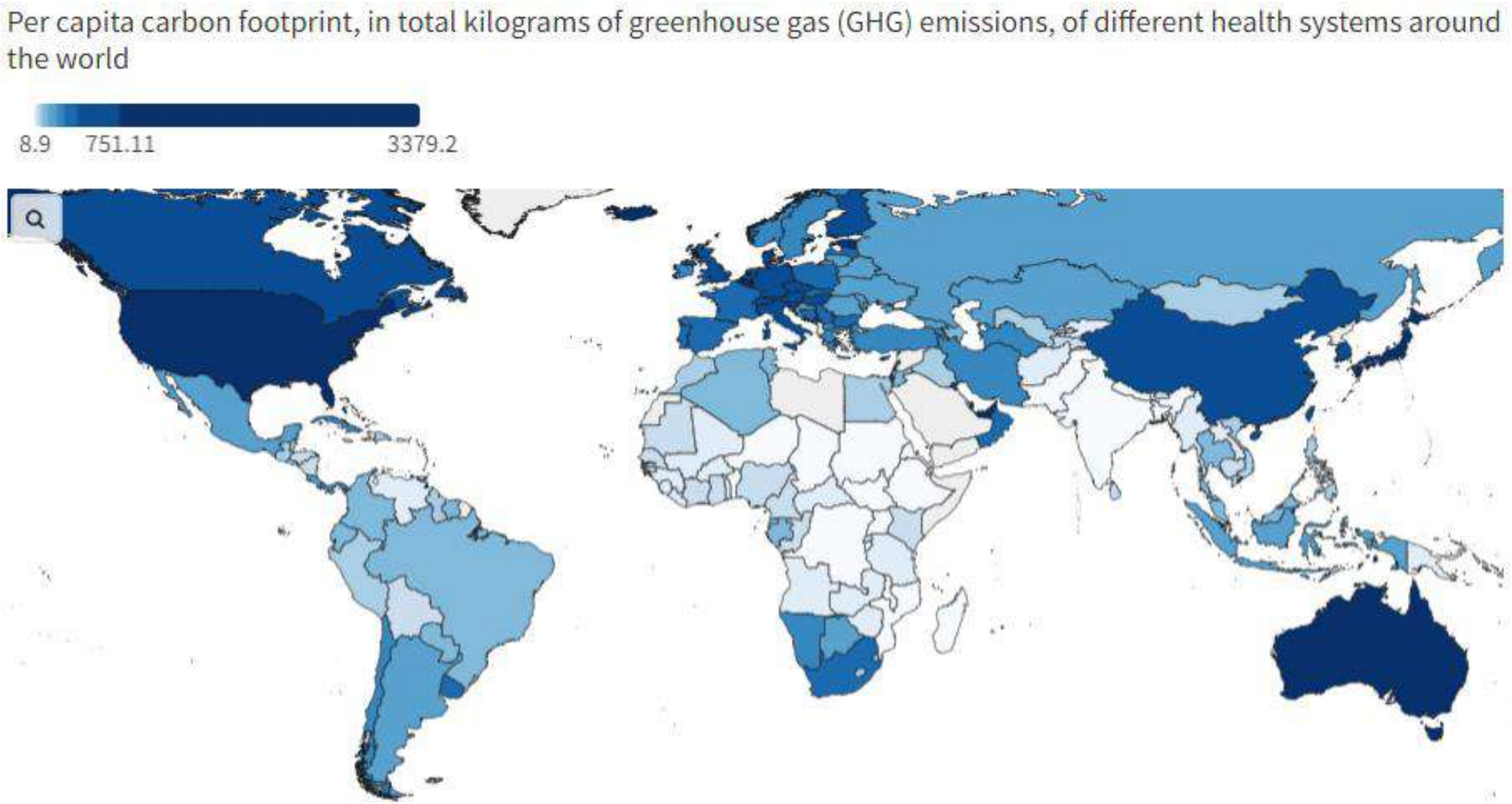
Climate-related disasters in WPR (2000-2024)



Source: EM-DAT (2024)

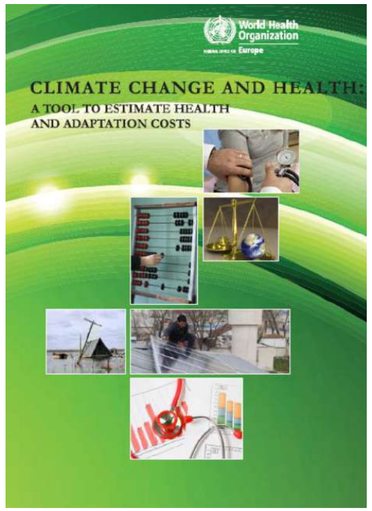
The joint effects of climate change and poor air quality are worse that effects from either exposure alone

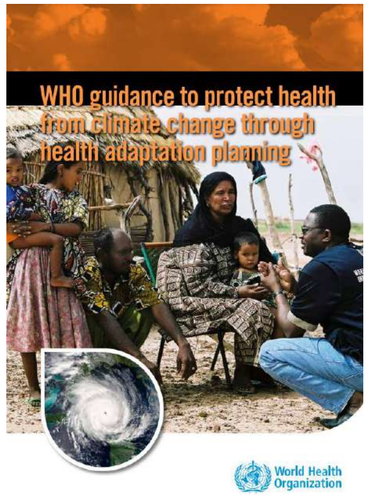
Health systems contribute to 4-6% of GHG emissions

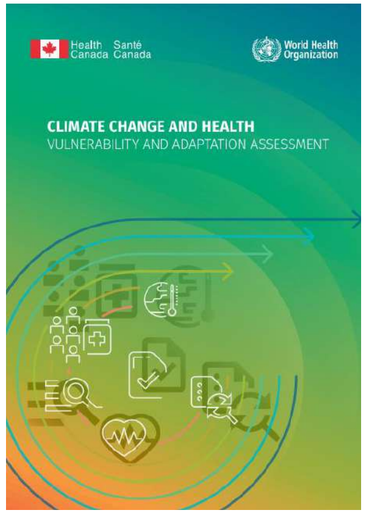


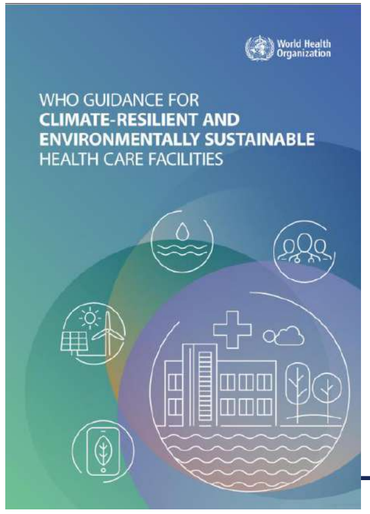
(Romanello et al., 2023)

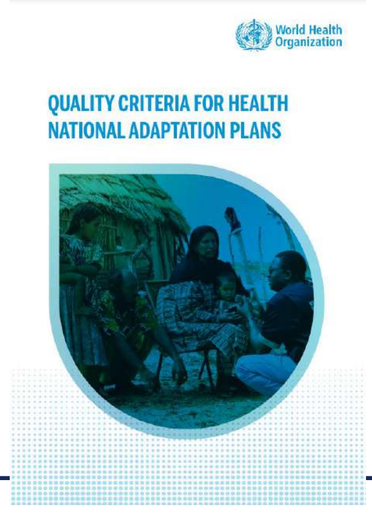
Resources and tools

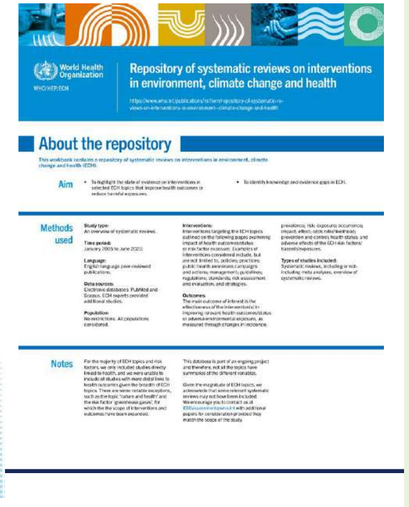












Scoping review: Climate Resilient and Low Carbon Health Systems

World Health Organization
Western Pacific Region

Project Overview

- Case studies focusing on the **implementation** of **climate resilience** and **decarbonization** of **health systems**

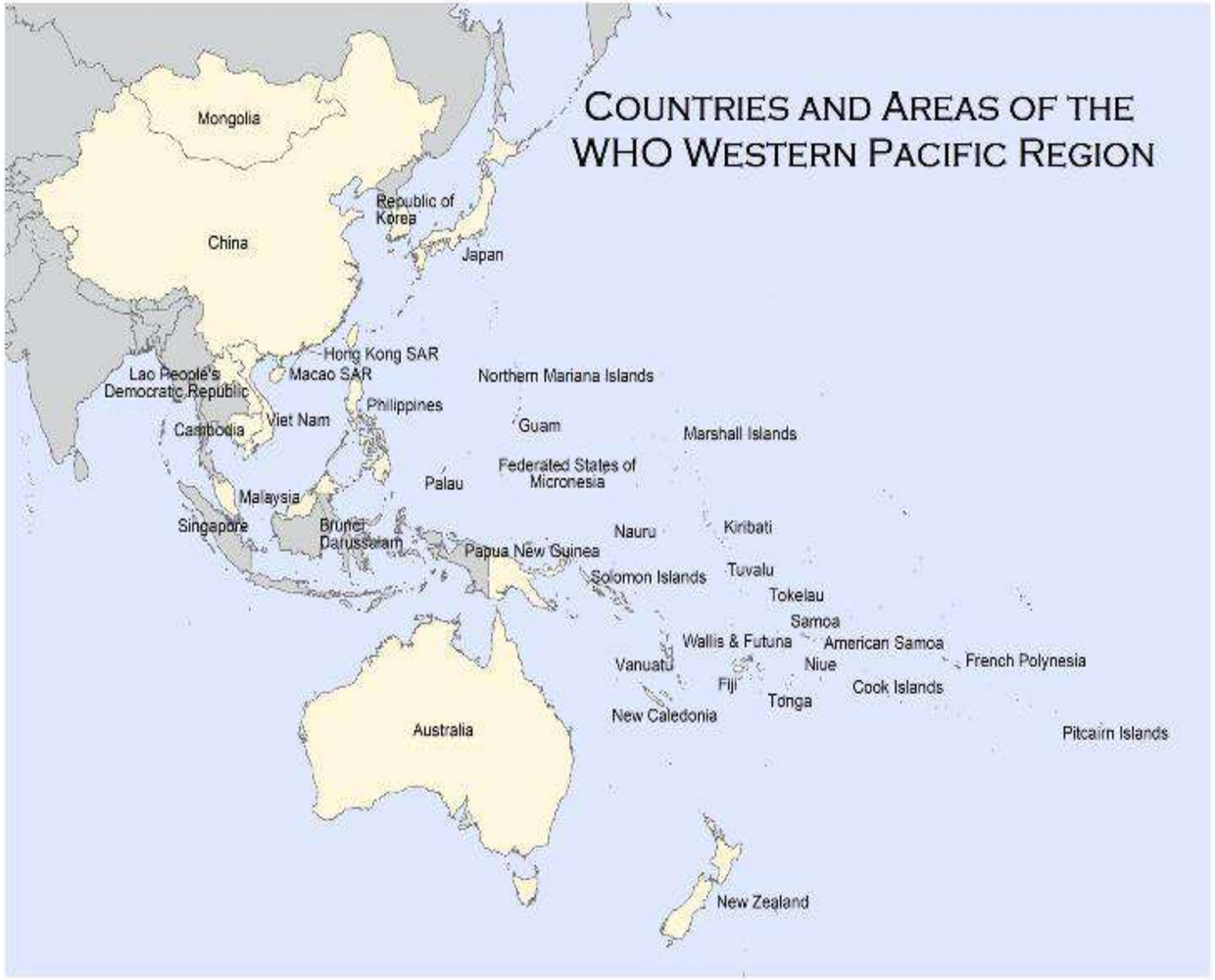
- **Six WPR countries:** Australia, Fiji, Lao PDR, Mongolia, South Korea, Viet Nam

- **Two aims:**

1) Gather evidence on interventions
2) Investigate alignment with WHO framework

- **Co-design, collaboration and publication** with University of Melbourne

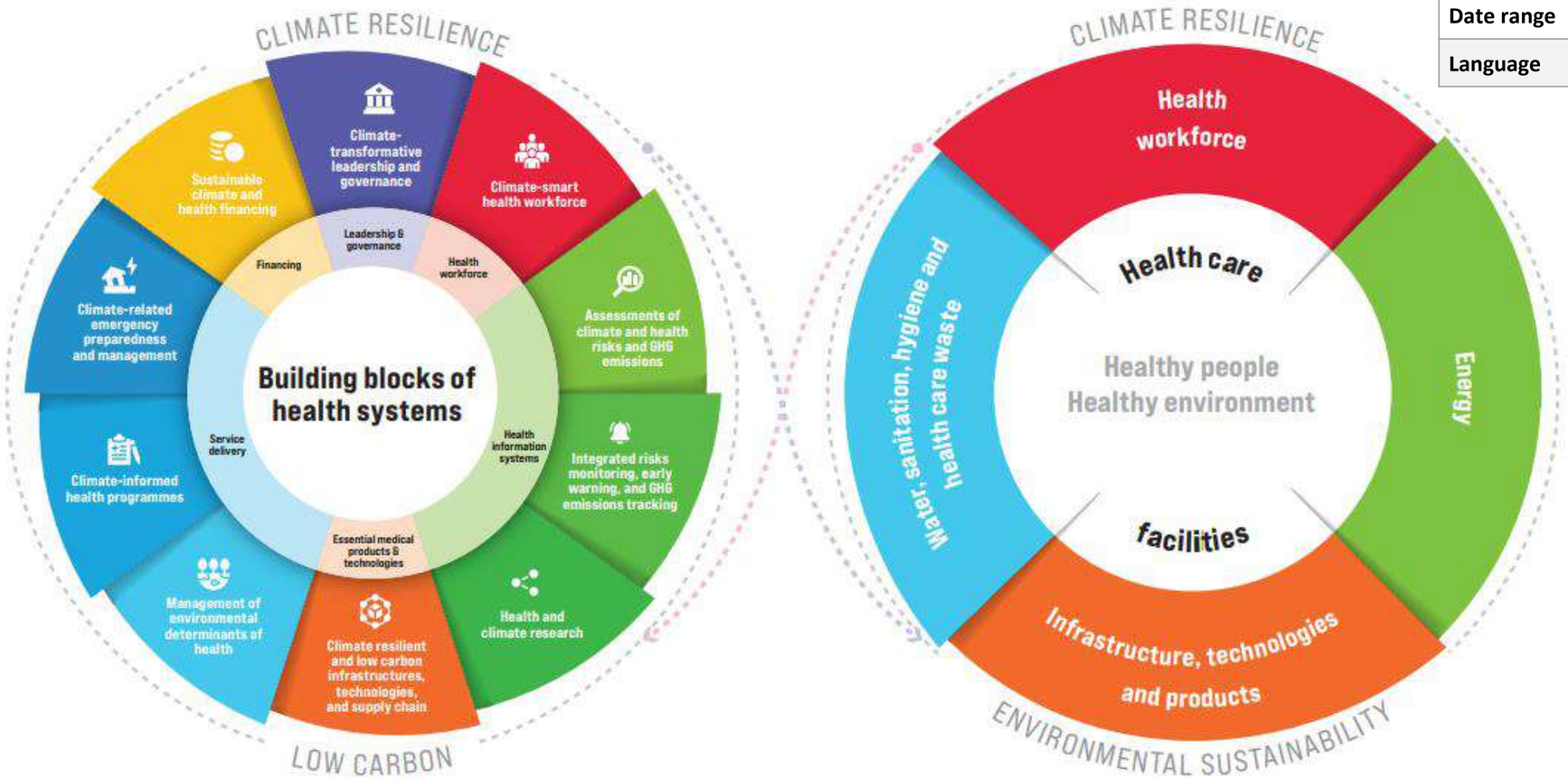
Patricia Nayna Schwerdtle [a.b], Elise Moo [c], Crystal Pae [d], Enkhtsetseg Shinee [d], Johannah Wegerdt [d], Akeem Ali [d], Meelan Thondoo [d], Kathryn Bowen [c,e]



Methods

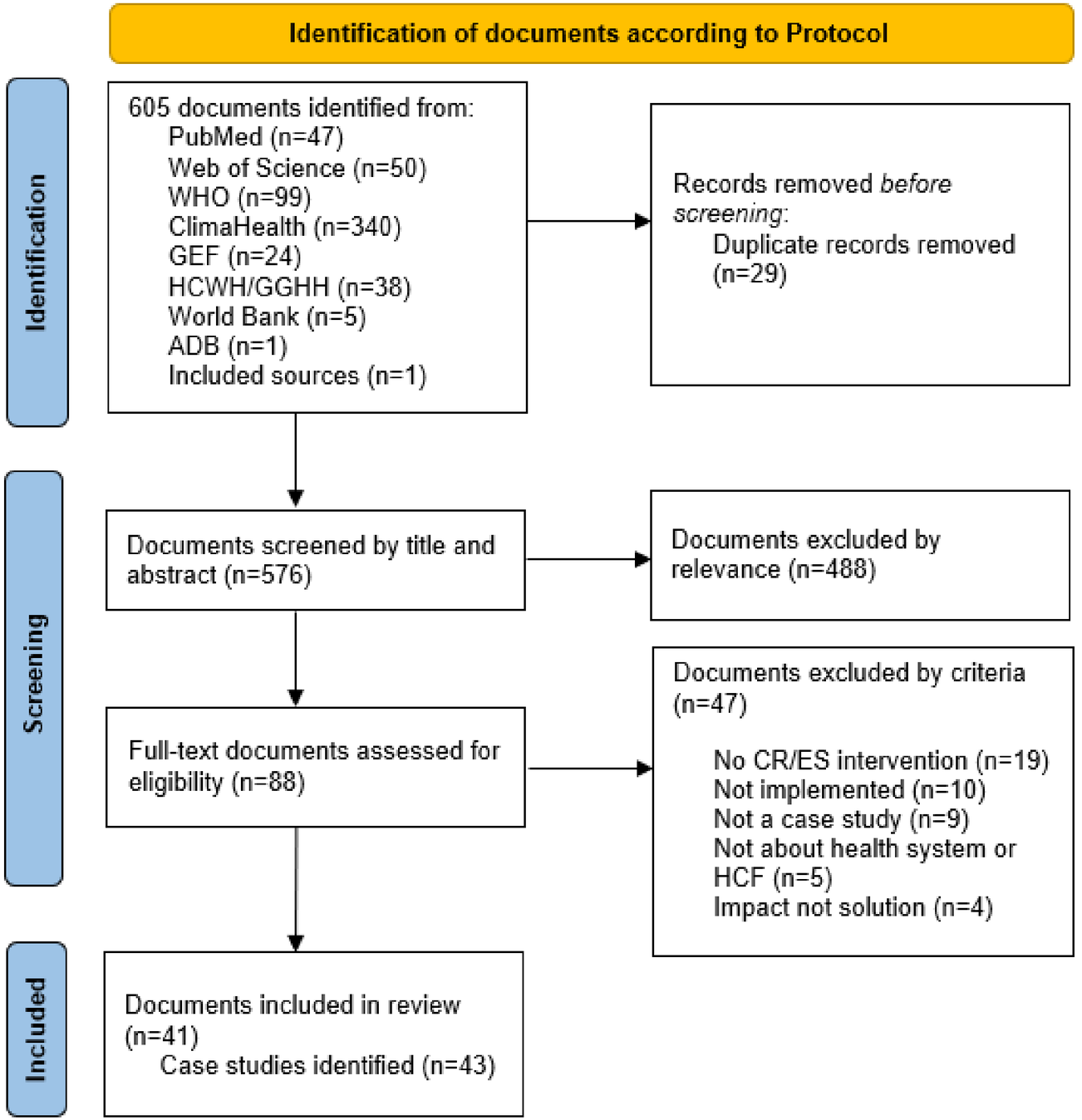
Rapid scoping review (Tricco et al., 2017; Tricco et al., 2018)

Search component	Included criteria
Keywords	Climate resilient, low carbon, healthcare decarbonization, sustainable, health systems, health facilities, health care, health service
Databases	PubMed, Web of Science, Grey literature sources (WHO IRIS, WHO website, ClimaHealth, Green Climate Fund, Global Environment Facility, Healthcare Without Harm/Global Green and Healthy Hospitals initiative, The World Bank, Asian Development Bank).
Date range	2015-2023
Language	Documents published in English



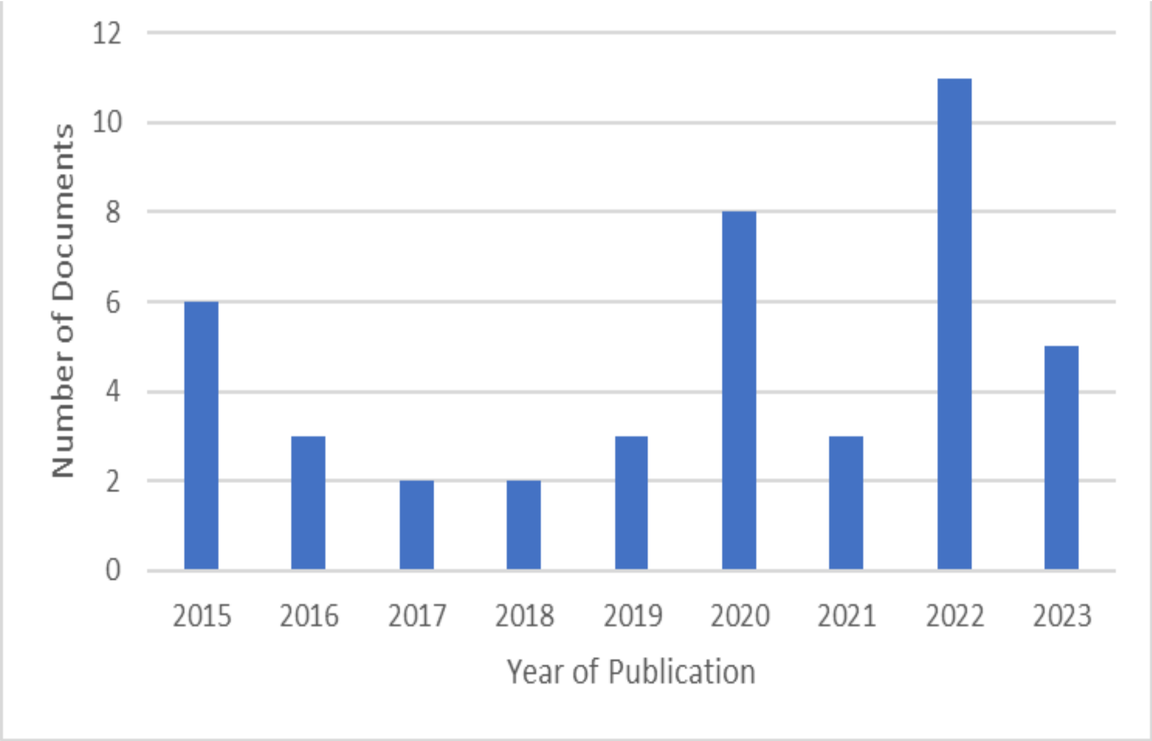
WHO Operational Framework for Climate resilient and Low Carbon Health Systems (2023)

Preliminary Results



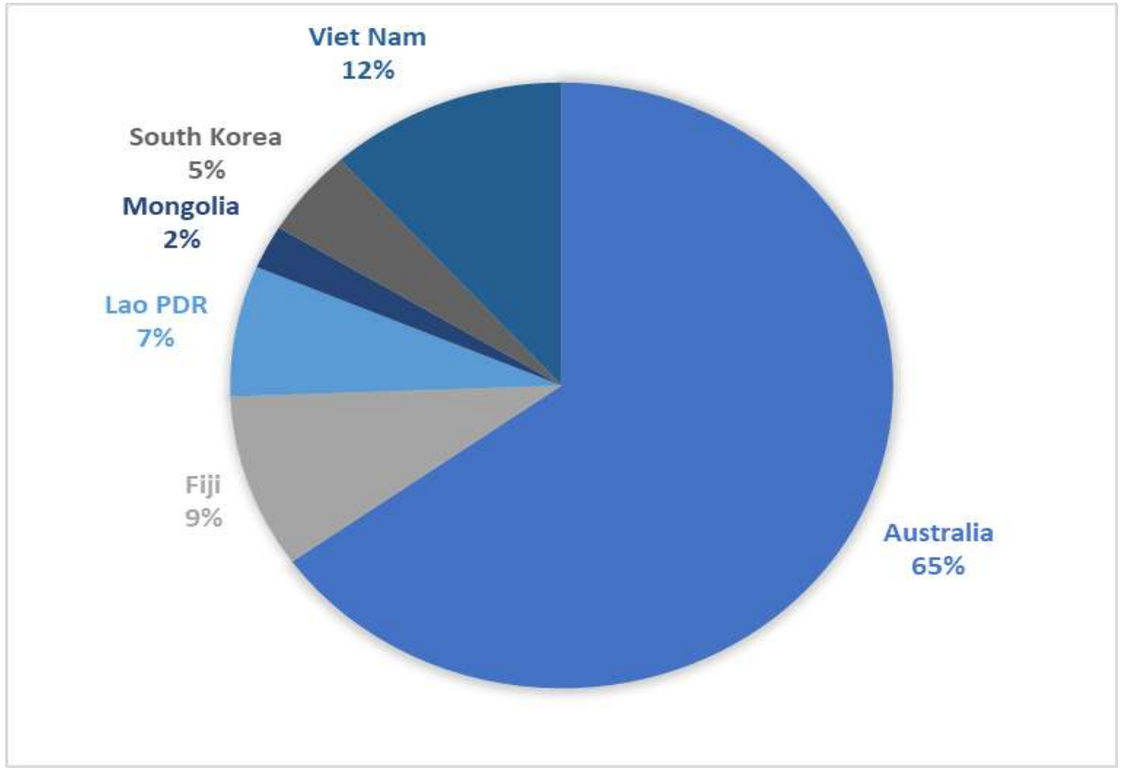
Descriptive Overview

Documents by Year



Most documents were identified in grey literature

Documents by Country



Most interventions were implemented at health care facilities level

Framework Analysis: WHO’s Operational Framework

Low Carbon

4 fundamental requirements for HC facility guidance + standards to manage carbon footprint

?

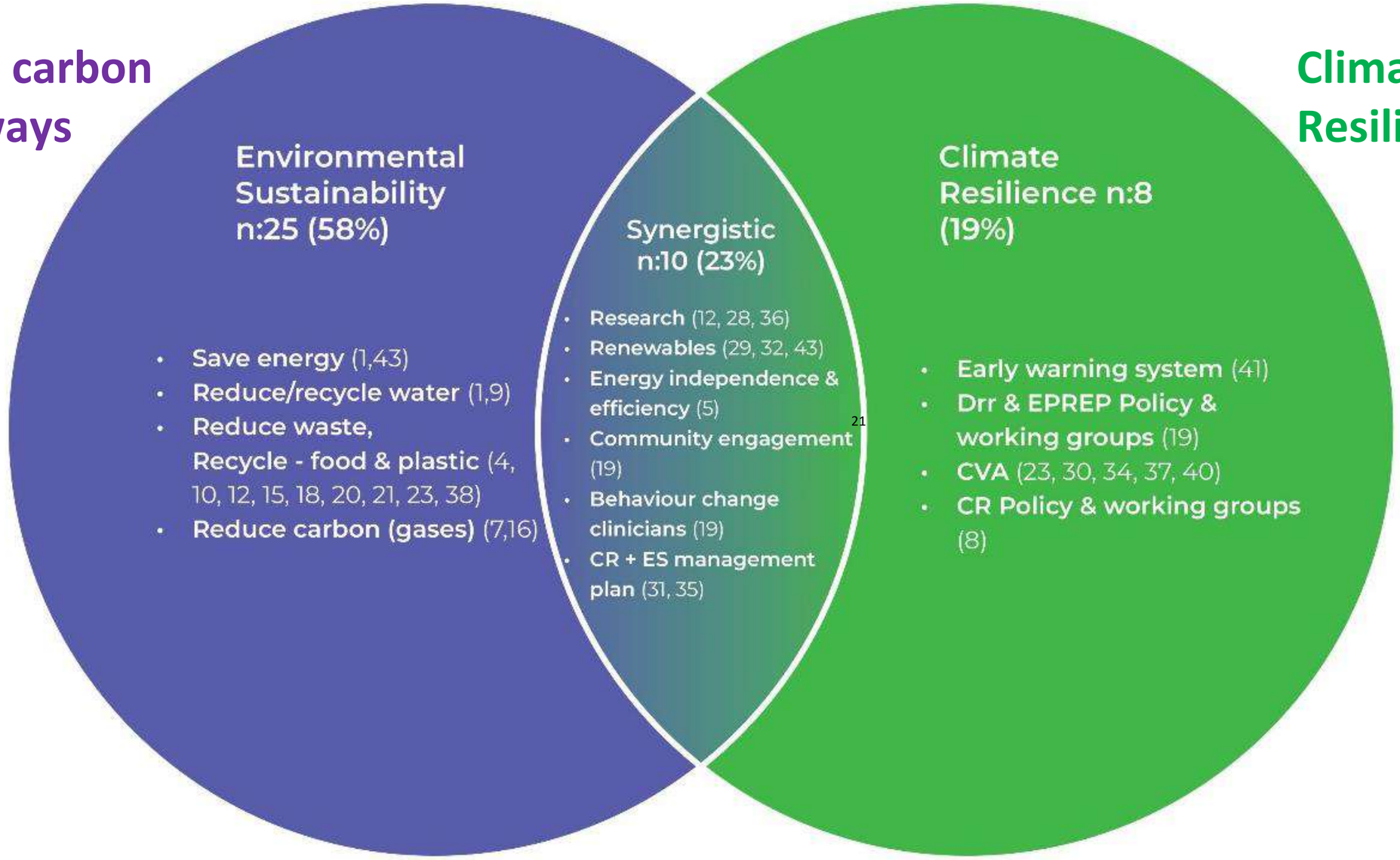
Climate Resilient

10 components of HS building blocks

Preliminary Results: Operational Framework

Lower carbon pathways

Climate Resilience



The 10 Building Blocks of Health Systems

Four fundamental requirements for Health care facilities

Approaches to manage carbon footprint

Bottom-up (n=18)
Top-down (n=7)

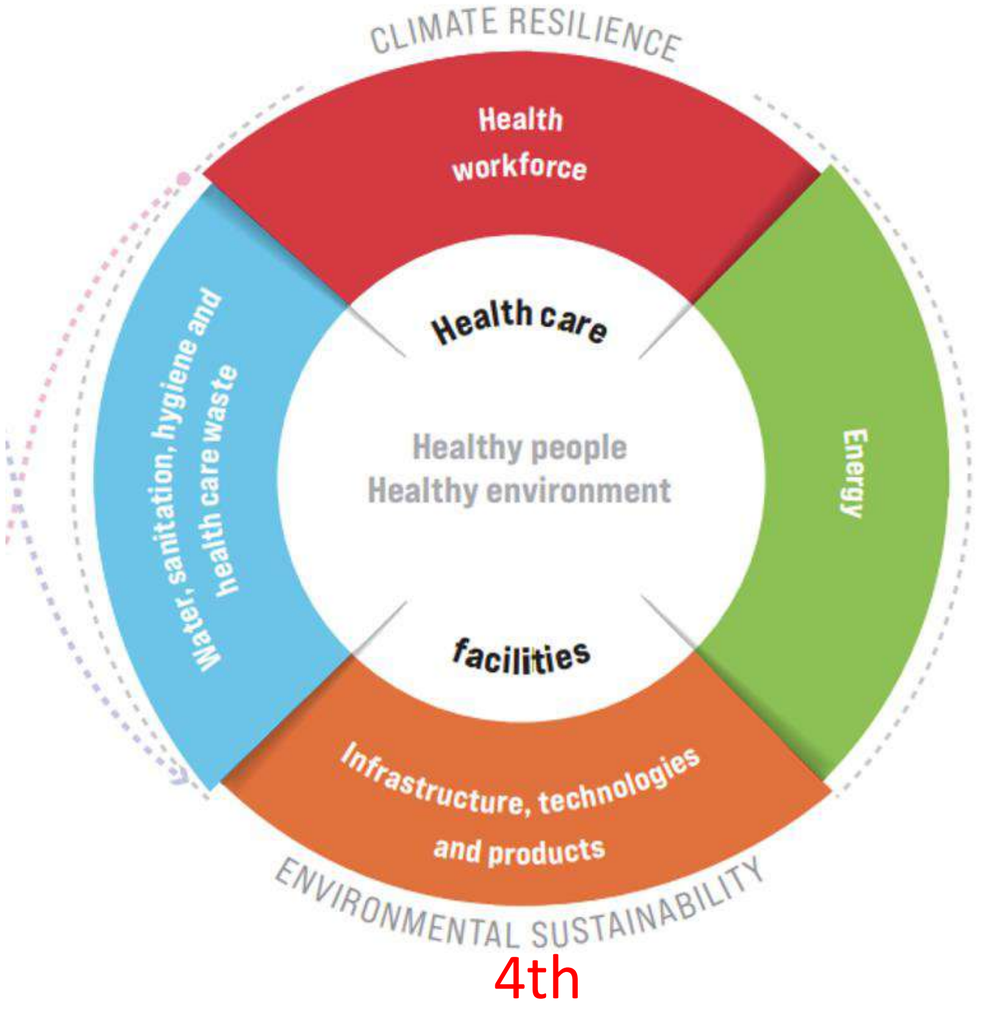
Standards to manage carbon footprint

Scope 3 (n=15)
Scope 2 (n=4)
Scope 1 (n=1)

2nd

1st

3rd



4th

Evaluation and Outcomes

53% reported evaluation

Prevalence of outcome over process indicators

- GHG emission counts was the most used indicator
- Evaluation of financial savings
- Assessment of waste reduction (n=5)

Co-benefits

70% reported gains

- Economic
- Health
- Social
- Quality, safety and efficiency

Barriers and Enablers

lack of resources, higher costs and covid-19

leadership, governance and coordination

capacity, staff engagement and technical support

partnerships and relationships

clinical restrictions

mandatory reporting , education and communication

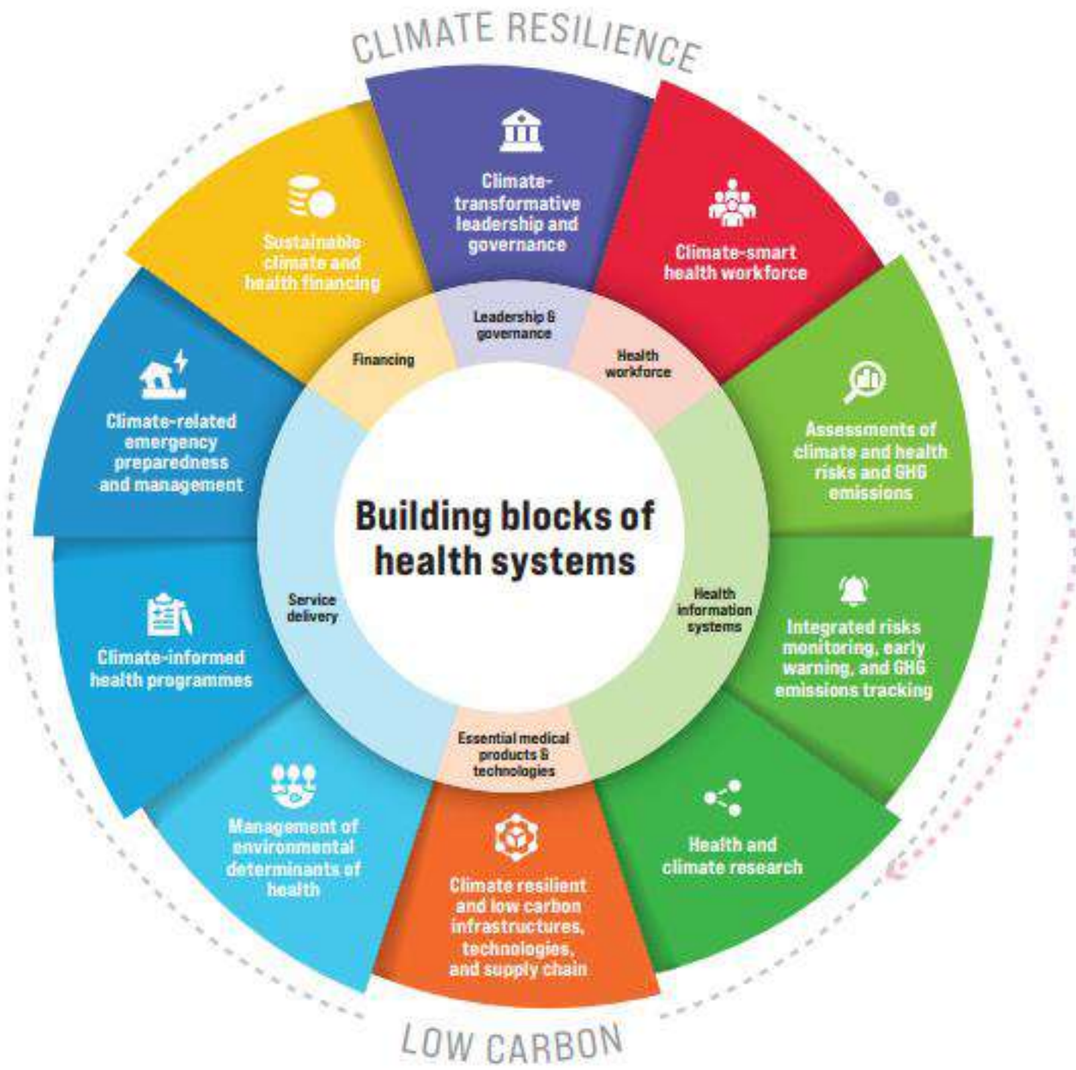
Preliminary Findings

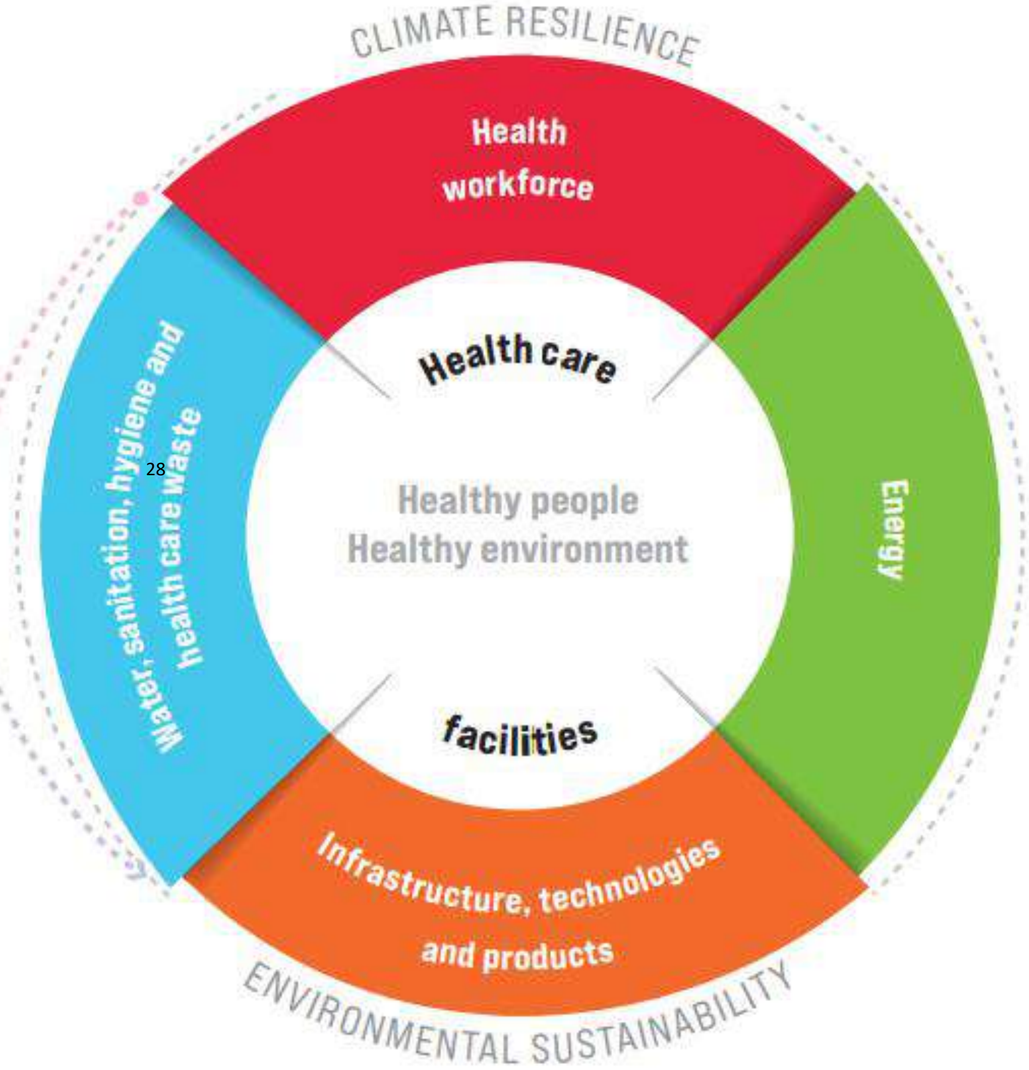
1. Geographic bias towards Australia
2. Majority focused on environmental sustainability and Scope 3 low-carbon activities
3. Less focus on climate resilience, except for Australia and ROK
4. Focus on bottom-up and single interventions
5. Costs rarely reported
6. Community engagement a potential driver

Take Home Messages

World Health Organization
Western Pacific Region

Way forward for practical application.





Implementation across areas for action.

Air Quality

Climate change

Water and sanitation

Waste and wastewater management

Chemical Management

Noise exposure

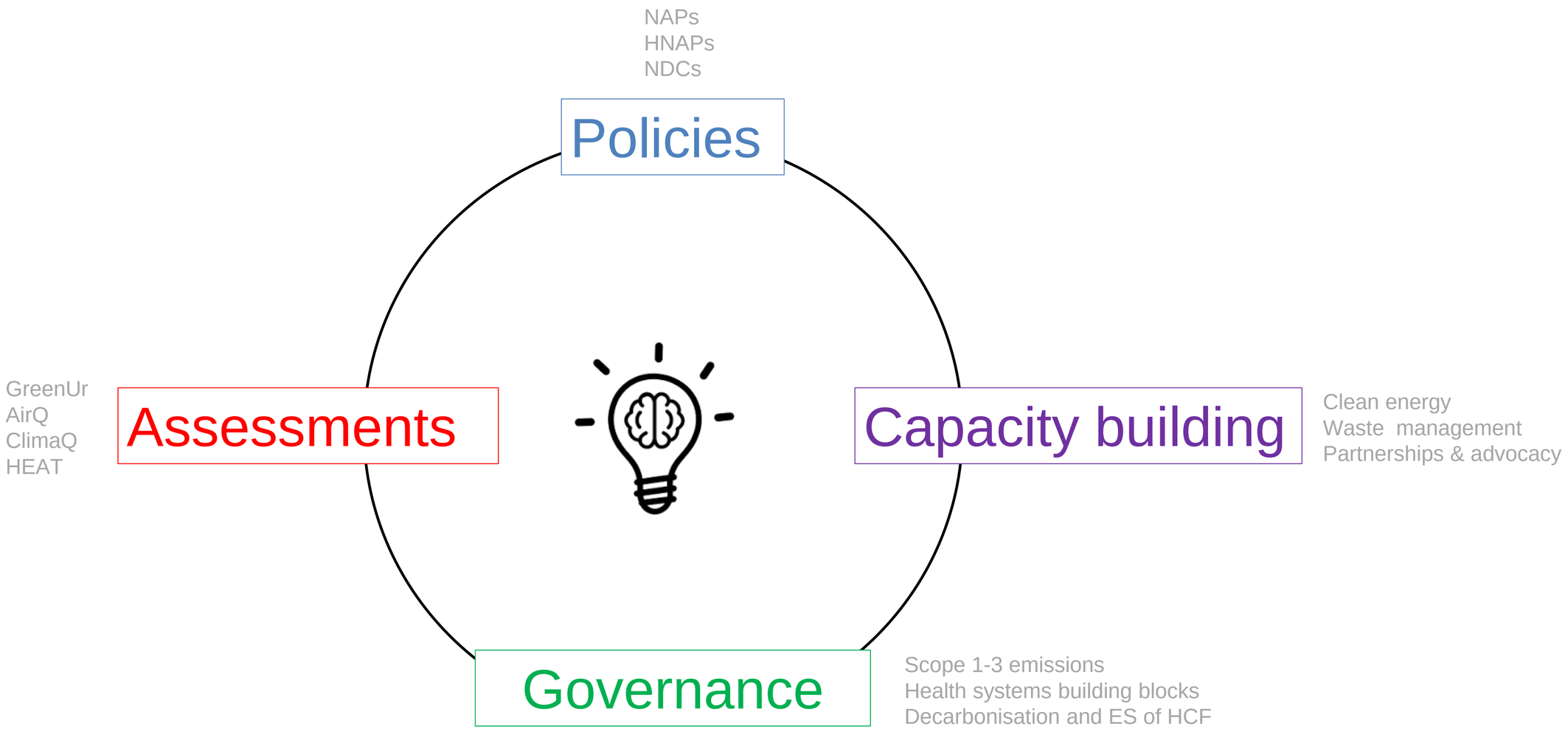
Emergencies

Built environments

Inequity

Occupational Health and Safety

Shift to system-wide strategies.



Malo ‘Aupito

감사합니다

Thank You

WHO Asia-Pacific Centre for Environment and Health (ACE)
University of Melbourne

World Health Organization
Western Pacific Region

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Country experience (2): Using the Operational Framework

AM Session

Dr Bonifacio Magitibay
WHO Philippines

World Health Organization

World Health Organization
Philippines

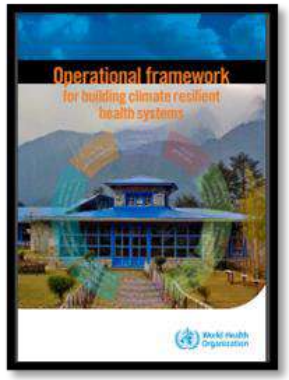
Climate Resilient and Low Carbon Health Systems in the Philippines

Engr Bonifacio Magtibay, Technical Officer
WHO -Philippines

WHO Operational Framework and Philippine Response

WHO Operational Framework

1. Leadership and governance
2. Health workforce
3. Vulnerability, capacity and adaptation assessment
4. Integrated risk monitoring and early warning
5. Health and climate research
6. Climate resilient and sustainable technologies and infrastructure
7. Management of environmental determinants of health
8. Climate-informed health programmes
9. Emergency preparedness and management
10. Climate and health financing



- Climate Change Act (2009)
- National Climate Change Action Plan (2011-2028)
- National Policy on Climate Change Adaptation for Health (2012)
- Climate Change for Health Adaptation Plan (2014-2016)
- Universal Health Care Act (2019)
- Philippine Health Facility Development Plan (2020-2040)
- Healthcare Waste Management Manual (2020)
- Green and Safe Health Facility Manual (2021)
- Philippine Development Plan (2022-2028)
- Water and Sanitation for Health Facility Improvement Tool (WASH FIT) (2023)
- National Environmental Health Action Plan 2030 (2023)

WHO Operational Framework and Philippine Response

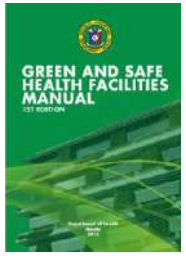
1. Leadership and Governance	• Governance: Health Emergency Management Bureau – focal office on climate change and health in Department of Health (2024) • Policy: Issuance of the Green Manual covers resilience and low carbon initiatives (2021); national policy on climate change adaptation for health (2012) • Collaboration: Inter-agency Committee on environmental health collaborates on climate change and health issues; issued NEHAP 2030 (2023)
2. Health Workforce	• Human resource: DOH has inadequate staff to handle CC needs • Capacity development: Sub-national DOH regional coordinators were oriented on the Green Manual and trained on the use of green viability tool (2023). • Communication: Communication plan needs updating (2012)

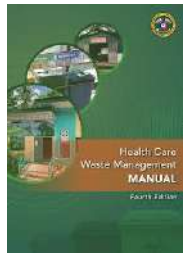
WHO Operational Framework and Philippine Response

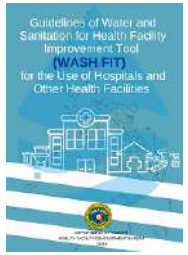
3. Vulnerability, capacity and adaptation assessment	• Health vulnerability and capacity assessment tools developed in 2012 need updating
4. Integrated risk monitoring and early warning	• Philippine Integrated Disease Surveillance and Response (PIDSR) is existing since 2007; integrated CC-related diseases in 2012 • Linkage to weather indicators attempted in 2012; needs to be revived • Communication plan in 2012 needs updating
5. Health and climate research	• The Department of Science and Technology handles research activities of the Department of Health, including climate and health research.

WHO Operational Framework and Philippine Response

6. Climate resilient and sustainable technologies and infrastructure	• Requirements are already covered by the Green and Safe Health Facility Manual
7. Management of environmental determinants of health	• Covered by the Green and Safe Health Facility Manual with provisions on WASH FIT, healthcare waste management and indoor environmental quality; NEHAP addresses environmental determinants of health
8. Climate-informed health programmes	• With initiatives on the following programs: Environmental Health, Mental Health, Maternal and Child Health, Health Emergency, and One Health

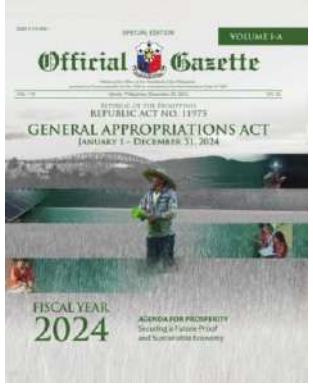






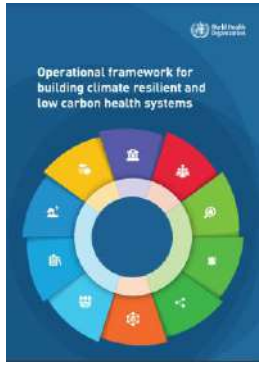
WHO Operational Framework and Philippine Response

9. Emergency preparedness and management	• Covered by the activities of the Health Emergency Management Bureau • One of the priorities in the 8-point Action Agenda of the current administration.
10. Climate and health financing	• General Appropriation Act provides allocation for green health facilities



Challenges and Solutions

Challenges	Solutions
Unstable status of designated focal Office on handling climate change and health activities at DOH	**Create an Office** in the Department of Health whose main function is to handle the program on climate resilience and low carbon health systems (with adequate staff and budget for operation)
Inadequate staff to handle climate change and health	
Fragmented government policies on climate change adaptation, greenhouse gas mitigation, environmental determinants, and disaster risk reduction that affect the health sector	Develop **a roadmap on health and climate change** (2025-2050) with an operational plan (2025-2030) **Update existing policy** on national climate change adaptation for health to incorporate new developments into one policy



Philippine Roadmap on Health and Climate Change (2025-2050)

Philippine Operational Plan on Health and Climate Change (2025-2030)

Country experience (1): Using the Operational Framework

PM Session

Dr Nada Al Marzouqi
Ministry of Health and Prevention, United Arab Emirates

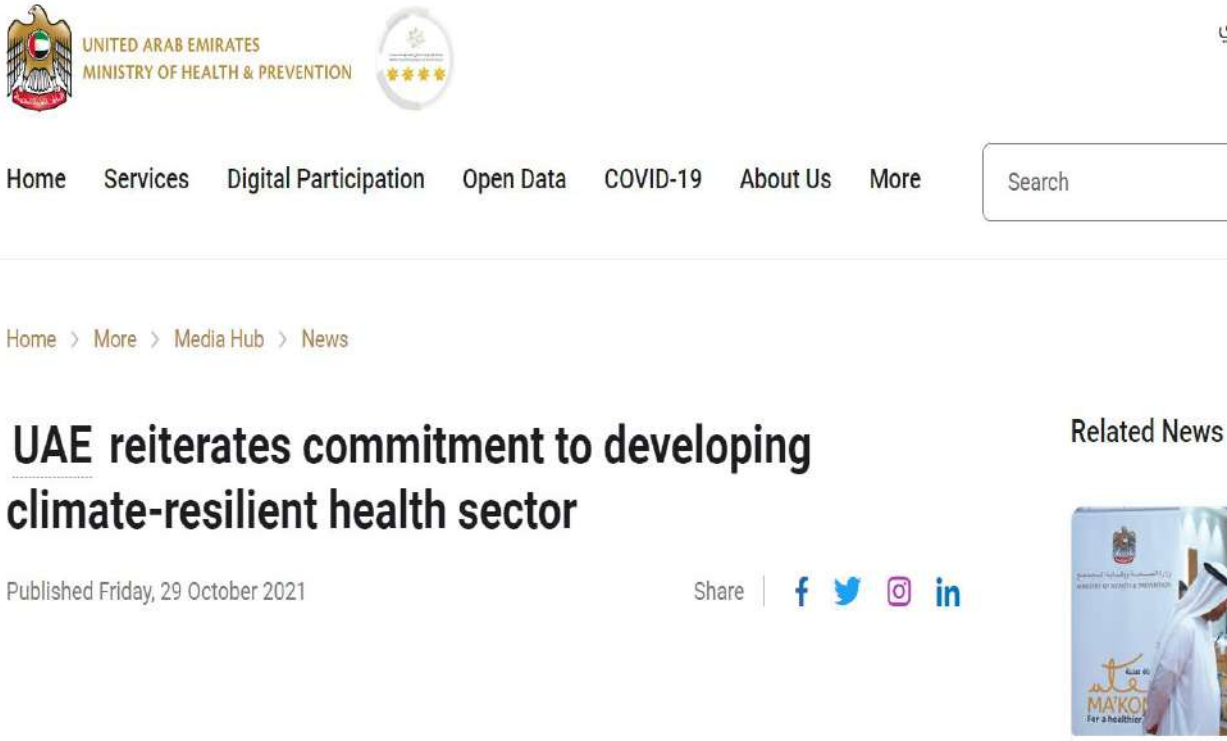
World Health Organization

Climate Change and Health in UAE

UAE Health Sector National Adaptation Plan to Climate Change: A Framework for Action 2023

UAE MOHAP climate change and health work and commitmetns

- COP26 commitments and ATACH
- Collaboration with UAE Ministry of Climate Change and Environment on climate change actions
- Health sector adaptation and mitigation actions coordination
- Health Day at COP28 and COP28 Health Declaration

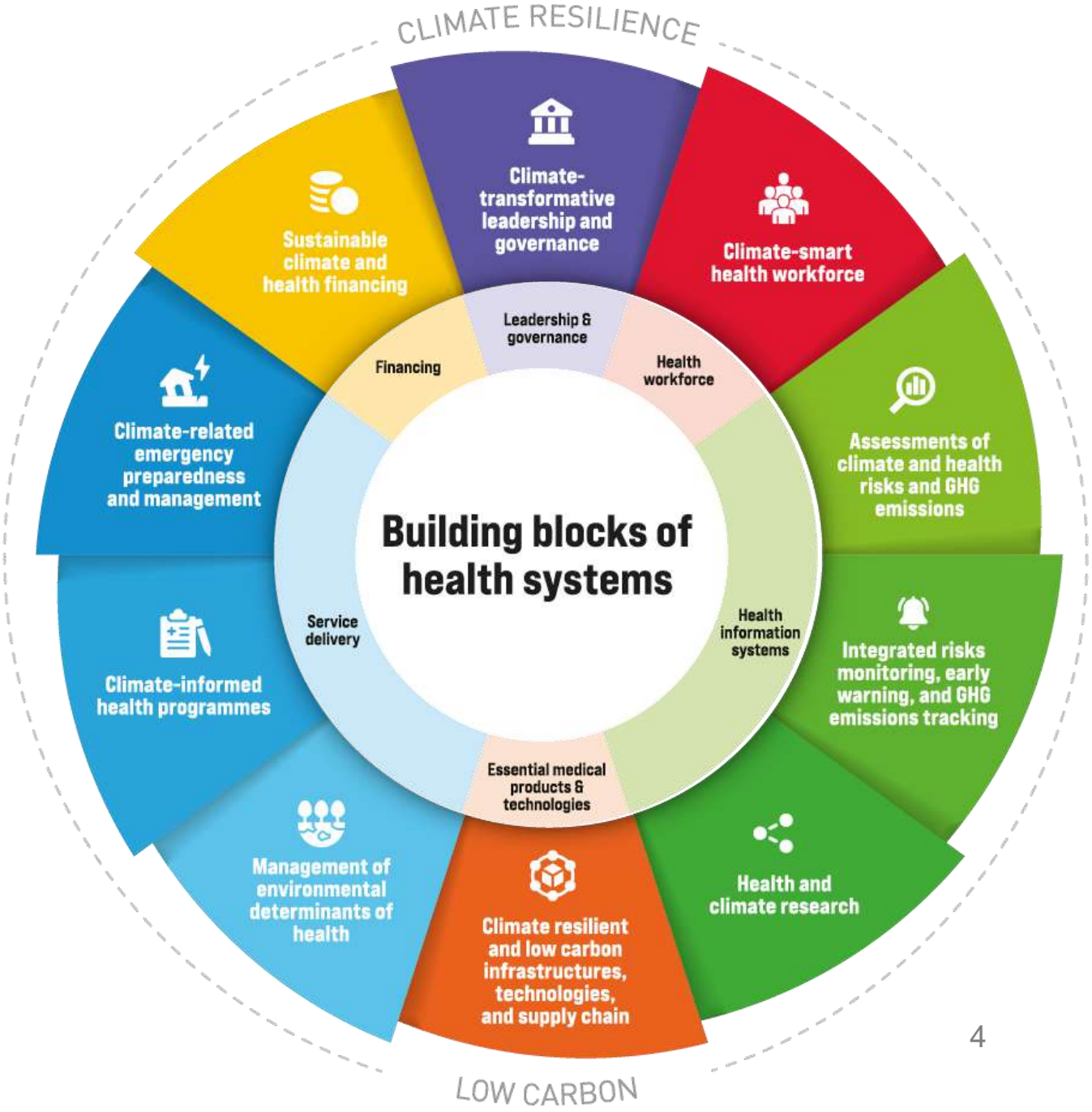


UAE MOHAP climate change and health work: what has been happening?

- Updating the **National Framework for action on climate change and health**(2019-2021):
  - In 2019, the UAE conducted a national climate risk assessment for the health sector. Accordingly, A National Framework for Action on Climate Change and Health was developed in partnership with WHO and then implemented at a National level. Collaboration with UAE Ministry of Climate Change and Environment on climate change actions
- MOHAP announcing its commitments on behalf of UAE to build a climate resilient and environmentally sustainable low carbon health system as part of COP26 Health Program and co-leading the ATACH as COP28 host, 2021-2023.
- MOHAP, in collaboration with the WHO and all entities in the health and environment sectors, conducted a **National Workshop focused on conducting Climate Change and Health Vulnerability and Adaptation Assessment and Health National Adaptation Plan, 2023.**
  - This national multistakeholder workshop marked the start of the updating process of UAE health sector national adaptation plan (HNAP).

Operational Framework for building climate resilient and low carbon health systems

- The updating process took into consideration the operational framework as a main reference evidence.
- The national workshop included a specific sessions and group work to best incorporate the operational framework into UAE context.
- The objective was to develop specific guiding adaptation and mitigation interventions for the health system targeting all its components



UAE Health Sector National Adaptation Plan to Climate Change: A Framework for Action 2023

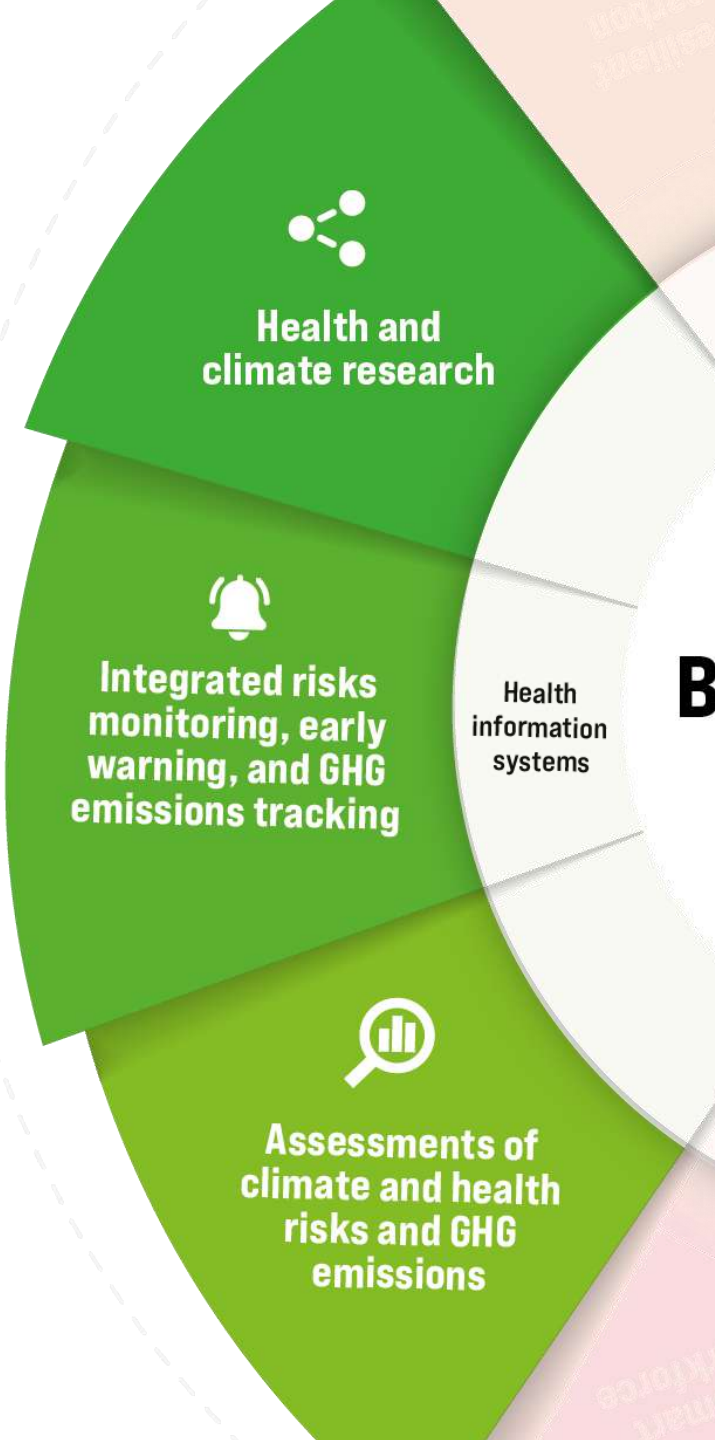
- Using the operational framework as a guiding reference, initial desk review of climate hazards and health outcomes, the outcomes of the national workshop, and the national priorities and visions, a framework for action for health sector adaptation to climate change was drafted.

- This framework is the **starting point** for a more comprehensive work to come that will elaborate on priority areas of work on climate change within the health sector and health determining sectors.

- The framework listed a number of **priority actions** to implement at each of the component of the health system, example in the next slide.

Example actions:

- Climate-Health **Research Funding**: Allocate resources for climate-health research, including studies on local climate impacts and effective adaptation measures.
- Climate-Resilient Health Technologies: Support research into **innovative healthcare technologies** that can withstand extreme weather conditions.
- Longitudinal Health Studies: Conduct **long-term studies** to track the evolving health impacts of climate change and adapt strategies accordingly.
- Early Warning and Response Systems: Develop **early warning and response systems** to alert healthcare facilities and communities about extreme weather events and potential health impacts.
- Climate and Health Impact Assessments: Conduct **regular assessments** to identify vulnerable populations and regions at higher risk of climate-related health problems.
- Climate-Health Data Sharing: Establish **data-sharing agreements** between health and environmental agencies to improve risk assessments.



Challanges, lessons learned, and next steps

- Engaging multiple **stakeholders**: the operational framework provides guidance on a wide range of interventions that requires several responsible authorities and stakeholders, early engagement of all is something to consider!

- **Adapt** to your own needs and priorities, making your actions and plans in line with national visions is a key for successful implementation.

- For UAE, next step will be to expand more on the **assessment of climate change impacts** on population health and health system to better shape the **health national adaptation** strategy while at the same time implement a number of priority actions of the framework that is a guaranteed **win-win cases**!

THANK YOU!

Country experience (2): Using the Operational Framework

PM Session

Dr Maria da Luz Lima Mendonça
Ministry of Health, Cabo Verde

World Health Organization

Utilisation du Cadre opérationnel de l'OMS pour l'élaboration du PNAS 2023-2027

CABO VERDE

Maio, 2024

Maria da Luz Lima e Edith Pereira
Instituto Nacional de Saúde Pública
Escritório Local OMS

République du Cabo Verde

Archipel composé de 10 îles, dont 9 habitées

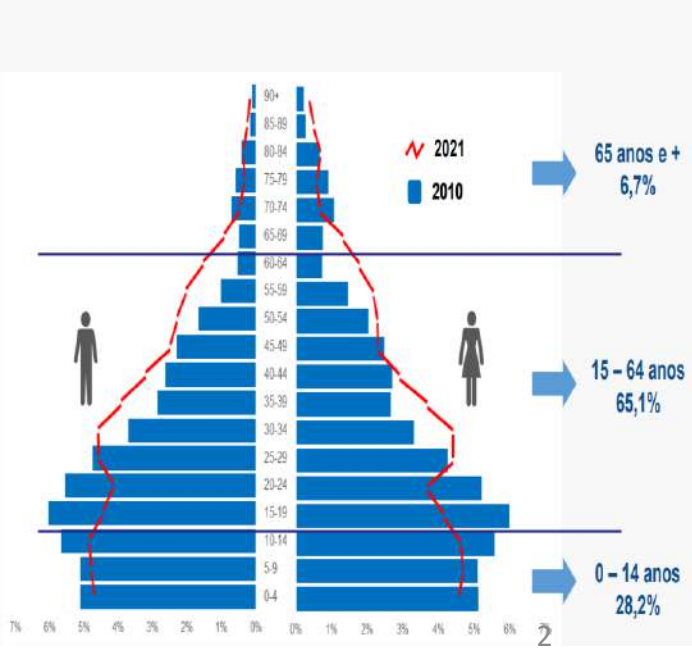
Administrativement composé de 22 municipalités

Population totale 491 233 habitants (recensement 2021)

L'île de Santiago concentre la moitié de la population et la capitale, Praia.

Pays: - Dans une phase de transition démographique et épidémiologique

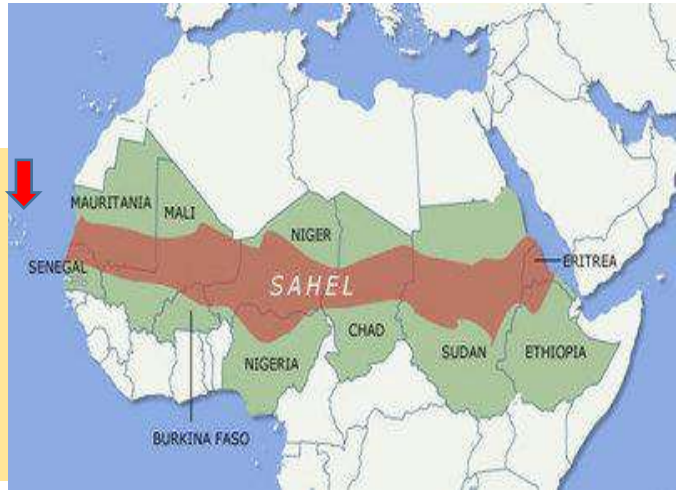
- Revenu moyen
- Espérance de vie à la naissance 73 ans
- Dépenses de santé, en % du PIB 4,9%
- IDH : 0,665 (2019)



República do Cabo Verde

Localisation géographique

- Afrique de l'Ouest, 450 kilomètres de la côte ouest-africaine
- Superficie totale – 4033km^2
- Pays Inséré dans l'espace géopolitique de la Communauté économique des États de l'Afrique de l'Ouest (CEDEAO) et de la CPLP (Communauté des pays de langue portugaise)
- Climat tropical sec avec une courte saison des pluies (juillet à octobre)
- Le tourisme est la principale activité économique
- Petit État insulaire en développement



VULNERABILITÉ

Les pays vulnérables comme le Cabo Verde, où des phénomènes extrêmes tels que l'augmentation de la fréquence des sécheresses, l'aggravation de l'intrusion saline et la détérioration des eaux souterraines, la dégradation des sols et la perte de biodiversité, l'augmentation de la fréquence des tempêtes, sont déjà observés, doivent de toute urgence accélérer l'action climatique (INMG 2023).

Les projections futures prévoient que la température moyenne annuelle de la planète augmentera de 0,7 à 2,5℃ d'ici 2060.

Engagements du pays

En 2021, lors de la 26e Conférence des Parties (COP26), le pays s'est engagé à renforcer la résilience et l'adaptation du système de santé au changement climatique, en faisant du système de santé un système durable et à faible émission de carbone.

En juillet 2021, le pays a validé son plan national d'adaptation au changement climatique (PAN CV) et l'a soumis au secrétariat de la convention-cadre des Nations unies sur les changements climatiques (CCNUCC) en 2021.

Engagements COP 26

Principaux engagements pris par le Cap-Vert - 26ème Conférence des Parties des Nations Unies (COP 26)

- la ratification du protocole de Kyoto
- l'adoption de la résolution-cadre opérationnelle pour l'adaptation de la santé publique au changement climatique,
- la ratification de l'Accord de Paris,
- l'élaboration et la mise en œuvre du plan d'action national pour l'adaptation au changement climatique.

Engagements COP 26

Dans le cadre du programme de santé de la COP26, l'engagement des pays s'est concentré sur la mise en place de systèmes de santé résilients et durables à faible émission de carbone.

Dans le cadre de la conférence, le gouvernement du Cabo Verde s'est engagé à:

i) réaliser une évaluation de référence des émissions de gaz à effet de serre dans les principales installations du service national de santé ;

ii) élaborer et publier un plan d'action qui définit des stratégies pour développer un système de santé durable et à faible émission de carbone.

Actions pertinentes

Le plan national d'adaptation du secteur de la santé au changement climatique (PNASMC) est une priorité dans la mise en œuvre du programme "Une seule santé".

FICHA TÉCNICA

Título:
PLANO NACIONAL DE ADAPTAÇÃO DA SAÚDE ÀS MUDANÇAS CLIMÁTICAS, 2023 – 2027

Ministra da Saúde:
Dra Filomena Gonçalves

Conselho de Administração do Instituto Nacional de Saúde Pública:
Maria da Luz Lima
Júlio Monteiro Rodrigues
Edna Duarte Lopes

Equipa técnica de seguimento:
Júlio Monteiro Rodrigues – Administrador Executivo do INSP e coordenador nacional do projeto
Antonios Kolimenakis – Técnico OMS HQ - Projeto ATACH (Alliance for Transformative Action on Climate and Health) – HEP/ECH/CCA
Edith Pereira – Administradora Nacional para a Promoção da Saúde e Determinantes Sociais da Saúde no Escritório da OMS em Cabo Verde
Ethel Rodrigues – Diretora Nacional do Ambiente
Inês Mourão – Coordenadora Técnica do Programa Ação Climática Cabo Verde
Maria da Luz Lima – Presidente do Instituto Nacional de Saúde Pública

Revisão:
Antonios Kolimenakis – Técnico OMS HQ - Projeto ATACH (Alliance for Transformative Action on Climate and Health) – HEP/ECH/CCA
Aderita Sena – Técnica da OMS HQ – HEP/ECH/CCA

Consultoria:
Manuel Adilson Fragoso
Nuno Ribeiro

Assistência técnica e financeira:
Organização Mundial da Saúde
Cabo Verde

Utlilisation du Cadre Operationnel de l'OMS (2014) dans le processus d'élaboration du PNASMC 2023-2027

Pour élaborer le **PNASMC 2023-2027, le cadre opérationnel de l'OMS a été utilisé**, qui vise à renforcer la résilience des systèmes de santé face au changement climatique et comprend également des lignes directrices pour la réduction des émissions de carbone dans les systèmes de santé.

Chacun des dix éléments du cadre opérationnel a été analysé.

Plano Nacional de Adaptação da Saúde às Mudanças Climáticas 2023-2027 (PNASMC) INSP

CAPÍTULO 4 - PLANO NACIONAL PARA FORTALECER A RESILIÊNCIA DO SISTEMA DE SAÚDE AOS EFEITOS ADVERSOS DAS MUDANÇAS CLIMÁTICAS

1. ESTRUTURA OPERACIONAL DA ORGANIZAÇÃO SAÚDE MUNDIAL

A Organização Mundial da Saúde (OMS) enfatiza a importância de seis pilares constituintes dos sistemas de saúde. Em 2016, a OMS publicou o "Quadro operacional para o reforço da resiliência dos sistemas de saúde face às mudanças climáticas" (OMS, 2016a).

Considerando os seis (06) pilares dos sistemas de saúde, o documento descreve dez (10) componentes essenciais que podem ser usados como uma estrutura para enfrentar de forma sistemática e eficaz os desafios colocados pela variabilidade e mudança climática (ver Fig.1 abaixo).

Figura 1: Dez componentes que compõem a estrutura operacional da OMS para a construção de sistemas de saúde resilientes ao clima e as principais conexões com os blocos de construção dos sistemas de saúde (OMS, 2015)

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Utlilisation du Cadre Operationnel de l'OMS (2014) dans le processus d'élaboration du PNASMC 2023-2027

Le cadre opérationnel a été un outil utile car il a permis de réaliser une analyse précise et bien structurée de la résilience du système de santé face au changement climatique.

Chacune des 10 composantes du cadre a été analysée en fonction des priorités du pays.

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Utlilisation du Cadre Operationnel de l'OMS (2014) dans le processus d'élaboration du PNASMC 2023-2027

Méthodologie de travail :

- Analyse documentaire
- Discussion de groupe pour chaque composante du cadre opérationnel
- Entretiens directs avec les acteurs clés
- Ateliers de validation du contenu
- Alignement des objectifs des composantes à la réalité du pays

Difficultés d'utilisation :

- La recherche d'informations sur les différentes composantes

- Componente1: Liderança e Governança
- Componente 2: Força de trabalho em saúde
- Componente 3: Avaliação e monitorização de vulnerabilidade e capacidade adaptativa
- Componente 4: Monitorização de risco integrado e alerta precoce
- Componente 5: Pesquisa em saúde e clima
- Componente 6: Tecnologias e produtos médicos essenciais
- Componente 7: Gestão dos determinantes ambientais da saúde
- Componente 8: Programas de saúde informados sobre o clima
- Componente 9: Preparação e gestão de emergência
- Componente 10: Clima e financiamento da saúde

Recommandations

- ✓Les pays qui souhaitent élaborer un plan solide doivent suivre ce cadre opérationnel ;
- ✓Au cours du processus d'analyse, le cadre doit être adapté au contexte de chaque pays ;
- ✓L'utilisation de cet outil a permis d'identifier plus facilement les interventions clés et de les aligner sur les engagements du pays.

Muito obrigada pela vossa atenção

AM Session

GROUP WORK
25min

English, French and Arabic interpretation only in the main room
Interprétation française et arabe uniquement dans la salle principale
الترجمة الفورية للفرنسية والعربية متوفرة فقط في الغرفة الرئيسية

Breakout rooms

Main room (stay here): *Service Delivery*

Component 7 - Management of environmental determinants of health

Component 8 - Climate-informed health programmes

Component 9 – Climate-informed emergency preparedness and management

(English, French and Arabic)

Breakout room 1: *Health Information Systems*

Component 3 – Assessment of climate and health risks and GHG emissions

Component 4 – Integrated risks monitoring, early warning, and GHG emissions tracking

Component 5 – Health and climate research

(English only)

Breakout room 2: *Essential medical products and technologies*

Component 6 - Climate resilient and low carbon infrastructures, technologies, and supply chain

(English only)

Breakout room 3: *Leadership & Workforce*

Component 1 – Climate-transformative leadership and governance

Component 2 – Climate-smart health workforce

(English only)

PM Session

GROUP WORK
25min

English, French and Spanish interpretation only in the main room
Interprétation française et espagnol uniquement dans la salle principale
Interpretación en inglés, francés y español sólo en la sala principal

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Component 2 – Climate-smart health workforce

(English only)

WHO Technical Webinar Series

https://www.who.int/news-room/events/detail/2024/04/24/default-calendar/who-technical-webinar-series-on-climate-change-and-health

World Health Organization

Date & time (CEST)	Topic*
24th April 2024	Getting started: climate change and health vulnerability & adaptation assessments
30th April 2024	WHO as an Accredited Implementing Entity of the Adaptation Fund; Accessing AF funding for Climate Change and Health
15th May 2024	WHO Operational Framework for building climate resilient and low carbon health systems
12th June 2024	Developing a Health National Adaptation Plan: Introduction
19th June 2024	GIS and risk mapping in climate change and health vulnerability & adaptation assessments
10th July 2024	Climate resilient and environmentally sustainable health care facilities
17th July 2024	Quantitative approaches for Vulnerability & Adaptation assessments: sensitivity analyses and projecting future health risks of climate change
18th Sept 2024	Integrating health in NDCs and LT-LEDS
25th Sept 2024	Developing a Health National Adaptation Plan: Quality criteria for HNAPs
16th Oct 2024	Conducting a gender analysis for climate change and health vulnerability & adaptation assessments

slido

How would you apply the Operational Framework in your work?
What kind of support would you need to apply it in your context?

ⓘ Start presenting to display the poll results on this slide.