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
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<th>Date &amp; time (CEST)</th>
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<tr>
<td>24th April 2024</td>
<td>Getting started: climate change and health vulnerability &amp; adaptation assessments</td>
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<td>WHO as an Accredited Implementing Entity of the Adaptation Fund; Accessing AF funding for Climate Change and Health</td>
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<td>12th June 2024</td>
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<td>Quantitative approaches for Vulnerability &amp; Adaptation assessments: sensitivity analyses and projecting future health risks of climate change</td>
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<td>Conducting a gender analysis for climate change and health vulnerability &amp; adaptation assessments</td>
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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'interprétation
2. Sélectionnez "Français"
3. Facultatif : couper le son d'origine

Para activar interpretación (en español):

1. Haga clic en el ícono de interpretación.
2. Seleccionar "Español"
3. Opcional: silenciar el audio original

Pour activer les interprétations (en français):

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2. Seleccionar "Español"
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AM session: English, French and Arabic
PM session: English, French and Spanish
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<td>9:30 – 9:35</td>
<td>Opening remarks</td>
<td>Dr Diarmid Campbell-Lendrum, Unit Head, Climate Change and Health Unit, WHO</td>
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<tr>
<td>9:35 – 10:05</td>
<td>WHO Operational Framework for building climate resilient and low carbon</td>
<td>Elena Villalobos Prats, Capacity Building and Country Support Lead, Climate Change and Health</td>
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<tr>
<td>(30 Minutes)</td>
<td>health systems</td>
<td>Unit, WHO</td>
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<td>10:05 – 10:20</td>
<td>Country experience: using the Operational Framework</td>
<td>Dr Meelan Thondoo, WHO Asia-Pacific Centre for Environment and Health in the Western Pacific Region</td>
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<td>(15 minutes)</td>
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<td>Dr Bonifacio Magitibay, WHO Philippines</td>
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<td>10:20 – 10:45</td>
<td>Interactive activity</td>
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<td>10:45 – 10:55</td>
<td>Group feedback</td>
<td>Breakout group volunteer</td>
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<td>Moderated by Elena Villalobos Prats</td>
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<td>10:55 – 11:00</td>
<td>Close webinar</td>
<td>Dr Amy Savage, Technical Officer, Climate Change and Health Unit, WHO</td>
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<td>15:35 – 15:50</td>
<td>Country experience : using the Operational Framework</td>
<td>Dr Nada Al Marzouqi, Ministry of Health and Prevention, United Arab Emirates  Dr Maria da Luz Lima Mendonça, Ministry of Health, Cabo Verde</td>
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<td>15:50 – 16:15</td>
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<td>16:15 – 16:25</td>
<td>Group feedback</td>
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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.

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

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

- Use the WHO Operational Framework for climate change and health planning.
Join at slido.com
#WHO-OF

① Start presenting to display the joining instructions on this slide.
How familiar are you with the WHO Operational Framework? (please choose the one that applies best to your situation)
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...
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.
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

Applying a low-carbon approach to health systems
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
What has changed since the last publication?
Health systems performance x Health sector GHG emissions
Pathways to maximize health systems performance - strengthening climate resilience while minimizing GHG emissions

1. Focus on climate resilience while adopting sustainable low carbon technologies
2. Strengthen climate resilience while introducing sustainable low carbon interventions
3. Strengthen both climate resilience and low carbon sustainability
4. Strengthen low carbon sustainability while promoting climate resilient health systems
5. Focus on achieving net zero emissions while continuing to promote climate resilience

Universal health coverage index by health GHG per capita emissions
Pathways to strengthen climate resilience and low carbon sustainability: differences across countries
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.
Component 1: Climate-transformative leadership and governance

Objectives for the implementation of this component:

- Governance
- Policy development
- Cross-sectoral collaboration
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
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.

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.

Source: © WHO
Component 2: Climate-smart health workforce

Objectives for the implementation of this component:

- Health workforce capacity
- Organizational capacity development
- Information, awareness and communication
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.
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
WHO Academy:
Climate change and health programme

- 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!
Component 3: Assessments of climate and health risks and GHG emissions

Objectives for the implementation of this component:

- Health risks
- GHG emissions
- Progress tracking
Objectives for the implementation of this component:

- Integrated disease surveillance and early warning
- Monitoring and progress
- Communication
Component 5: Health and climate research

Objectives for the implementation of this component:

- Research agenda development and implementation
- Research capacity
- Research into policy
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.
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
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
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.
Solar power increases climate resilience and reduces GHG emissions: Somalia case study

**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.
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)”
Component 7: Management of environmental determinants of health

Objectives for the implementation of this component:

- Monitoring
- Regulatory mechanisms
- Coordinated cross-sectoral management
Component 8: Climate-informed health programmes

Objectives for the implementation of this component:

- Health programming
- Delivery of interventions
Component 9: Climate-related emergency preparedness and management

Objectives for the implementation of this component:

- Policies and protocols
- Risk management
- Community empowerment
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.
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
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
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.)
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.
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.
Resources
Thanks!
Country experience (1): Using the Operational Framework

Dr Meelan Thondoo
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
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

**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

**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

**Themes**
- 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**
  - Full potential of GDSO specialization and unique status

- **Strategic location**
  - Strategic location and optimize relationship with ROK

- **Long-term funding**
  - Long-term funding until 2028 with strong donor support

- **Technical expertise**
  - Advanced technical expertise and specialized regional hub

- **Established recognition**
  - Established recognition in responding to MS requests

- **Integrated approach**
  - Motivated team with an integrated approach to strengthening health systems

- **Expert network**
  - Mobilized expert network and technical advisory groups specialized in CCE in WPR
Context of the Western Pacific Region
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

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


Western Pacific Region, Both sexes, 2019

- Self-harm and violence
- Unintentional inj
- Transport injuries
- Other non-communicable
- Diabetes and CKD
- Chronic respiratory
- Cardiovascular diseases
- Neoplasms
- Maternal and neonatal
- Other infectious
- Enteric infections
- Respiratory infections and TB
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)

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

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 than effects from either exposure alone.
Health systems contribute to 4-6% of GHG emissions

Per capita carbon footprint, in total kilograms of greenhouse gas (GHG) emissions, of different health systems around the world

(Romanello et al., 2023)
Resources and tools
Scoping review: Climate Resilient and Low Carbon Health Systems
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
Methods

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

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<tr>
<td>Keywords</td>
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<tr>
<td>Date range</td>
<td>2015-2023</td>
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<tr>
<td>Language</td>
<td>Documents published in English</td>
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WHO Operational Framework for Climate resilient and Low Carbon Health Systems (2023)
Preliminary Results

Identification of documents according to Protocol

605 documents identified from:
- PubMed (n=47)
- Web of Science (n=50)
- WHO (n=99)
- ClinksHealth (n=340)
- GEF (n=24)
- HRF (n=38)
- World Bank (n=5)
- ADB (n=1)
- Included sources (n=1)

Records removed before screening:
- Duplicate records removed (n=29)

Documents screened by title and abstract (n=575)

Documents excluded by relevance (n=488)

Documents excluded by criteria (n=47)
- No CR/ES intervention (n=19)
- Not implemented (n=10)
- Not a case study (n=9)
- Not about health system or HCF (n=5)
- Impact not solution (n=4)

Full-text documents assessed for eligibility (n=88)

Documents included in review (n=41)
- Case studies identified (n=43)
Descriptive Overview

Most documents were identified in grey literature

Documents by Country

Most interventions were implemented at health care facilities level

Documents by Year
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

Environmental Sustainability
- Save energy (1, 43)
- Reduce/recycle water (1, 9)
- Reduce waste, Recycle - food & plastic (4, 10, 12, 15, 18, 20, 21, 23, 38)
- Reduce carbon (gases) (7, 16)

Climate Resilience
- Early warning system (41)
- Drr & EPREP Policy & working groups (19)
- CVA (23, 30, 34, 37, 40)
- CR Policy & working groups (8)

Synergistic
- Research (12, 28, 36)
- Renewables (29, 32, 43)
- Energy independence & efficiency (5)
- Community engagement (19)
- Behaviour change clinicians (19)
- CR + ES management plan (31, 35)

n:25 (58%)

n:10 (23%)

n:8 (19%)
The 10 Building Blocks of Health Systems

1st

2nd

Climate-related emergency preparedness and management
Sustainable climate and health financing

Climate-informed health programs

Managing environmental determinants of health

Climate resilient and low carbon infrastructure, technologies and supply chain

Health and climate research

Risk monitoring and early warning systems
Climate & health risk assessment

Climate-smart health workforce

Climate transformative leadership and governance

Operational framework for building climate resilient and low carbon health systems

Case Study 39 Fiji
Case Study 26 Australia
Case Study 37 Fiji
Case Study 11 Vietnam
Case Study 17 Lao
Case Study 6 Hanoi
Case Study 9 South Korea
Case Study 1 Lao
Case Study 6 Vietnam

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)
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
- capacity, staff engagement and technical support
- clinical restrictions
- leadership, governance and coordination
- partnerships and relationships
- 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
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.

- Policies
  - NAPs
  - HNAPs
  - NDCs

- Assessments
  - GreenUr
  - AirQ
  - ClimaQ
  - HEAT

- Capacity building
  - Clean energy
  - Waste management
  - Partnerships & advocacy

- Governance
  - Scope 1-3 emissions
  - Health systems building blocks
  - Decarbonisation and ES of HCF
Malo ‘Aupito
감사합니다
Thank You

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


WHO Western Pacific Region map. Online: WHO`; 2009.

The Lancet Regional Health-Western P. Water, climate change, and health in the Western Pacific Region. Lancet Reg Health West Pac. 2023;32:100753.


Country experience (2): Using the Operational Framework

Dr Bonifacio Magitibay
WHO 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)
- 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)
1. Leadership and Governance

- Governance: Health Emergency Management Bureau – focal office on climate change and health in Department of Health (2024)
- 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)
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 (PIDS) 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
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

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unstable status of designated focal Office on handling climate change and health activities at DOH</strong></td>
<td><strong>Create an Office</strong> 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)</td>
</tr>
<tr>
<td><strong>Inadequate staff to handle climate change and health</strong></td>
<td><strong>Develop a roadmap on health and climate change (2025-2050)</strong> with an operational plan (2025-2030)</td>
</tr>
<tr>
<td><strong>Fragmented government policies</strong> on climate change adaptation, greenhouse gas mitigation, environmental determinants, and disaster risk reduction that affect the health sector**</td>
<td><strong>Update existing policy</strong> on national climate change adaptation for health to incorporate new developments into one policy</td>
</tr>
</tbody>
</table>
Country experience (1): Using the Operational Framework

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

- 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).
• 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.
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.
Challenges, 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

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

Localisation géographique

- Afrique de l'Ouest, 450 kilomètres de la côte ouest-africaine
- Superficie totale – $4033\, km^2$
- 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 °C 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.
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 Alterações Climáticas (PNASC)

**Ministério da Saúde:**

Estabelecimento de Normas de Qualidade de Saúde e Segurança

Maria da Luz Lima
Jane Vasconcelos
Leila de Brito Lopes

**Equipe técnica de seguimento:**

Julio Alencar Rodrigues - Coordenador Executivo do INSP e Coordenador Nacional do projeto
Antonino Ribeiro da Silva - Coordenador do Programa de Mudança Climática
Adma de Carvalho Almeida - Diretora do Programa de Mudança Climática

**Tradução:**

**estratégia para o desenvolvimento de um sistema de saúde ecologicamente sustentável**

**NISP**

**Ministério da Saúde**

**Organização Mundial da Saúde**

PRAIA, JULHO DE 2023
Utilisation 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.
Utilisation 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.
Utilisation 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

- Componente 1: 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
✓ 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.

Recommandations
Muito obrigada pela vossa atenção
GROUP WORK
25min

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 rooms

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)

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

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(English, French and Arabic)

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(English only)

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(English only)

Breakout room 3: Leadership & Workforce

**Component 1** - Climate-transformative leadership and governance

**Component 2** - Climate-smart health workforce

(English only)

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
<table>
<thead>
<tr>
<th>Date &amp; time (CEST)</th>
<th>Topic*</th>
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<tbody>
<tr>
<td>24th April 2024</td>
<td>Getting started: climate change and health vulnerability &amp; adaptation assessments</td>
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<tr>
<td>30th April 2024</td>
<td>WHO as an Accredited Implementing Entity of the Adaptation Fund; Accessing AF funding for Climate Change and Health</td>
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<tr>
<td>15th May 2024</td>
<td>WHO Operational Framework for building climate resilient and low carbon health systems</td>
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<tr>
<td>12th June 2024</td>
<td>Developing a Health National Adaptation Plan: Introduction</td>
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<tr>
<td>19th June 2024</td>
<td>GIS and risk mapping in climate change and health vulnerability &amp; adaptation assessments</td>
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<tr>
<td>10th July 2024</td>
<td>Climate resilient and environmentally sustainable health care facilities</td>
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<tr>
<td>17th July 2024</td>
<td>Quantitative approaches for Vulnerability &amp; Adaptation assessments: sensitivity analyses and projecting future health risks of climate change</td>
</tr>
<tr>
<td>18th Sept 2024</td>
<td>Integrating health in NDCs and LT-LEDs</td>
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<tr>
<td>25th Sept 2024</td>
<td>Developing a Health National Adaptation Plan: Quality criteria for HNAPs</td>
</tr>
<tr>
<td>16th Oct 2024</td>
<td>Conducting a gender analysis for climate change and health vulnerability &amp; adaptation assessments</td>
</tr>
</tbody>
</table>
How would you apply the Operational Framework in your work?
What kind of support would you need to apply it in your context?

① Start presenting to display the poll results on this slide.