



Building Climate Resilient Health Systems: Current Initiatives, Resources, and Networks

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PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas

Climate change and health in the Americas





Chile, June 2023



New York City, June 2023



Uruguay, March 2023

Impacts and Inequity



Strengthen health system resilience to climate change



GREEN CLIMATE FUND

Health access to climate finance

Resilient, sustainable health facilities

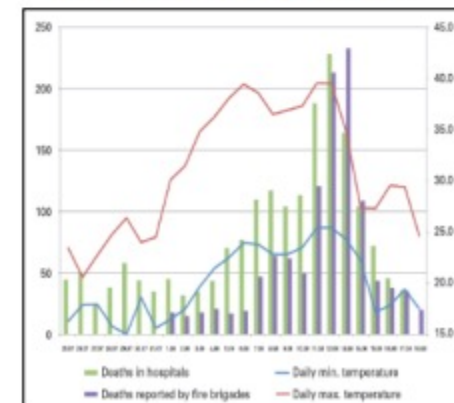


WHO Operational Framework for Building Climate-Resilient Health Systems (2015)

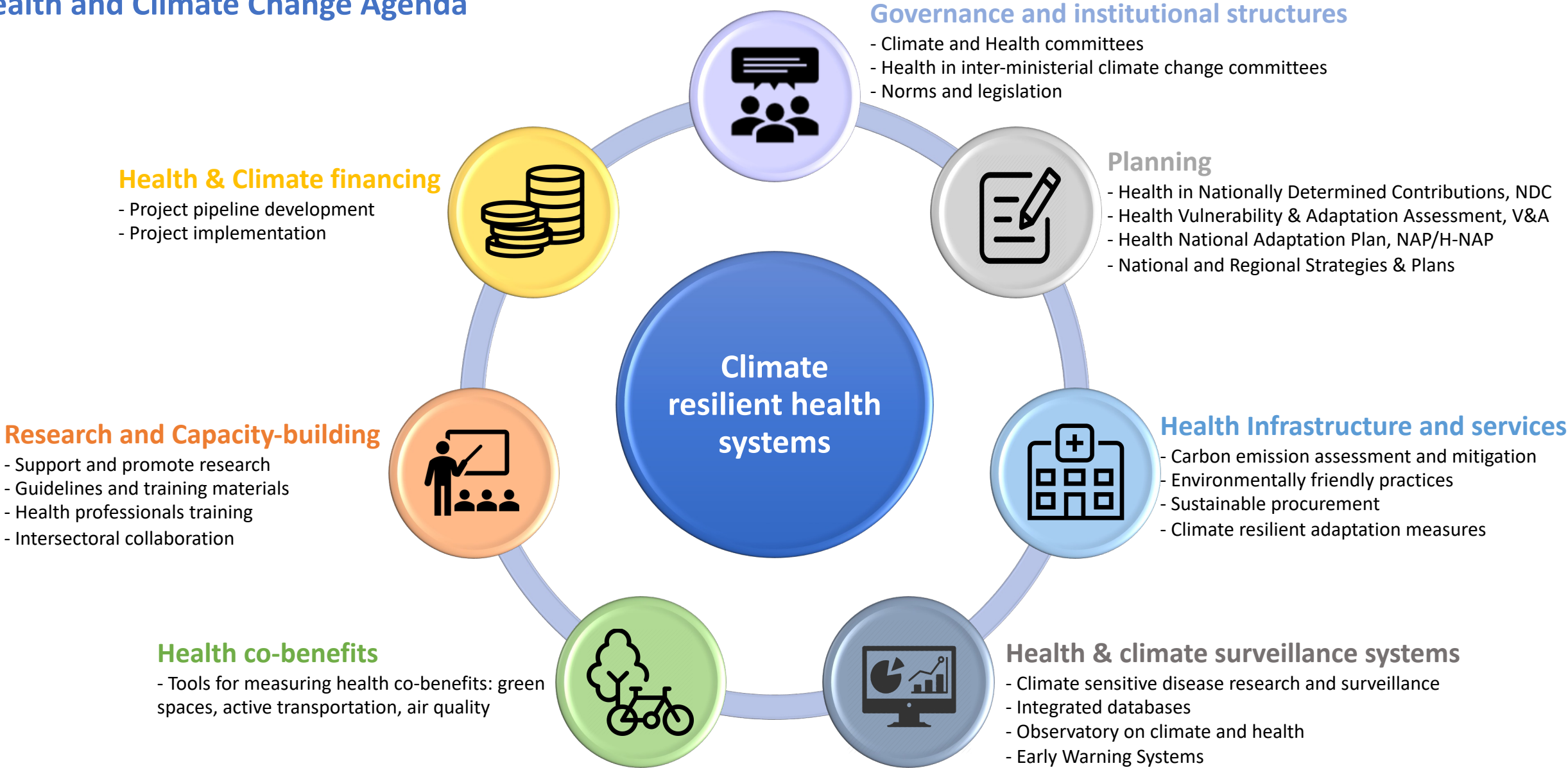


Health workers trained, engaged on climate

Climate informed surveillance systems



Health and Climate Change Agenda





Governance and Institutional Structures

Empowering the Health Sector:

- Engagement in national climate change committees.

Convening Structures on Health and Climate Change:

- Technical teams for detailed assessments and action plans.
- High-level meetings for policy alignment and resource allocation.

Cross-sector Collaboration:

- Collaborate with environment, energy, water, urban planning, transportation, and other related sectors.
- Share insights, data, and strategies for holistic resilience-building.

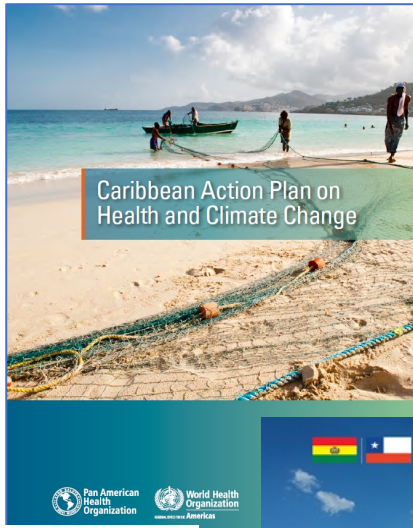
Leading National Discussions:

- Make health and climate action a recurrent topic in national discourse.
- Advocate for health-focused climate resilience in media, educational institutions, and public forums.



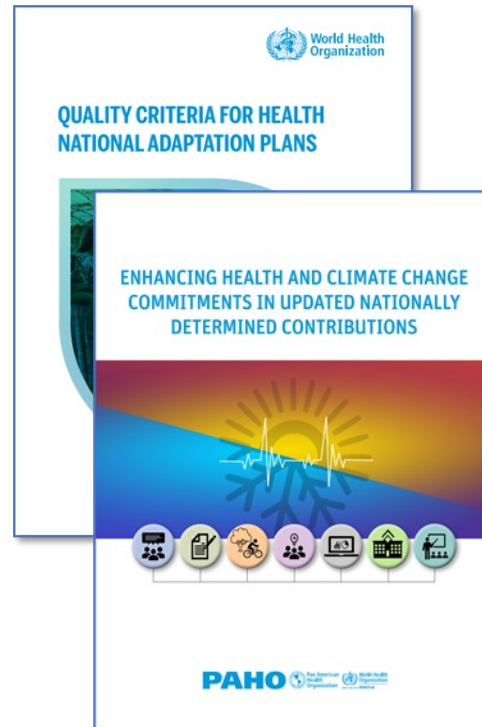


Health and climate change strategic planning



Mandates and action plans

- Caribbean Action Plan on Health and Climate Change (2019)
- Plan Andino de salud y cambio climático 2020-2025 (OPS y ORAS/CONHU 2020)
- Declaración de Ministros de Salud del MERCOSUR y Estados Asociados en relación a la Salud y el Cambio Climático (2018): Strategy signed 2023



Que la Organización Panamericana de la Salud estableció en 2021 una Agenda para las Américas sobre Salud, Medioambiente y Cambio Climático;

Que La República Federativa de Brasil ejercerá la presidencia del G20 en el año 2024 y organizará la Conferencia de las Partes (COP) 30 de la Convención de Naciones Unidas de Cambio Climático en el año 2025.

LAS MINISTRAS Y LOS MINISTROS DE SALUD DEL MERCOSUR Y ESTADOS ASOCIADOS ACUERDAN:

Art. 1 - Aprobar la "Estrategia MERCOSUR sobre Cambio Climático y Salud" que consta como Anexo del presente Acuerdo.

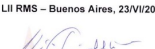
Art. 2 - Reemplazar la Estrategia de Acción MERCOSUR sobre Cambio Climático y Salud aprobada mediante RMS/ACUERDO N°12/09, por el Anexo aprobado en el Art. 1 del presente.

Art. 3 - Solicitar al Comité Coordinador de la Reunión de Ministros de Salud la comunicación de la presente Estrategia a las Agencias del Sistema de Naciones Unidas (Organización Mundial de la Salud, Organización Panamericana de la Salud, Organización Meteorológica Mundial, Programa de las Naciones Unidas para el Medio Ambiente, Programa de las Naciones Unidas para el Desarrollo, Panel Intergubernamental de Expertos sobre Cambio Climático, Convención Marco de las Naciones Unidas sobre Cambio Climático).

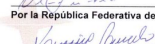
Art. 4 - Designar a la Comisión Intergubernamental de Salud Ambiental y del Trabajador como encargada del desarrollo de un Plan Operativo para la implementación de la presente Estrategia durante la Presidencia Pro Tempore de Brasil de 2023.


LII RMS – Buenos Aires, 23/VI/2023.


Por la República Argentina


Por la República Federativa de Brasil


Por la República de Paraguay


Por la República Oriental del Uruguay


Por la República de Chile

Guidelines

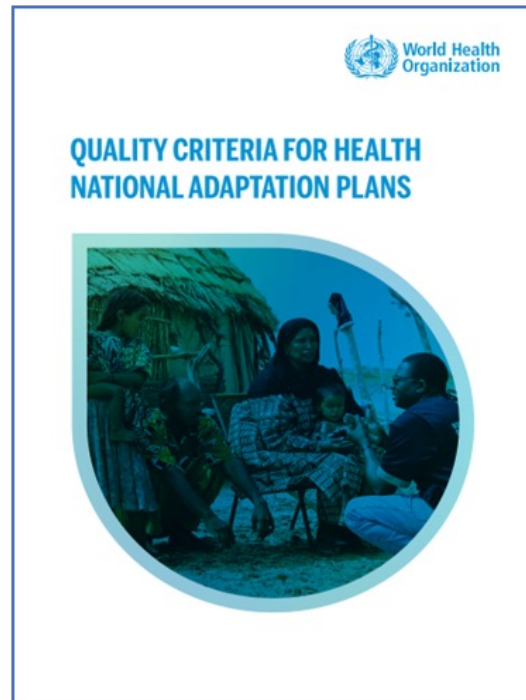
- Enhancing Health and climate change commitments in updated Nationally Determined Contributions - NDCs (PAHO/2021)
- Quality Criteria for Health National Adaptation Plans



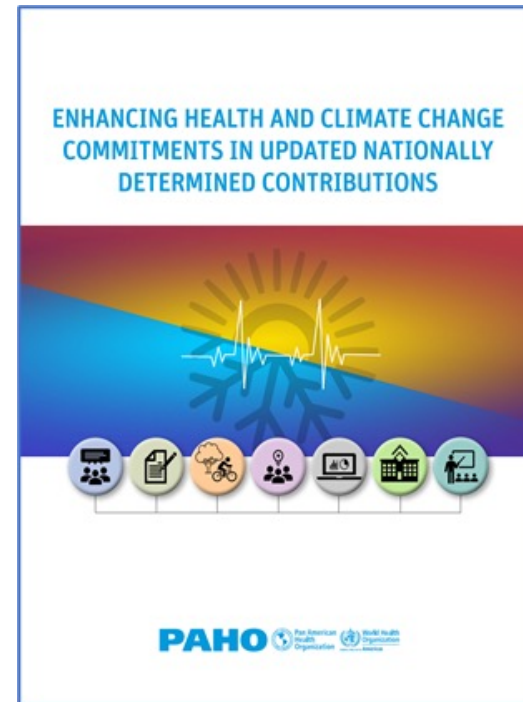
Guidelines and Frameworks



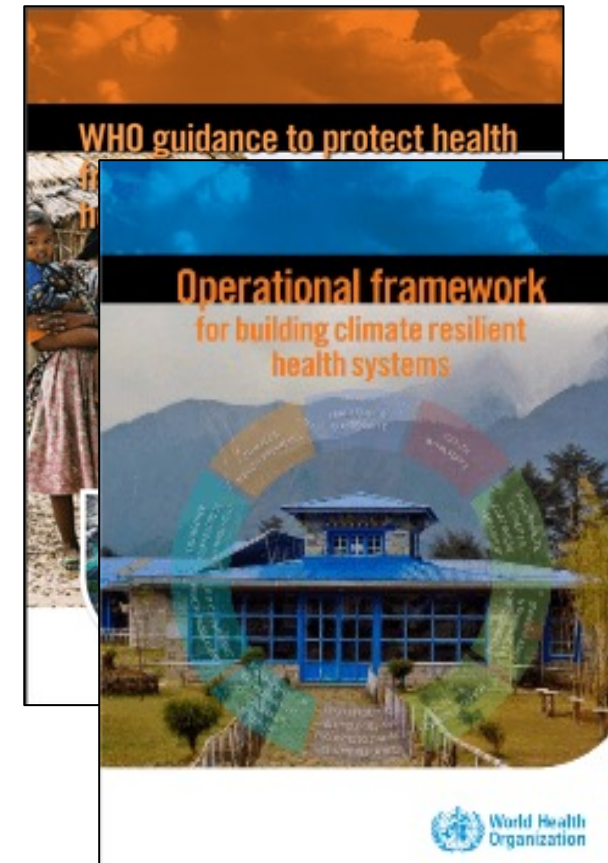
Guidance for Health Vulnerability and Adaptation Assessments



Quality Criteria for Assessing Health National Adaptation Plans

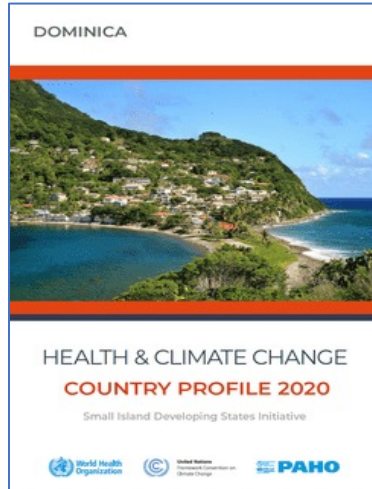
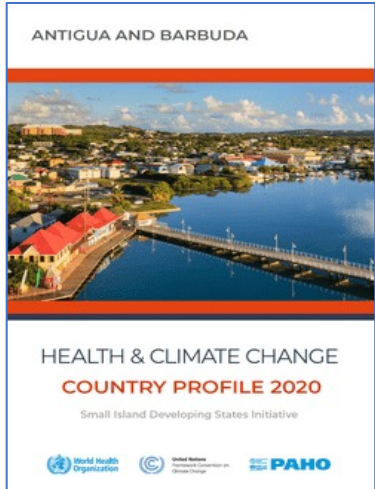


Guidance for including Health in Nationally Determined Contributions



WHO Operational Framework for Climate Resilient Health Systems

Surveys and PAHO/WHO-UNFCCC Country Profiles



Health-relevant climate risks (historical and scenarios)

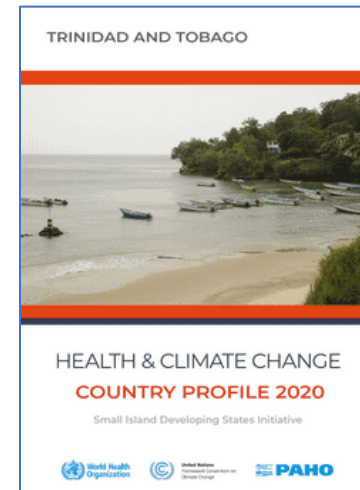
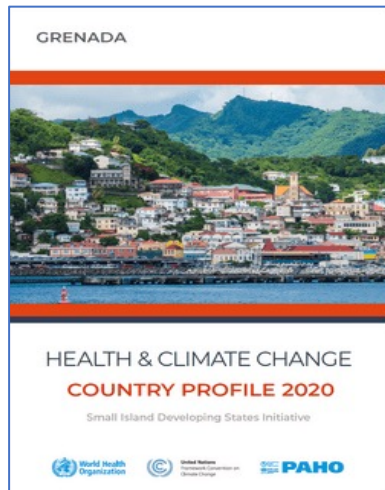
- Average annual temperature and number of days with extreme heat.
- Precipitation and Number of days with extreme rains
- Number of days with drought

Impacts of climate change on health (historical and scenarios)

- Extreme weather events
- Vector-borne diseases
- Heat-related mortality
- Non-communicable diseases
- Food and nutritional security

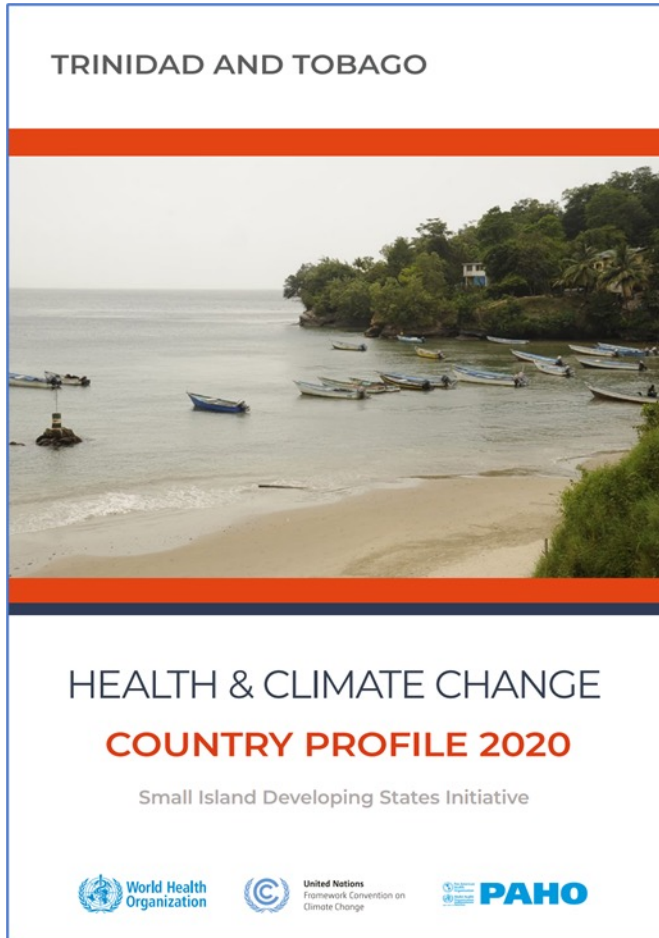
Vulnerability and sectoral adaptive capacity

Status of national policies and actions



<http://www.who.int/globalchange/resources/countries/en/>

Example of PAHO/WHO-UNFCCC Country Profile on Health & Climate Change 2020



[Health and climate change: country profile 2020: Trinidad and Tobago \(who.int\)](#)

HEALTH VULNERABILITY AND ADAPTIVE CAPACITY

SDG indicators related to health and climate change

Many of the public health gains that have been made in recent decades are at risk due to the direct and indirect impacts of climate variability and climate change. Achieving Sustainable Development Goals (SDGs) across sectors can strengthen health resilience to climate change.

<p>1. NO POVERTY</p> <p>Proportion of population living below the poverty line (28)</p> <p>N/A</p>	<p>3. GOOD HEALTH AND WELL-BEING</p> <p>74</p> <p>Universal Health Coverage Service Coverage Index (2017)^a (29)</p> <p>6.5%</p> <p>Current health expenditure as percentage of gross domestic product (GDP) (2016)^b (30)</p> <p>26.1</p> <p>Under-five mortality rate (per 1000 live births) (2017) (31)</p>
<p>6. CLEAN WATER AND SANITATION</p> <p>Proportion of total population using at least basic drinking-water services (2017)^c (32)</p> <p>98%</p> <p>Proportion of total population using at least basic sanitation services (2017)^c (32)</p> <p>93%</p>	<p>13. CLIMATE ACTION</p> <p>Total number of weather-related disasters recorded between 2000 and 2018^d (33)</p> <p>5</p> <p>Highest total number of persons affected by a single weather-related disaster between 2000 and 2018^d (33)</p> <p>150 000</p>

a The index is based on low data availability. Values greater than or equal to 80 are presented as ≥80 as the index does not provide fine resolution at high values; 80 should not be considered a target.
b This indicator is not an SDG indicator.
c Data for safely managed drinking-water and sanitation services are not consistently available for all SIDS at this time, therefore 'at least basic services' has been given for comparability. In Antigua and Barbuda, basic drinking-water and sanitation services are widely available, but periodic water outages affect most people. Therefore many people collect rain water.
d Data for SDG13.1 are currently not available. Alternative indicators and data sources are presented.

Trinidad and Tobago 9

Climate Resilient Health Infrastructure

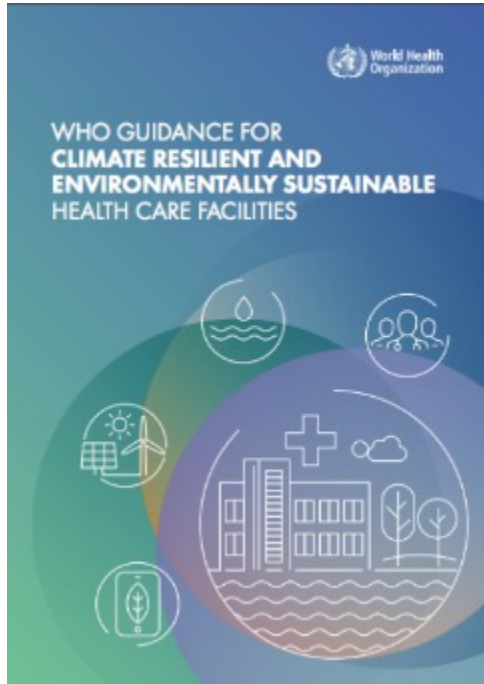
- The Health Sector contributes ~4-10% of national GHG emissions. If it were a country, the health sector would be the 5th largest GHG emitter (4.4% of global emissions).
- 71% of GHG emissions are due to the production chain (production, transportation and waste treatment/disposal; HCWH 2019).



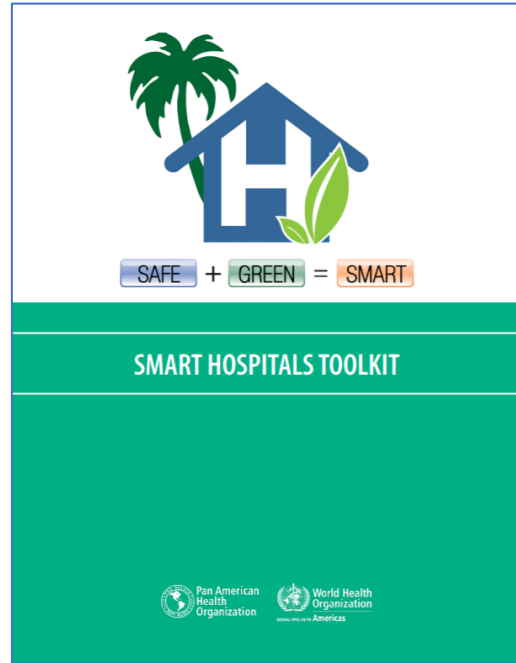
- 77% of health facilities in LA&C are located in areas at risk of climate disasters.



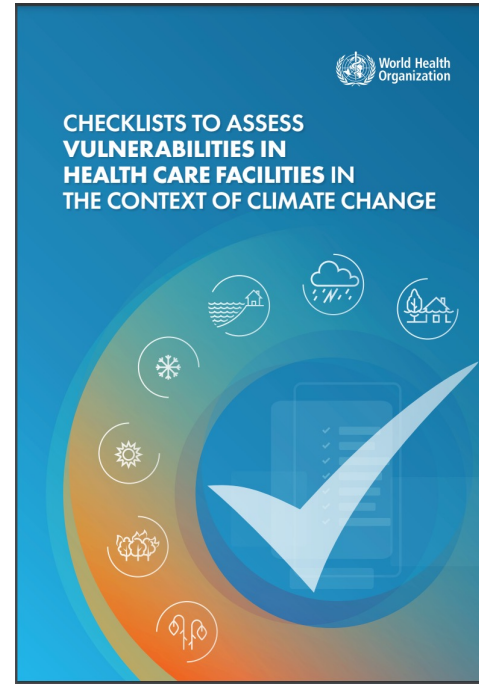
Guidelines and Frameworks



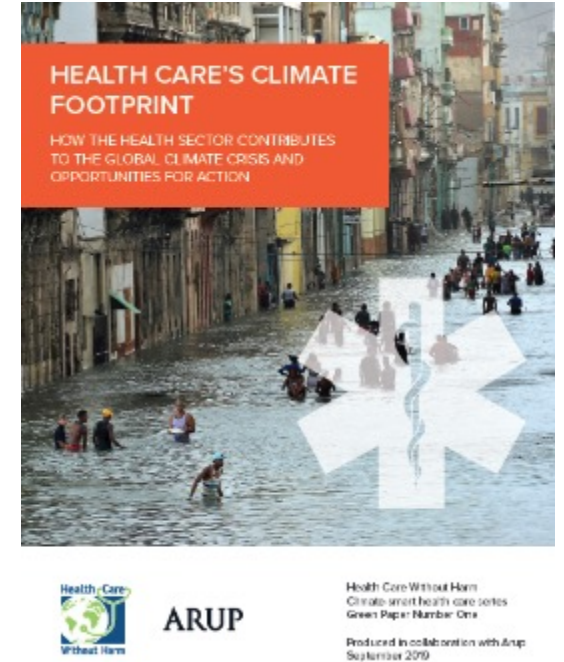
WHO Guidance for Climate Resilient and Environmentally Sustainable Health Care Facilities



PAHO SMART Hospitals Toolkit



WHO Guidance to Assess Vulnerabilities in Health Care Facilities in the Context of Climate Change



Health Care's Climate Footprint – Health Care Without Harm



Health & climate surveillance systems

Integrated Surveillance Observatories & Early Warning Systems for Climate-Sensitive Diseases are essential

•Data Collection:

- Continuous monitoring of climate-sensitive diseases.
- Capture of environmental variables affecting disease spread.

•Data Analysis:

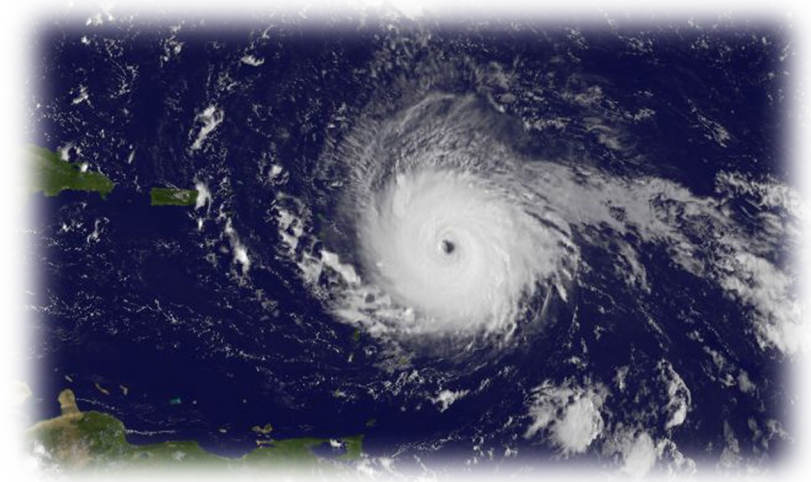
- Identify trends, patterns, and anomalies.
- Forecast potential outbreaks based on climate indicators.

•Alerts & Communication:

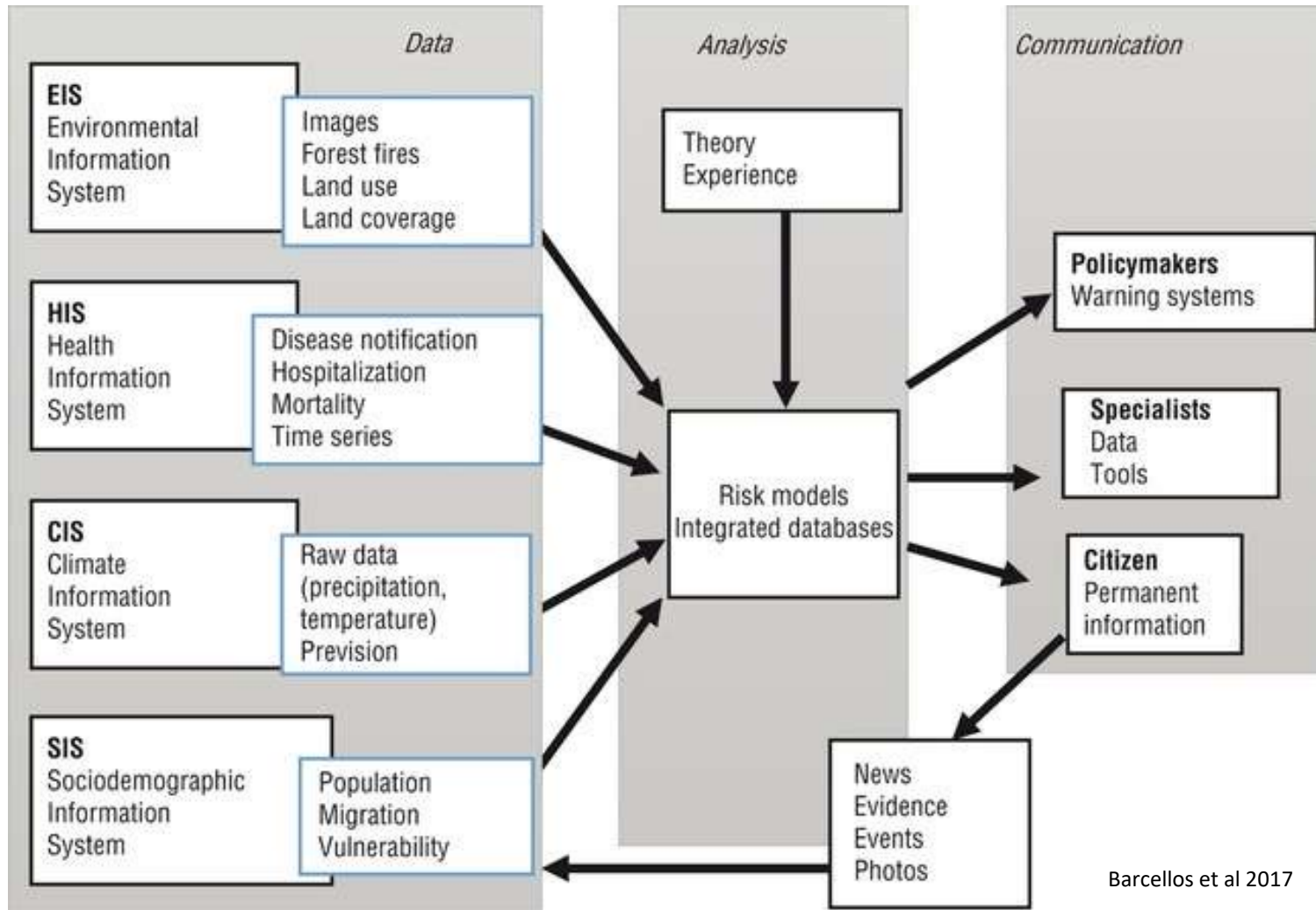
- Rapid dissemination of information to health professionals and the public.
- Guidance on protective measures and responses.

•Collaboration:

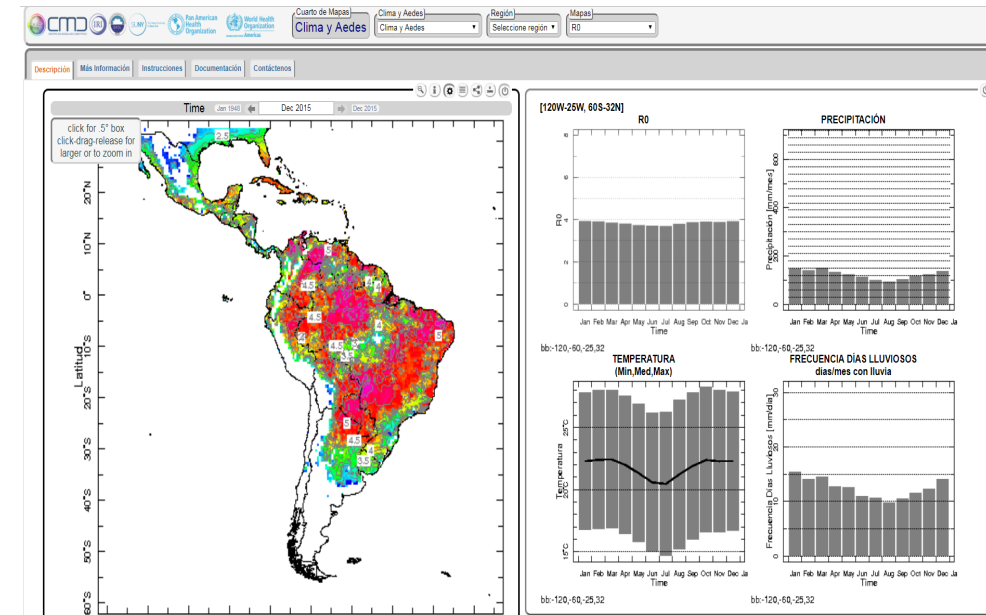
- Multisectoral approach involving health, meteorology, and environmental sectors.
- Cross-border cooperation to track diseases that don't respect national boundaries.



Health and Climate Change Observatories

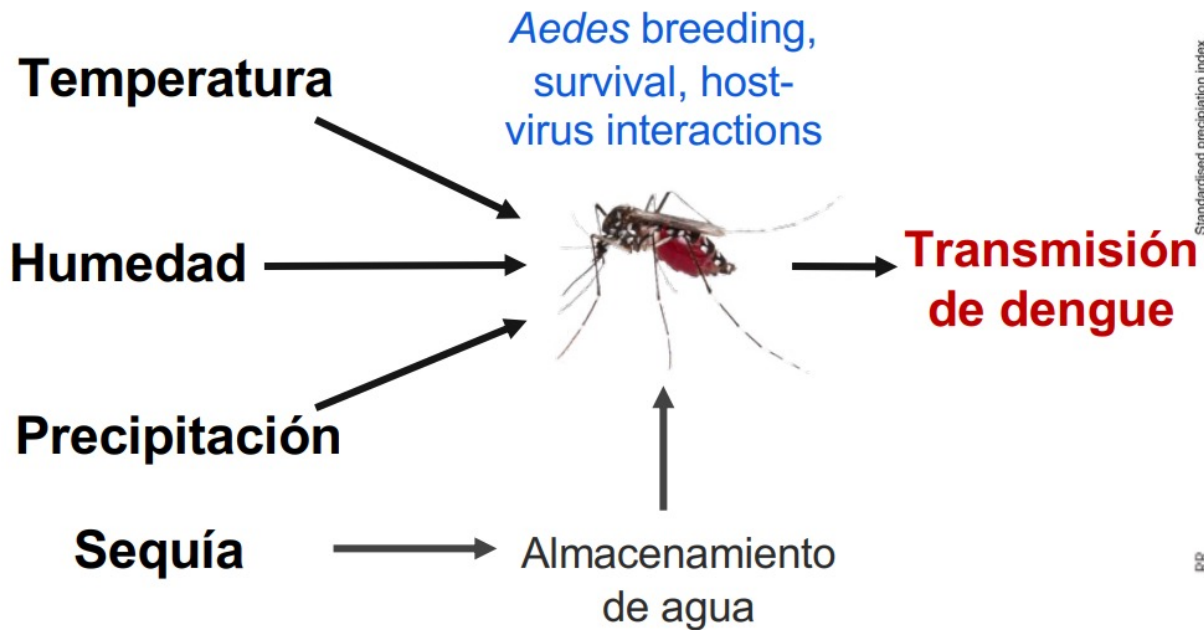


Barcellos et al 2017

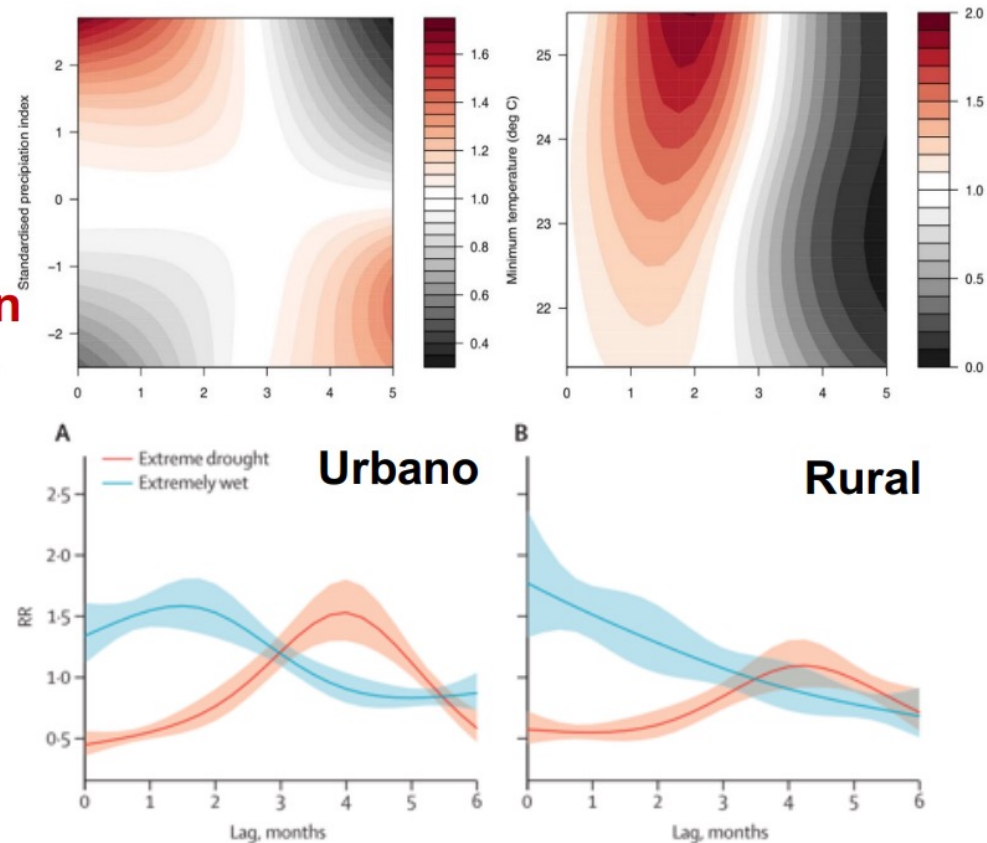


Risk maps & Early Warning Systems

Los factores climáticos son importantes predictores del riesgo de dengue

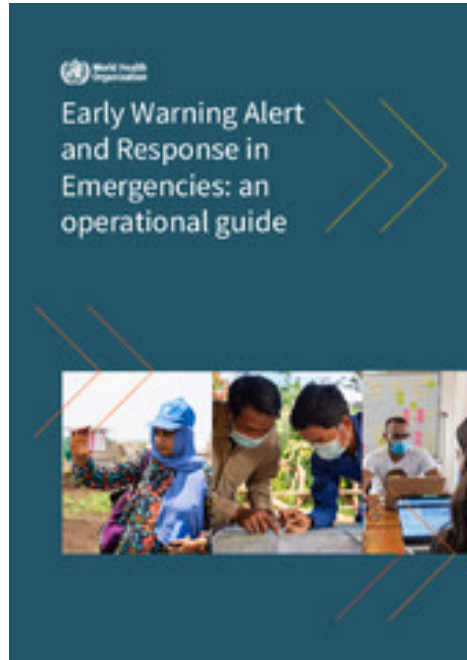


Nonlinear and delayed impacts of temperature and precipitation on dengue risk in Barbados (Lowe *et al.* 2018)

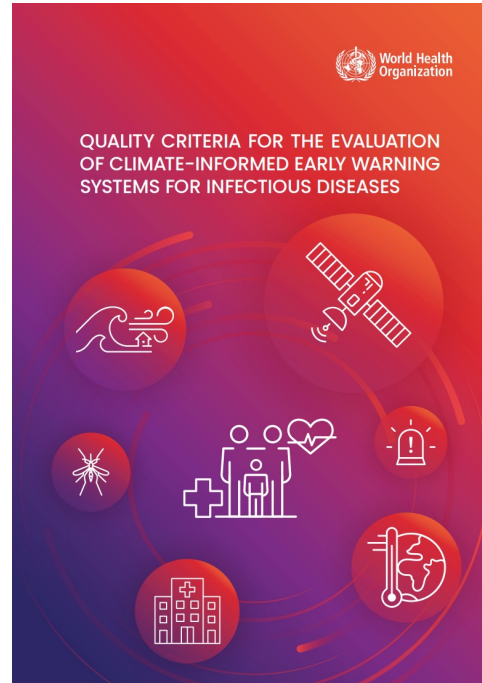


Dengue risk at different time lags under extreme wet and drought in Brazil (Lowe *et al.* 2021)

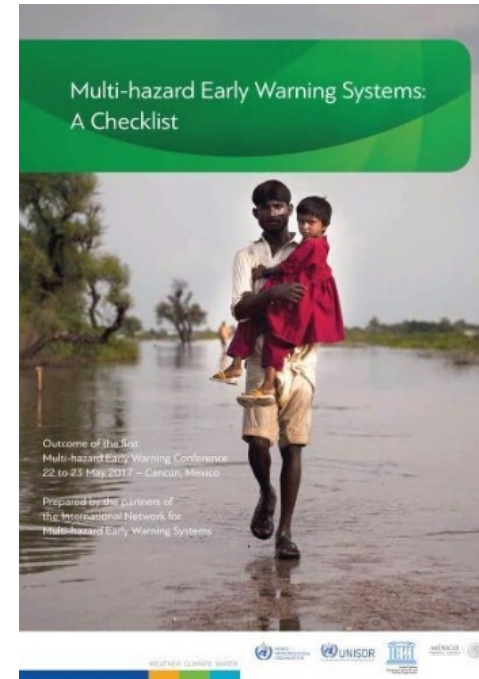
Guidelines and Frameworks



[Early warning alert and response \(EWAR\) in emergencies: an operational guide](#)



[WHO Quality Criteria for the Evaluation of Climate-Informed Early Warning Systems for Infectious Diseases](#)



[WMO Multi-hazard Early Warning Systems: A Checklist](#)
[Outcome of the first Multi-hazard Early Warning Conference](#)



Health Co-benefits of Climate Action

- **Immediate Gains:** Climate action can directly improve health via cleaner air and more physical activity.
- **Cost Benefits:** Health co-benefits enhance climate intervention ROI by reducing health costs.
- **Better Decision-making:** Assessing co-benefits ensures strategies address environmental and health goals.



AirQ+ **ClimaQ-H**

GreenUr **HEAT**

4 tools

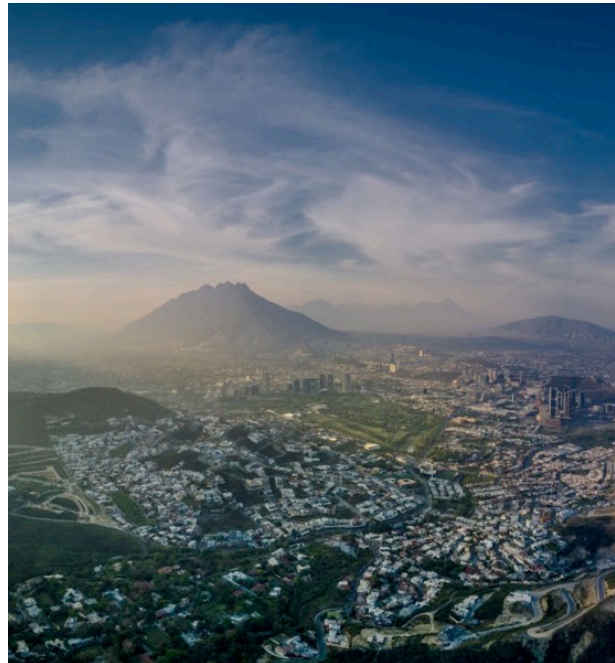
These four tools play a crucial role in supporting healthy policies and mitigating the impacts of climate change. They foster:

- Enhancing air quality (AirQ+)
- Reducing greenhouse gas emissions (ClimaQ-H)
- Increasing the number and size of green spaces (GreenUr)
- Increasing cycling and walking trips (HEAT)

All four are aimed at government authorities, decision-makers and stakeholders who wish to adopt them in order to improve air quality and protect public health.



Tools to measure health impacts to prioritize health-promoting policies and interventions



PAHO 120 CLEAN, HEALTHY AND SUSTAINABLE CITIES

Building clean, healthy and sustainable cities in Latin America and the Caribbean



Health benefits of raising ambition in Colombia's Nationally Determined Contribution (NDC): WHO technical report



PAHO



Health benefits of NDC implementation-Colombia

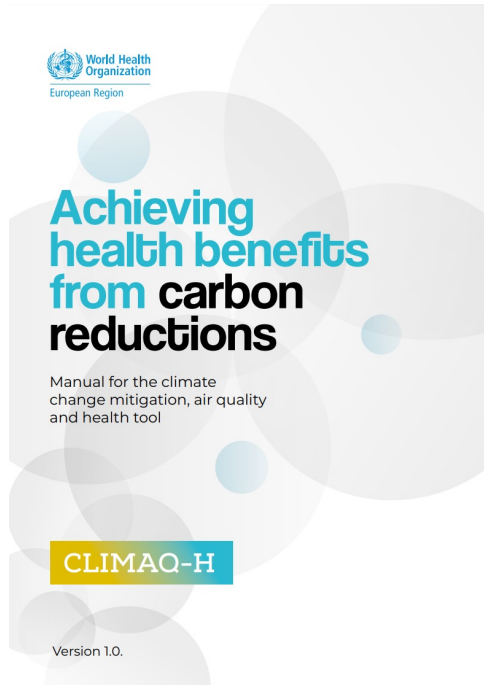


Rapid implementation to achieve NDC targets can maximize benefits:

- **25,600 deaths averted in the period 2021-2030 and 3,800 deaths averted per year from 2030 onwards.**
- **Avoidance of 2,750 cases of hospitalization per year from respiratory and cardiovascular causes from 2030 onwards.**
- **Reduction of 892,000 episodes of asthma per year in children from 2030 onwards.**
- **Economic benefits* up to USD 12.9 billion between 2021-2030, and USD 1.8 billion per year (equivalent to 0.64% of GDP) from 2030 onwards.**

**Includes statistical value of life; changes in productivity loss and costs of illness.*

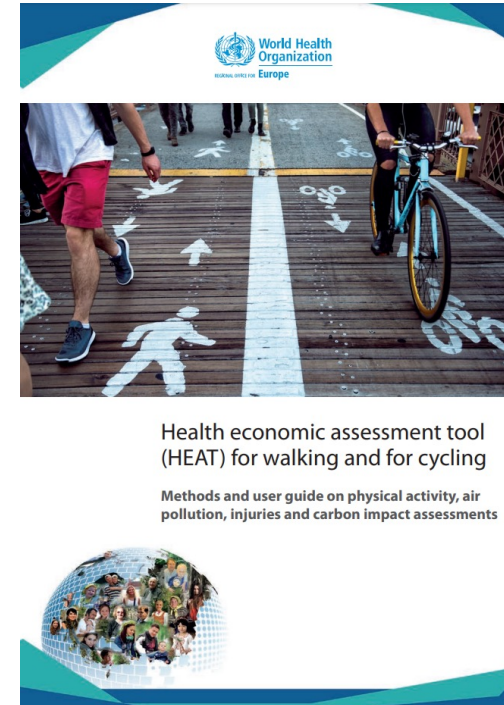
Tools and Guidelines



[WHO - CLIMAQ-H: Achieving Health Benefits from Carbon Reductions](#)

The image is a screenshot of a survey form titled "AirQ+ Users Survey". At the top is the WHO logo and "World Health Organization Europe". Below the title, it says "Thank you for downloading AirQ+!". The main text reads: "WHO/Europe is interested in gathering information about where and how AirQ+ is used, to improve its assistance. Please share information on your use of AirQ+. We will use the survey data in aggregated form for a general overview and statistical analysis of AirQ+ users." The survey consists of four sections:
1. What is your affiliation? (radio buttons for: Academia/University, International organization (e.g. EU, UN agency), Local authority, National or federal authority (e.g. Ministry of Health or Ministry of Environment), Nongovernmental organization (NGO), Private company, Private consultant, Public agency, Regional or state authority, Research institute, No affiliation, Other (please specify) with a text box)
2. Country of work? (dropdown menu)
3. City of work? (dropdown menu)
4. What is your main sector of activity? (radio buttons for: Environment, Health, Transport, Agriculture)

[WHO - AirQ+: software tool for health risk assessment of air pollution](#)



[WHO – Health Economic Assessment Tool for Walking and Cycling \(HEAT\)](#)



Capacity-building on health and climate change

- **Ministries of Health:** Enhance capacity to plan, prevent, and respond to climate risks.
- **Health Professionals:** Train to identify and treat climate-induced health risks.
- **Youth Engagement:** Nurture young voices in climate dialogues, fostering future leaders.
- **Public Awareness:** Amplify understanding of the intertwined impacts of climate change on health.





Opportunities for capacity building



PAN AMERICAN CLIMATE RESILIENT HEALTH SYSTEMS COURSE

Tuesdays & Thursdays
April 4 - May 2, 2023
10:00-11:30 AM EST
12:00-1:30 PM UYT

REGISTER

English, Spanish, French
Interpretation Available

Free Certificate-
Based Program

Session Video
Recordings Available



CLIMATE AND HEALTH RESPONDER COURSE FOR LATIN AMERICA

PRESENTED BY THE GLOBAL CONSORTIUM ON CLIMATE AND HEALTH EDUCATION, PAN AMERICAN HEALTH ORGANIZATION AND THE INTER-AMERICAN INSTITUTE FOR GLOBAL CHANGE RESEARCH

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ON CLIMATE AND
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Organization
Americas



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Opportunities for capacity building

THE GLOBAL CONSORTIUM ON CLIMATE AND HEALTH EDUCATION, EARTH MEDIC/NURSE AND THE CARIBBEAN INSTITUTE OF METEOROLOGY AND HYDROLOGY PRESENTS

CARIBBEAN CLIMATE AND HEALTH RESPONDERS COURSE

CURSO ANDINO DE CLIMA Y SALUD

FECHAS DEL CURSO :
AGOSTO 30 – SEPTIEMBRE 29, 2023
MIÉRCOLES: 9:00-10:30 COLOMBIA
VIERNES: 15:00-16:30 COLOMBIA



El Niño in the Americas: Protecting Health and Promoting Resilience

El Niño en las Américas: Proteger la salud y promover la resiliencia



6-session course with certificate
curso de 6 sesiones con certificado

10-26 Oct. 2023

Register for free | Inscribirse sin costo





Opportunities for capacity building

UWI Climate Change and Health Leaders Training Program

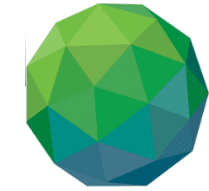
- Creation of an interdisciplinary cadre of 15 climate change fellows from across the Caribbean trained in Climate Change, One Health, and Leadership.
- So far 12 Climate Change and Health Leaders in the Caribbean have been trained





Financing of health and climate programs

- Less than .5% of global climate financing has been allocated for health projects.
- PAHO/WHO - Implementing Agency (Delivery Partner) for Green Climate Fund Readiness Projects
- Other strategic partners and funding sources include European Union, IDB, CDB, World Bank, USAID, Canada, etc



GREEN
CLIMATE
FUND



#ClimateHealthAction



PAHO

Current Projects:

EU/CARIFORUM

Strengthening Climate Resilient Health Systems in the Caribbean

Beneficiaries: 16 countries - 14 CARIFORUM countries, Cuba and Dominican Republic

Timeline: 2020-2025

Budget: €7M



GREEN
CLIMATE
FUND

GCF Caribbean Readiness Projects:

Argentina: Increasing health sector's capacities and strengthening coordination on climate action in Argentina at national and subnational levels

Timeline: 18 months

Budget: US\$300,000

Caribbean:

Enhancing climate change resilience of health systems in seven CARICOM States

Beneficiaries: Guyana, Jamaica, Saint Lucia, Saint Kitts and Nevis, Haiti, Belize, and Trinidad and Tobago

Timeline: Sept 2022 - Apr 2024

Budget: US\$1.05M





Financing of health and climate programs

- *Preparation of portfolios and local capacities for the generation of projects on health and climate change for the GCF and other cooperation agencies.*

EMPOWERING CARIBBEAN ACTION FOR CLIMATE AND HEALTH
#ClimateHealthAction

REGIONAL HEALTH VULNERABILITY AND ADAPTATION ASSESSMENT WORKSHOP TO BOOST TRANSFORMATIONAL PROJECT PROPOSALS FOR CARIFORUM COUNTRIES

FEBRUARY 16-17, 2022
MARCH 2-3, 2022

[READ MORE](#)

Taller regional de capacitación
Respuesta en clima y ambiente para la salud en las Américas

Regional Training Workshop
Climate, Environment and Health for the Americas

San Martín de Los Andes
Neuquén, Argentina

COLUMBIA
MAGUIBAN SCHOOL OF PUBLIC HEALTH
GLOBAL CONSORTIUM ON CLIMATE AND HEALTH EDUCATION

MINISTERIO DE SALUD

NEUQUÉN PROVINCIA

OPS
Organización Panamericana de la Salud

OPS
120 años

30 años
IAI





Alliance for Transformative Action on Climate and Health (ATACH)

© Bill & Melinda Gates Foundation
Credits

<https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health>



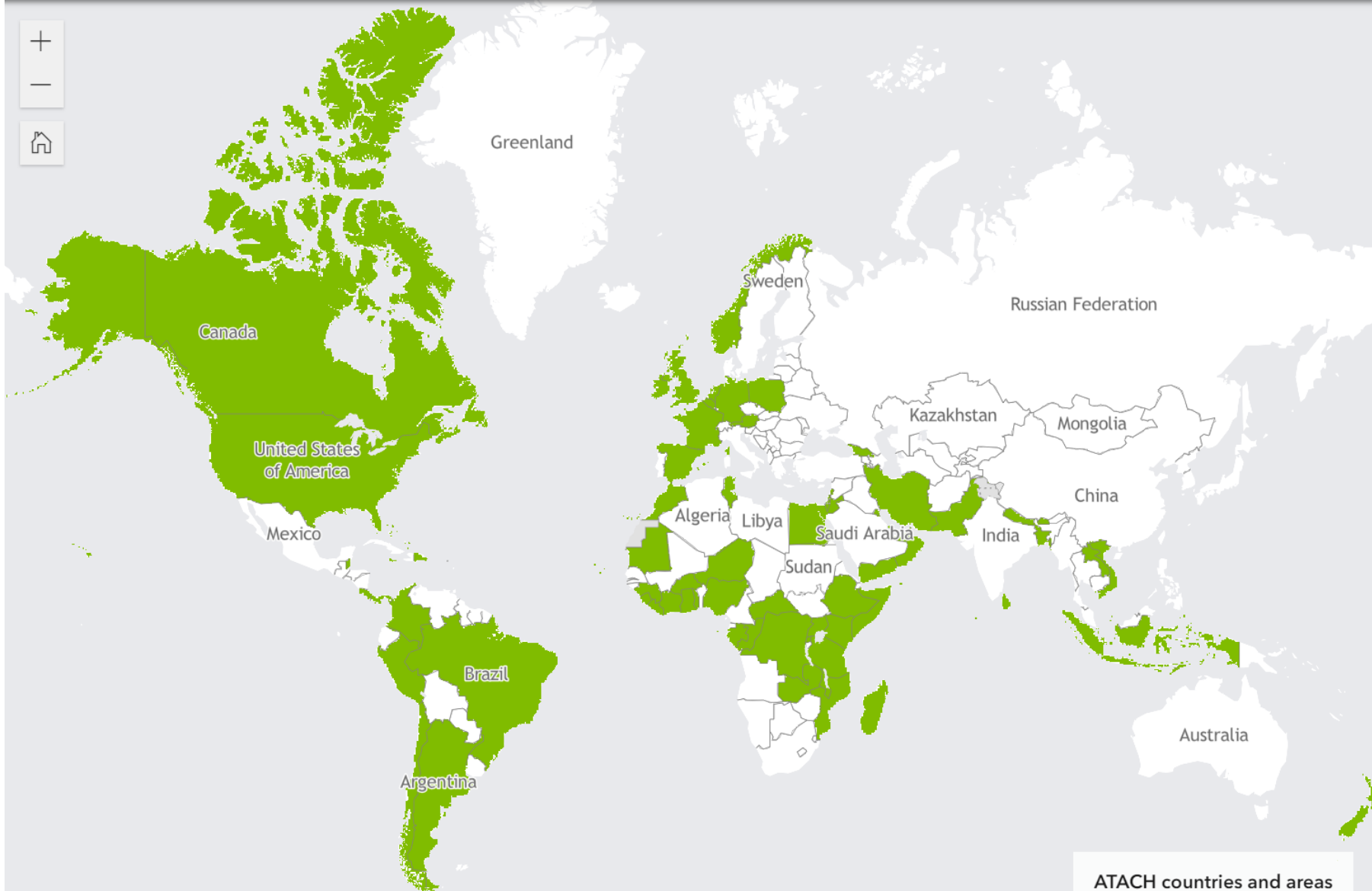
PAHO

(ATACH; “the Alliance”)

Five thematic working groups:

- Financing the Health Commitments on Climate Resilient and Sustainable Low Carbon Health Systems.
- Climate Resilient Health Systems.
- Low Carbon Sustainable Health Systems.
- Supply Chains.
- Climate Action and Nutrition.

<https://www.who.int/initiatives/alliance-for-transformative-action-on-climate-and-health/how-to-apply>



ATACH countries and areas



The designations employed and the presentation of these materials do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement. All references to Kosovo should be understood to be in the context of the United Nations Security Council resolution 1244 (1999). A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).



Upcoming Initiatives

- Climate Change and Health Survey underway
- UNFCCC COP28- Health Day (Dec 3, 2023)
- Latin America Climate Change Week (Oct 24-26, 2023)
- New WHA Resolution on Climate Change and Health
- New PAHO Resolution on Climate Change and Health
- Global Research Agenda for Climate Change and Health (WHO)

A large graphic for PAHO's 120th anniversary. The text 'PAHO' is written vertically in white, bold, sans-serif font. To its right, the number '120' is written in a very large, white, bold, sans-serif font. The '0' is stylized with a blue and white wavy pattern. To the right of the '120', the word 'th' is written in a smaller, white, sans-serif font. Below the '120' and 'th', the word 'ANNIVERSARY' is written in a smaller, white, sans-serif font. In the top left corner, there is a circular graphic with an orange and blue gradient. In the bottom left corner, there are three small circles: orange, white, and blue.

PAHO
120th
ANNIVERSARY

Thank you!
polsonkar@paho.org



PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas