

PAHO's Action Plan on Air Quality and Health : An Overview and Linkages to Earth Observations

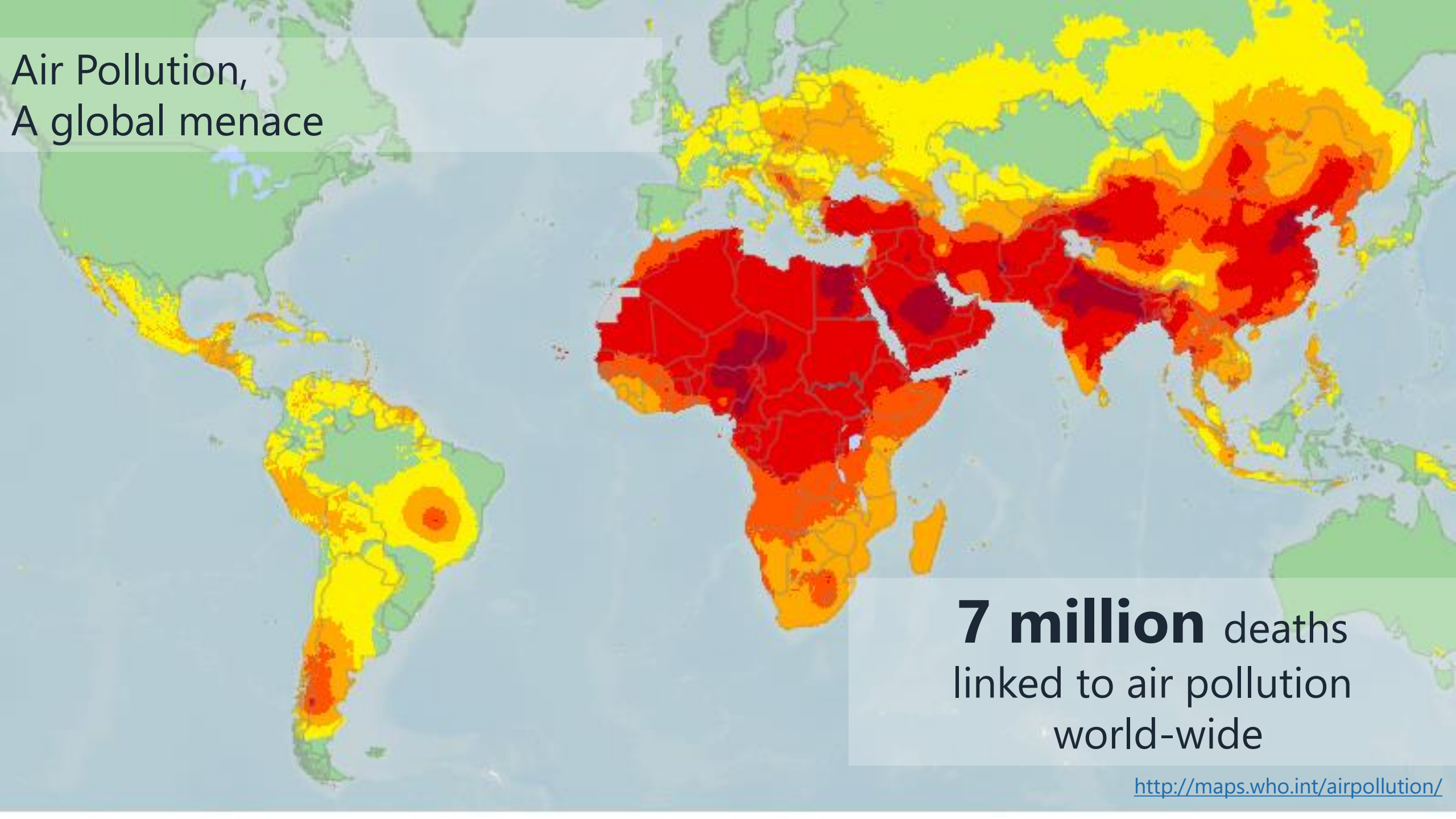
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PAHO

Air Pollution, A global menace



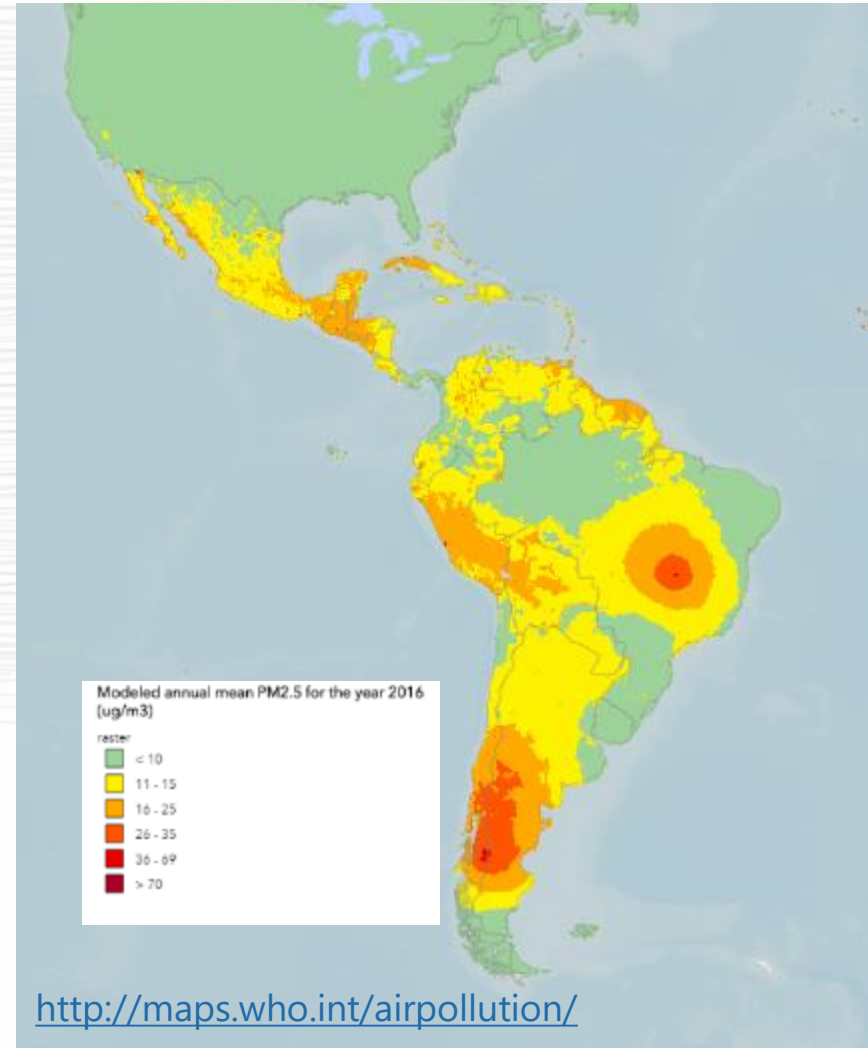
7 million deaths
linked to air pollution
world-wide

<http://maps.who.int/airpollution/>

AP is a common health challenge for the Americas



- **+ 250 million** Latin Americans live in areas where WHO air quality guidelines are exceeded.
- **+ 300,000 deaths** linked to air pollution in the region.
- Air pollution is the **largest environmental health threat** in the Americas
- Externalities are about **2-4% of GDP** in developing countries



Driving Forces

PAHO/WHO

- Public transport is a dominant mode in transport supply, but fleet is aged ●●●
- LAC has the largest motorization rate in the world
- Major forces driving motorization in the region:
 - Rising incomes
 - Expanding middle classes
 - Availability of low-cost vehicles
 - Poor land use and transport planning and oriented to car use
 - Insufficient sustainable mobility options.
- Use of solid fuels/biomass for heating and cooking (some cities)
- Industry and mining activities could be a major source of emissions
- Wildland forest fires





Cochabamba, Bolivia



Monterrey, México



Guatemala
Fuente: Ilse Ruiz. UC Berkeley

WHO Global Strategy on Health, Environment, and Climate Change

Strategic Objectives

- Primary prevention
- Cross-sectoral action
- Strengthened health sector
- Building political and social support
- Enhanced evidence and communication
- Monitoring

PAHO Plan of Action 2020-2030

Goal

Reduce the burden of disease and inequity in health attributable to environmental risks in the Region.

Objective

Strengthen the capacity of health actors in all sectors to address and adapt to EDHs, prioritizing those living in conditions of vulnerability.

How will the Plan of Action be implemented?

Strategic Actions

- Improve the performance of environmental public health programs and institutions
- Strengthen environmental public health surveillance
- Foster an environmentally sustainable and resilient health sector
- Promote environmentally healthy and resilient cities and communities

Thematic Areas



Climate
Change
and Health



Chemical
Safety



Food Safety



Water,
Sanitation
and Hygiene



Air Quality
and Health

A great opportunity



What we aim for – Air Quality and Health:

Goal: To reduce the burden of disease and inequity in health attributable to air pollution

Objective: strengthen the capacity of health actors to address environmental determinants of health, prioritizing populations living in situations of vulnerability

Strategic Areas:

- Improve the performance of environmental public health programs
- Strengthen environmental public health surveillance
- Foster an environmentally responsible and resilient health sector
- Promote environmentally healthy and resilient communities.

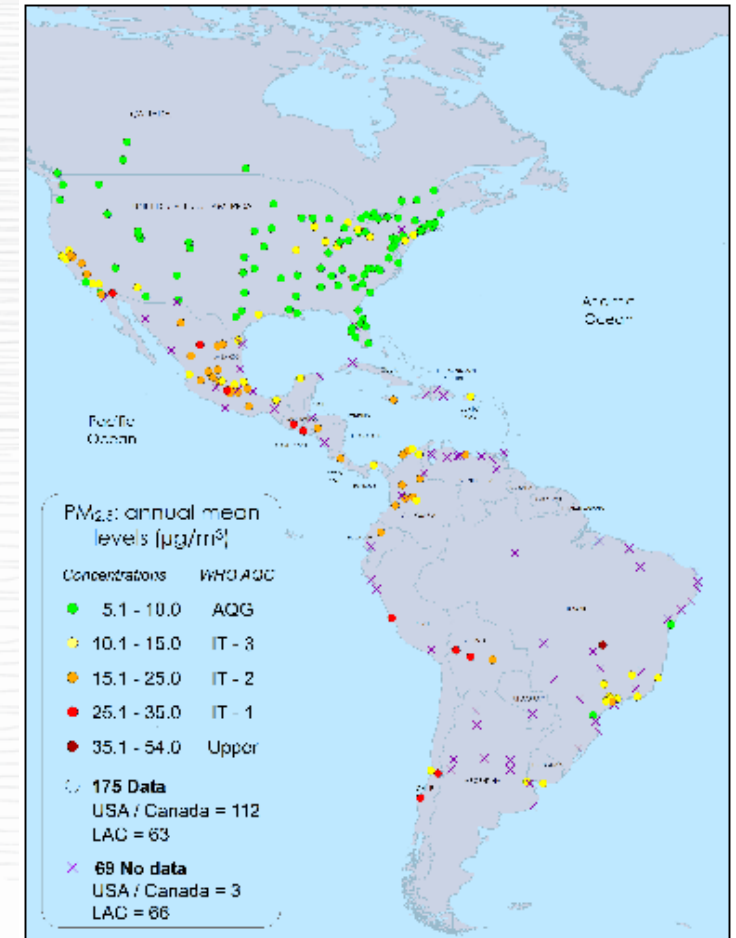


PAHO Technical Cooperation

Strategic Lines of Actions	Main Actions
Improve the performance of environmental public health programs and institutions on air quality	Support integrating health in air quality policies and plans
	Promote setting of air quality objectives based on WHO health guidelines
	Enhance capacity of health workforce
Strengthen environmental public health surveillance on air quality	Support measurement and assessment of SDG indicators 3.9.1, 7.1.2, 11.6.2 – PM2.5
	Incorporation of air quality related indicators in national public health surveillance systems
Foster an air quality responsible and resilient health sector	Promote use of clean energy in health sector
	Exposure reduction in health care facilities
Promote environmentally healthy and resilient cities and communities on air quality	Implement initiative for elimination of polluting cooking fuels
	Promote cleaner air in urban areas
	Implementation of early warning systems

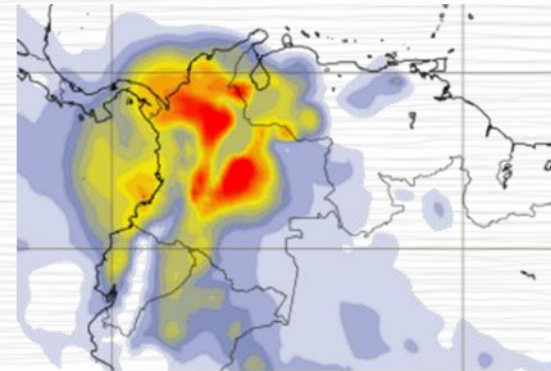
The issue of monitoring in the Americas

- Air pollution risk is unevenly distributed within the region
- Just 2 cities in LAC; accounting for 7.3 million inhabitants meet WHO recommendation.
- Nearly 115 million in LAC live in cities of more than 500,000 inhabitants where there is not ground AQM information
- 20 countries have air quality standards but only 13 have laws, policies, or regulations
- 20 countries have information on ground level outdoor air quality but only nine have QA/QC procedures.
- Absence of QA/QC practices limits implementation of new technologies.
- Limited forecasting capabilities and capabilities to assess regional phenomena.

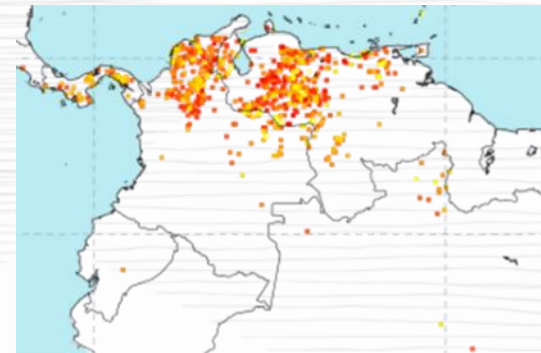


A way forward: Using Earth Observations to Enhance Technical Cooperation

- Focus on vulnerable population.
- Identifying AP events in areas with limited ground monitoring information – One of the most common consultations we receive (COL, VEN, BAR, DOM).
- Enhancing AP burden of disease estimations.
- Early responses to wildfires events.
- Identifying large –and hidden- emissions sources.
- AQ Modeling, Forecasting and Early Warning Systems
- Improving enforcement.
- Training & Capacity Building

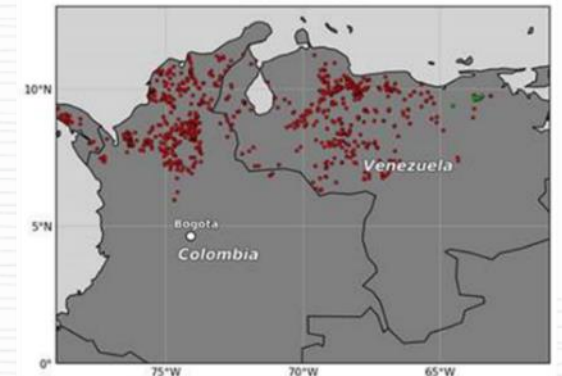


Biomass burning aerosol optical depth at 550 nm (provided by CAMS, the Copernicus Atmosphere Monitoring Service). Tuesday 31 Mar, 00 UTC
T+3 Valid: Tuesday 31 Mar, 03 UTC



Fire radiative power [W m⁻²] (provided by CAMS, the Copernicus Atmosphere Monitoring Service). Monday 30 Mar, 00 UTC T+24 Valid: Tuesday 31 Mar, 00 UTC

AerosolWatch @AerosolWat... · 3/31/20 ...
2/2 #NOAA20 #VIIRS shows locations of fires (red dots) burning yesterday across Colombia and Venezuela. Green dots in NE Venezuela are fire “false alarms” due to oil/gas flaring; identification of persistent fire “anomalies” is a new feature of the VIIRS active fire product.



Fire Detections. NOAA-20/VIIRS.
30 Mar 2020.
NOAA/NESDIS/STAR Aerosol Team.

Shared responsibility...



WHO Collaborating Centers - AQ

Name	Main areas of collaboration
Instituto Nacional de Salud Pública de México	Measurement and assessment of SDG indicators 3.9.1, 7.1.2, 11.6.2

Reference Institutions

Clean Air Institute, USA	Air quality objectives, policies, and plans Setting of air quality objectives Cleaner air in urban areas
Health Care without Harm	Use of clean energy in health sector
Clean Cooking Alliance	Initiative for elimination of polluting cooking fuels
Climate and Clean Air Coalition (CCAC)	Mitigation of SLCP

Key Stakeholders

- Country Governments (i.e. MoHealth, Ministry of Environment, Ministry of Energy, etc)
- Global/Regional Platforms (i.e CEPAL, PNUMA, SICA, OLADE)
- Sector partners (i.e GIZ, WB, IADB)
- National Institutes of Health

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Climate Change and Environmental Determinants of Health

Communicable Diseases and Environmental Determinants of Health

Thanks!

The BL Network in The Americas

- North America
 - Canada: Montreal & Vancouver
 - **México:** Campeche, Jalisco, Morelos, Mexico City
 - USA: San Antonio, Washington DC
- Central America
 - **Honduras**
 - Panama: Panama City
- South America
 - Argentina: Chaco
 - **Colombia:** Aburra Valley, Barranquilla, Bogota, Cali, Caldas and Medellín.
 - Chile: Chiguayante, Concepción, Hualqui, Santiago, Talca
 - Ecuador: Azuay
 - Peru: Lima
- The Caribbean
 - Dominican Republic: Santo Domingo
 - **Trinidad & Tobago**



Milestones and Key Actions

- Communication and Outreach:
 - Strengthening communication through stories highlighting city achievements and best practices
 - 2018-2019 Quarterly Regional Webinar Series with participation of BL members showcasing implementation strategies
- Technical Cooperation:
 - Workshop in Colombia (2017 and 2019)
 - City and Region AQ, Climate, and Health Road Maps (Honduras and Lima)
 - AirQ+ and BenMAP training
- Resource Mobilization:
 - Preparation of funding proposals to CCAC Action Program and Expert Assistance
 - Support the preparation of proposals to European Union Funding

