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# Climate change and health - the WHO perspective



European Region

# Climate change is breaking records

## Climate change

SIXTH ASSESSMENT REPORT

Working Group II – Impacts, Adaptation and Vulnerability

ipcc  
INTERGOVERNMENTAL PANEL ON climate change



### The case for action is irrefutable

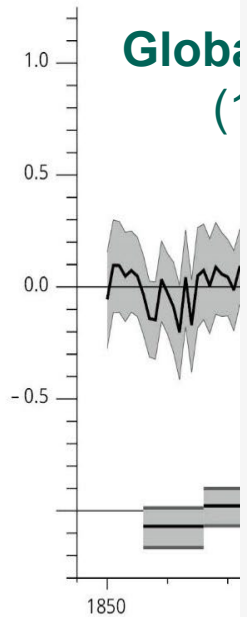
*“The cumulative scientific evidence is unequivocal: Climate change is a threat to human well-being and planetary health. Any further delay in concerted anticipatory global action on adaptation and mitigation will miss a brief and rapidly closing window of opportunity to secure a liveable and sustainable future for all. (very high confidence)”*

IPCC WGII Summary for policy makers

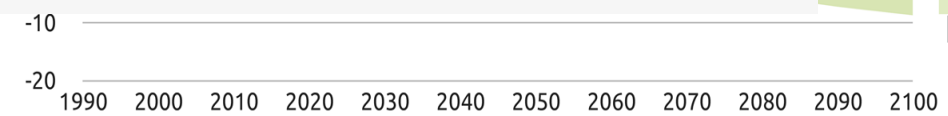
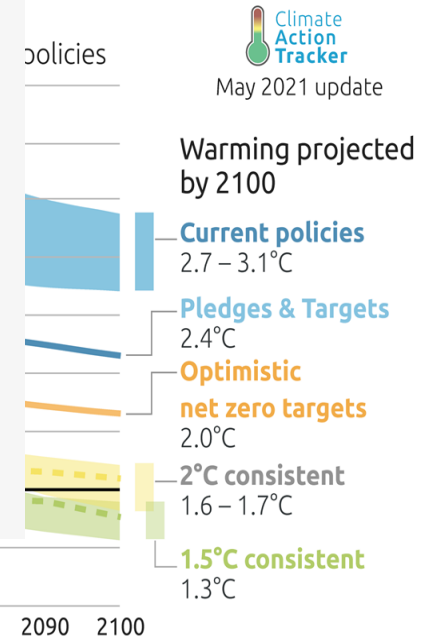
*“The economic benefits on human health from air quality improvement arising from mitigation action can be of the same order of magnitude as mitigation costs, and potentially even larger.”*

IPCC Working Group III

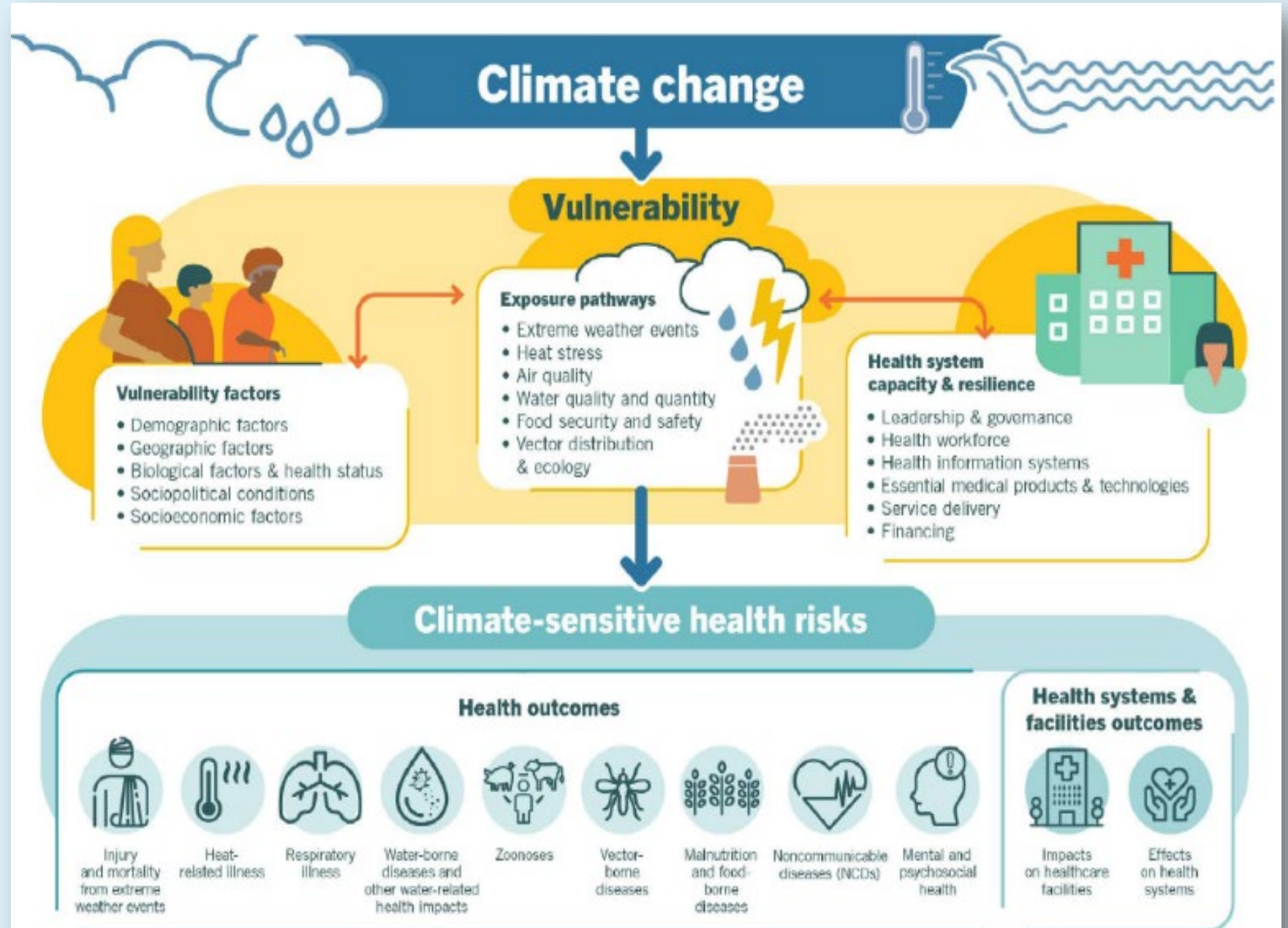
Temperature anomaly (°C) re



Source: WMO (2021)



# Vulnerabilities and pathways of climate health risks

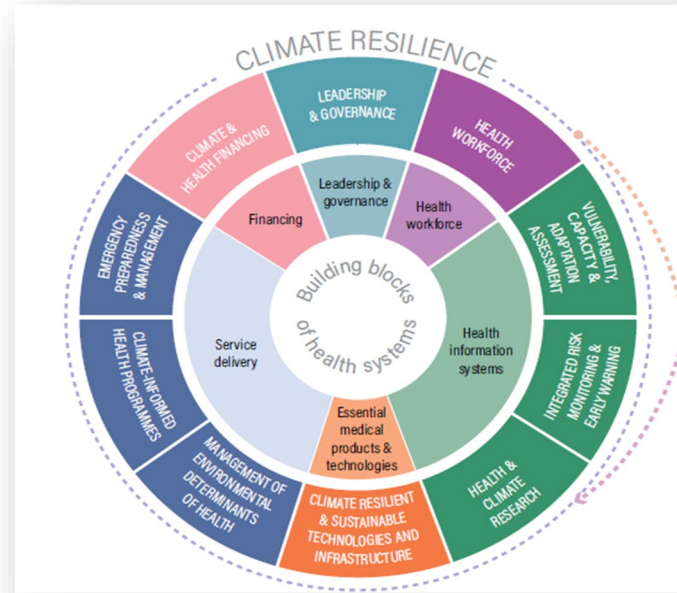
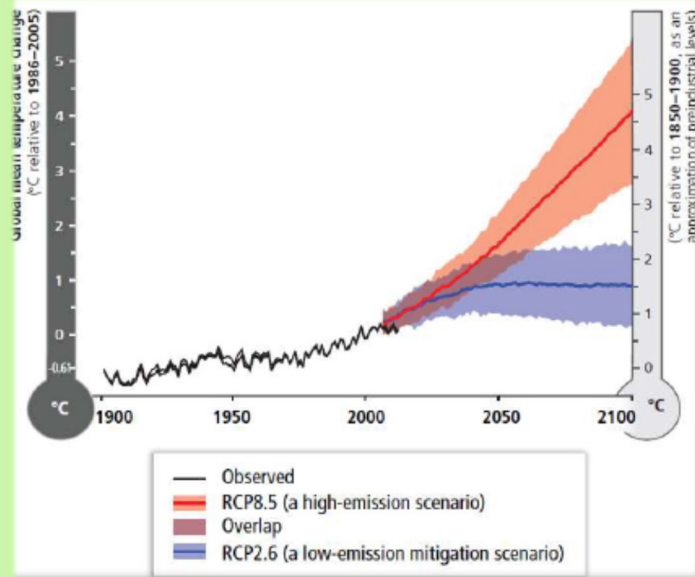


# Climate actions for public health

Help reduce carbon emissions for promoting health (air pollution)

Make health systems more sustainable (lead by example)

Protect health from full range of climate risks



#ClimateChange

## WHETHER YOU LIVE IN A...

Rural village      Small island or coastal town      Big city

### CLIMATE CHANGE THREATENS YOUR HEALTH

Drought, floods and heat waves will increase.

Vector-borne diseases, like malaria and dengue virus will increase with more humidity and heat.

#### Basic necessities will be disrupted...

**FOOD**  
Hunger and famine will increase as food production is destabilised by drought.

**AIR**  
Pollution and pollen seasons will increase leading to more allergies and asthma.

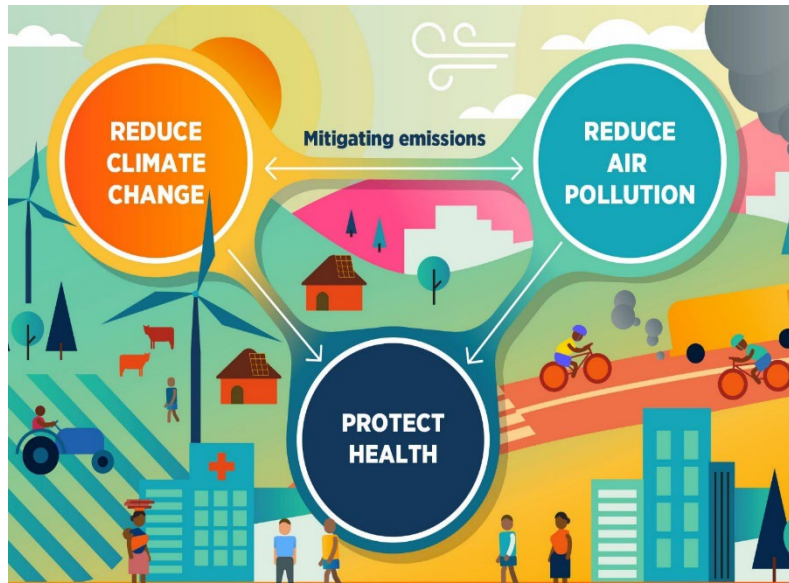
**WATER**  
Warmer waters and flooding will increase exposures to diseases in drinking and recreational waters.

Between 2030 and 2050 climate change is expected to cause  
**250 000 ADDITIONAL DEATHS PER YEAR**  
due to malaria, malnutrition, diarrhoea and heat stress.

World Health Organization

# Climate actions for public health

Help reduce carbon emissions  
for promoting health  
(air pollution)



Health co-benefits of tackling CC and air pollution



Efforts to improve air quality can enhance climate change mitigation, and climate change mitigation efforts can, in turn, improve air quality.

All this enhance people's health.

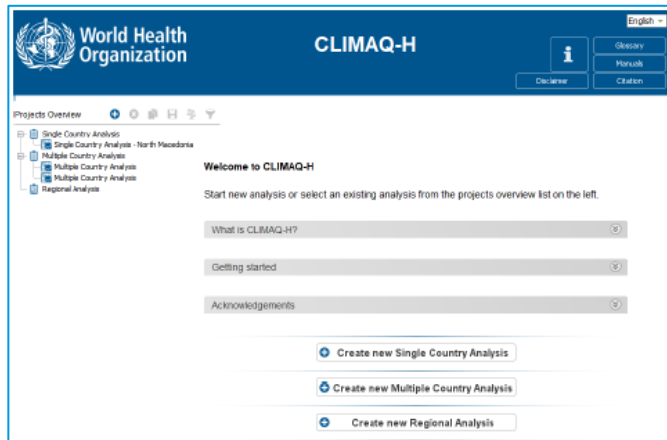
AQGs are a powerful tool for climate action

[New WHO Global Air Quality Guidelines aim to save millions of lives from air pollution](#)

[WHO global air quality guidelines: particulate matter \(PM2.5 and PM10\), ozone, nitrogen dioxide, sulfur dioxide and carbon monoxide](#)

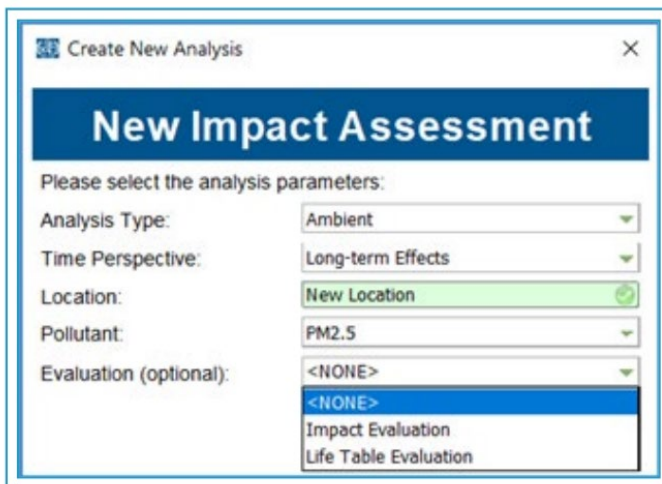
# Linking climate change mitigation, air quality and health - WHO tools

## CLimate Mitigation Air Quality - Health



**CLIMAQ-H** (formerly CaRBonH): a tool to quantify health and economic effects of climate change mitigation through air quality improvements. Key questions addressed:

- Which air pollution and health benefits have been achieved through reductions in domestic carbon emissions for the proposed climate policies under the NDCs submitted by Member States to the UNFCCC?
- What would the magnitude of the economic benefits due to the future changes in health effects expected under the NDCs be?



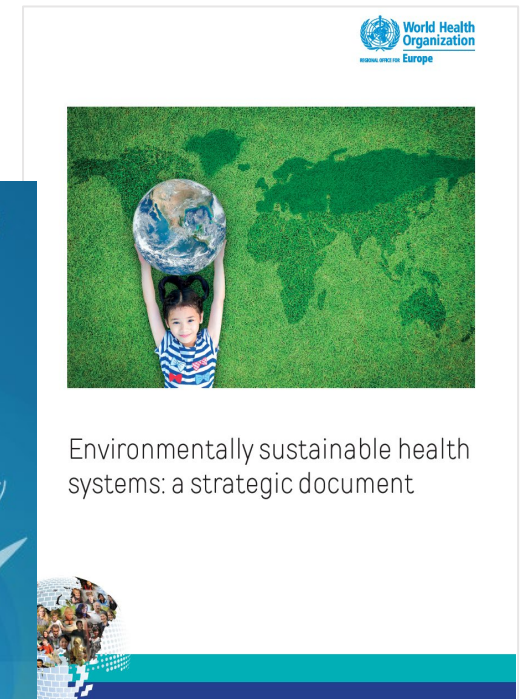
**AirQ+**: a tool for health risk assessments of air pollution can be used, with some limitations, for cities, countries or regions to estimate:

- How much of a particular health effect is attributable to selected air pollutants?
- Compared to the current scenario, what would be the change in health effects if air pollution levels changed in the future?

# Climate actions for public health

Make health systems  
more sustainable  
(lead by example)

- ❑ Climate action is an opportunity to explore synergies to improve health services and infrastructure towards a low-carbon and resilient health sector.
- ❑ The health sector:
- ❑ has to adapt and become resilient to climate change
- ❑ needs to reduce greenhouse gas emissions from its operations, contributing to mitigation efforts



<https://www.who.int/activities/building-capacity-on-climate-change-human-health/toolkit/resilience>  
<https://www.who.int/publications/i/item/checklists-vulnerabilities-health-care-facilities-climate-change>  
<https://www.euro.who.int/en/health-topics/Health-systems/public-health-services/publications/2017/environmentally-sustainable-health-systems-a-strategic-document-2017>

# Example of an assessment and possible interventions - energy



ENERGY		
LEVEL OF IMPACT		
MAJOR	MODERATE	MINOR
<ul style="list-style-type: none"> <li><input type="checkbox"/> Power failure</li> <li><input type="checkbox"/> Shutdown of cold storage systems</li> <li><input type="checkbox"/> Interruption in providing health care services that require electricity such as dialysis, oxygen therapy, diagnosis equipment</li> <li><input type="checkbox"/> Loss of vaccines, laboratorial supplies, drugs, parenteral nutrition and blood supplies, pharmaceuticals, food supply, and other essential refrigeration-dependent medical supplies</li> <li><input type="checkbox"/> Damage to emergency generator or other sources of energy</li> <li><input type="checkbox"/> Disruption of the fuel supply chain</li> <li><input type="checkbox"/> Disruption of energy-dependent water pumping and treatment systems</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Temporary power supply interruption</li> <li><input type="checkbox"/> Difficulty in providing critical health care service deliveries (dialysis, oxygen therapy, diagnosis equipment), causing patients to be evacuated to other health facilities</li> <li><input type="checkbox"/> Reduced capacity to provide services that need electricity (laundry, dishwashing machines, etc.)</li> <li><input type="checkbox"/> Reduced capacity to provide disinfection services that need electricity (autoclave, microwave, water boiler)</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> No ambient cooling interruption</li> <li><input type="checkbox"/> Loss of food or difficulty in refrigerating food</li> <li><input type="checkbox"/> Reduced capacity to follow boil water advisories</li> </ul>

## (Energy - environmental sustainability)

Interventions (level of achievement)	Action level			Observations
	Low, unavailable, unable	Medium, in progress, incomplete	High, completed, achieved	
Prioritized energy sources and saving measures which are least costly to introduce and/or those which would bring the biggest saving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Installed energy-efficient lighting (such as light emitting diode (LED))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Natural light used wherever possible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Opening windows (with installed mosquito nets where required) and making use of natural air flow and light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Added occupancy sensor switches for lighting in frequently unoccupied spaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Replaced older air conditioners, refrigerators and other appliances and medical equipment with energy efficient models	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Improved energy efficiency of the health care facility vehicles fleet, and encouraging staff, patients and visitors to walk or use car pools, public transport, or bicycles whenever possible*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health care facility fossil fuel consumption reduced by use of renewable energy sources, including solar (photovoltaic) power, wind power, hydro power and biofuels*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



# Climate actions for public health

## COP26 Health Programme

Overview of Initiatives and Commitments on Climate Change and Health

Protect health from full range of climate risks

Integrating health in climate action and scaling climate action for health

[COP26 Health Programme \(who.int\)](https://www.who.int/cop26-health-programme)

#ClimateChange

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- WHO - global and regional frameworks
- Building and strengthening partnerships
- Developing evidence for action
- Strengthening capacities
- Leadership and advocacy

## WHO MANIFESTO FOR A HEALTHY RECOVERY FROM COVID-19

### Prescriptions and Actionables for a Healthy and Green Recovery

# Supporting climate action to protect health



WHO ECEH – European Centre for Environment and Health

- ❑ Providing evidence-based policy advice
- ❑ Generating evidence on the health co-benefits from de-carbonization
- ❑ Offering guidance and tools, including on heat health action and other CC-induced events
- ❑ Supporting countries in building climate-resilient health systems
- ❑ Advocating for health considerations in national adaptation planning
- ❑ Supporting countries in achieving commitments of the 2017 Ostrava Declaration

# From HIC towards COP 26 and beyond....



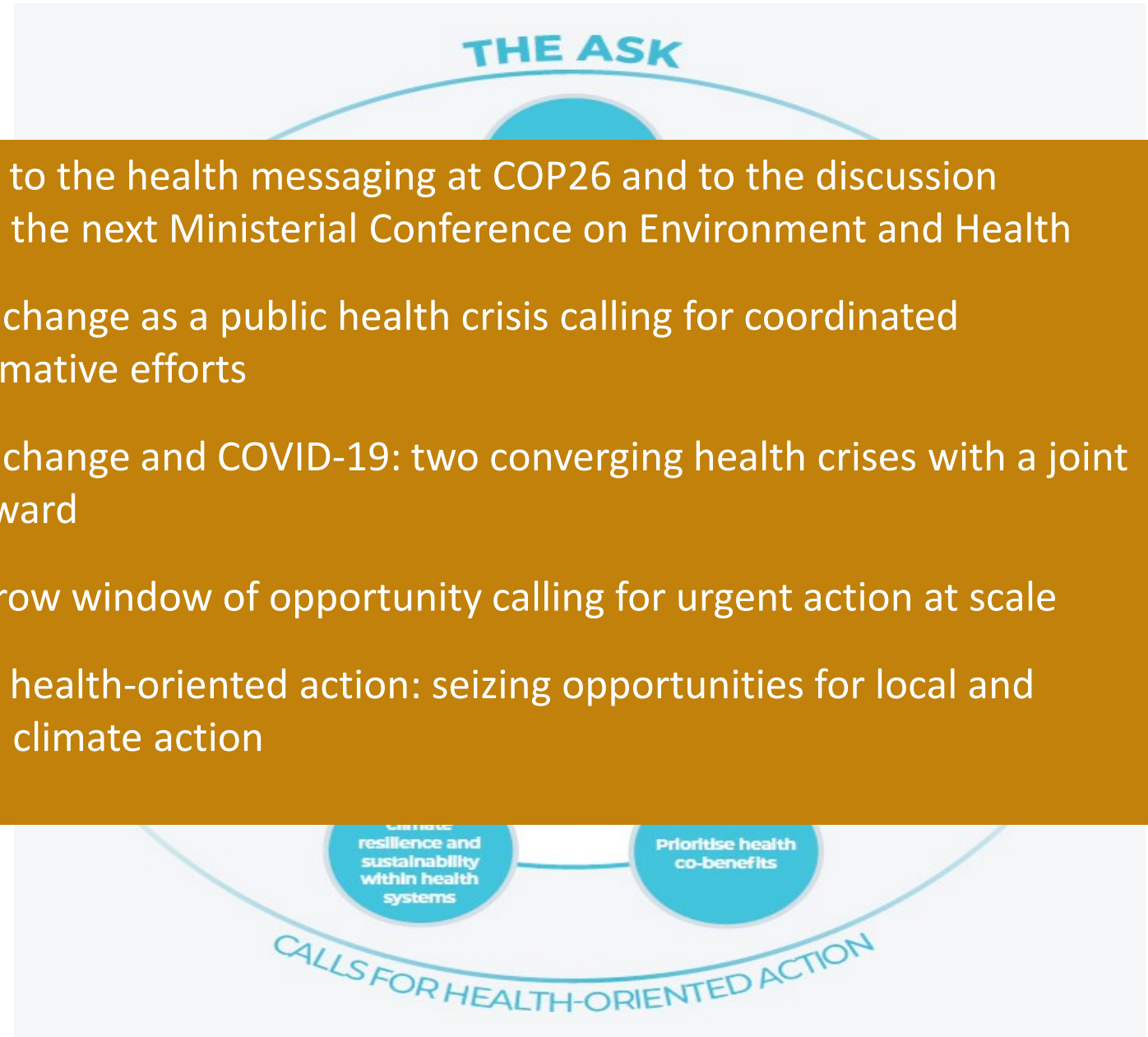
Support to the health messaging at COP26 and to the discussion towards the next Ministerial Conference on Environment and Health

Climate change as a public health crisis calling for coordinated transformative efforts

Climate change and COVID-19: two converging health crises with a joint way forward

The narrow window of opportunity calling for urgent action at scale

Calls for health-oriented action: seizing opportunities for local and national climate action



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# Thank you!

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European Region