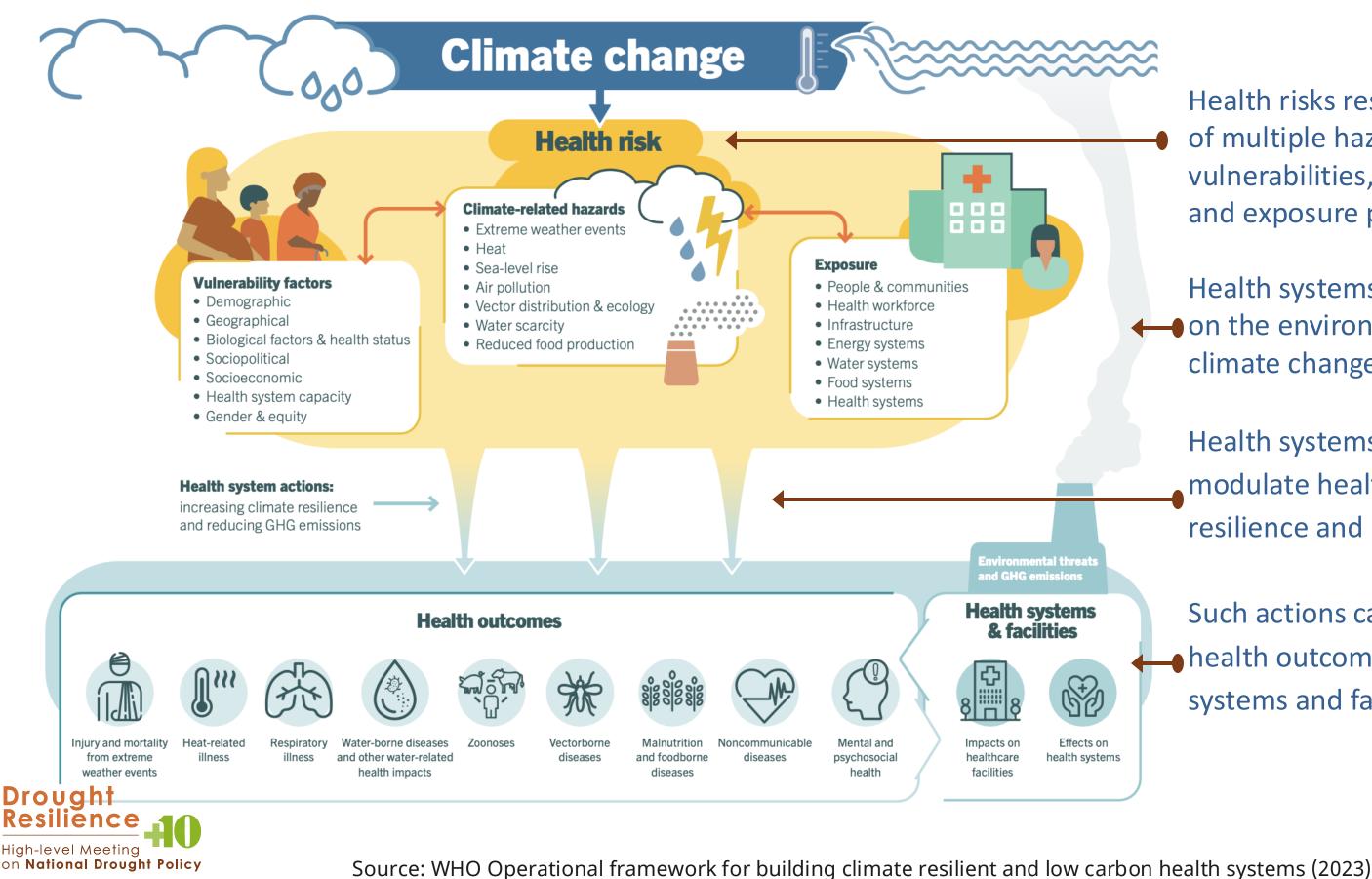


# Health Threats from Drought **Antonios Kolimenakis, Technical Officer Climate Change and Health, WHO HQ; Dr Carlos Corvalan, Climate Change and** Health Expert, WHO HQ; **Dr Aderita Sena, Climate Change and Health** Expert, WHO HQ

World Health Organization



## Climate change risks to human health and health systems



https://www.who.int/publications/i/item/9789240081888

Health risks result from a combination of multiple hazards, diverse vulnerabilities, and multiple exposures and exposure pathways.

Health systems can also have an impact on the environment and contribute to climate change through GHG emissions.

Health systems actions should aim to modulate health risks by increasing resilience and reducing GHG emissions.

Such actions can help reduce adverse health outcomes and impacts on health systems and facilities

## Drought exposure pathways and health outcomes

#### **Possible exposure pathways**

- Reduction in or lack of access to water;
- Hygiene services reduction;
- Water and food contamination;
- Food insecurity;
- Changes in vector habitat (including that of mosquitos, ticks and rodents);
- Air pollution, increased dust;
- Hot temperatures, dry air;
- Lack of power;
- Water pollutants (iron, manganese, fluoride, arsenic) and salinity concentrations;
- Cyanobacterial blooms;
- Reduced soil moisture;
- Increasing frequency of warm days and nights;
- Displaced populations



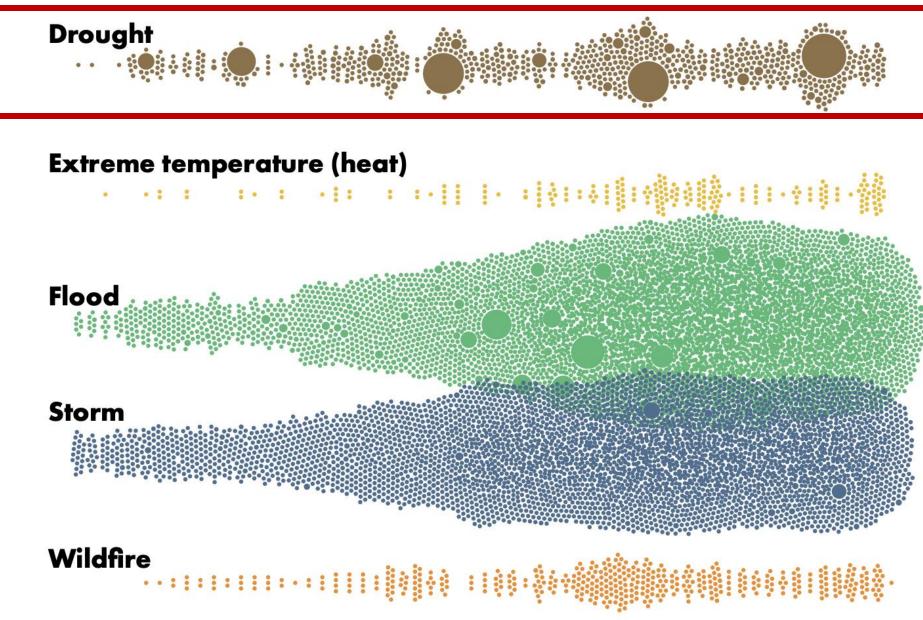
**Climate-sensitive** diseases (infectious diseases)

**Climate-sensitive** health outcomes (noncommunicable diseases and unintentional Injuries)

- Diarrhoeal diseases; cholera; Hepatitis A;
- Vector-borne diseases (dengue, malaria, Zika virus disease, chikungunya, Lyme disease, West Nile virus fever, Valley fever);
- Zoonotic diseases;
- Intestinal nematode infections;
- Respiratory infections;
- Eye and skin infections (scabies, trachoma, conjunctivitis);
- Meningococcal meningitis
- Cardiovascular diseases;
- Chronic respiratory diseases (asthma, COPD, respiratory allergies);
- Kidney diseases;
- Cancers (skin, bladder, lung);
- Protein-energy malnutrition;
- Mental health effects (stress, anxiety and
- - depression); • Eyes, nose and skin irritation;
  - Musculoskeletal problems

#### Source: https://iris.who.int/bitstream/handle/10665/340656/9789240022904-eng.pdf

# Number of events, deaths and affected persons since 1960, for drought, extreme temperature (heat), flood, storm and wildfire



1960 1965 1970 1975 1980 1985 1990 1995 2000 2005 2010 2015 2020



Note: Each dot represents an event; circle size represents the number of affected persons. Source: EM-DAT; graphs produced with RAW Graphics. Figure in: <u>https://iris.who.int/bitstream/handle/10665/340656/9789240022904-eng.pdf</u>

		Number of events	Number of deaths	Number of affected persons	
	0,fo	714	2 211 379	2 711 992 494	
		205	161 792	4 924 534	
		5 062	354 823	3 811 794 456	
	· '//, '.	4 003	948 206	1 175 687 864	
	CALL &	436	2 844	6 973 005	
)	All:	10 420	3 679 044	7 711 372 353	

## **Key Focus Areas**

To advance climate-resilient health, WHO works in three key focus areas:

1

Addressing the wide range of health impacts of climate change Climateresilient health

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2



Strengthening the climate resilience and environmental sustainability of health systems and facilities

3

Promoting the health co-benefits of climate change mitigation in other sectors

# **Building climate-resilient health**

This document aims to help users navigate the climate change and health technical support package offered by the World Health Organization. It is structured around five key areas of support and explains what tools, resources, and assistance are available.

### **5. Monitoring climate** change and health progress

Regular monitoring of national health sector response to climate change, highlights the progress made by governments towards strengthening the resilience of health systems while identifying priority areas for improvement.

Learn more -

#### **1. Assessing health risks** and co-benefits

Assessing health vulnerability to climate change at population and facility level and understanding the potential health co-benefits of climate action will provide the required evidence to protect and promote health in a changing climate.

Learn more -

#### 4. Implementing climate change and health interventions

A wide range of interventions and tools are available to support countries in their efforts to strengthen the climate resilience and environmental sustainability of health systems and facilities.

Learn more —

### 2. Climate change and health planning

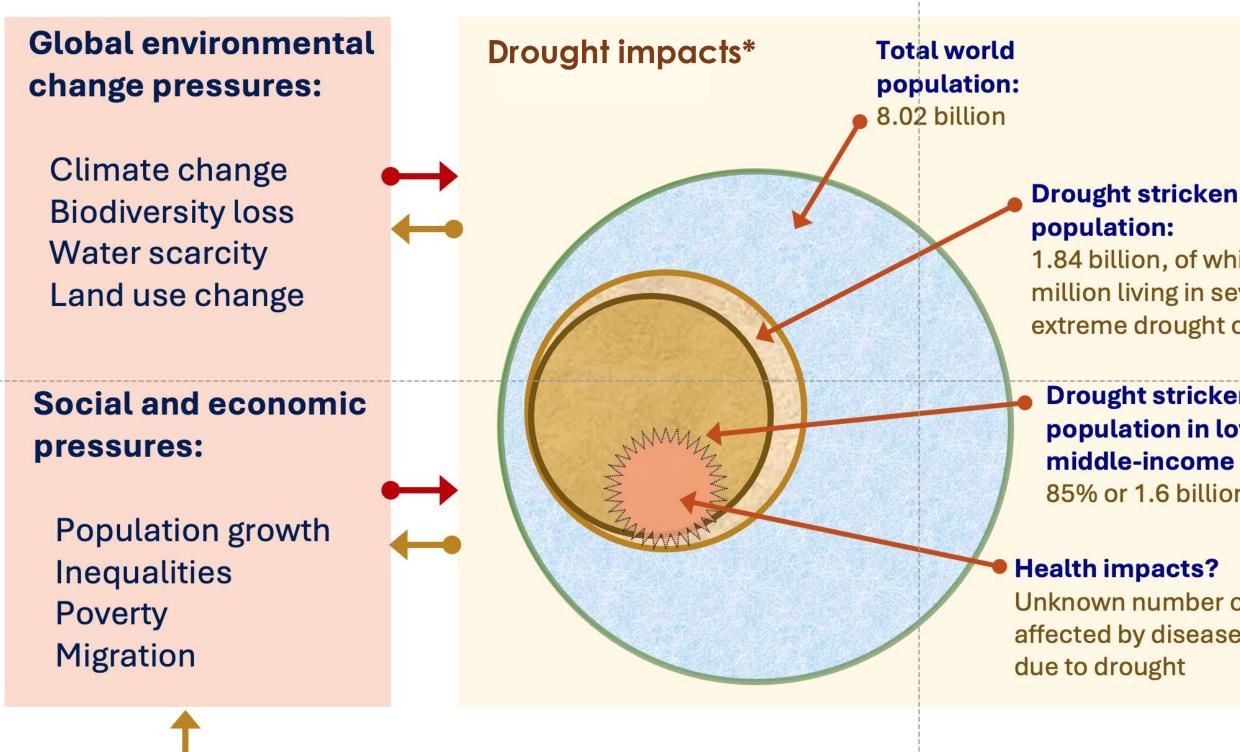
Through comprehensive and systematic climate change and health planning, countries can identify required interventions to address climate-sensitive health risks at population and health system and facility level.

Learn more  $\rightarrow$ 

### **3. Financing climate** change and health

Climate change financing, such as the Green Climate Fund (GCF), can be accessed to strengthen the climate resilience and environmental sustainability of health systems and facilities and to promote the health co-benefits of mitigation across multiple sectors.

## Drought global pressures, impacts and responses





\* Data in UNCCD. Global Drought Snapshot 2023. THE NEED FOR PROACTIVE ACTION https://www.unccd.int/sites/default/files/2023-12/Global%20drought%20snapshot%202023.pdf

#### **Global Responses:**

Agenda 2030 and SDGs (SDG 15, Life on Land)

> **UNCCD Strategic** Framework 2018-2030

**Kunming-Montreal Global Biodiversity** Framework

Sendai Framework for **Disaster Risk Reduction** 2015-2030

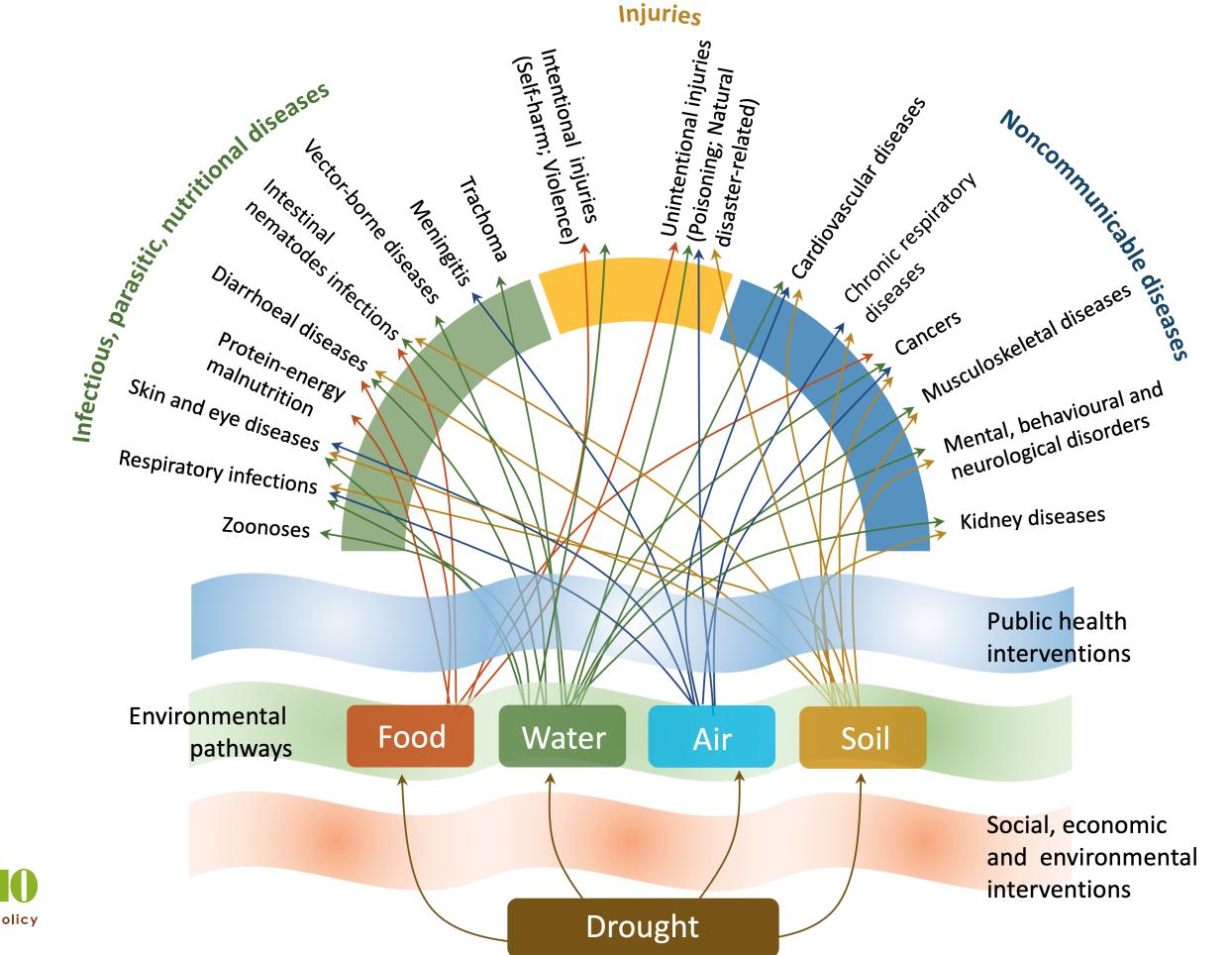
1.84 billion, of which 86.5 million living in severe and extreme drought conditions

#### **Drought stricken** population in low and middle-income countries:

85% or 1.6 billion

Unknown number of persons affected by disease or injury

## **Drought and health complex pathways**





https://catalogue.unccd.int/1463 Land under pressure Health under stress.pdf

## The UNCCD 2018–2030 **Strategic Framework**



## Strategic objective 2: To improve the living conditions of affected populations

- Expected impact 2.1 Food security and adequate access to water for people in affected areas is improved
- Expected impact 2.2 The livelihoods of people in affected areas are improved and diversified
- Expected impact 2.3 Local people, especially women and youth, are empowered and participate in decision-making processes in combating DLDD
- Expected impact 2.4 Migration forced by desertification and land degradation is substantially reduced.

### Strategic objective 3: To mitigate, adapt to, and manage the effects of drought in order to enhance resilience of vulnerable populations and ecosystems

- Expected impact 3.1 Ecosystems' vulnerability to drought is reduced, including through sustainable land and water management practices
- Expected impact 3.2 Communities' resilience to drought is increased.



ICCD/COP(13)/L.18

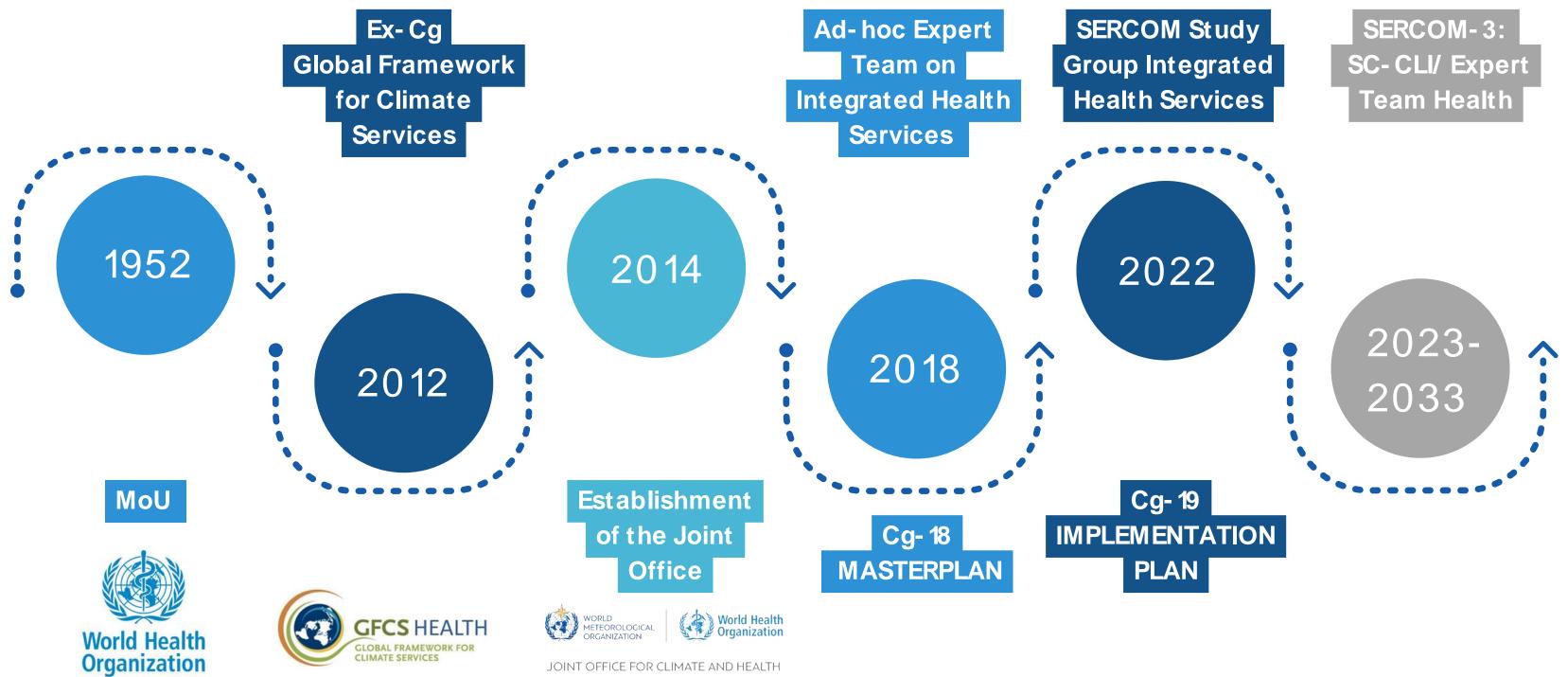
#### **Convention to Combat Desertification**

Distr.: Limited 14 September 2017

Original: English

https://www.unccd.int/sites/default/files/2022-02/ICCD\_COP%2813%29\_L.18-1716078E\_0.pdf

# **70 years of WMO-WHO Collaboration**



JOINT OFFICE FOR CLIMATE AND HEALTH

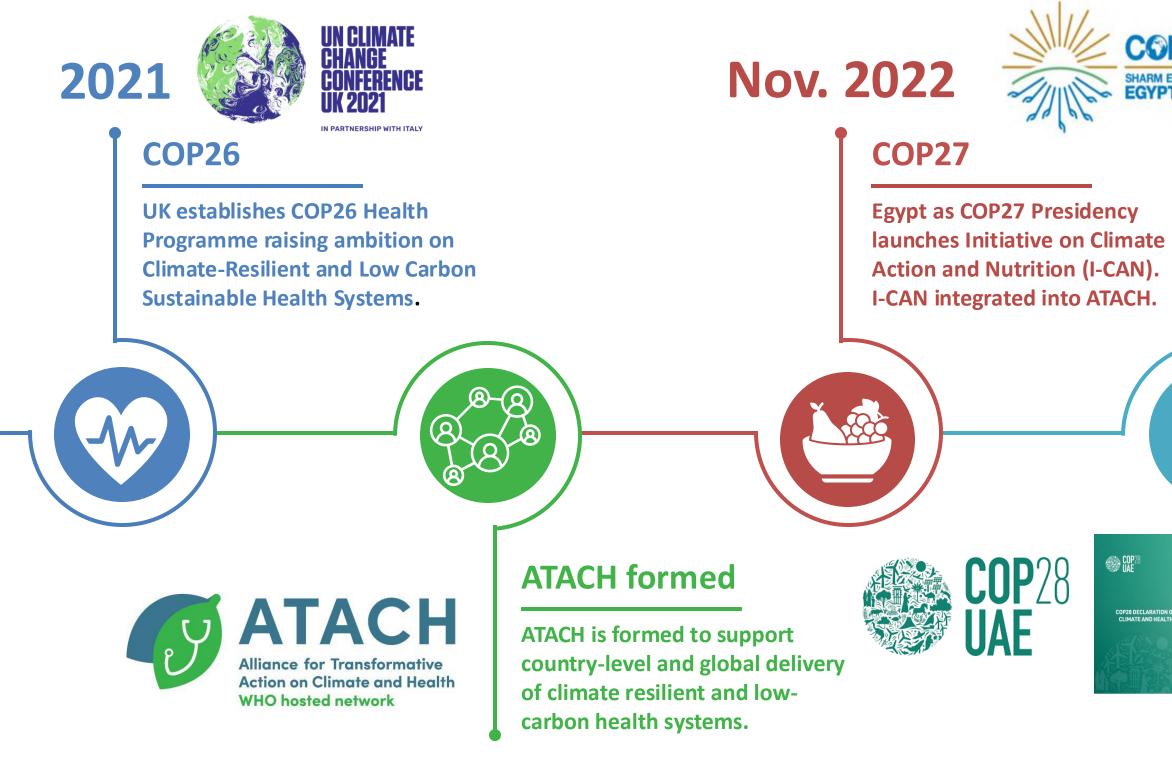






JOINT OFFICE FOR CLIMATE AND HEALTH

## Opportunities for *increased uptake of climate-informed health nexus* Evolution of ATACH with growing attention on CCH



**June 2022** 

at country level	84 Countries 70 Partners 5 Working Groups	
P27 RM EL-SHEIKH YPT 2022	WORLD HEALTH ASSEMBLY WHA 77	
te ). I.	77th World Health Assembly Climate change and health resolution (ATACH referenced)	
COP28		

COP28

2023

COP28 UAE Declaration on Climate Change and Health endorsed by 151 Member States. ATACH referenced in declaration as a key collaboration initiative.

## WHO's climate change and health work is highly relevant to the **Health Treats from Drought**





WHO's Operational framework for building climate resilient and low carbon health systems, as the umbrella for climate change and health actions. WHO's work includes all climate related hazards as well as all climate-related health outcomes. https://www.who.int/publications/i/item/9789240081888



# Thank you!