# Tackling the double public health crisis: COVID-19 and Climate Change

Climate Alliance Digital Days 2020

Dr Alice McGushin | Programme Manager, the Lancet Countdown |
@LancetCountdown @AlMcGush

LANCET COUNTDOWN:
TRACKING PROGRESS ON
HEALTH AND CLIMATE CHANGE

# LANCET COUNTDOWN: TRACKING PROGRESS ON HEALTH AND CLIMATE CHANGE

# Lancet Countdown Partners

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UCL

Iran University of Medical Sciences

Universidad Peruana Cayetano Heredia
Facultad de Salud Pública y Administración

清華大學 Tsinghua University

University of Reading

Umeå Universitet

Iranian Fisheries Research Organization

The University of Sydney

Imperial College London

International Institute for Applied Systems Analysis
IIASA

ILRI
International Livestock Research Institute

University of Sussex

Grantham Institute
Climate Change and the Environment
An institute of Imperial College London

University of York

ecdc
European Centre for Disease Prevention and Control

University of Exeter

Yale

University of Birmingham

Université de Genève

Sustainable Development Unit

European Centre for Environment & Human Health

University of Washington

Centre Virchow-Villermé

University of Colorado Boulder

Universiti Teknologi MARA

London School of Hygiene & Tropical Medicine

INDEPTH

World Meteorological Organization

World Health Organization

World Bank Group

United Nations University
UNU-EHS

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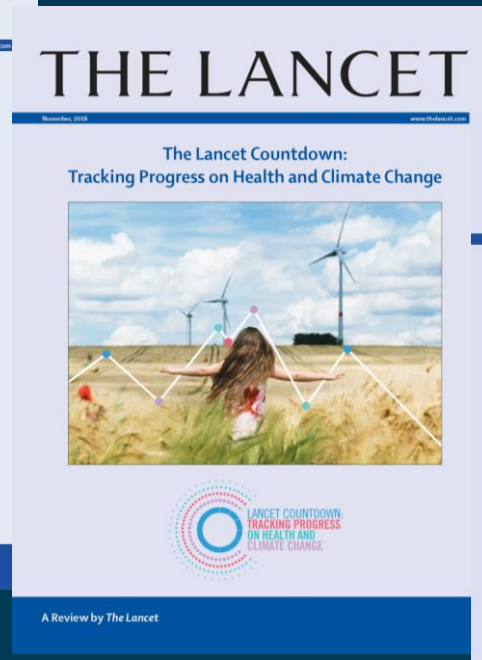
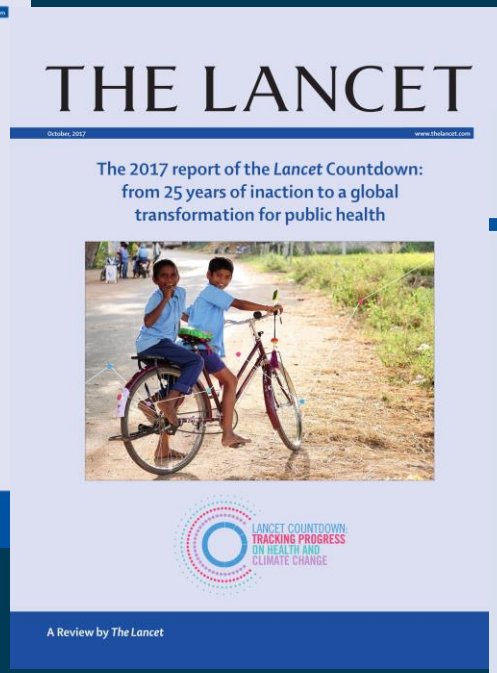
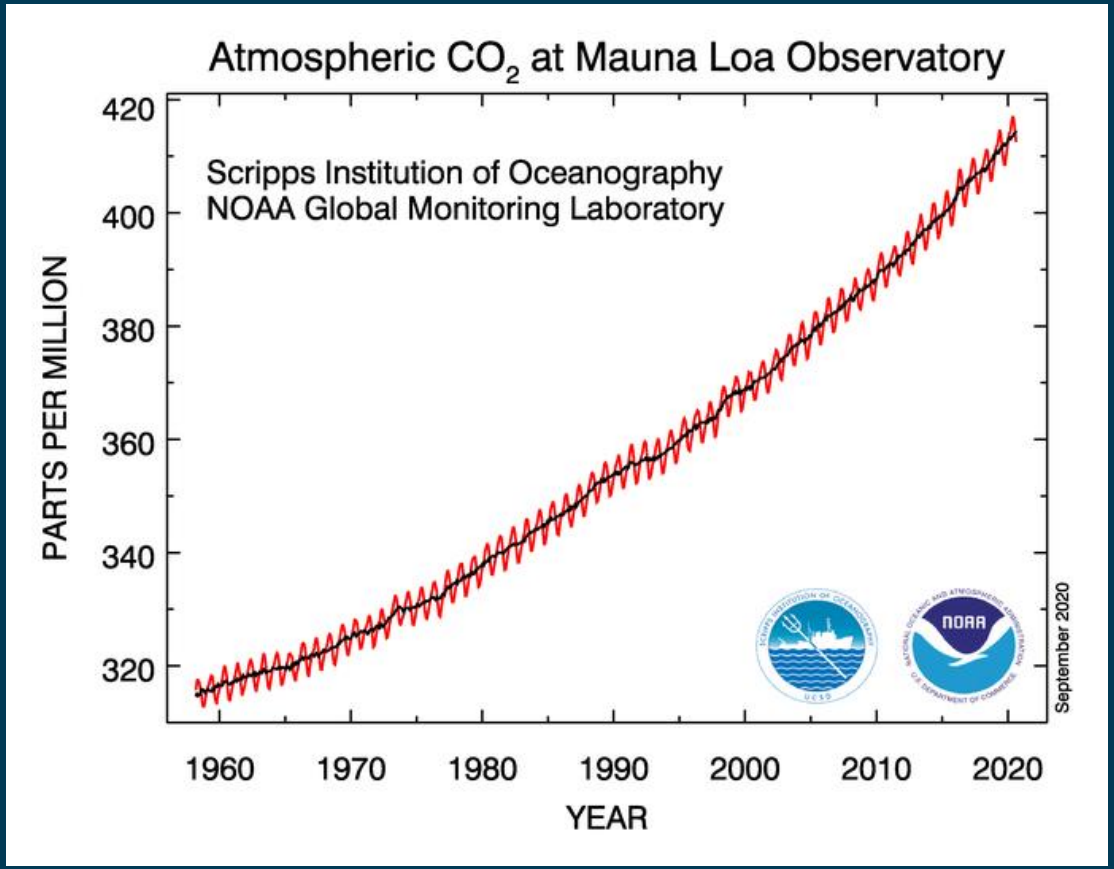
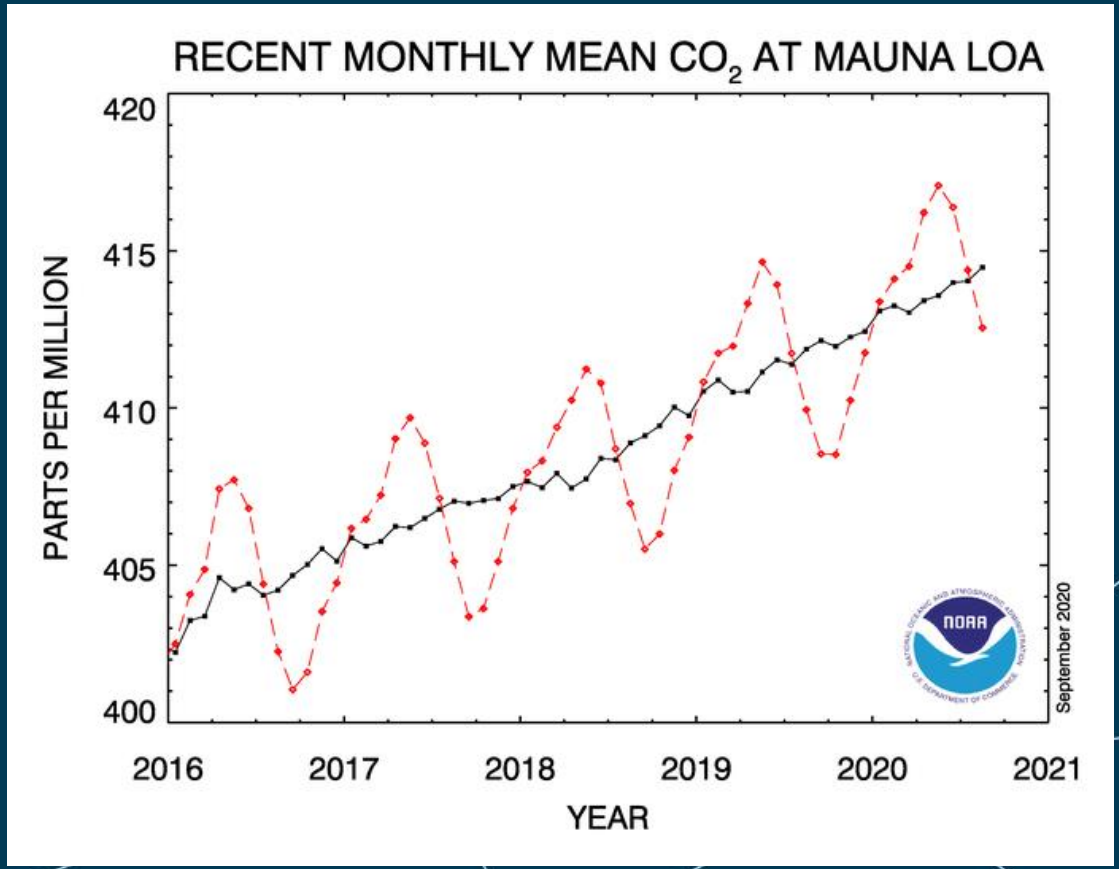


# $CO_2$ concentrations are rising




NOAA 2020

# Temperatures are rising around the world

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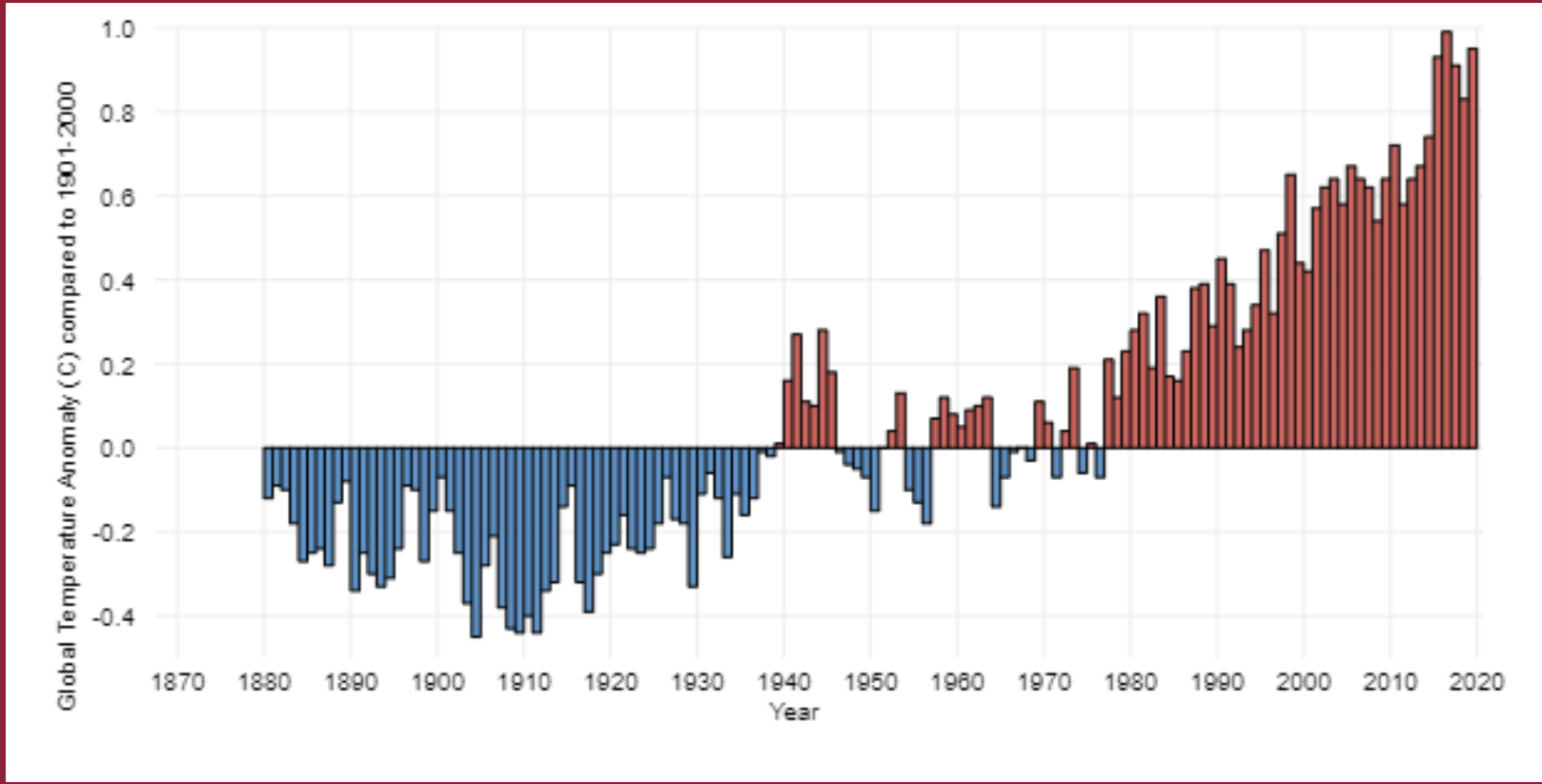


NOAA 2020

# Climate Change Impacts, Exposures & Vulnerability

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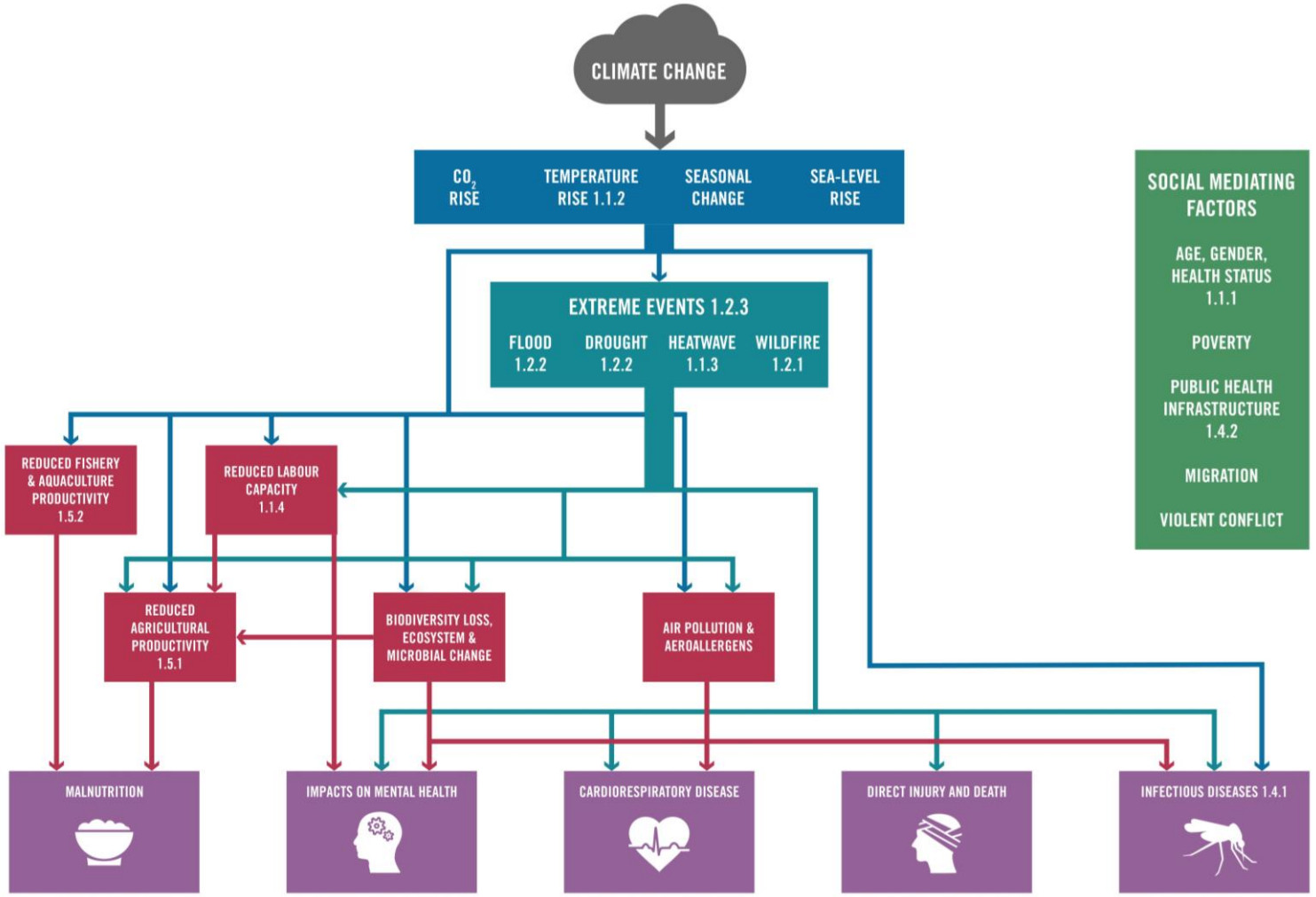


**1.1 – Heat and Health**: Vulnerability to Extremes of Heat; Exposure to Heatwaves; Heat-related Mortality; Change in Labour Capacity

**1.2 – Health and Extreme Weather Events**: Wildfires; Flood and Drought; Lethality of Weather-Related disasters

**1.3 – Climate-Sensitive Infectious Diseases**: Suitability for Transmission; Vulnerability

**1.4 – Food Security and Undernutrition**: Terrestrial Food; Marine Food

**1.5 – Migration, Displacement and Sea Level Rise**

# 1.1.3: Exposure of Vulnerable Populations to Heatwaves

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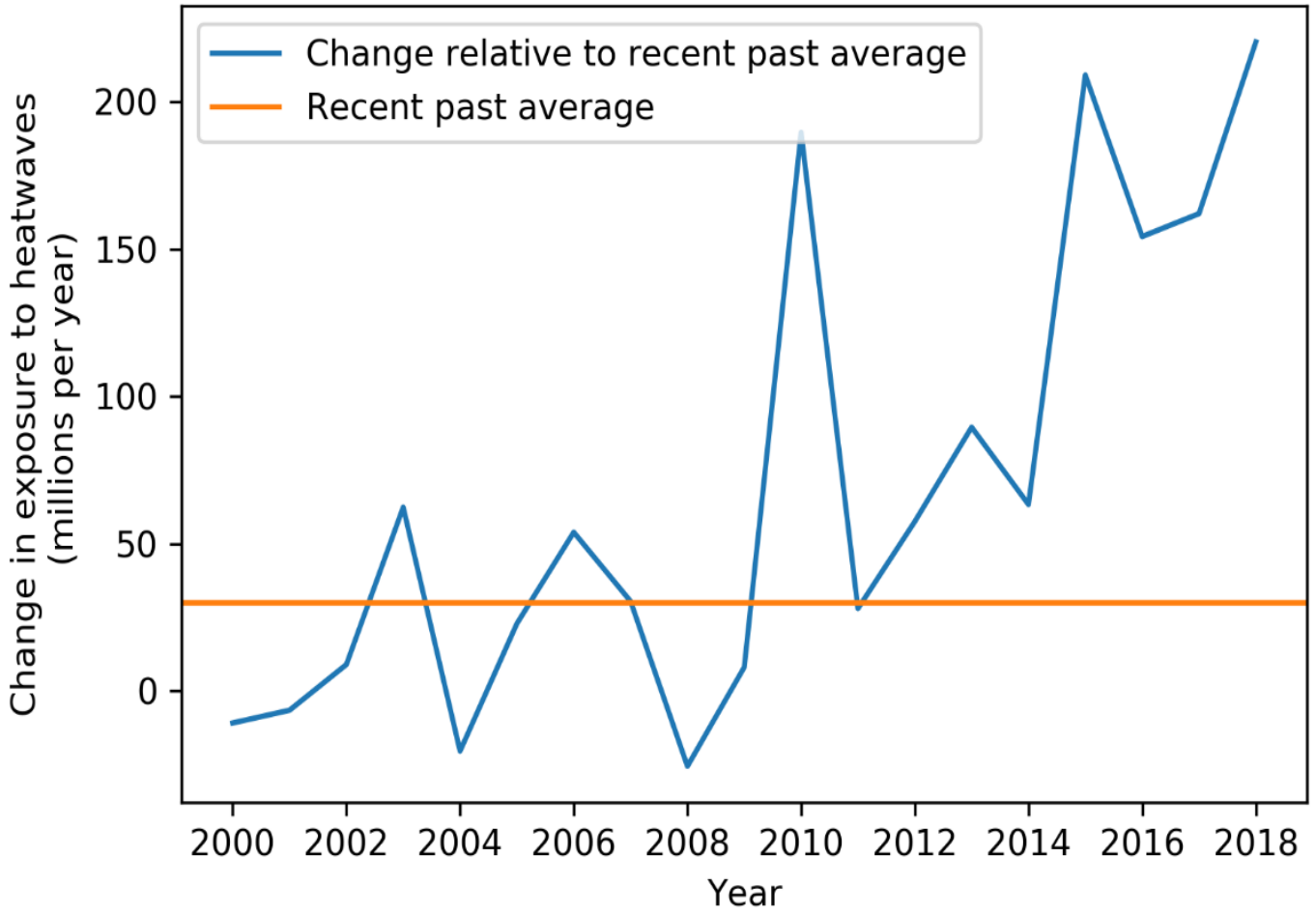
**Headline Finding:**

2018 saw 220 million additional vulnerable people exposed to heatwaves – 11 million more than the previous record set in 2015, increasing risk of heat stress, heart disease, and kidney disease.



# 1.4.1: Climate Suitability for Infectious Disease Transmission

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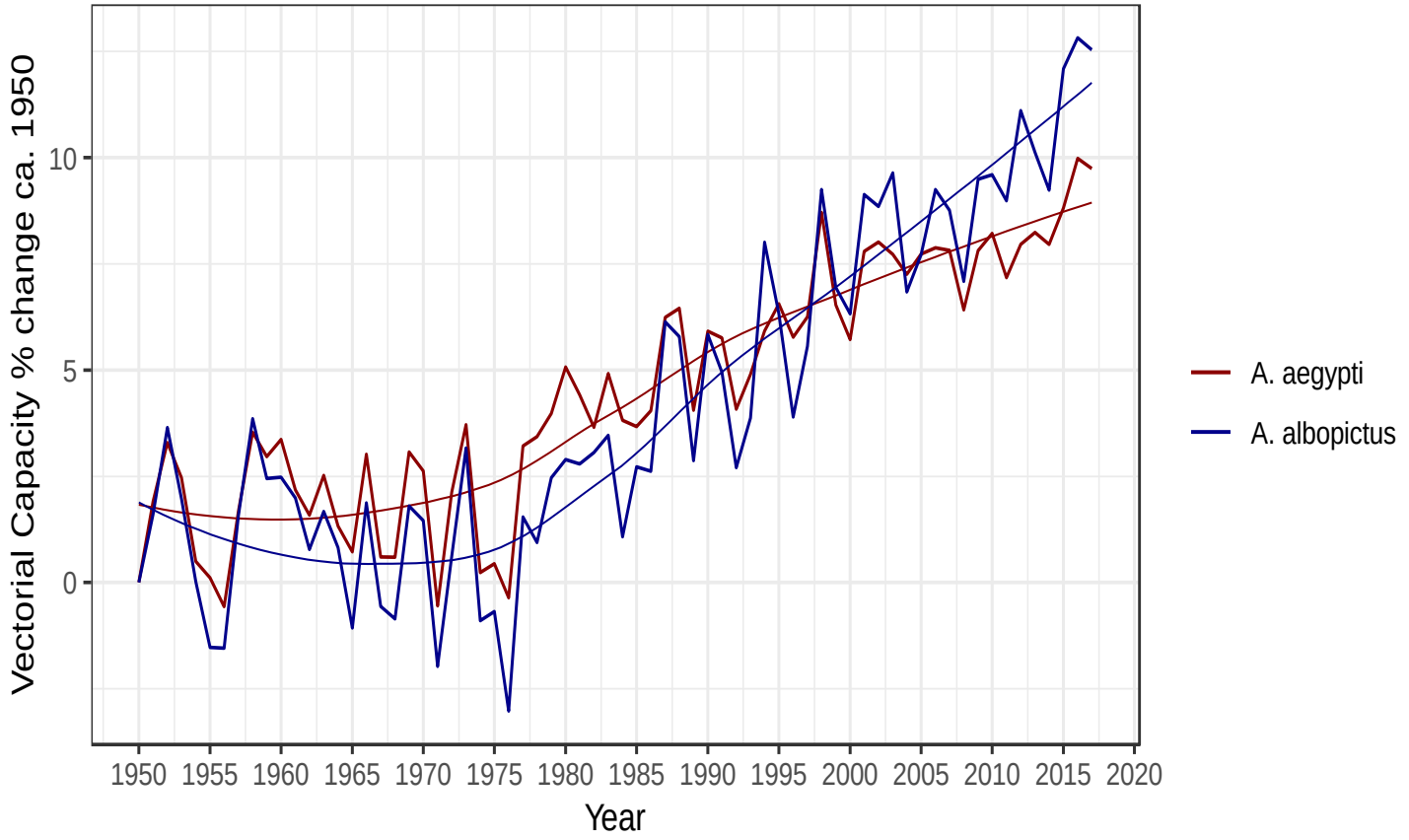
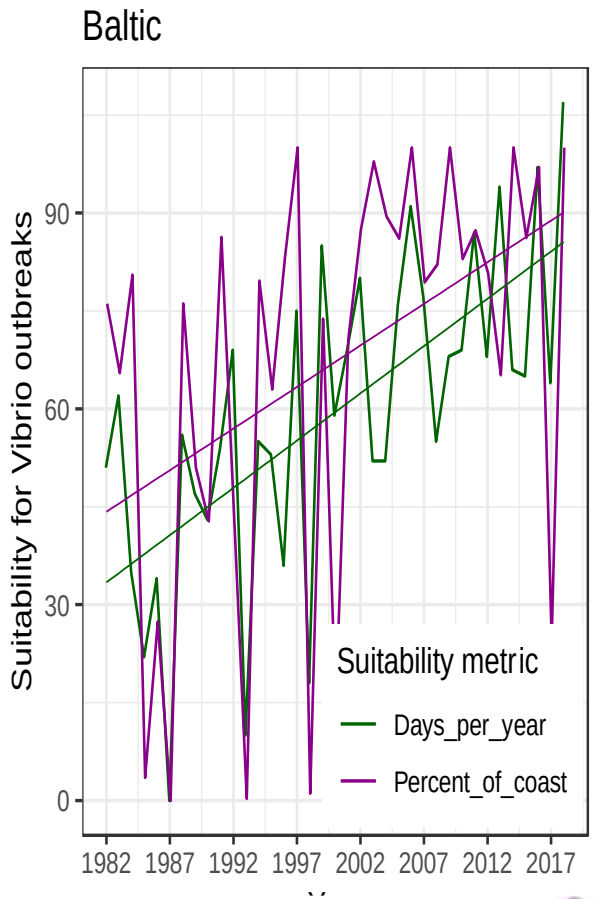
**Headline Finding:**

Vectorial capacity for the transmission of dengue was the 2nd highest on record in 2017, with 9 of the 10 most suitable years occurring since 2000.

The global average increase above the 1950s baseline was 7.2% for Aedes aegypti and 9.8% for A. albopictus.



# 1.4.1: Climate Suitability for Infectious Disease Transmission




## Headline Finding:

The percentage of coastal area suitable for *Vibrio* infections has increased by 31% along the Baltic coastline since the 1980s.

The number of suitable days per year in the Baltic for *Vibrio* infections reached 107 in 2018, the highest since records began.

# Climate change, health and COVID-19

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**OUTCOME STATEMENT**

## VIRTUAL SYMPOSIUM ON CLIMATOLOGICAL, METEOROLOGICAL AND ENVIRONMENTAL (CME) FACTORS IN THE COVID-19 PANDEMIC

August 4-6, 2020

**1. Current peer-reviewed publications on the SARS-CoV-2 virus and the COVID-19 disease do not show a robust and consistent response to temperature, humidity, wind, solar radiation, nor other proposed meteorological and environmental drivers.**

**4. COVID-19 exemplifies the importance to recognize human-environment interactions and disease prevention.**

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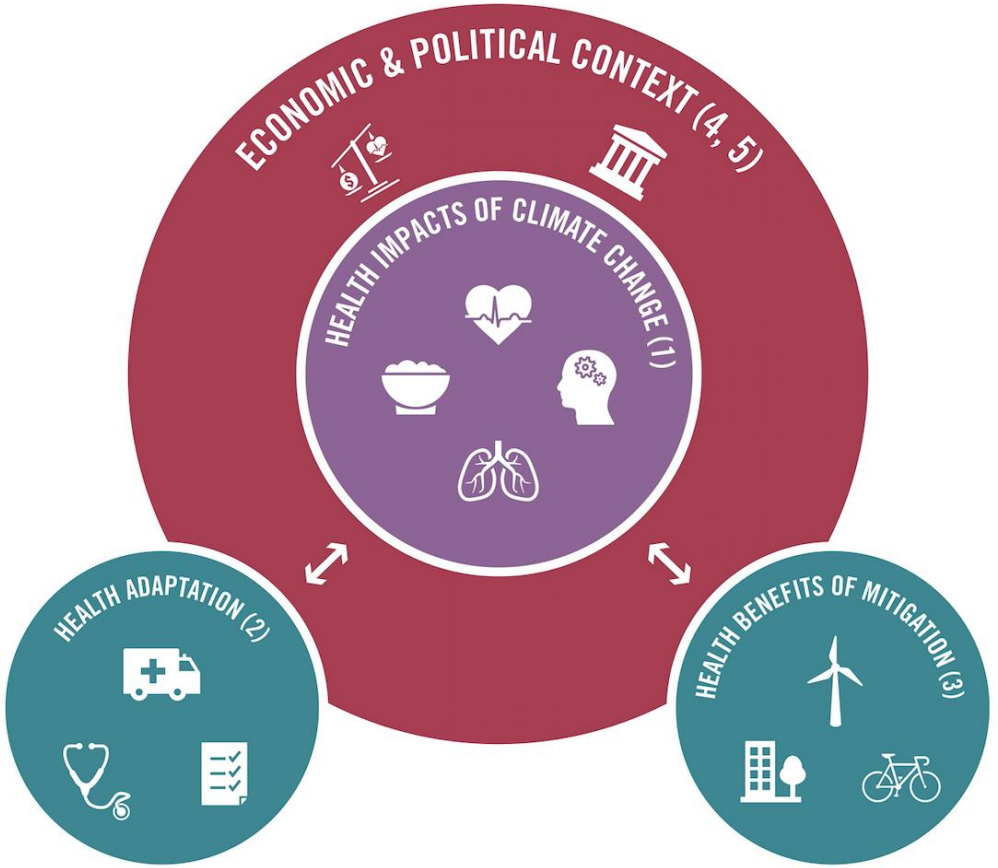
# Climate change, health and COVID-19

Compounding effects:

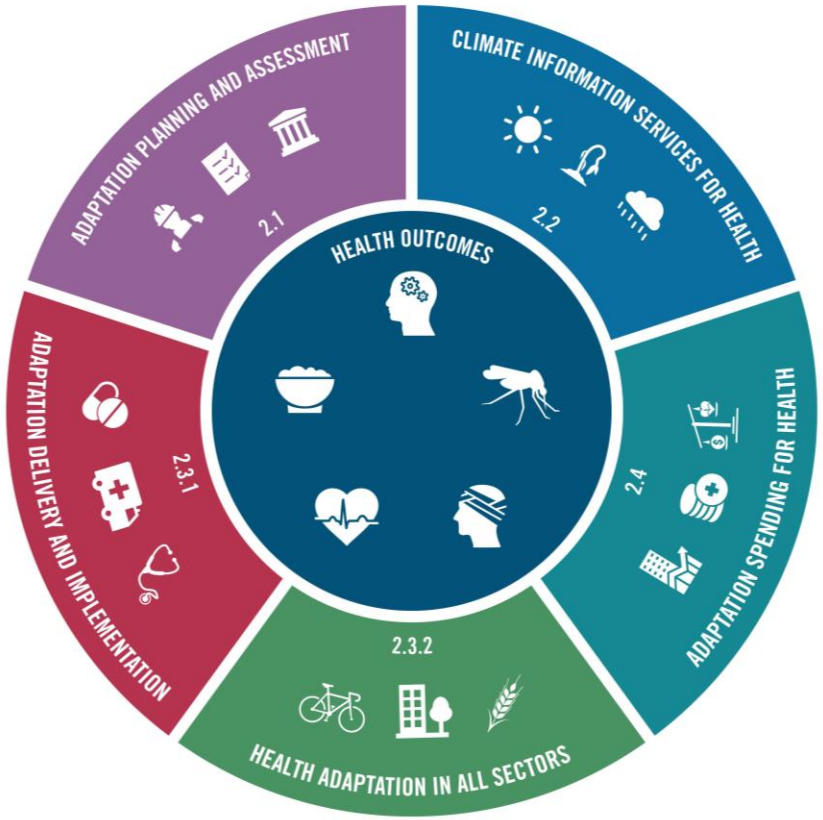
- Extreme weather events
- Climate-sensitive infectious diseases
- Food security and undernutrition

Overlapping vulnerabilities

# The Five Working Groups of the Lancet Countdown



# Adaptation, Planning & Resilience for Health



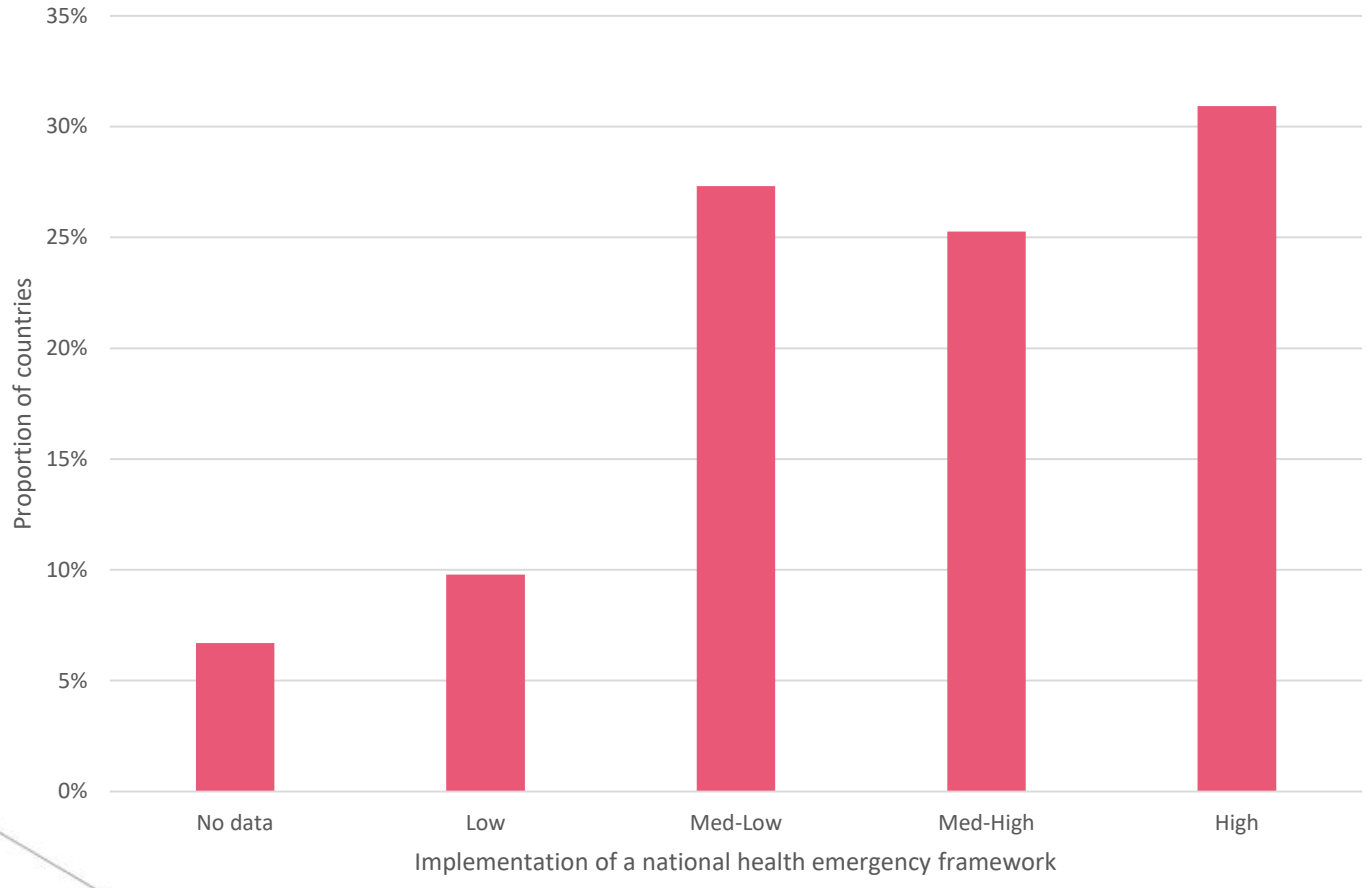

**2.1 – Adaptation Planning and Assessment:** National Adaptation Plans and Assessments for Health; City-Level Climate Change Risk Assessments

**2.2 – Climate Information Services for Health**

**2.3 – Adaptation Delivery and Implementation:** Detection, Preparedness and Response to Health Emergencies; Air Conditioning – Benefits and Harms; UrbanGreenspace

**2.4 – Adaptation Spending for Health**

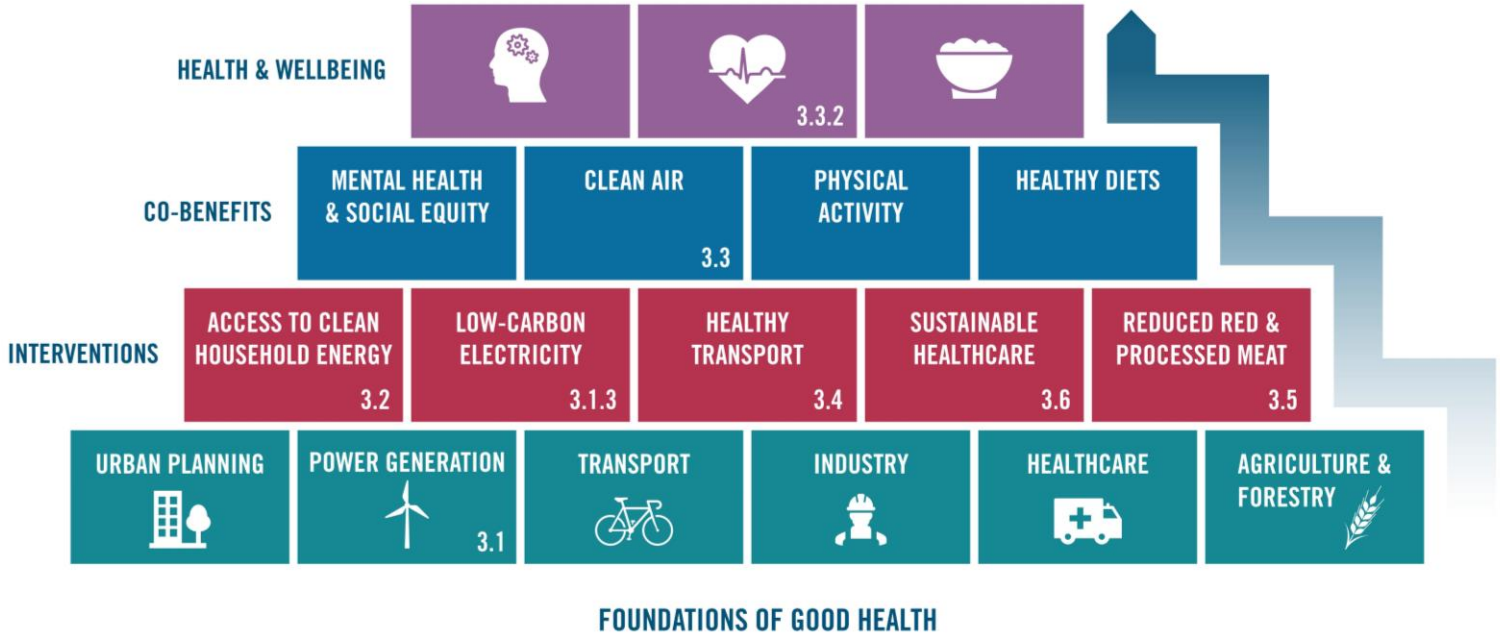
# 2.3.1: Detection, Preparedness and Response to Health Emergencies




## Headline Finding:

109 countries have medium to high implementation of their national health emergency framework – helping them respond to disease outbreaks, extreme temperatures, droughts, floods and storms.

# Mitigation Actions & Health Co-Benefits




**3.1 – Power Generation:** Carbon Intensity of the Energy System; Coal Phase-Out; Zero-Carbon Emission Electricity

**3.2 – Access and Use of Clean Energy**

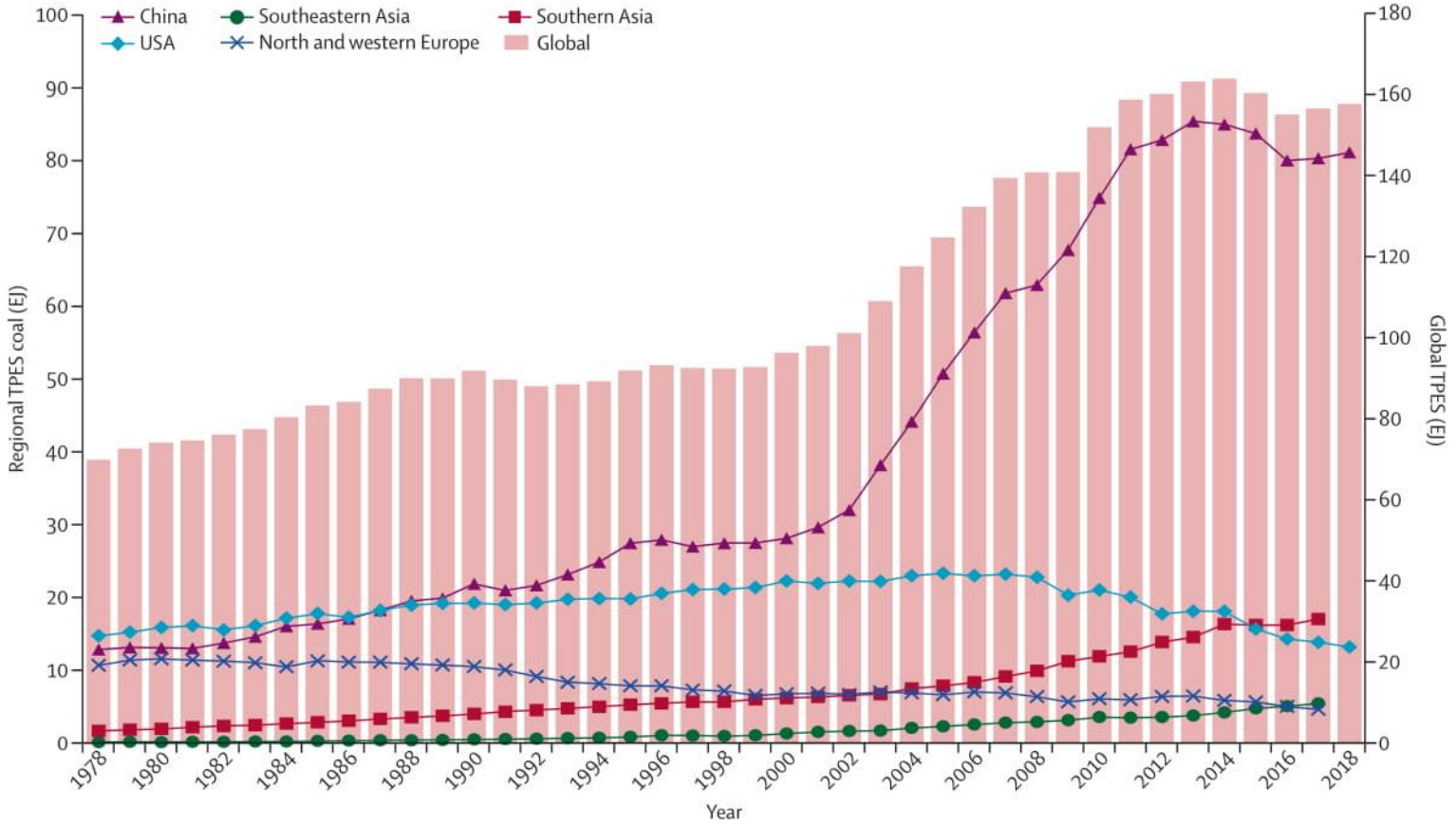
**3.3 – Clean Air:** Air Pollution in Cities; Premature Mortality from Ambient Air Pollution by Sector

**3.4 – Sustainable and Healthy Transport**

**3.5 – Food, Agriculture, and Health**

**3.6 – Mitigation in the Healthcare Sector**

# 3.1.2: Coal Phase-Out




## Headline Finding:

Between 2016 and 2018 total primary energy supply from coal increased by 1.7%, reversing the previous downward trend, and threatening people's health through worsening air pollution.

# 3.1.3: Zero-Carbon Emission Electricity

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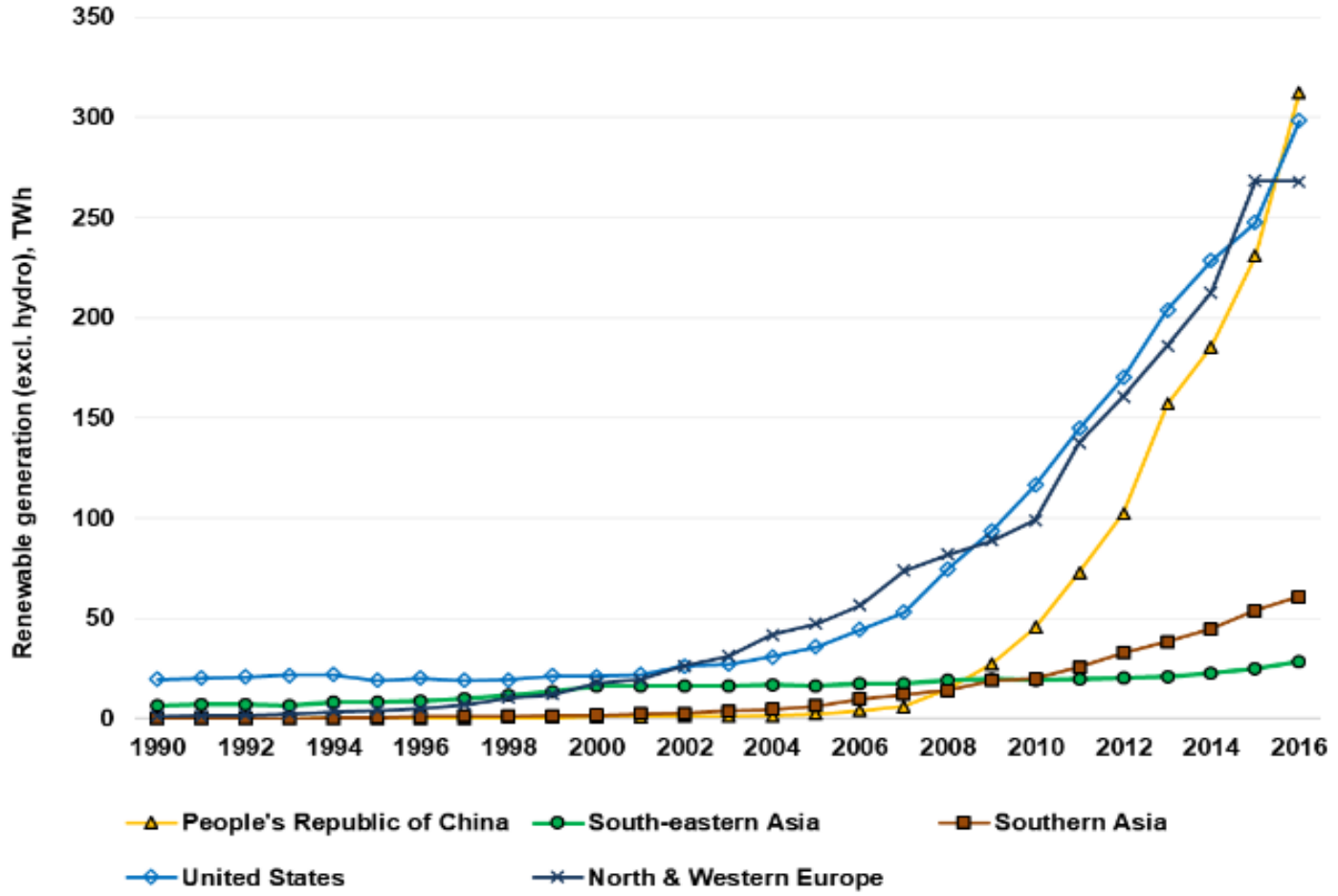
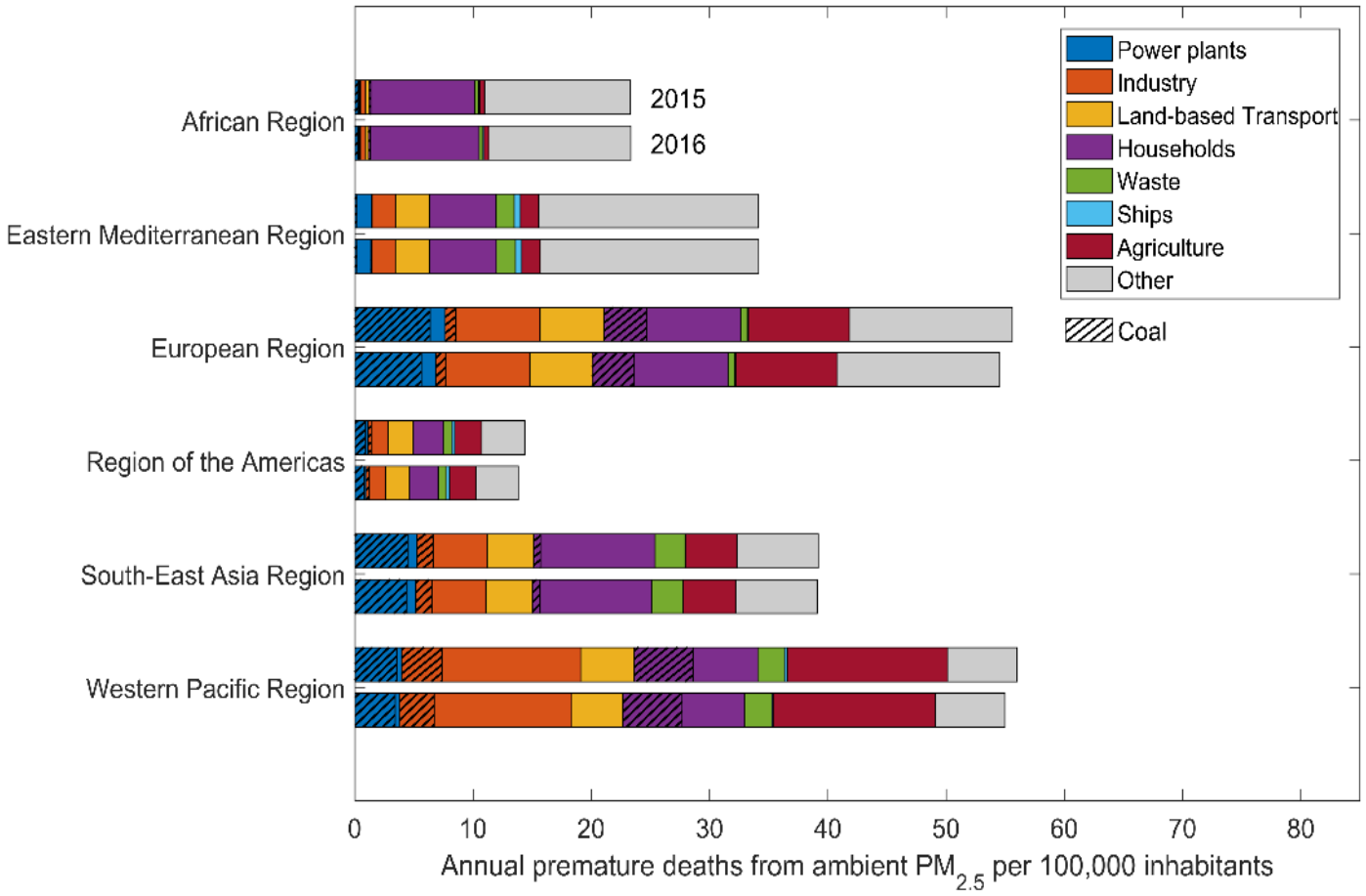
## Headline Finding:

In 2018, renewable energy accounted for 45% of growth in electricity generation, with 27% of growth coming from wind and solar.



# 3.3.2: Premature Mortality from Ambient Air Pollution by Sector

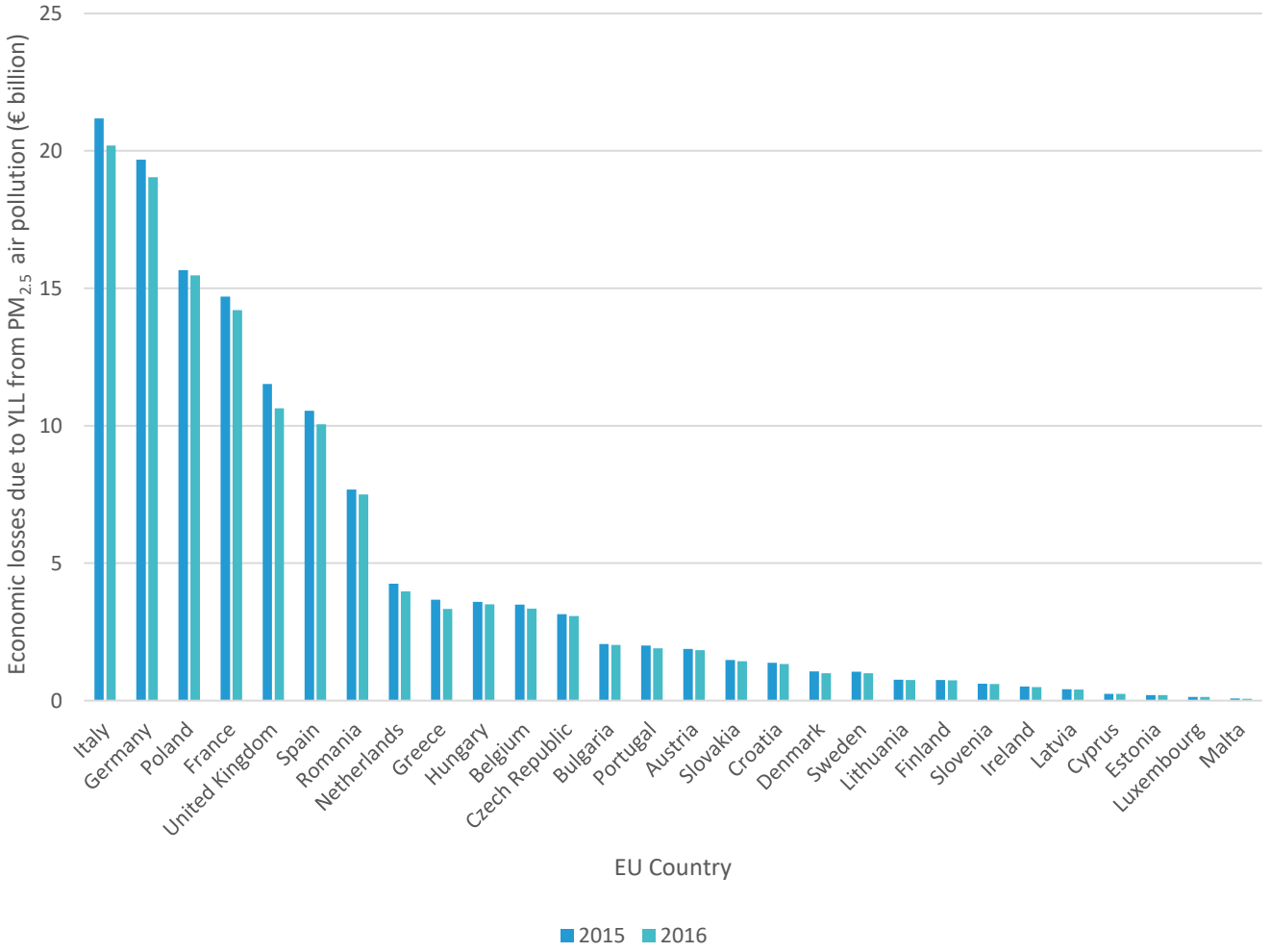



**Headline Finding:**

In 2016 there were 2.9 million premature deaths due to ambient $PM_{2.5}$ pollution, with global mortality remaining stagnant.

More than 440,000 premature deaths are estimated to be related to coal burning.

# 4.2: Economic Costs of Air Pollution




## Headline Finding:

In Europe improvements in particulate air pollution from human activity were seen from 2015 to 2016.

Sustaining this progress into the future would lead to an annual saving of €5.2 billion from reductions in Years of Life Lost across the EU.

# COVID-19 and a healthy recovery

ACCEPTED MANUSCRIPT

## Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change? FREE

Cameron Hepburn ✉, Brian O'Callaghan, Nicholas Stern, Joseph Stiglitz, Dimitri Zenghelis

*Oxford Review of Economic Policy*, graa015, https://doi.org/10.1093/oxrep/graa015
**Published:** 08 May 2020

May 8, 2020, 06:00am EDT

## Green Deal Is The 'Motor For The Recovery' For Europe

**Suzy Taherian** Contributor ⓘ
CFO Network
*I write about topics that concern CEOs, CFOs, and boards.*

The European Commission President Ursula von der Leyen stated last week that the European Green Deal "will be our motor for the recovery." The Green Deal proposes to ensure a climate neutral Europe by 2050 with investments of over €1 trillion ($1.1 trillion) over 10 years in a variety of areas including renewable energy production, recycling, biodiversity, building renovation, agriculture, transportation, economic support for transition in areas dependent on fossil economy, and research & development.

## Government to use $52.9m funding to unlock more gas for domestic market

**Scott Morrison is championing a 'gas-led recovery' from economic shock of pandemic as booming LNG industry leads to increasing emissions**

▲ The Morrison government will negotiate with LNG exporters to try and ensure there is adequate supply for the domestic market without a formal gas reservation scheme – although that isn't off the table. Photograph: Nail Fattakhov/TASS

## South Korea Embraces EU-Style Green Deal For COVID-19 Recovery

**David Vetter** Senior Contributor ⓘ
Energy
*I cover green energy and sustainability*

SEOUL, SOUTH KOREA - APRIL 15: A South Korean voter casts her vote in a polling station during the ... [+] GETTY IMAGES

South Korea's Democratic party has won a landslide victory in elections that took place yesterday, achieving a strong mandate for a European-style Green New Deal, making it the nation first in east Asia to enact a pledge to reach net zero emissions by 2050.

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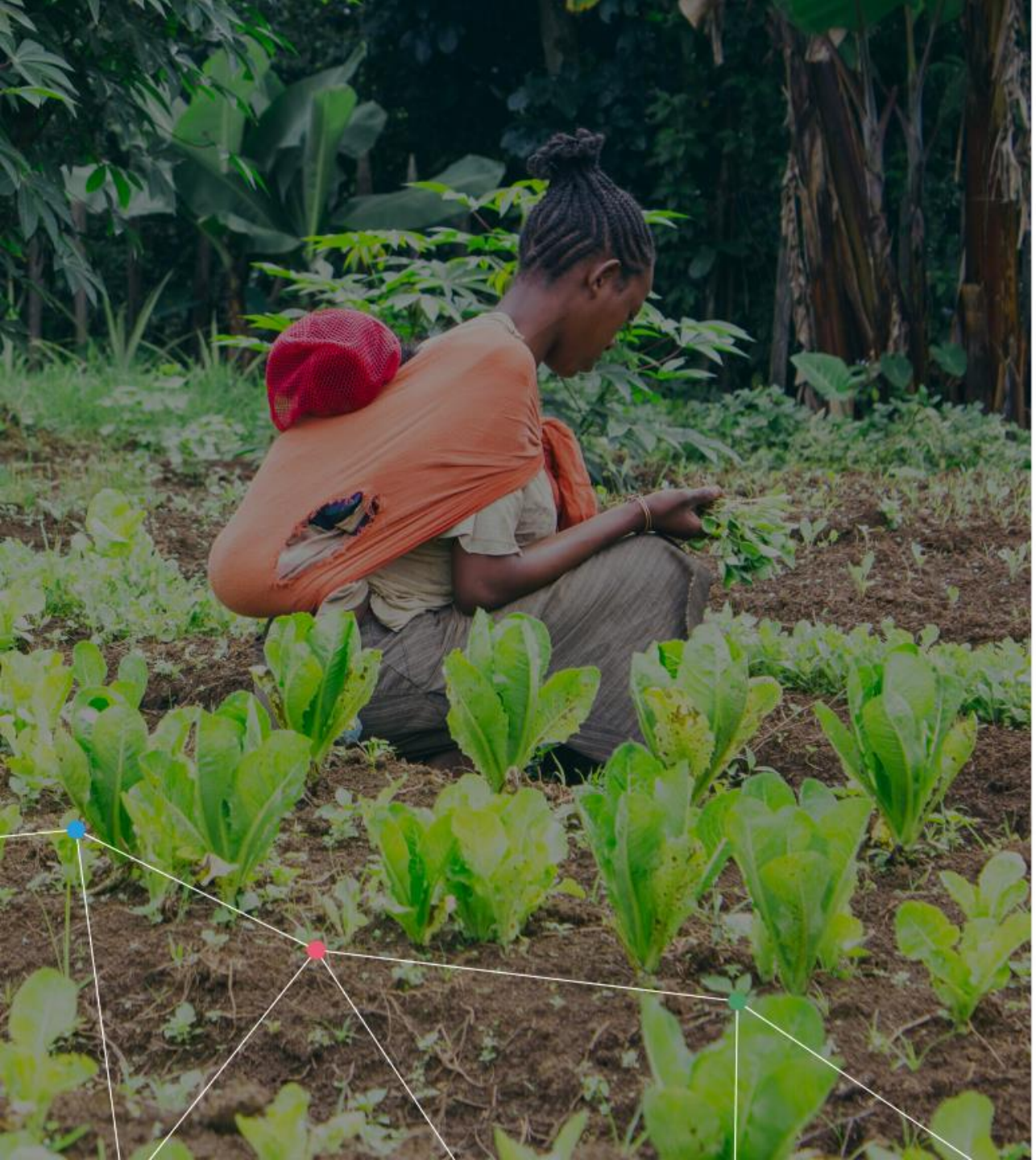
# The 2020 Report

Report published by The Lancet 2nd December 23:30 GMT

Global launch event 3rd December 14:00-16:00 GMT

All data available at a national and regional level at https://www.lancetcountdown.org/data-platform/



# Thank you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wellcome

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