

THE 2019 REPORT OF THE LANCET COUNTDOWN ON HEALTH AND CLIMATE CHANGE

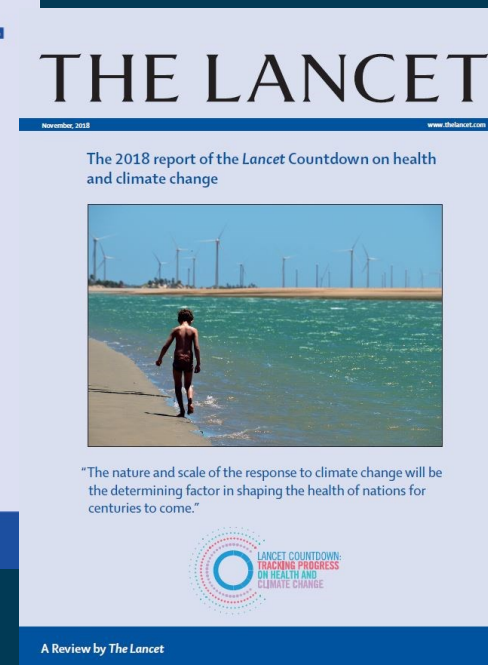
*“Ensuring that the health of a child born today
is not defined by a changing climate”*

KLIMAT OCH OHÄLSA // 6 DECEMBER 2019

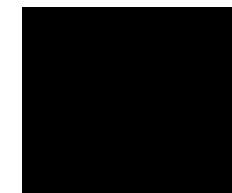
Joacim Rocklöv | Professor @LancetCountdown



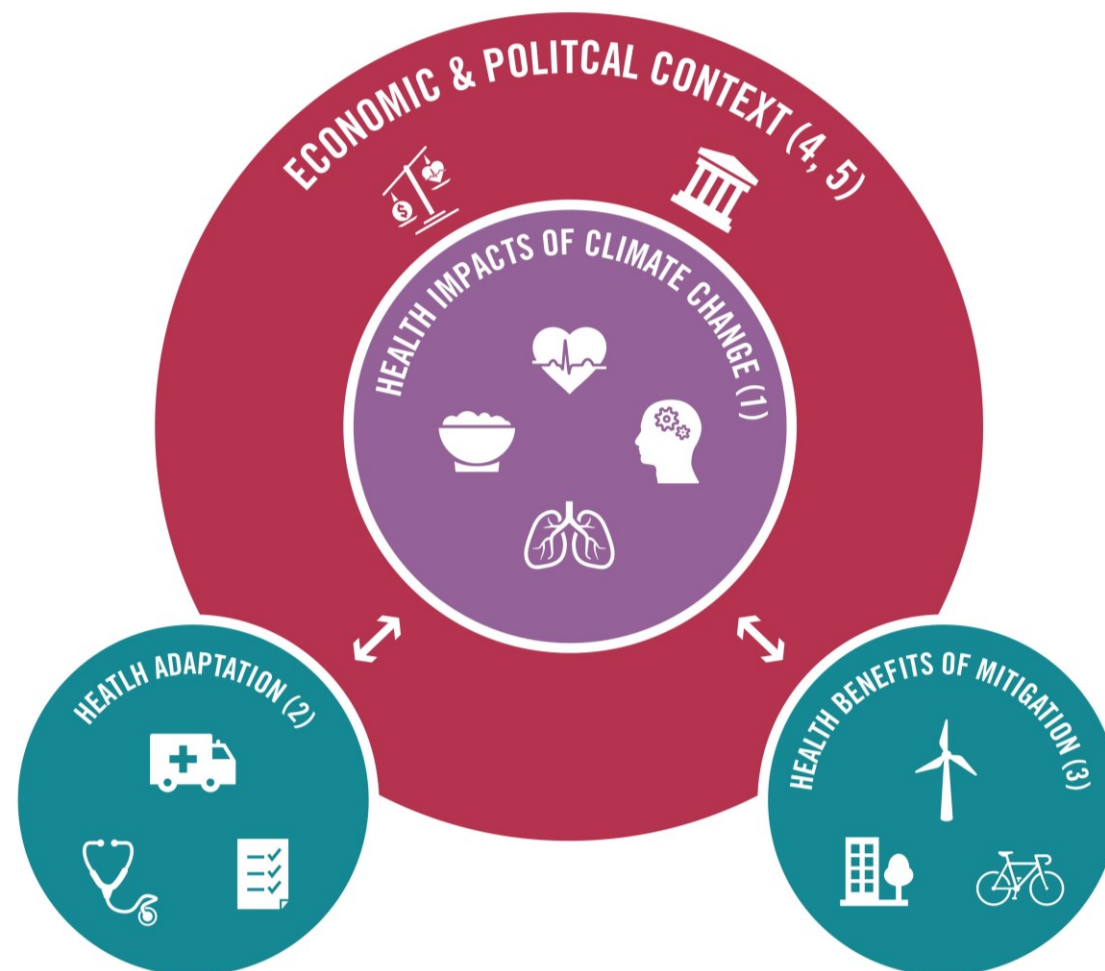
Health, Climate Change & The Lancet



Lancet Countdown Partners



The Five Working Groups of the Lancet Countdown



2019 Indicators

Section	Indicator
Climate Change Impacts, Exposures and Vulnerability	1.1.1: Vulnerability to extremes of heat
	1.1.2: Health and exposure to warming
	1.1.3: Exposure of vulnerable populations to heatwaves
	1.1.4: Change in labour capacity
	1.2.1: Wildfires
	1.2.2: Flood and drought
	1.2.3: Lethality of weather-related disasters
	1.3: Global health trends in climate-sensitive diseases
	1.4.1: Climate suitability for infectious disease transmission
	1.4.2: Vulnerability to mosquito-borne diseases
	1.5.1: Terrestrial food security and undernutrition
	1.5.2: Marine food security and undernutrition
Adaptation, Planning, and Resilience for Health	2.1.1: National adaptation plans for health
	2.1.2: National assessments of climate change impacts, vulnerability, and adaptation for health
	2.1.3: City-level climate change risk assessments
	2.2: Climate information services for health
	2.3.1: Detection, preparedness and response to health emergencies
	2.3.2: Air conditioning – benefits and harms
	2.4: Spending on adaptation for health and health-related activities

2019 Indicators



Section	Indicator
Mitigation Actions and Health Co-Benefits	3.1.1: Carbon intensity of the energy system
	3.1.2: Coal phase-out
	3.1.3: Zero-carbon emission electricity
	3.2: Access and use of clean energy
	3.3.1: Exposure to air pollution in cities
	3.3.2: Premature mortality from ambient air pollution by sector
	3.4: Sustainable and healthy transport
	3.5: Food, agriculture, and health
Economics and Finance	3.6: Mitigation in the healthcare sector
	4.1: Economic losses due to climate-related extreme events
	4.2: Economic costs of air pollution
	4.3.1: Investment in new coal capacity
	4.3.2: Investments in zero-carbon energy and energy efficiency
	4.3.3: Employment in low-carbon and high-carbon industries
	4.3.4: Funds divested from fossil fuels
	4.4.1: Fossil fuel subsidies
Public and Political Engagement	4.4.2: Coverage and strength of carbon pricing
	5.1: Media coverage of health and climate change
	5.2: Individual engagement in health and climate change
	5.3: Engagement in health and climate change in the United Nations General Assembly
	5.4: Engagement in health and climate change in the corporate sector

Key Messages of the 2019 Report

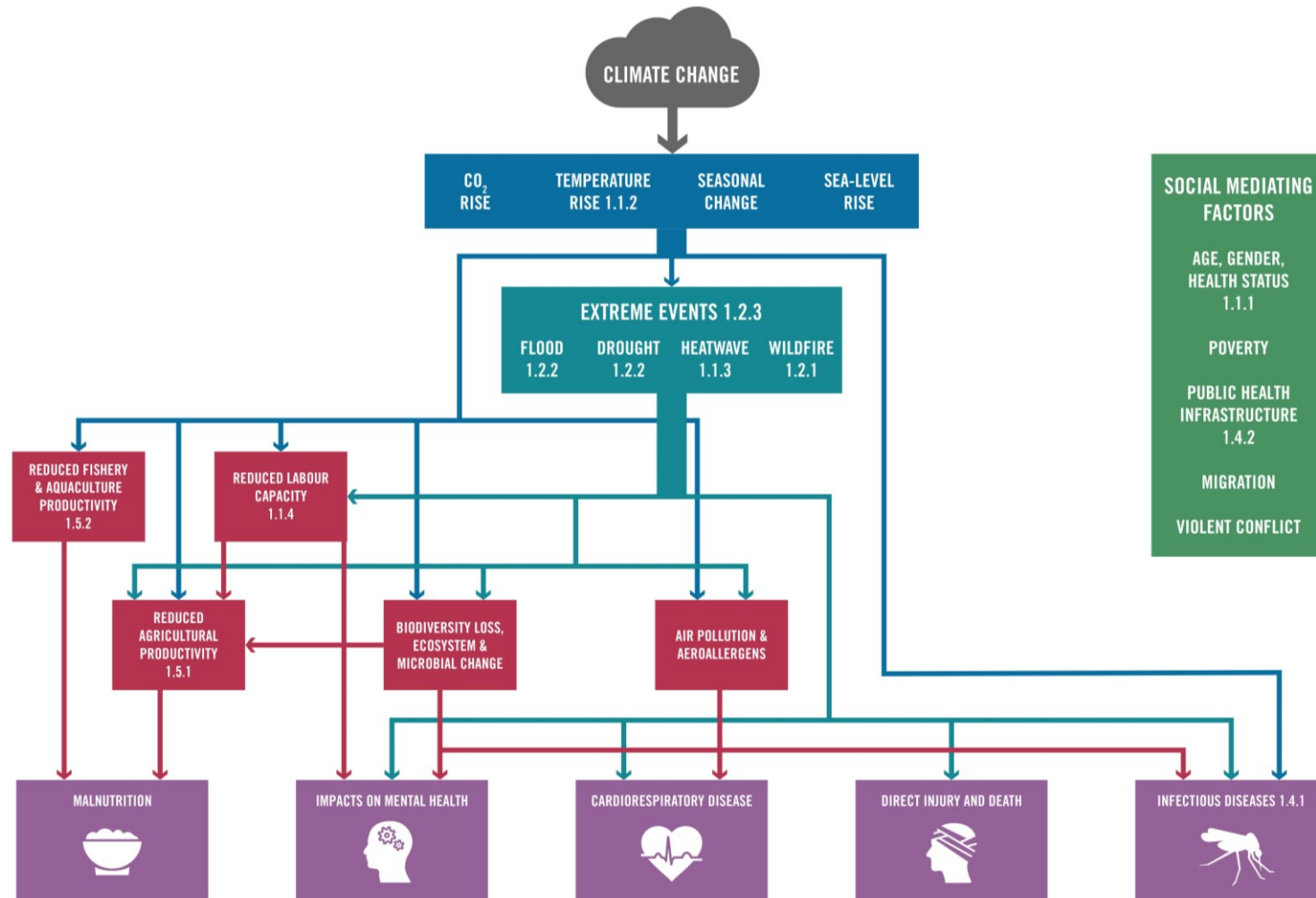
"The life of every child born today
will be profoundly affected by
climate change...

Without accelerated intervention,
this new era will come to define
the health of people at every stage
of their lives."





Climate Change Impacts, Exposures & Vulnerability



1.1 – Heat and Health: Vulnerability to Extremes of Heat; Exposure to Warming; Exposure of Heatwaves; Change in Labour Capacity

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

1.3 – Global Health Trends in Climate-Sensitive Diseases

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

1.5 – Food Security and Undernutrition: Terrestrial Food; Marine Food

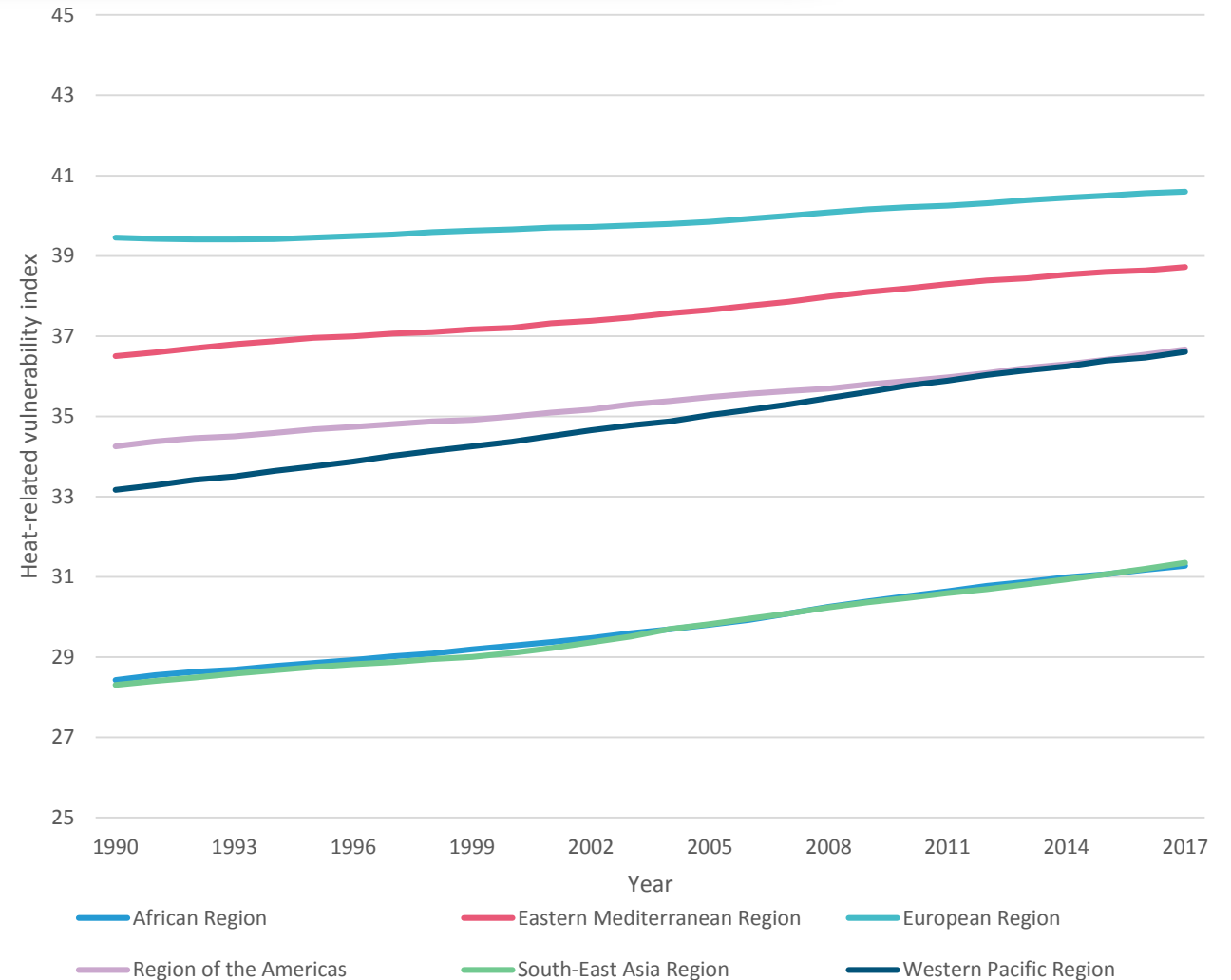


1.1.1: Vulnerability to Extremes of Heat

Headline Finding:

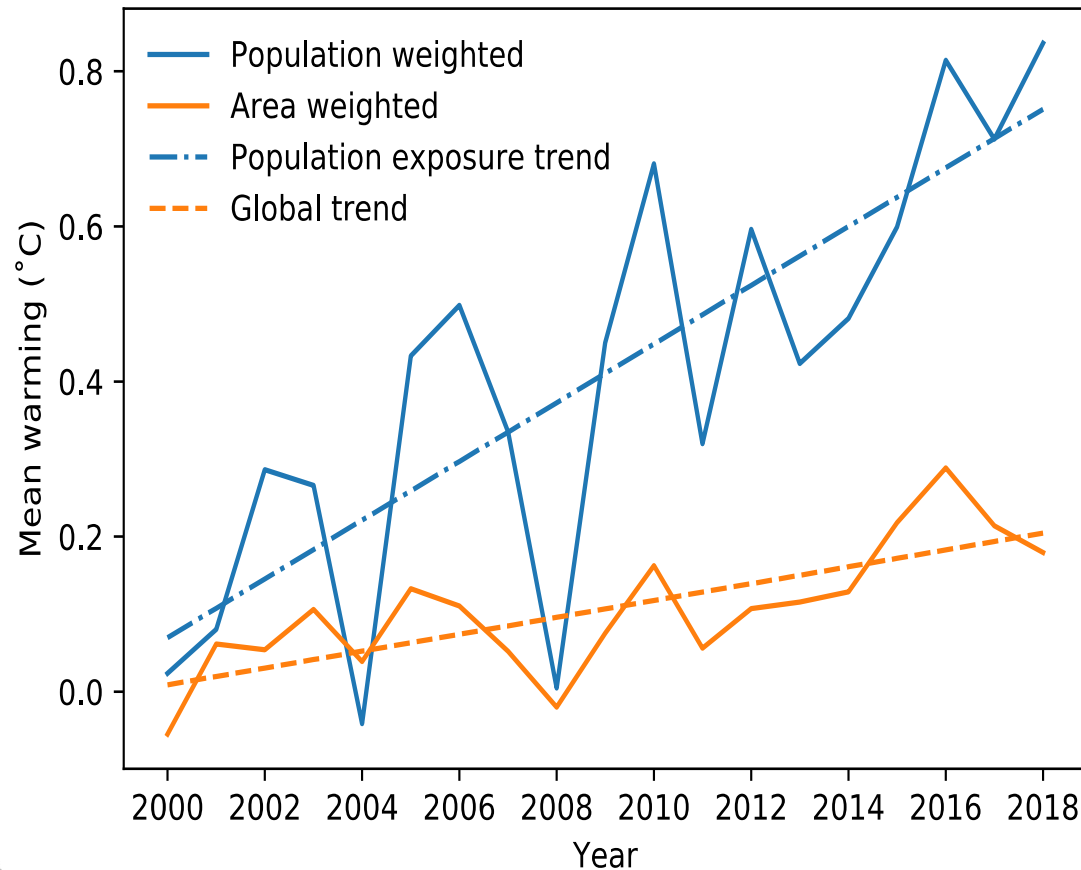
Populations in Europe and Eastern Mediterranean are the most vulnerable to the health effects of heat.

Importantly, the Western Pacific, South-East Asian and African Regions have all seen a dramatic increase in vulnerability of >10% since 1990.





1.1.2: Health and Exposure to Warming



Headline Finding:

Human populations are concentrated in the areas most exposed to warming.

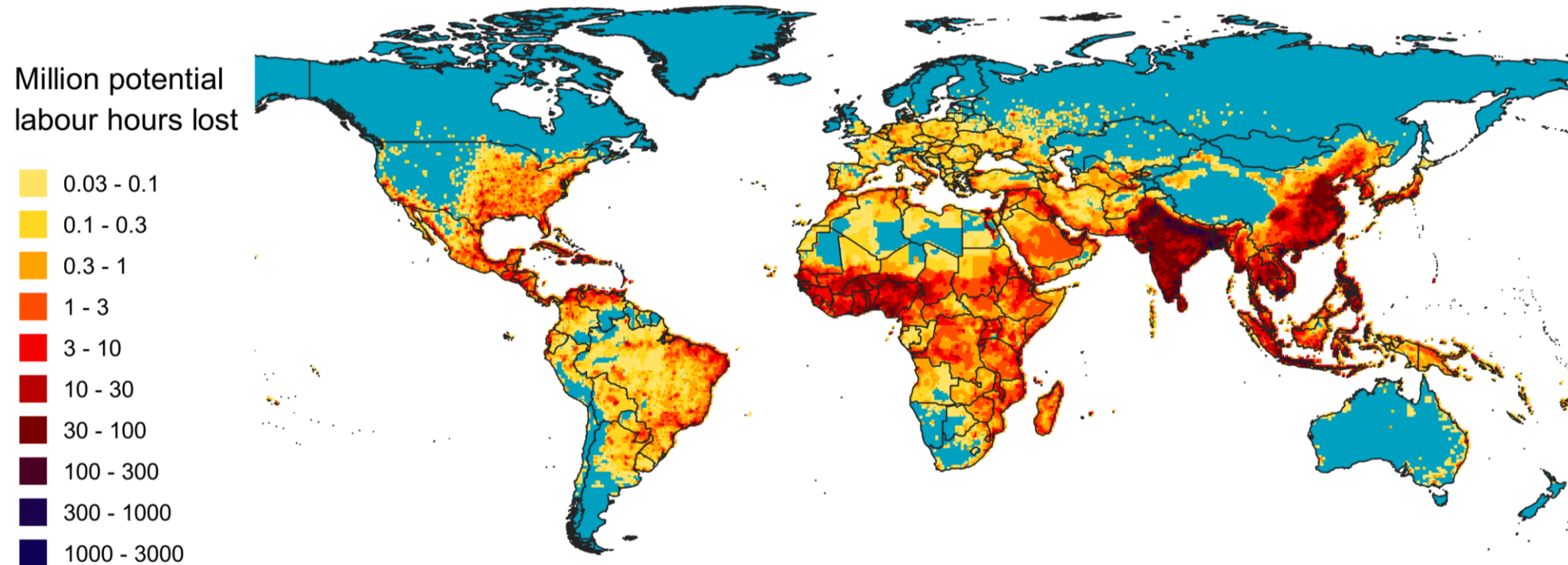
While the global average temperature rise from the 2000s to 2018 was 0.2°C, the global average population-weighted temperature rise was 0.8°C over the same period.



1.1.4: Change in Labour Capacity

Headline Finding:

In 2018, 133 billion of potential work hours were lost due to rising temperatures – 45 billion hours more than in 2000.

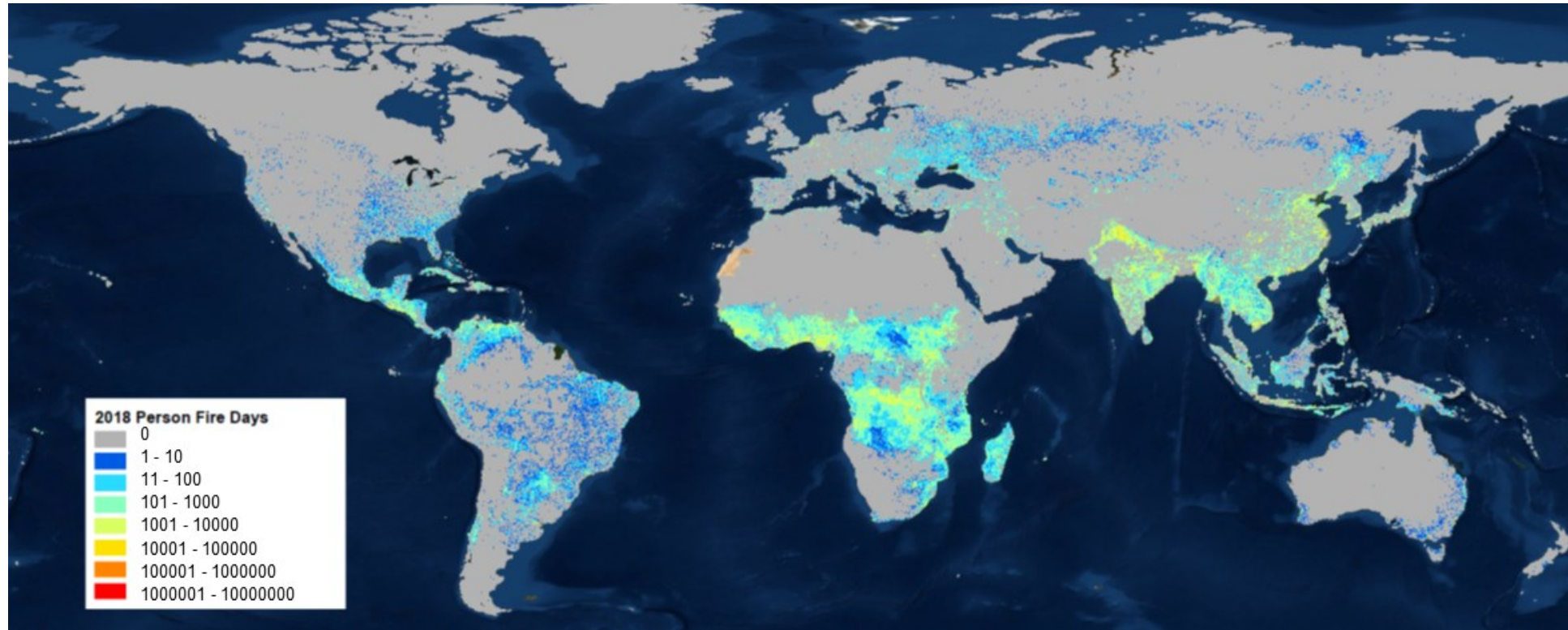




1.2.1: Wildfires

Headline Finding:

152 out of 196 countries saw increases in populations exposed to wildfires from the early 2000s to present day. India alone experienced an annual daily population fire exposure increase of 21 million.

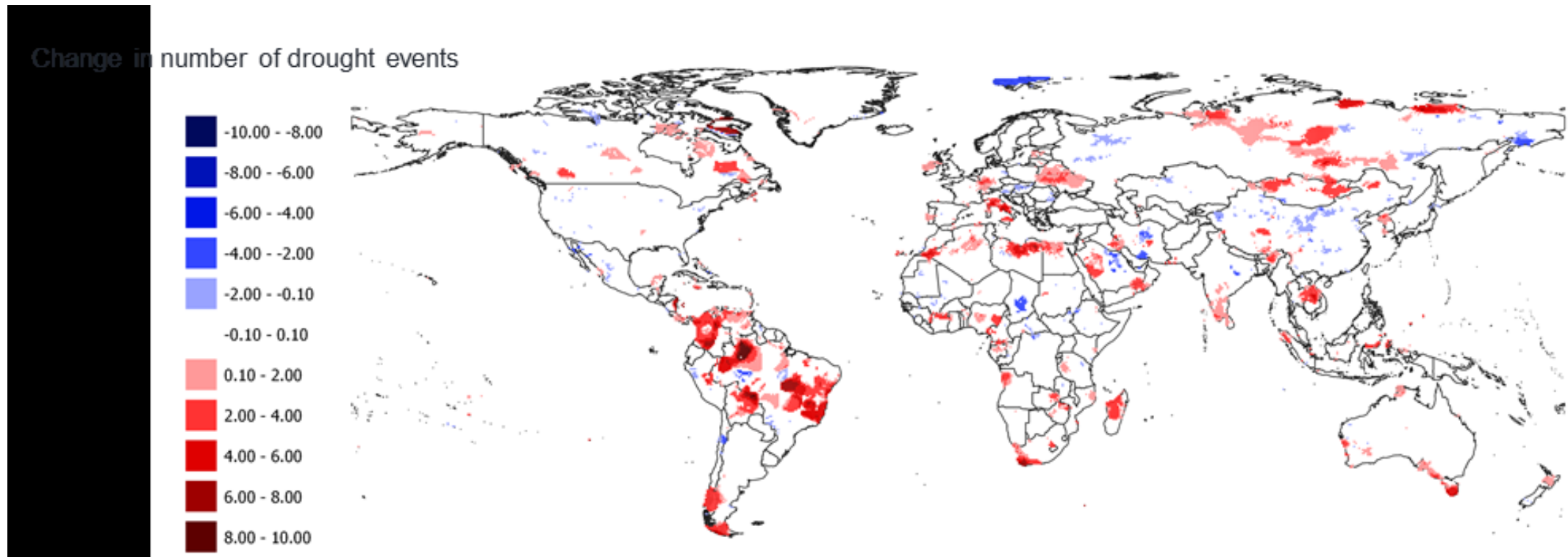




1.2.2: Flood and Drought

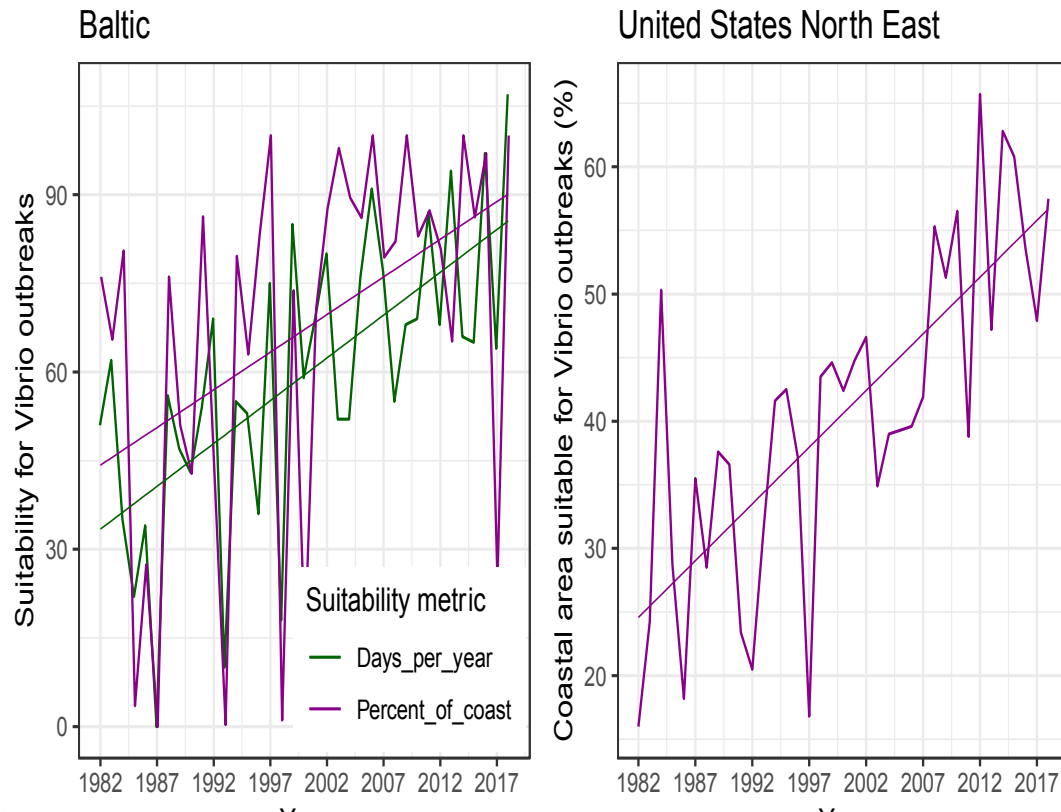
Headline Finding:

From 2000 to 2018, areas of South America have experienced significant increases in both flood and drought, with parts of Brazil experiencing a full 12 months of drought throughout 2018.





1.4.1: Climate Suitability for Infectious Disease Transmission



Headline Finding:

The percentage of coastal area suitable for *Vibrio* infections has increased by 31% in the Baltic and 29% in the US North East 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.

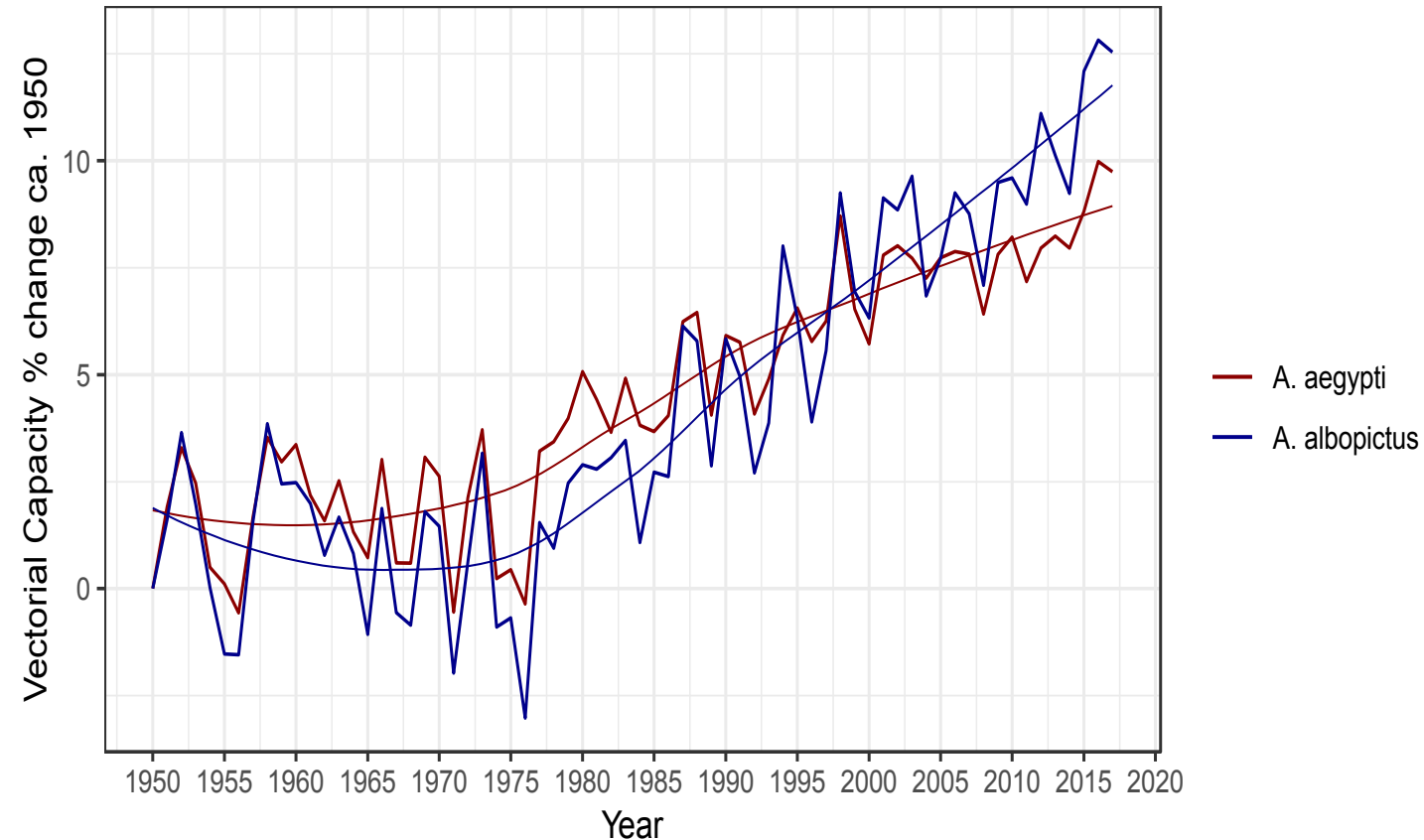


1.4.1: Climate Suitability for Infectious Disease Transmission

Headline Finding:

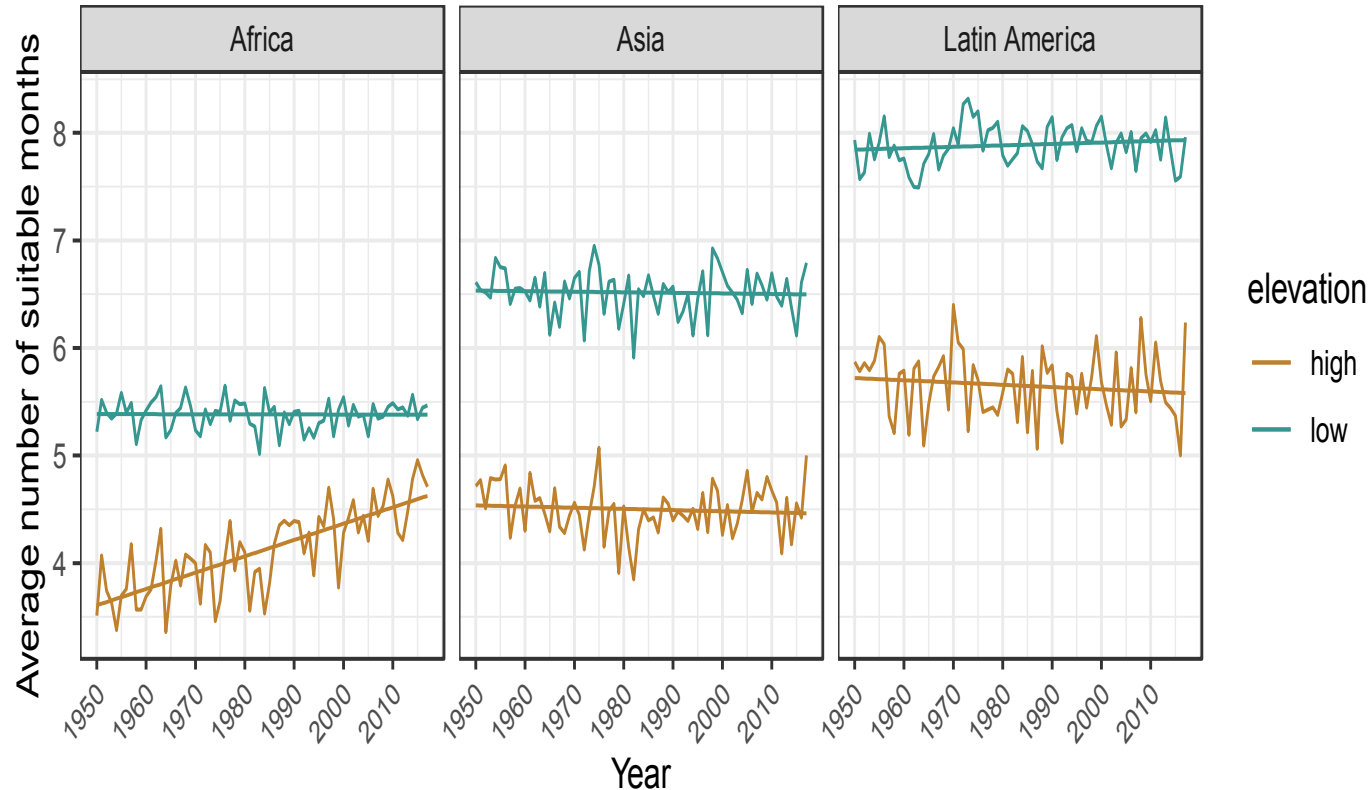
Vectorial capacity for the transmission of dengue was the 2nd highest on record in 2017, with 9 of the 10 most suitable years occurring since 2000.

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:

Climate suitability for malaria in the highlands of Africa has increased by 29.9% since the 1950s, up to present day.

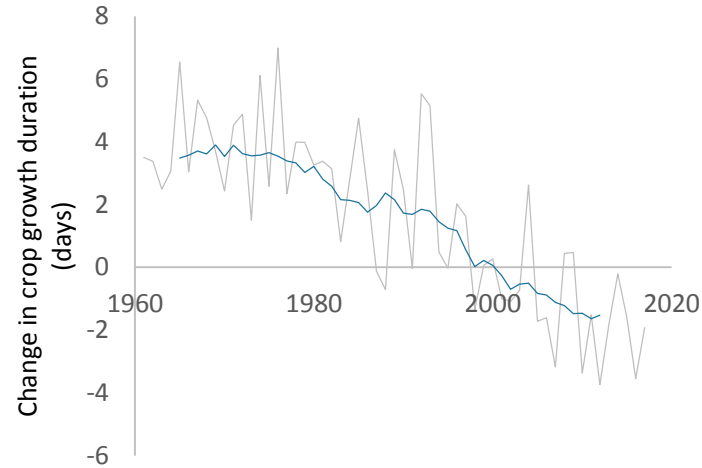


1.5.1: Terrestrial Food Security and Undernutrition

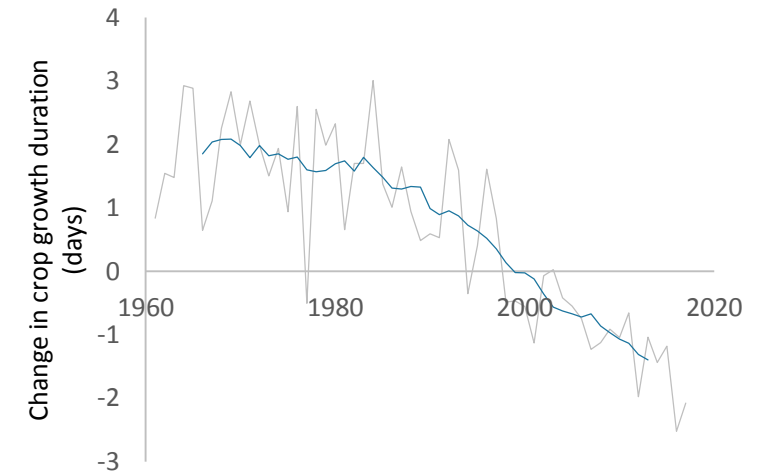
Headline Finding:

A changing climate has seen global yield potential reduce by 2.9% for maize, 3.8% for winter wheat and 3.1% for soybean crops from 1988 to present day, with concerning implications for global undernutrition.

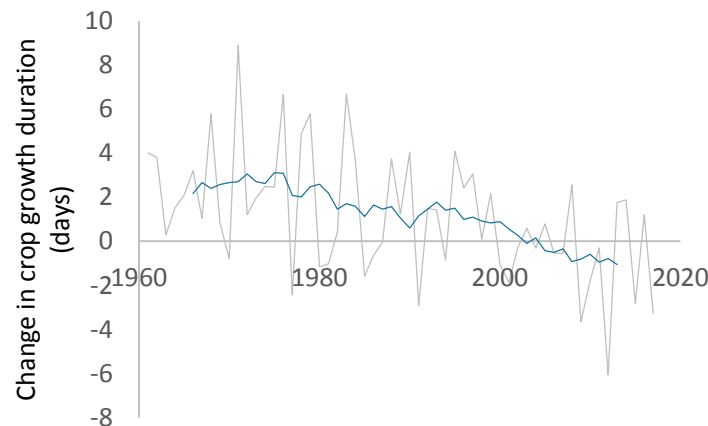
Maize



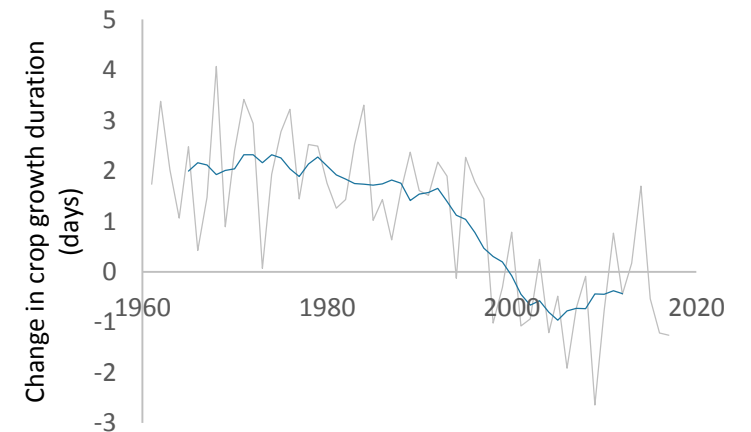
Winter wheat

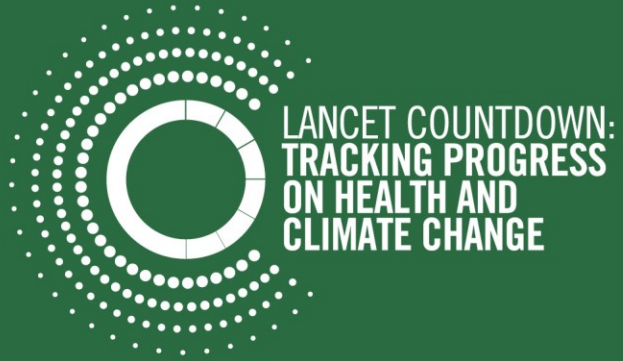


Soybean



Rice





1.5.2: Marine Food Security and Undernutrition

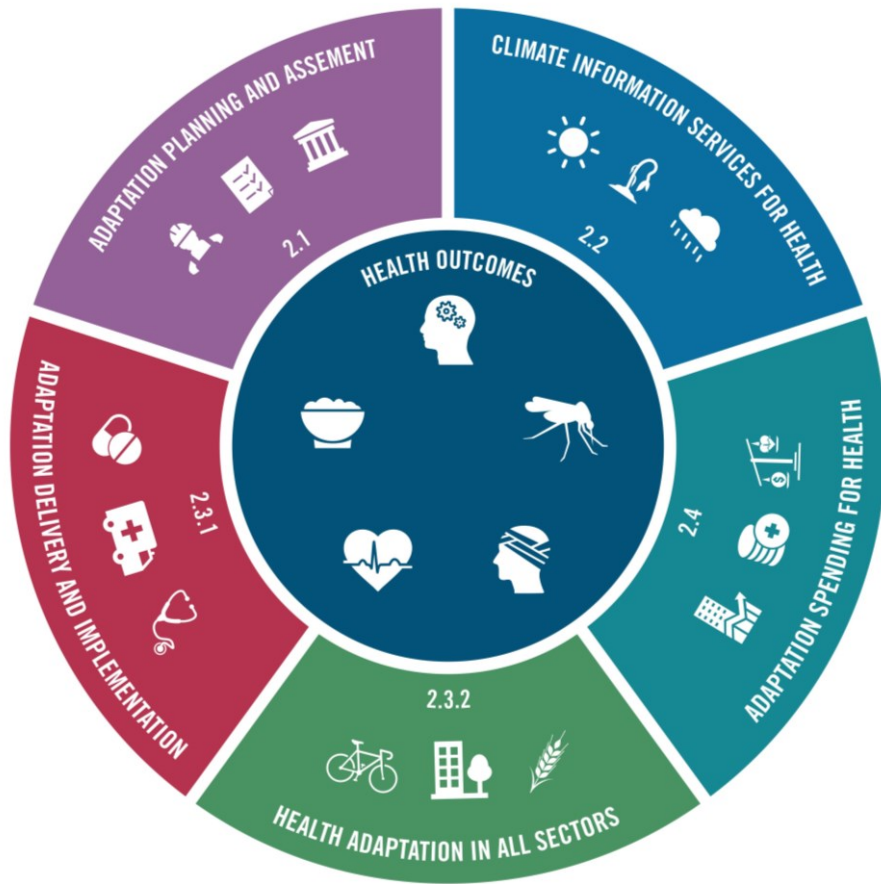
Headline Finding:

In 2018, global sea surface temperature was 0.68°C higher than the baseline, threatening marine food security.





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

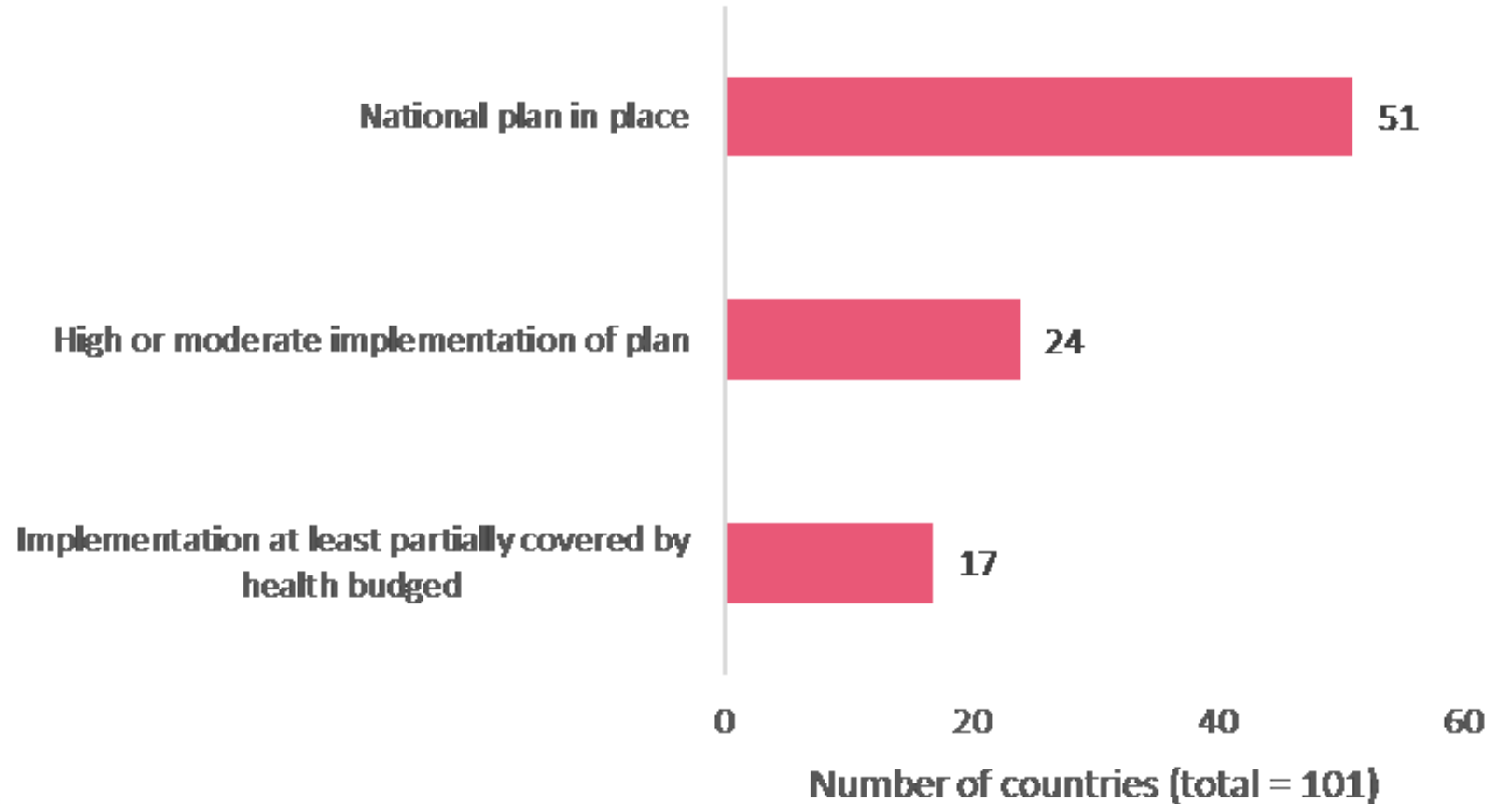
2.4 – Adaptation Spending for Health



2.1.1: National Adaptation Plans for Health

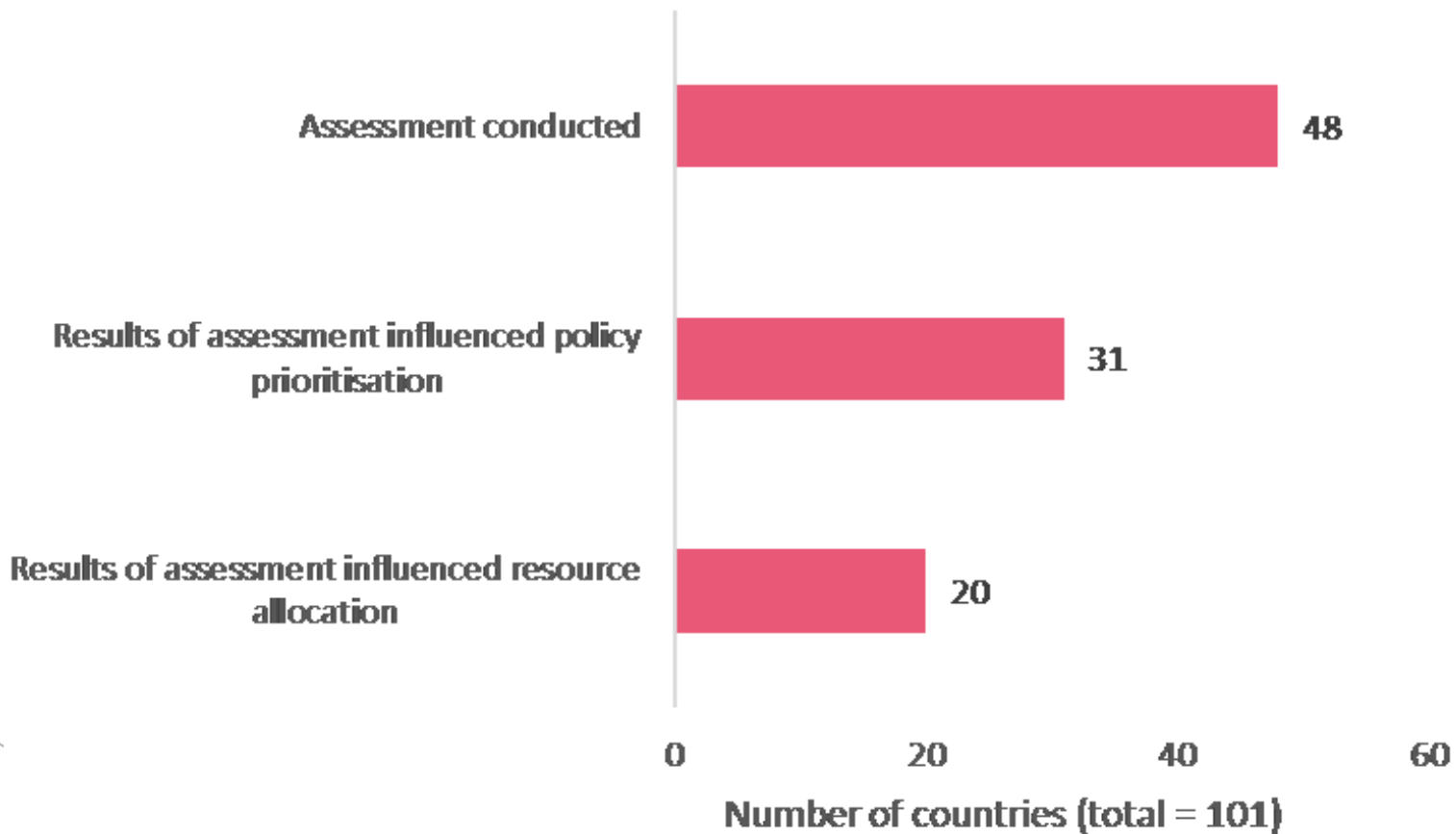
Headline finding:

Countries are beginning to prepare for the health risks of climate change, with half of countries surveyed reporting having a national health and climate change plan in place.





2.1.2: National Assessments of Climate Change Impacts, Vulnerability, and Adaptation for Health



Headline Finding:

48 of 101 countries surveyed in 2018 had completed a national assessment of health vulnerability to climate change.

40% of these assessments have influenced the allocation of resources.

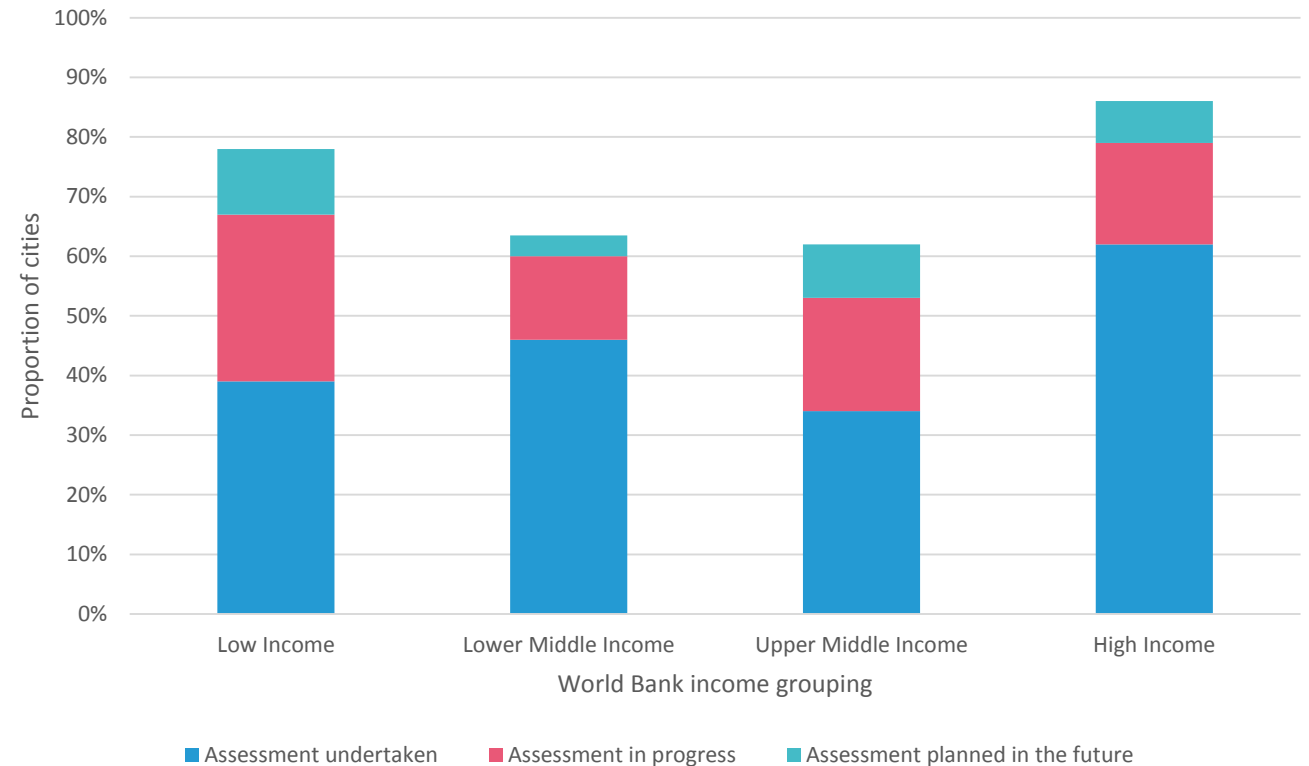


2.1.3: City-Level Climate Change Risk Assessments

Headline Finding:

Almost 70% of global cities surveyed in 2018 are actively developing or have completed a comprehensive climate change risk or vulnerability assessment.

54% of these cities expected climate change to seriously compromise their public health infrastructure.





2.2: Climate Information Services for Health

Headline Finding:

The number of countries providing climate services to the health sector increased from 55 in 2018 to 70 in 2019.



LANCET COUNTDOWN:
TRACKING PROGRESS
ON HEALTH AND
CLIMATE CHANGE





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

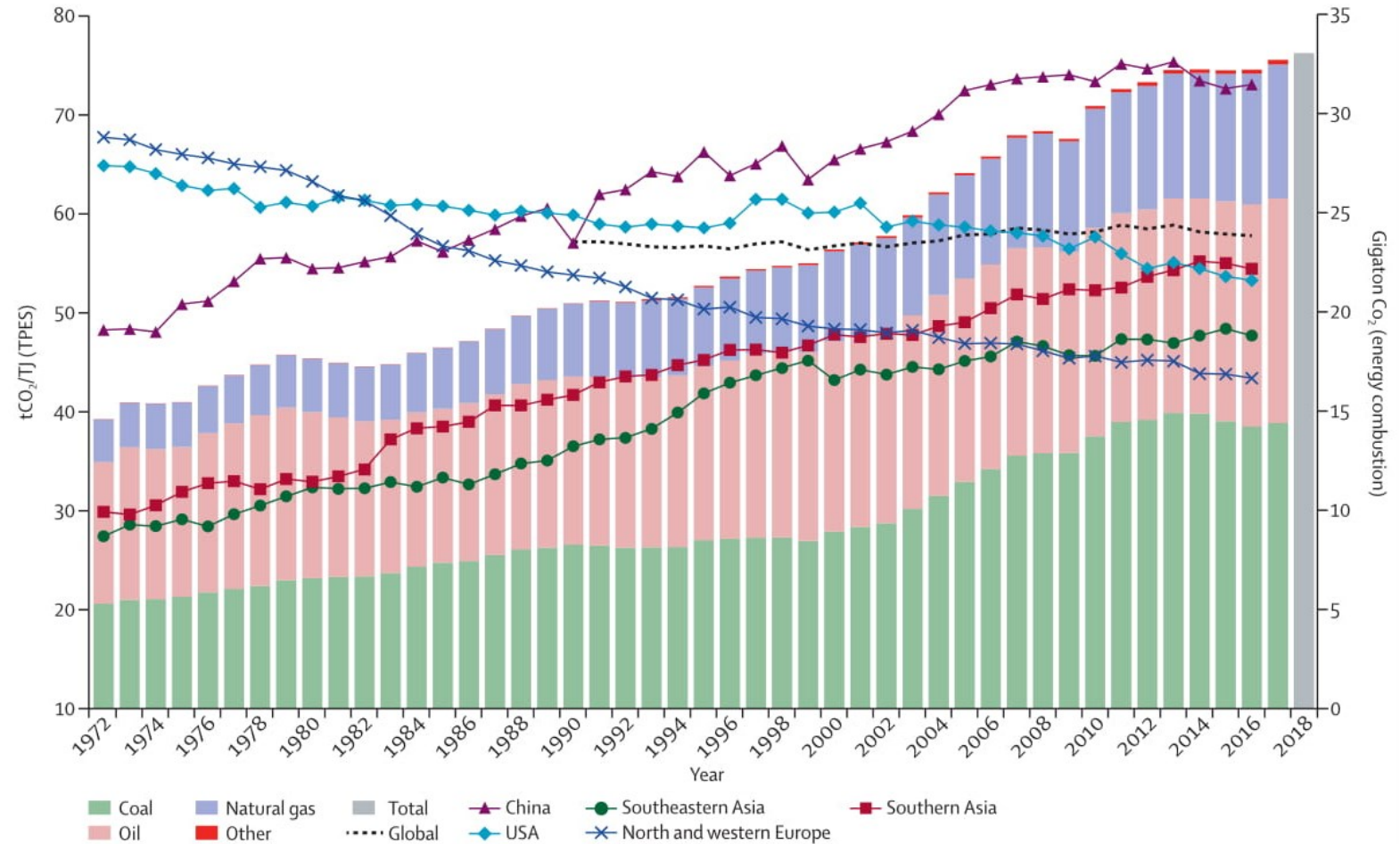
3.6 – Mitigation in the Healthcare Sector



3.1.1: Carbon Intensity of the Energy System

Headline Finding:

The carbon intensity of the global energy system has remained flat since 1990.

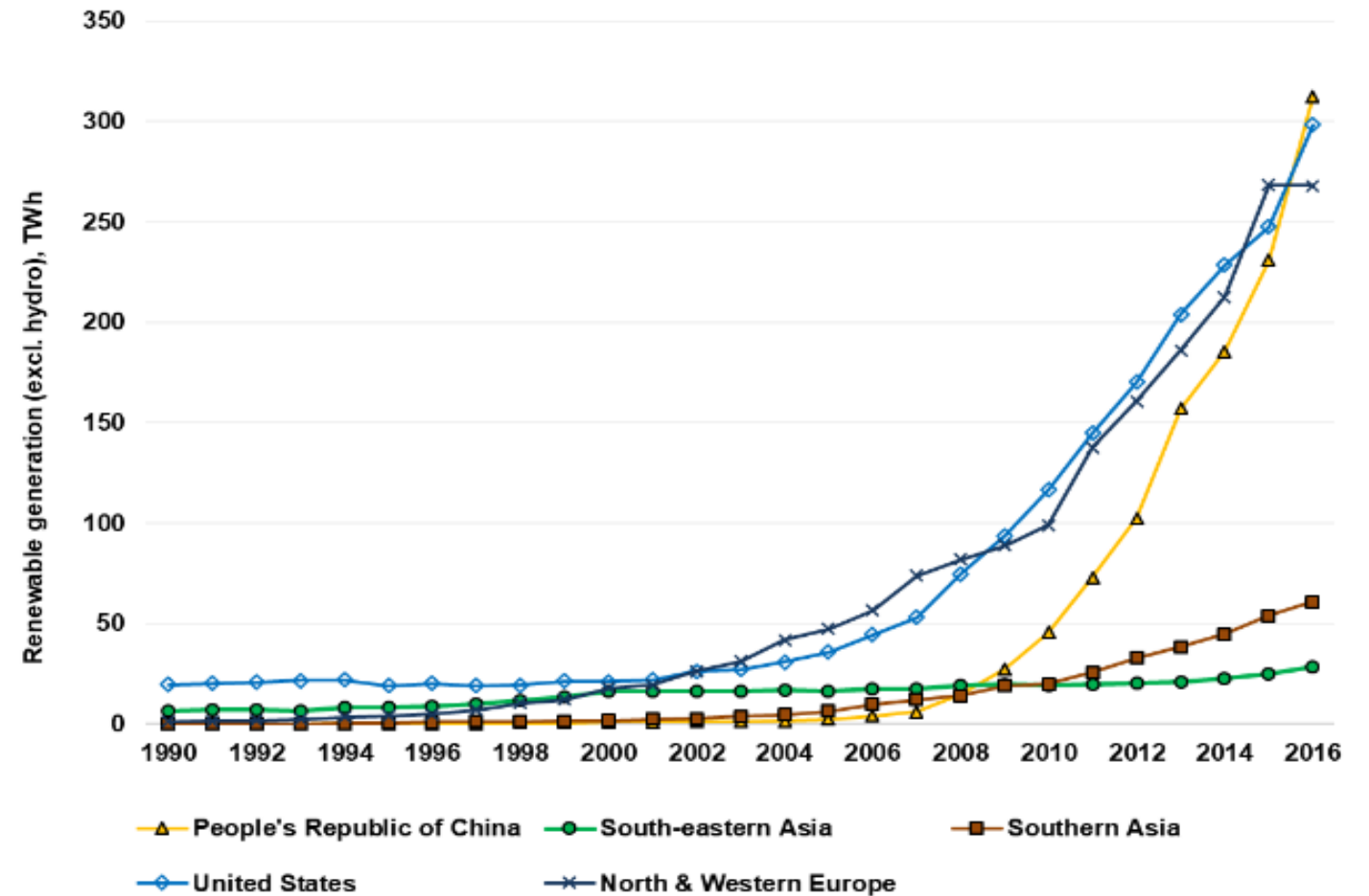




3.1.3: Zero-Carbon Emission Electricity

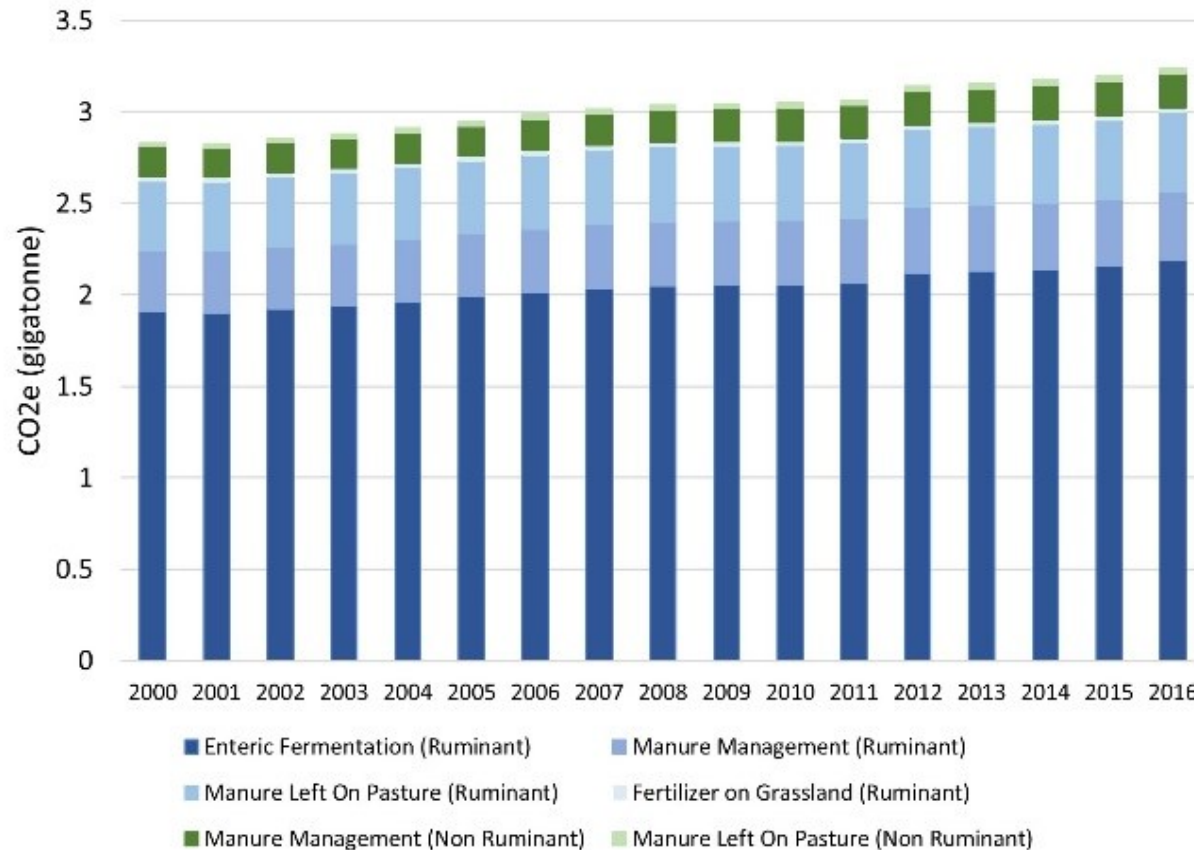
Headline Finding:

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





3.5: Emissions from Livestock and Crop Production



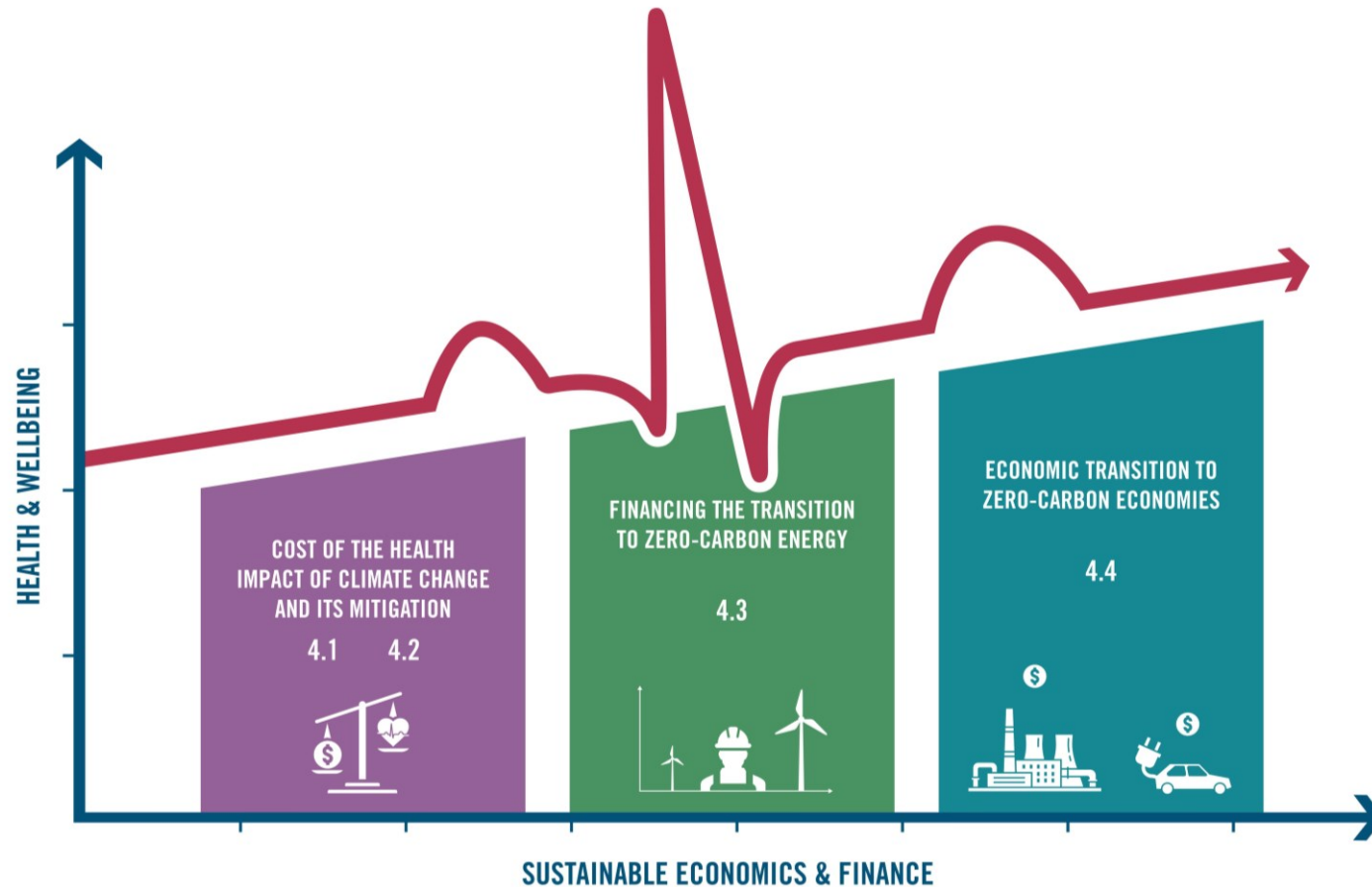
Headline Finding:

Red meat from ruminants contributed 3 GtCO₂e in 2016 – 93% of total livestock emissions.

Plant-rich diets could improve health and help reduce GHG emissions.



Economics and Finance



4.1 – Economic Losses due to Climate-Related Extreme Events

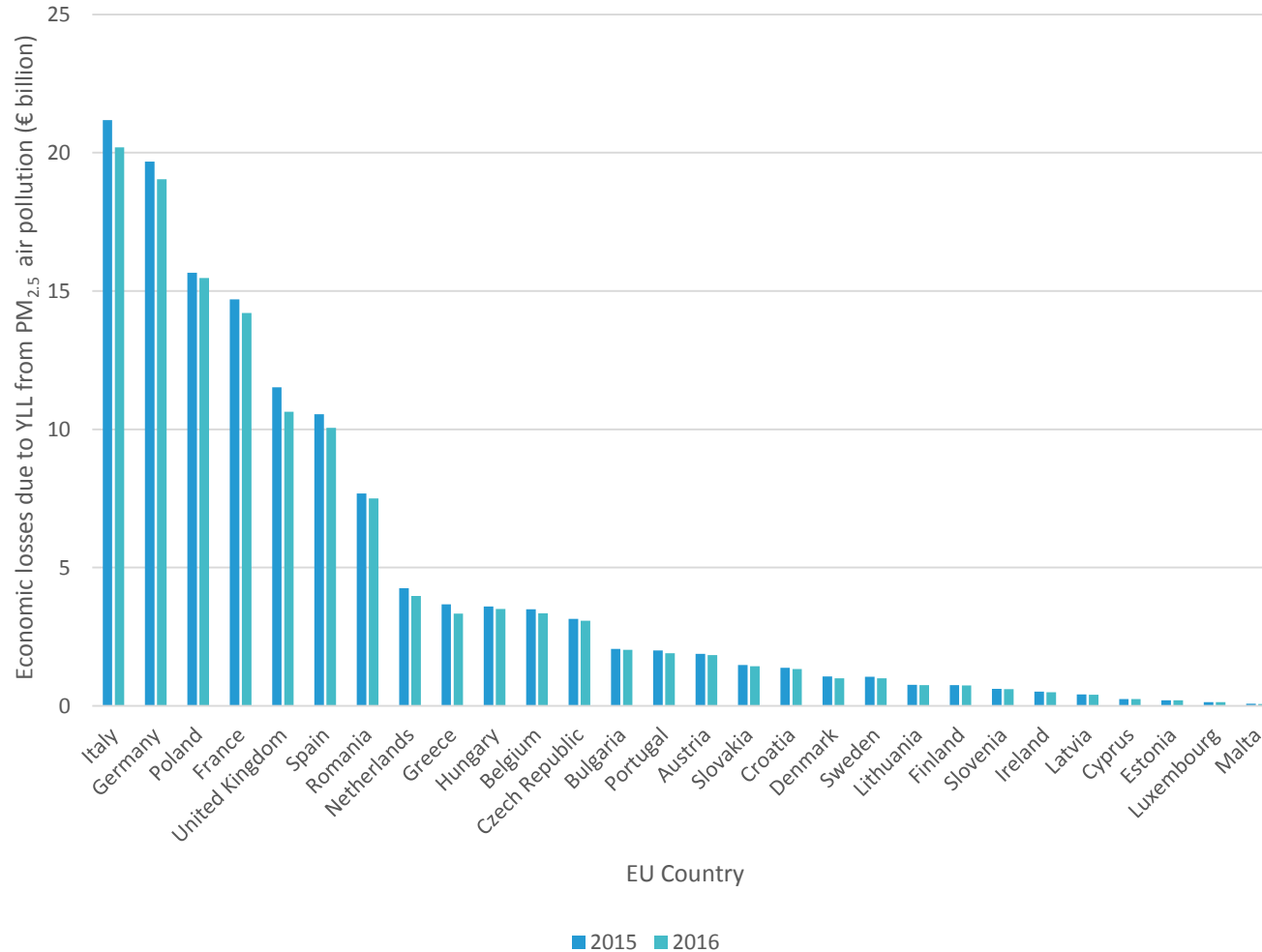
4.2 – Economic Costs of Air Pollution

4.3 – Financing the Transition to Zero-Carbon Energy: Investment in New Coal Capacity, Zero-Carbon Energy and Energy Efficiency; Employment in Low-carbon and High-carbon Industries; Funds Divested from Fossil Fuels

4.4 – Economic Transition to Zero-Carbon Economies: Fossil Fuel Subsidies; Coverage and Strength of Carbon Pricing, and Use of Revenues



4.2: Economic Costs of Air Pollution



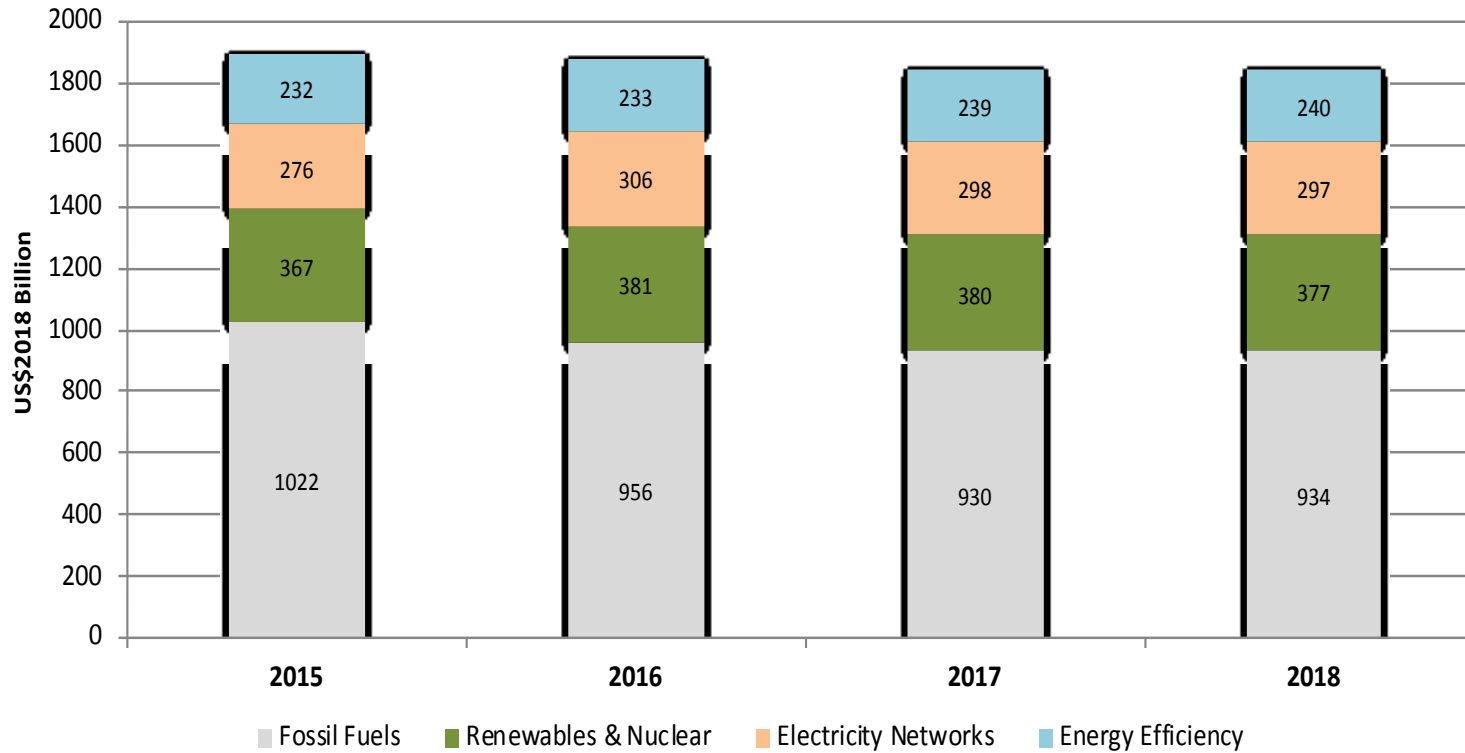
Headline Finding:

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.



4.3.2: Investments in Zero-Carbon Energy and Energy Efficiency



Headline Finding:

In 2018, investments in zero-carbon energy were 20% of total investments in the global energy system.

By 2030 zero-carbon energy investments must account for at least 65% of total annual investments.

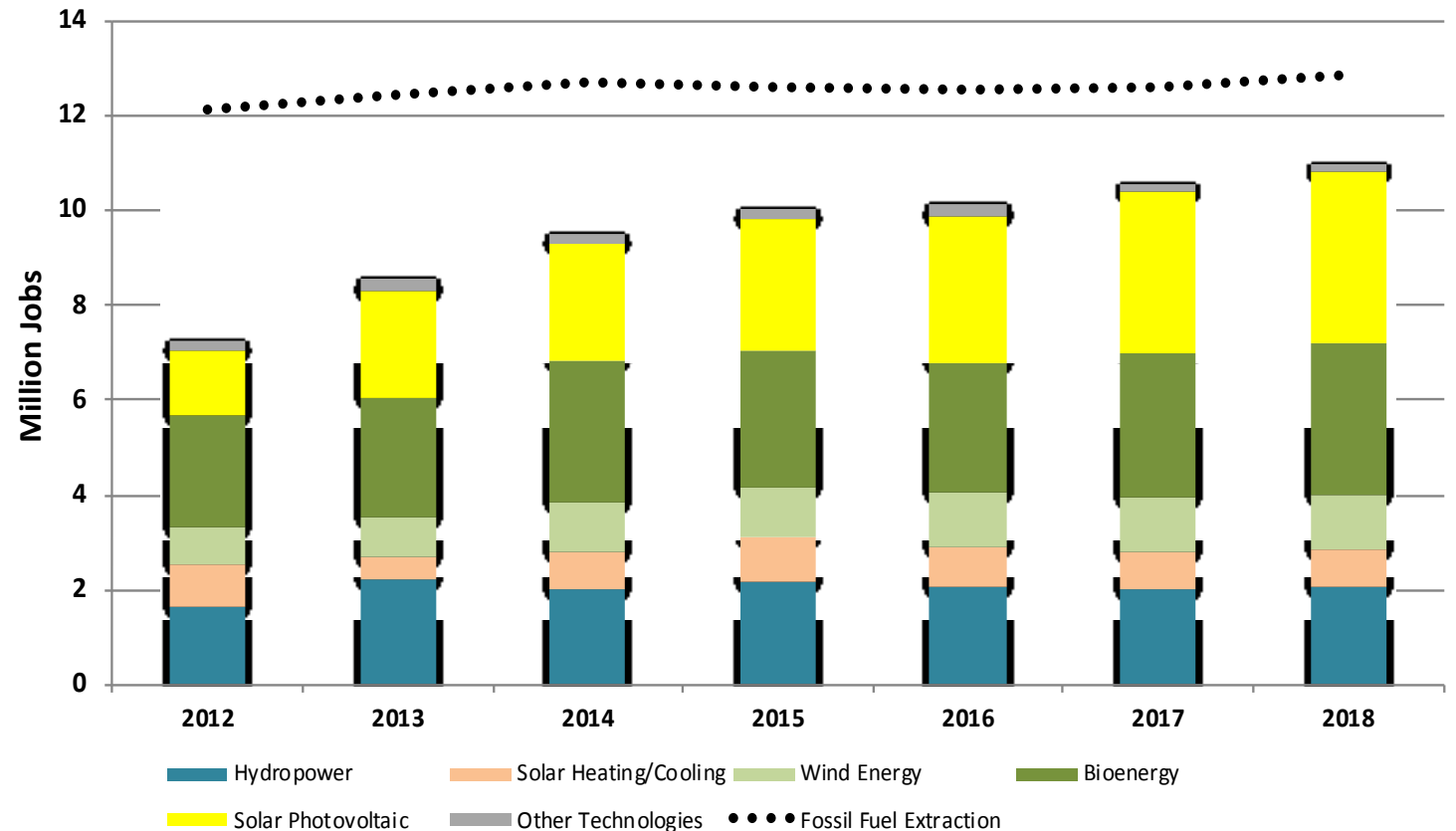


4.3.3: Employment in Low-Carbon and High-Carbon Industries

Headline Finding:

In 2018, renewable energy provided 11 million jobs – an increase of 4.2% from 2017.

Employment in fossil fuel extraction industries also increased – by 2% from 2017.





Thank you

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