

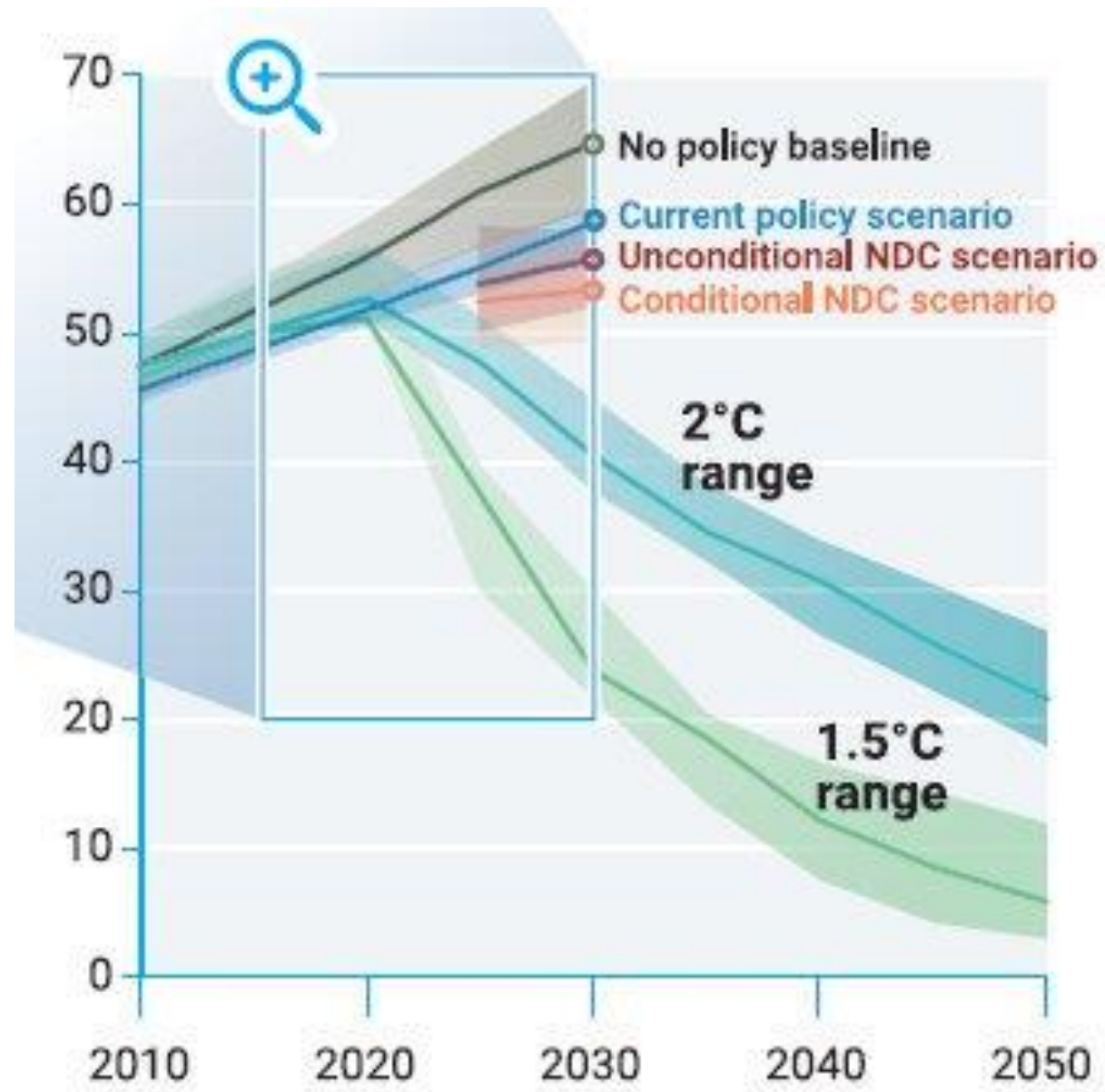
A Climate Change & Sustainability Strategy for NHS Scotland: Setting the Scene

Rebecca Campbell

Public Health Registrar

Scottish Managed Sustainable Health (SMaSH) Network

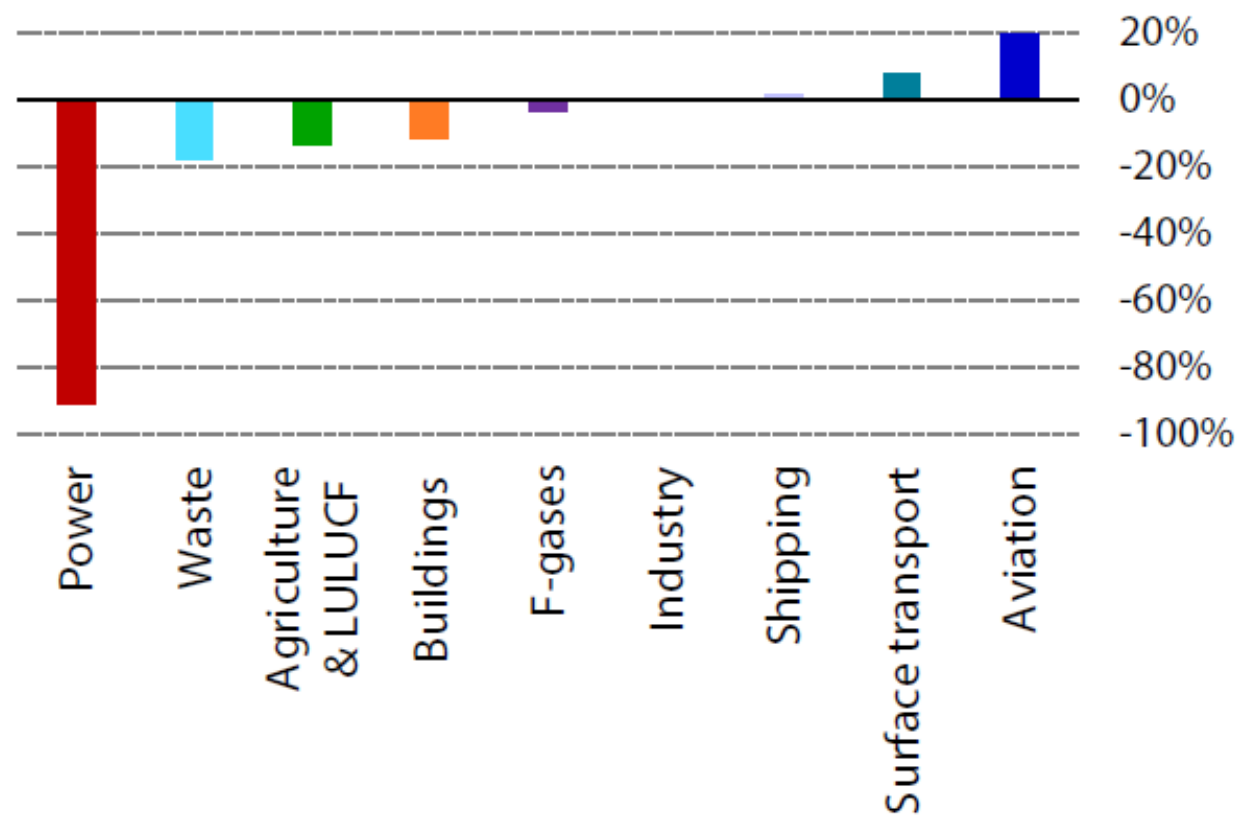
...staving off the worst impacts of climate change by limiting global warming to 1.5°C, the ambition of the Paris Agreement, will **“require rapid, far-reaching and unprecedented changes in all aspects of society.”**



UNEP (2018). The Emissions Gap Report 2018. United Nations Environment Programme, Nairobi

Scotland

Change in emissions 2012-2017



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Schools' climate strike school to protest'

15 February 2019

Schools' climate change protests

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Health

A bit of meat, a lot of veg diet to feed 10bn

By James Gallagher
Health and science correspondent, BBC News

17 January 2019



A diet has been developed that promises to save the planet and all without causing catastrophic damage to the environment.

Scientists have been trying to figure out how we are going to feed billions more people in the decades to come.

Their answer - "the planetary health diet" - does not completely banish meat and dairy.

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Nicola Sturgeon declares 'climate emergency' at SNP conference

28 April 2019

SNP Conference



Nicola Sturgeon said Scotland would "live up to our responsibility" on climate change

Scottish First Minister Nicola Sturgeon has declared a "climate emergency" in her speech to the SNP conference.

The SNP leader told delegates in Edinburgh she was inspired after meeting young climate campaigners who had gone on strike from school.

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available to watch on BBC iPlayer

A new BBC documentary on climate change has been described as a "rousing call to arms".

Climate Change - The Facts, shown on BBC One on Thursday, was a "rousing call to arms", said the Guardian.

In a four-star review, the Times said the veteran presenter "took a sterner tone... than most".

Opinion
Biodiversity

Loss of biodiversity is just as catastrophic as climate change

Robert Watson

Mon 6 May 2019 12:00 BST

5,125 656

Nature is being eroded at rates unprecedented in human history but we still have time to stave off mass extinctions



SPACE SCIENCE TECHNOLOGY ENVIRONMENT INNOVATION POWERING THE FUTURE

1 million species under threat of extinction because of humans, biodiversity report finds

"We are eroding the very foundations of our economies, livelihoods, food security, health and quality of life worldwide."



Keeper Zachariah Mutai attends to Fatu, one of only two female northern white rhinos left in the world, in the pen where she is kept for observation, in Kenya in 2018. Sunday Alamba / AP File

May 6, 2019, 12:00 PM GMT+1

By Denise Chow

Air pollution alerts have already topped all of 2018

Shauna Bowers

June 3 2019, 12:01am,
The Times

Environment Global politics

Dublin Politics

European Union



INDYBEST LONG READS INDY100 VOUCHERS MINDS

INDY/LIFE

Getty Images/Stockphoto



DAVID ATTENBOROUGH ISSUES STARK WARNING OVER PLASTIC POLLUTION 'CATASTROPHE'

'It is high time we turn our attention fully to one of the most pressing problems of today'

Olivia Petter | @oliviapetter | Tuesday 14 May 2019 10:46 |

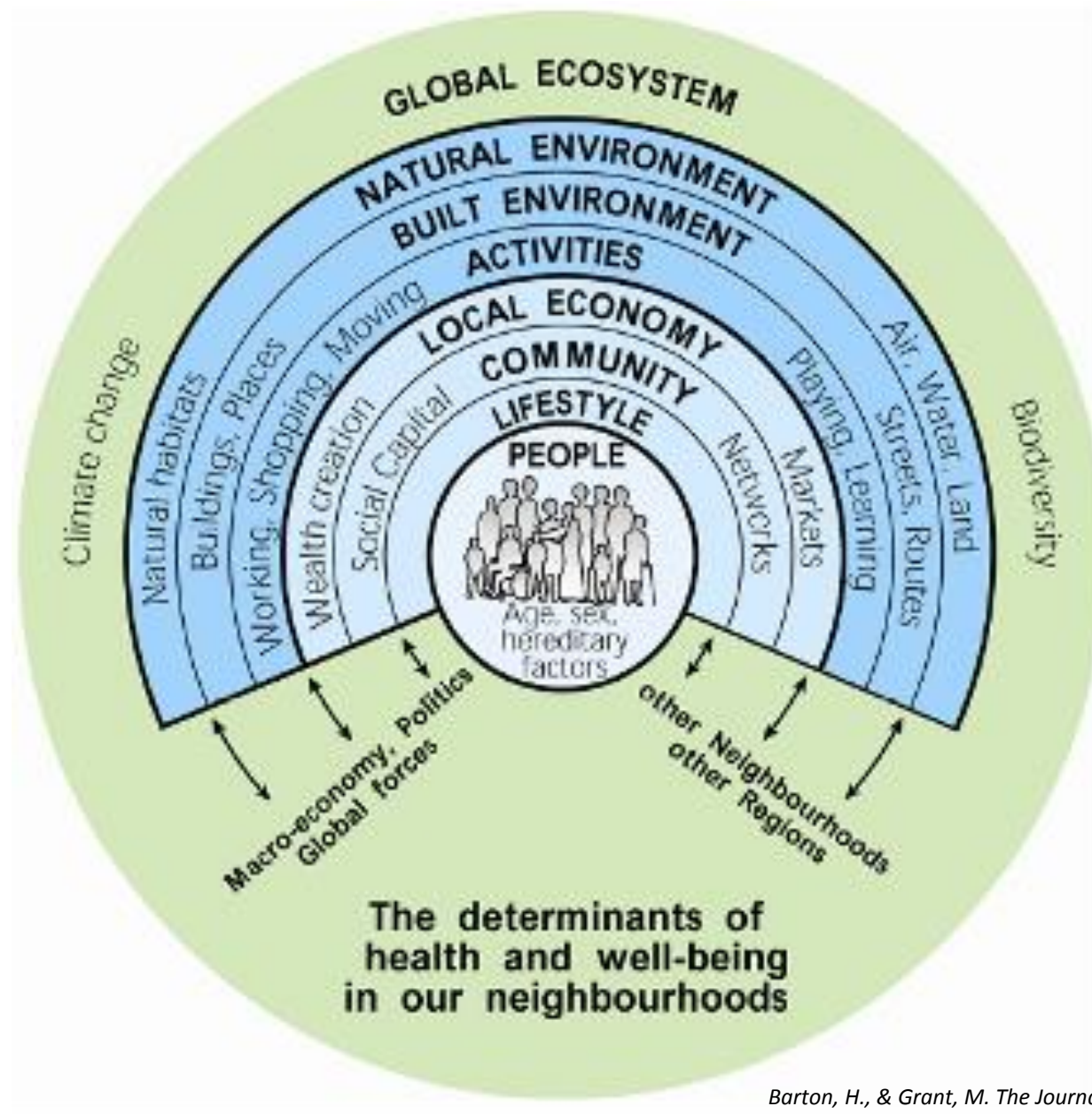


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IndyLife

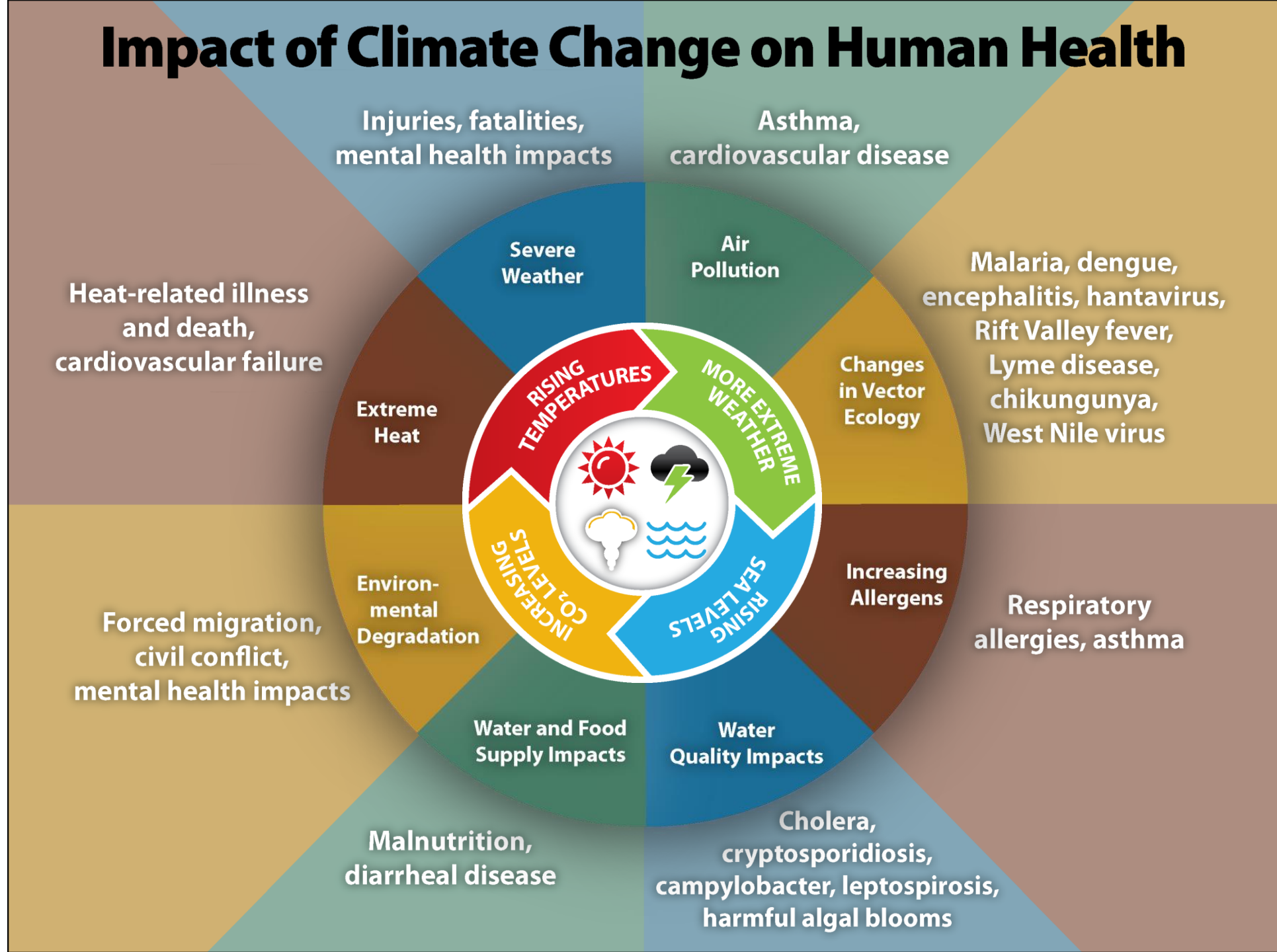
Sir David Attenborough has described plastic pollution as an "unfolding catastrophe" in support of a new report that highlights the devastating impact

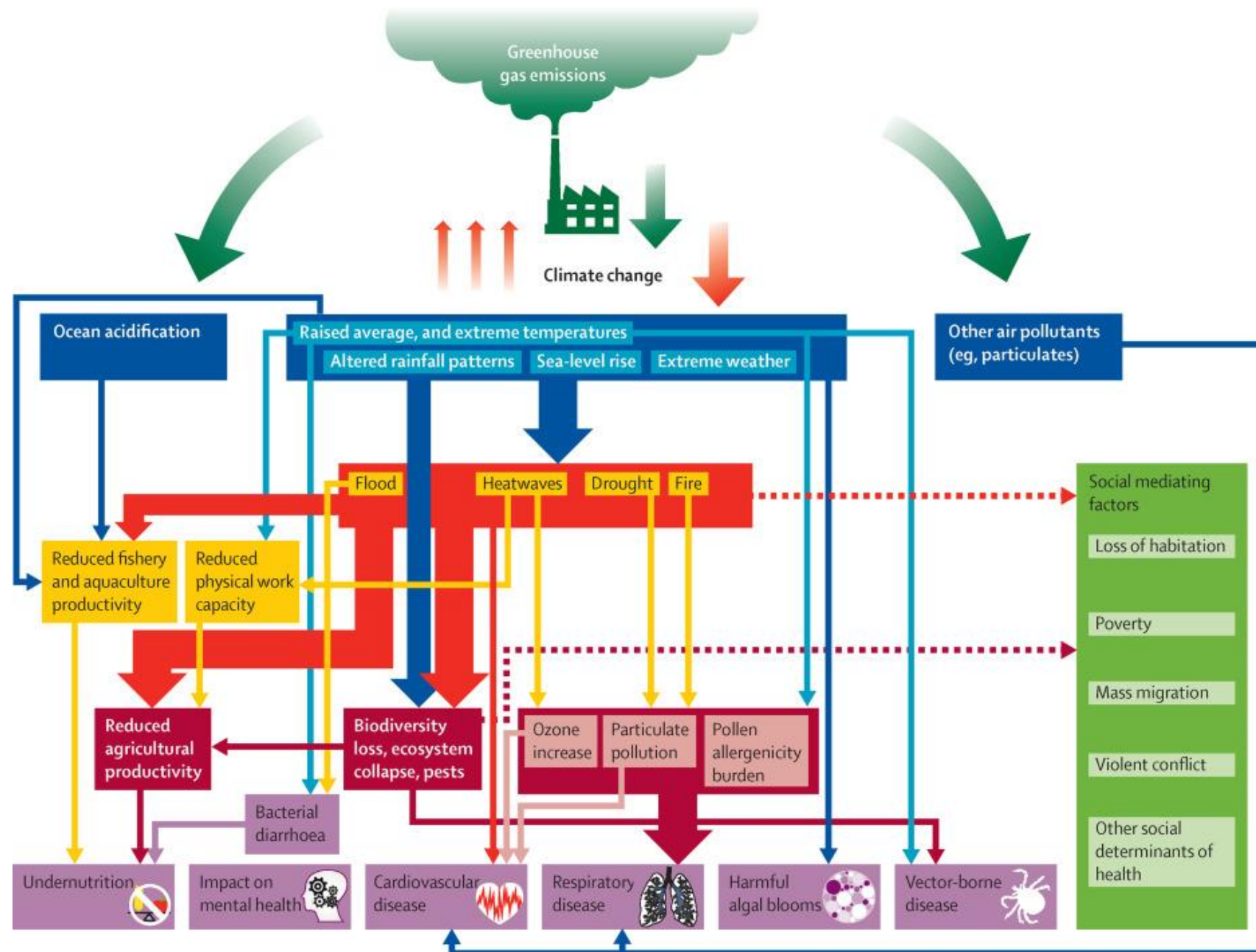
conservation globalization
policy inequality
urbanization economy
marine flooding
population markets
extinction energy knowledge transboundary
common-property pollution ethics sustainability freshwater-ecosystem
environmental-change carbon
biodiversity
dams governance community biocultural
community-conservation
desertification deforestation
photography fragmentation dispensation
land-transformation
food-processing ecology sacred degradation
water waste climate
informatics waste
management innovation hardlines resilience
pastures biofuels politics oceans discourse
monetary-institutions warming social-justice disaster
forests parks fisheries development drought habitat
resource-management nature-culture
food-preservation rights education adaptation
consumption
entrepreneurship services culture

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Impact of Climate Change on Human Health





Why is Britain on fire? Wildfires sweeping UK as heatwave continues for another week

SHOP PRICES SET TO RISE

HEATWAVE



BY RUKI SAYID Consumer Editor
FOOD prices are expected to soar after the sweltering summer and drought-hit crops.

NATALIE GALLON/CNN
A grocery bill is set to rise, she said. "The average price at the checkout."

K
s crops



A yellow weather warning covers Scotland, Northern Ireland and the west of England until Friday night CREDIT: MARTIN DALTON



Around 1,000 people were forced to spend Wednesday night on the M80 motorway

Impacts on the health service

- Floods: increased death, injury, mental health issues AND service ability to respond
- Extreme heat: increase deaths, hospital admissions and GP consultations: elderly, very young and those with existing health issues most vulnerable AND service capacity
- Extreme cold: slips/trips/falls, heart attacks, stroke, respiratory illness, influenza, hypothermia AND service ability to respond
- Widen inequalities

Costs of Doing Nothing

- Energy costs: c £104M to NHSScotland; £80M to treat health impacts of cold, damp housing
- Air Quality: £2 billion cost to NHS; 2,000 deaths p.a.
- Procurement costs: £1.7 Bn on pharmaceuticals, plus ethical / moral responsibility
- Social costs: rising health inequalities
- Climate change impacts on health and service delivery and reputational risks

Glasgow's major roads, railways and hospitals at risk from climate change - study

Exclusive: Storms, flooding and heatwaves could severely impact the city by 2050, an in-depth study reveals



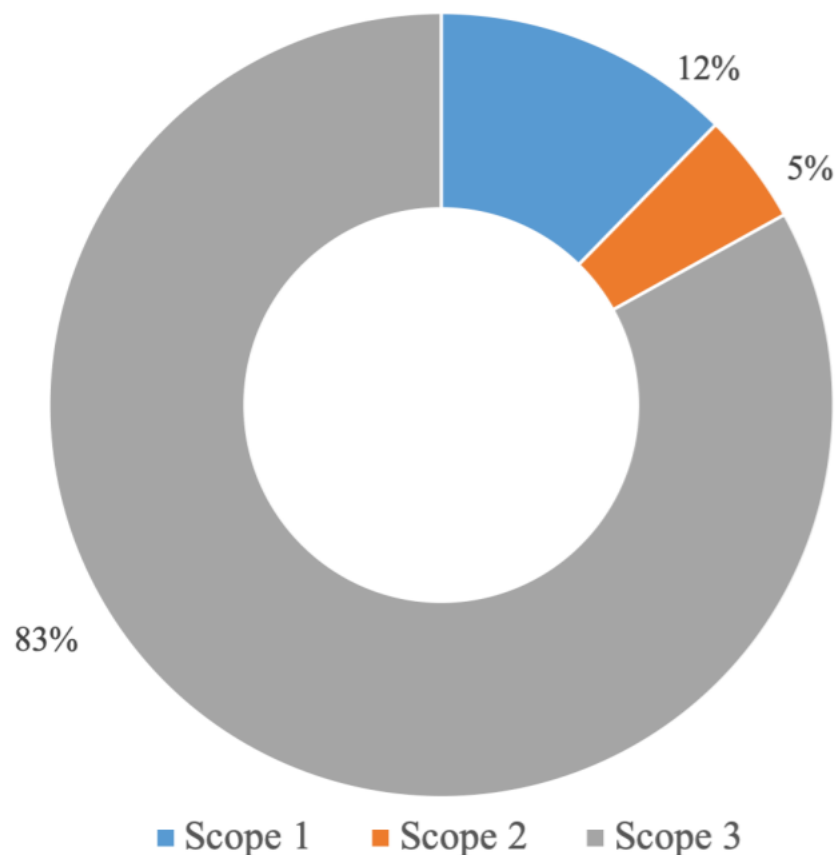
▲ Up to 1.8 million people in the Glasgow area could be affected by regular heatwaves and heavy winter flooding in future, according to the study. Photograph: Henri Martin/Alamy

First



Do No Harm

United Kingdom



United Kingdom health care	Value	Unit
Climate footprint	42	MtCO ₂ e
Emissions per capita	0.66	tCO ₂ e/capita
Emissions as % of national footprint	5.4	%
Expenditure per capita	4568	USD
Expenditure as percentage of GDP	9.7	%
% of footprint generated domestically	44.7	%
Health sector footprint equivalence to coal power plant emissions ¹	11	coal-fired power plants in one year
Health sector footprint equivalence to tanker trucks' worth of gasoline ¹	556,001	tanker trucks' worth of gasoline
Health sector footprint equivalence to passenger vehicles driven for one year ¹	8,917,197	passenger vehicles driven for one year

Scope 1: directly from health care facilities and health care owned vehicles; Scope 2: Indirect emissions from purchased energy sources such as electricity, steam, cooling, and heating; Scope 3: derived from the health care supply chain

NHS – Carbon Hotspots



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Nicola Sturgeon declares 'climate emergency' at SNP conference

20 April 2019

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SNP Conference



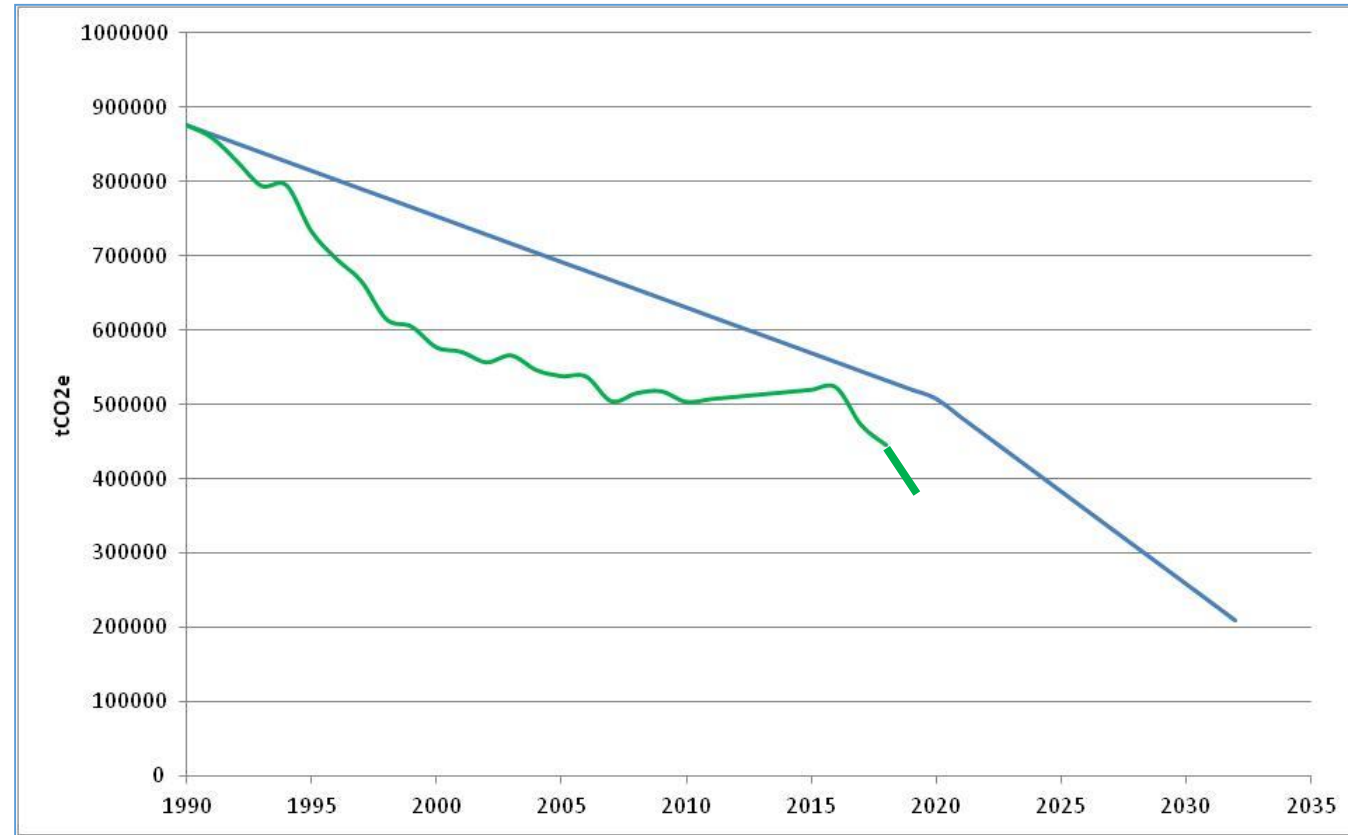
Nicola Sturgeon said Scotland would "live up to our responsibility" on climate change

Scottish First Minister Nicola Sturgeon has declared a "climate emergency" in her speech to the SNP conference.

The SNP leader told delegates in Edinburgh she was inspired after meeting young climate campaigners who had gone on strike from school.



NHSScotland Estate GHG Reductions



Since 1990, energy consumption down >41% and CO₂ down >61%

How Have We Done it?





SUSTAINABILITY
ACTION

Our NHS Our People Our Planet



**SUSTAINABILITY
ACTION**

Our NHS Our People Our Planet

**LITTLE CHANGES CAN
MAKE A BIG DIFFERENCE.**

NHS

Together we can create
a **better NHSScotland.**




**MIXED RECYCLING
PLEASE**

**STILL NOT SURE?
CHECK OUT THE POSTERS
ABOVE THE BINS**



**SUSTAINABILITY
ACTION**

Our NHS Our People Our Planet



**SUSTAINABILITY
ACTION**

CLIMATE WEEK 2019

1ST – 7TH OCTOBER

**NHS
SCOTLAND**

Development of the NHS Scotland Sustainability Assessment Tool

- To measure progress by NHS Boards on sustainability
- Must cover *all* aspects of sustainability – not just limited to estate and facilities
- Must align with UN Sustainable Development Goals and Scotland National Outcomes
- Must be applicable to all Boards
- User-friendly – both in completion and interpretation
- Quantifiable results
- Supporting action plans, toolkits, etc.



SUSTAINABILITY
ACTION

Our NHS **Our People** Our Planet

Governance & Policy

- Capital Projects
- Active Travel
- Transport
- Greenspace
- Nature & Biodiversity

- Awareness
- Welfare
- Ethical Issues
- Communities
- Sustainable Care

- Environmental Management
- Procurement & Supply Chain
- Waste
- Adaptation
- Greenhouse Gases

The UN Sustainable Development Goals



National Outcome

National Indicators

- Public services treat people with dignity and respect
- Quality of public services
- Influence over local decisions
- Access to justice

Sustainable Development Goals

- Gender equality
- Reduced inequalities
- Peace, justice and strong institutions
- Partnerships for the goals

National Outcome

National Indicators

- Attendance at cultural events or places of culture
- Participation in a cultural activity
- Growth in cultural economy
- People working in arts and culture

Sustainable Development Goals

- Gender equality
- Reduced inequalities
- Sustainable cities and communities

National Outcome

National Indicators

- Visits to the outdoors
- State of historic sites
- Condition of protected nature sites
- Energy from renewable sources
- Waste generated
- Sustainability of fish stocks
- Biodiversity
- Marine environment

Sustainable Development Goals

- Gender equality
- Affordable and clean energy
- Decent work and economic growth
- Industry, innovation and infrastructure
- Responsible consumption and production
- Clean water and sanitation
- Climate action
- Life below water
- Life on land

National Outcome

National Indicators

- Healthy life expectancy
- Mental wellbeing
- Healthy weight
- Health risk behaviours
- Physical activity
- Journeys by active travel
- Quality of care experience
- Work related ill health
- Premature mortality

Sustainable Development Goals

- Gender equality
- Reduced inequalities
- Responsible consumption and production
- Good health and well-being

National Outcome

National Indicators

- The number of businesses
- High growth businesses
- Innovative businesses
- Economic participation
- Employees on the living wage
- Pay gap
- Contractually secure work
- Employee voice
- Gender balance in organisations

Sustainable Development Goals

- Quality education
- Gender equality
- Affordable and clean energy
- Decent work and economic growth
- Industry, innovation and infrastructure
- Reduced inequalities
- Responsible consumption and production

National Performance Framework



National Outcome

National Indicators

- Educational attainment
- Confidence of children and young people
- Resilience of children and young people
- Work place learning
- Engagement in extra-curricular activities
- Young people's participation
- Skill profile of the population
- Skill shortage vacancies
- Skills under-utilisation

Sustainable Development Goals

- Quality education
- Gender equality
- Reduced inequalities
- No poverty
- Zero hunger
- Good health and well-being

National Outcome

National Indicators

- Child social and physical development
- Child wellbeing and happiness
- Children's voices
- Healthy start
- Quality of children's services
- Children have positive relationships
- Children's material deprivation

Sustainable Development Goals

- Quality education
- Gender equality
- Affordable and clean energy
- Reduced inequalities
- No poverty
- Zero hunger
- Clean water and sanitation
- Good health and well-being



National Performance Framework

<http://nationalperformance.gov.scot/>

National Outcome

National Indicators

- Productivity
- International exporting
- Economic growth
- Carbon footprint
- Natural Capital
- Greenhouse gas emissions
- Access to superfast broadband
- Spend on research and development
- Income inequalities
- Entrepreneurial activity

Sustainable Development Goals

- Quality education
- Gender equality
- Affordable and clean energy
- Decent work and economic growth
- Industry, innovation and infrastructure
- Reduced inequalities
- Responsible consumption and production

National Outcome

National Indicators

- A positive experience for people coming to Scotland
- Scotland's reputation
- Scotland's population
- Trust in public organisations
- International networks
- Contribution of development support to other nations

Sustainable Development Goals

- Gender equality
- Industry, innovation and infrastructure
- Reduced inequalities
- Peace, justice and strong institutions
- Partnerships for the goals

National Outcome

National Indicators

- Relative poverty after housing costs
- Wealth inequalities
- Cost of living
- Unmanageable debt
- Persistent poverty
- Satisfaction with housing
- Food insecurity

Sustainable Development Goals

- Gender equality
- Affordable and clean energy
- Reduced inequalities
- Responsible consumption and production
- No poverty
- Zero hunger

National Outcome

National Indicators

- Perceptions of local area
- Loneliness
- Perceptions of local crime rate
- Community land ownership
- Crime victimisation
- Access to green and blue space
- Places to interact
- Social capital

Sustainable Development Goals

- Gender equality
- Affordable and clean energy
- Industry, innovation and infrastructure
- Reduced inequalities
- Clean water and sanitation
- Sustainable cities and communities

We have an opportunity...

Health and climate change: policy response public health

Nick Watts, W Neil Adger, Paolo Agnolucci, Jason Blackstock, Peter Byass, Wenjia Cai, Sarah Chaytor, Tii Peter M Cox, Joanna Depledge, Paul Drummond, Paul Ekins, Victor Galaz, Delia Grace, Hilary Graham, N Alasdair Hunter, Xujia Jiang, Moxuan Li, Ilan Kelman, Lu Liang, Melissa Lott, Robert Lowe, Yong Luo, Ge Tadj Oreszczyn, Steve Pye, Tara Quinn, My Svensdotter, Sergey Venevsky, Koko Warner, Bing Xu, Jun Yai Qiang Zhang, Peng Gong*, Hugh Montgomery*, Anthony Costello*

Executive summary

The 2015 *Lancet* Commission on Health and Climate Change has been formed to map out the impacts of climate change, and the necessary policy responses, in order to ensure the highest attainable standards of health for populations worldwide. This Commission is multi-disciplinary and international in nature, with strong collaboration between academic centres in Europe and China.

The central finding from the Commission's work is that tackling climate change could be the greatest global

global health opportunity of this century. Many mitigation and adaptation responses to climate change are “no-regret” options, which lead to direct reductions in the burden of ill-health, enhance community resilience, alleviate poverty, and address global inequity. Benefits are realised by ensuring that countries are unconstrained by climate change, enabling them to achieve better health and wellbeing for their populations. These strategies will also reduce pressures on national health budgets, delivering potentially large cost savings, and enable investments in stronger, more resilient health

Tackling climate change could be the greatest global health opportunity of the 21st century

Given the potential of climate change to reverse the health gains from economic development, and the health co-benefits that accrue from actions for a sustainable economy, tackling climate change could be the greatest

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S0140-6736(15)60854-6

See [Editorial](#) page 1795

See [Comment](#) pages 1798, e27, and e28

See Online for video

*Co-chairs

Institute for Global Health

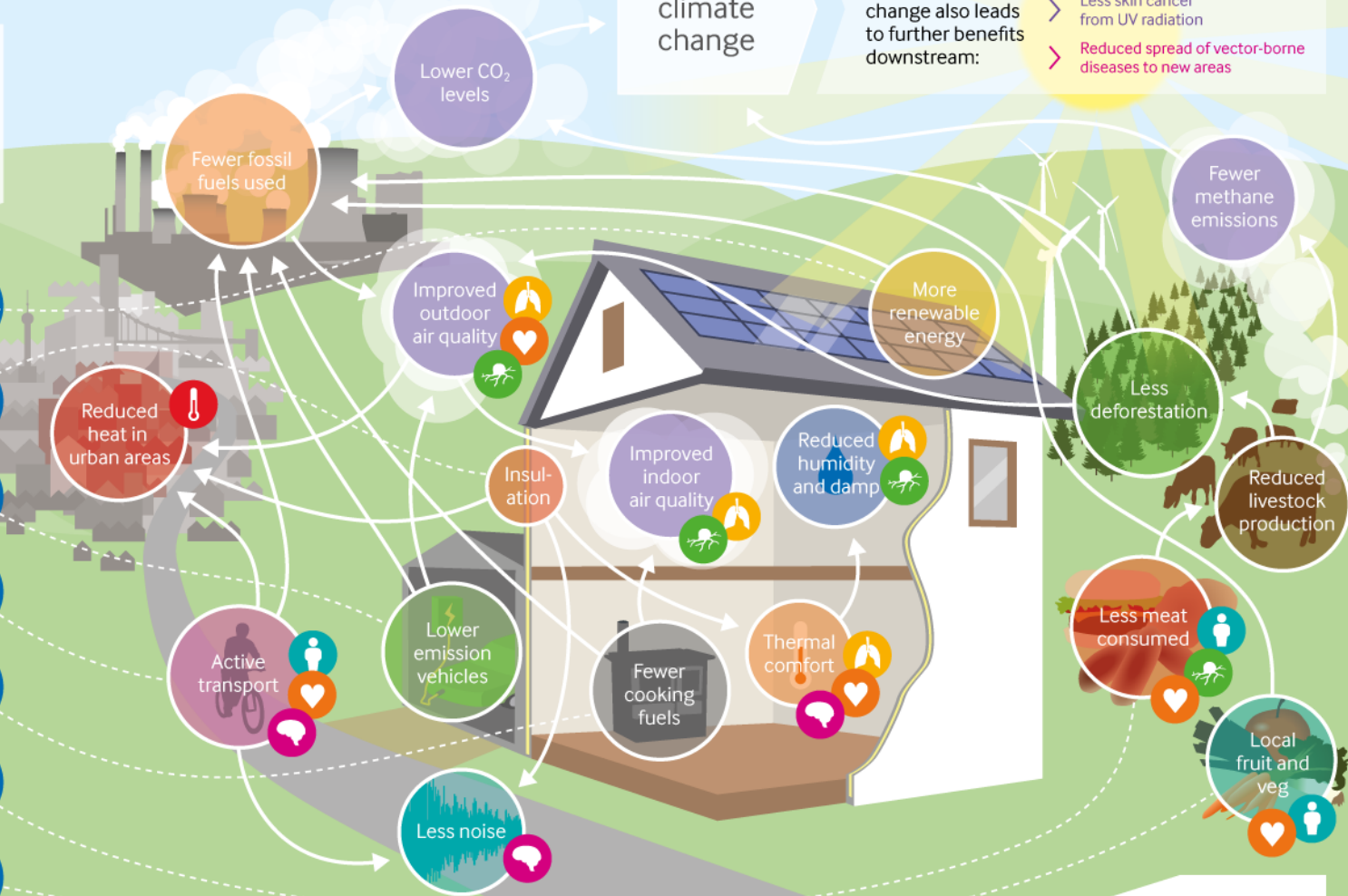
(N Watts MA, T Colbourn PhD,

Health and climate: co-benefits

Example interventions

These interventions have benefits both for health and for reducing climate change (also known as *mitigation*)

- Produce more renewable energy
- Improve insulation in homes
- Encourage use of lower emission vehicles
- Promote active transport
- Reduce solid fuels used for cooking
- Less food from animal sources
- Encourage locally produced fruit and veg



Health benefits



Better mental health



Fewer deaths from extreme heat



Less cardiovascular disease



Less respiratory disease



Lower rates of cancer



Lower rates of obesity



UK HEALTH ALLIANCE ON CLIMATE CHANGE

Designed by: Will Stahl-Timmins

Content: Nick Watts

Thanks to: Soledad Cuevas
Duncan Jarvies
John Waring

Thank you

rebecca.campbell4@nhs.net



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