

PLANETARY HEALTH

THE HEALTH OF HUMAN
CIVILISATION AND THE NATURAL
SYSTEMS ON WHICH
IT DEPENDS



THE HUMAN POPULATION IS HEALTHIER THAN EVER BEFORE

LIFE EXPECTANCY

Mean global life expectancy
at birth (years)



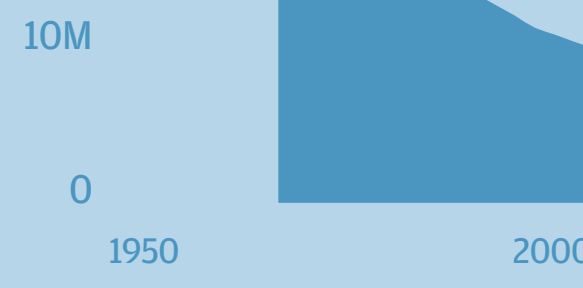
POVERTY

Population of world in
poverty (%)



CHILD MORTALITY

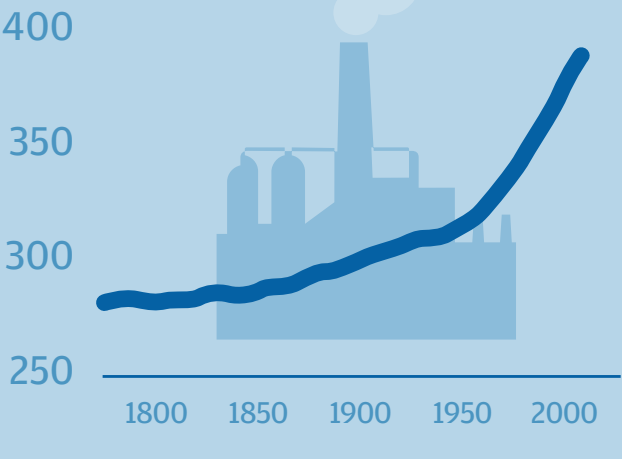
Recorded deaths
of under-fives¹



BUT TO ACHIEVE THIS WE'VE EXPLOITED THE PLANET AT AN UNPRECEDENTED RATE

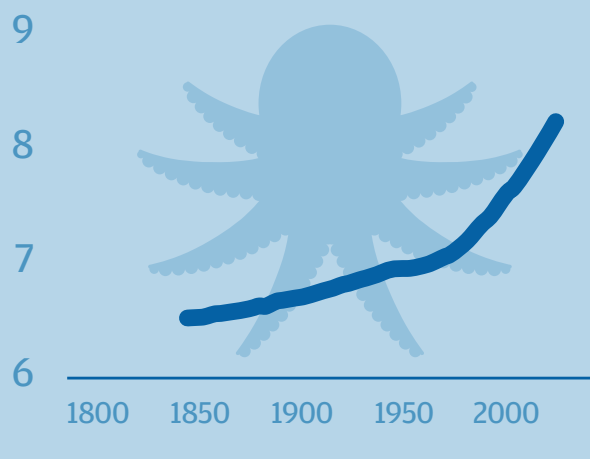
CARBON DIOXIDE EMISSIONS

Atmospheric concentration
of CO₂ (ppm)



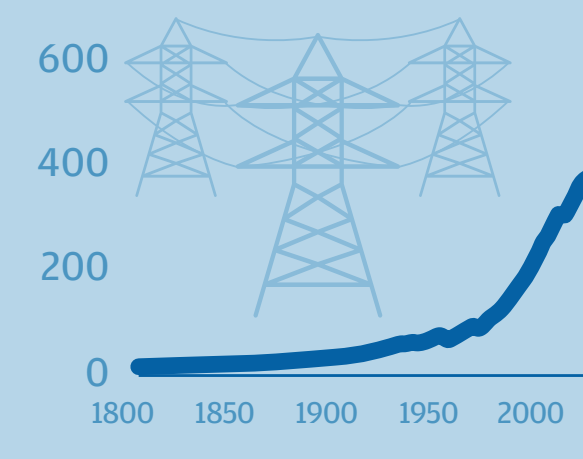
OCEAN ACIDIFICATION

Global ocean acidification (mean
hydrogen ion concentration, nmol/kg)



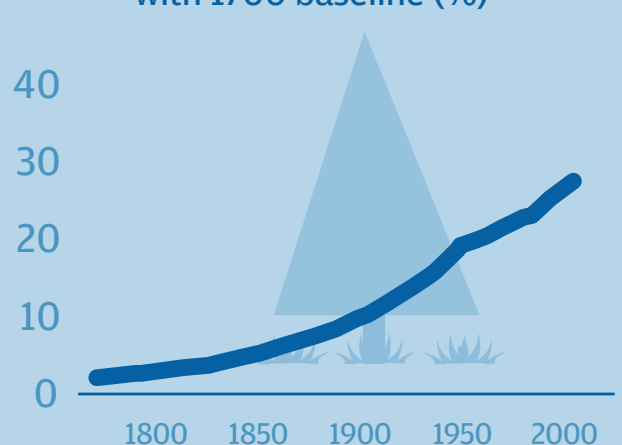
ENERGY USE

World primary
energy use (EJ)



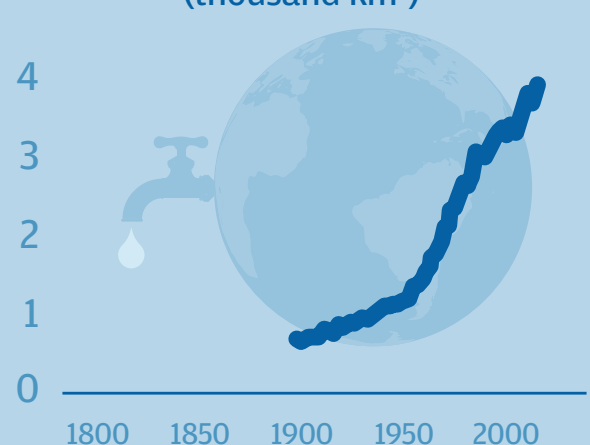
TROPICAL FOREST LOSS

Global tropical forest loss compared
with 1700 baseline (%)



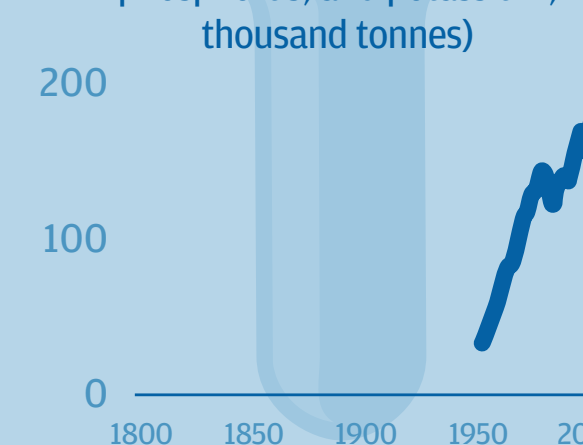
WATER USE

Water use
(thousand km³)



FERTILISER USE

Global fertiliser use (nitrogen,
phosphorus, and potassium;
thousand tonnes)



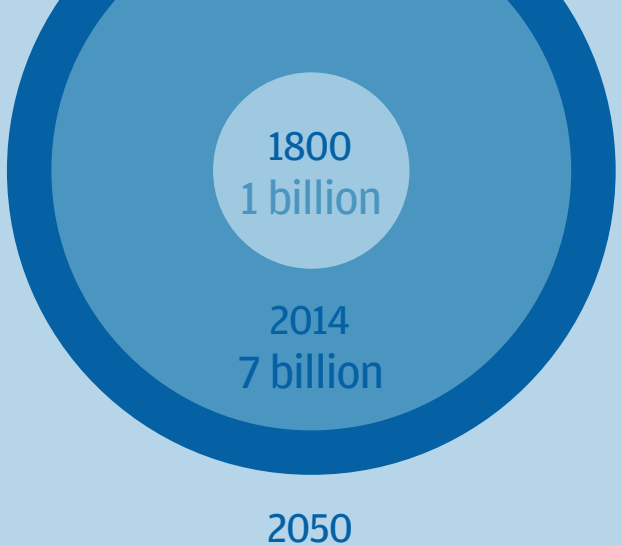
The period of environmental changes induced by human exploitation
of the planet defines a new geological era: the Anthropocene epoch



ON OUR CURRENT TRAJECTORY WE WILL PUT EVEN MORE PRESSURE ON THE PLANET

POPULATION

World population (billions)



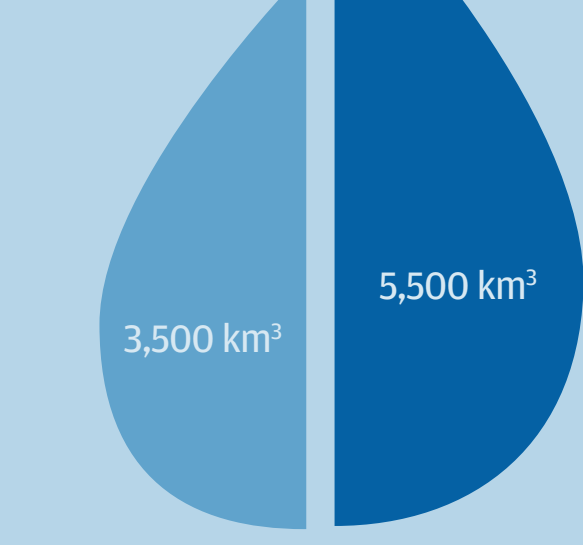
GRAIN PRODUCTION REQUIREMENTS

Total global cereal production
(billions of tonnes)



WATER DEMAND²

Water demand (km³)



DAMAGING THE PLANET DAMAGES HUMAN HEALTH

CLIMATE CHANGE

If unchecked climate change related
impacts could cause an extra

250,000

deaths per year
between 2030 and 2050³

BIODIVERSITY LOSS

Overfishing together with increasing
acidity and other environmental
changes threaten fish supplies



UNDER NUTRITION

Millions of people are at risk of
under nutrition due to the
combined effects of

climate change and other
environmental changes

WATER USE

By 2050 over

40%

of the world's population could
be living in areas under severe
water stress



SOIL DEGRADATION

This leads to a loss of

1-2

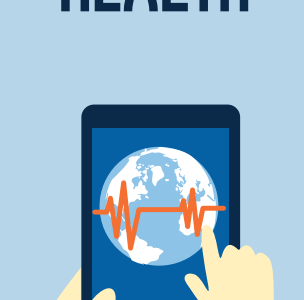
million hectares
of agricultural land
per annum

These environmental threats could also exacerbate each other



TO SAFEGUARD HUMAN HEALTH WE NEED TO MAINTAIN THE HEALTH OF THE PLANET ON WHICH WE DEPEND

LEARN ABOUT PLANETARY HEALTH



Planetary health is the
highest standard of health,
wellbeing and equity
worldwide. Human systems
are responsible for shaping
the future of human
civilisation and the Earth's
natural systems

REDUCE FOOD WASTE



30-50% of all food produced
is never consumed.
Reducing food waste means
less land is needed for
agriculture; saving energy,
water, helping to protect
biodiversity and improving
food security

HEALTHY DIETS WITH A LOW ENVIRONMENTAL IMPACT



Diets low in red meat with
plenty of fruit and
vegetables reduce the risk
of heart disease. Dietary
changes could reduce
greenhouse gas emissions
and land use requirements
by up to 50%

BETTER GOVERNANCE



Coordinated global,
national and local policies
that reduce environmental
damage and improve
health need to be
implemented

USE WATER MORE EFFICIENTLY



Although drip or trickle
irrigation methods are
more expensive to
install, they can be
33% more efficient in
water use

END DEFORESTATION



Since 2000 we have cut
down over 2.3 million
km² of primary forest.
The REDD+ mechanism
aims to reduce
greenhouse gas
emissions and improve
local livelihoods

FAMILY PLANNING



Around 225 million women
who want to avoid pregnancy
are not using effective
contraception. Access to
family planning could cut
maternal deaths by almost
30% and improve food
security

CITY PLANNING



Planning healthy and
sustainable cities can
increase resilience to
environmental change,
reduce environmental
impacts and improve
people's health

Read the full series at <http://www.thelancet.com/commissions/planetary-health>

SOURCES

- <http://data.unicef.org/child-survival/under-five>
- OECD, <http://www.oecd.org/env/indicators-modelling-outlooks/49844953.pdf>
- Original source reference in: Watts N, Adger WN, Agnolucci P, et al. Health and climate change: policy responses to protect public health. Lancet 2015; published online June 23. [http://dx.doi.org/10.1016/S0140-6736\(15\)60854-6](http://dx.doi.org/10.1016/S0140-6736(15)60854-6)

All other data is in: Whitmee S, Haines A, Beyrer C, et al. Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation-Lancet Commission on planetary health. Lancet 2015; published online July 16. [http://dx.doi.org/10.1016/S0140-6736\(15\)60901-1](http://dx.doi.org/10.1016/S0140-6736(15)60901-1)