

Making Peace with Nature

A scientific blueprint to tackle the climate,
biodiversity and pollution emergencies

UNEP's 'Synthesis Report'



Norwegian Ministry
of Climate and Environment



MAKING PEACE WITH NATURE

Transforming nature puts human well-being at risk

Transforming humankind's relationship with nature is the key to a sustainable future

HUMAN DEVELOPMENT (1970–2020):

- ▶ The economy has grown nearly fivefold and trade tenfold
- ▶ Human population has doubled to 7.8 billion
- ▶ Still, 1.3 billion people are poor and 700 million hungry

DISPOSALS OF WASTE MATTER:

- ▶ Greenhouse gas emissions have doubled
- ▶ Chemical production, waste and pollution have increased

USE OF SPACE AND RESOURCES:

- ▶ Resource use has tripled
- ▶ Humans impact 3/4 of ice-free land and 2/3 of oceans

HUMAN DEVELOPMENT (from 2020):

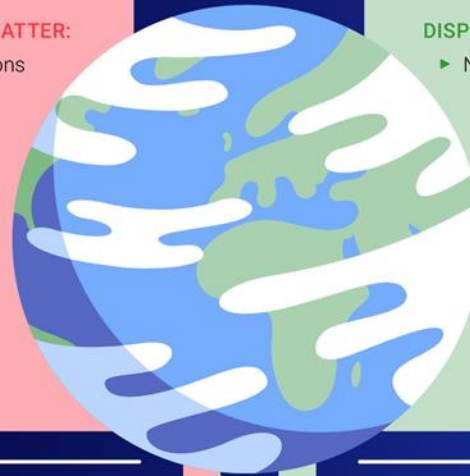
- ▶ Sustainable economic and financial systems
- ▶ Healthy nutritious food and clean water and energy
- ▶ Healthy lives and well-being for all in safe cities and settlements

DISPOSALS OF WASTE MATTER:

- ▶ Net-zero carbon dioxide emissions by 2050
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USE OF SPACE AND RESOURCES:

- ▶ Recycling of resources
- ▶ Protection and sustainable use of land and oceans



Earth's capacities to

- ▶ support life
- ▶ provide resources
- ▶ absorb waste matter

ARE DEGRADED AND SURPASSED

RISK to:

Livelihoods, equity, health, economic development, peace, food, water, sanitation, safe cities and settlements

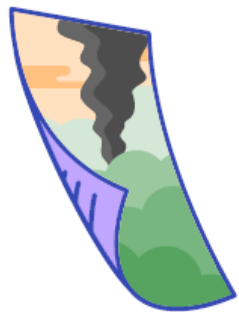
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SUPPORT for:

Poverty elimination, equity, health, economic development, peace, food, water, sanitation, safe cities and settlements



Humans now have a major impact on the Earth

Of the combined biomass of mammals on Earth, human population now constitutes about a third and livestock nearly two thirds, while wild mammals now amount to less than 5 per cent



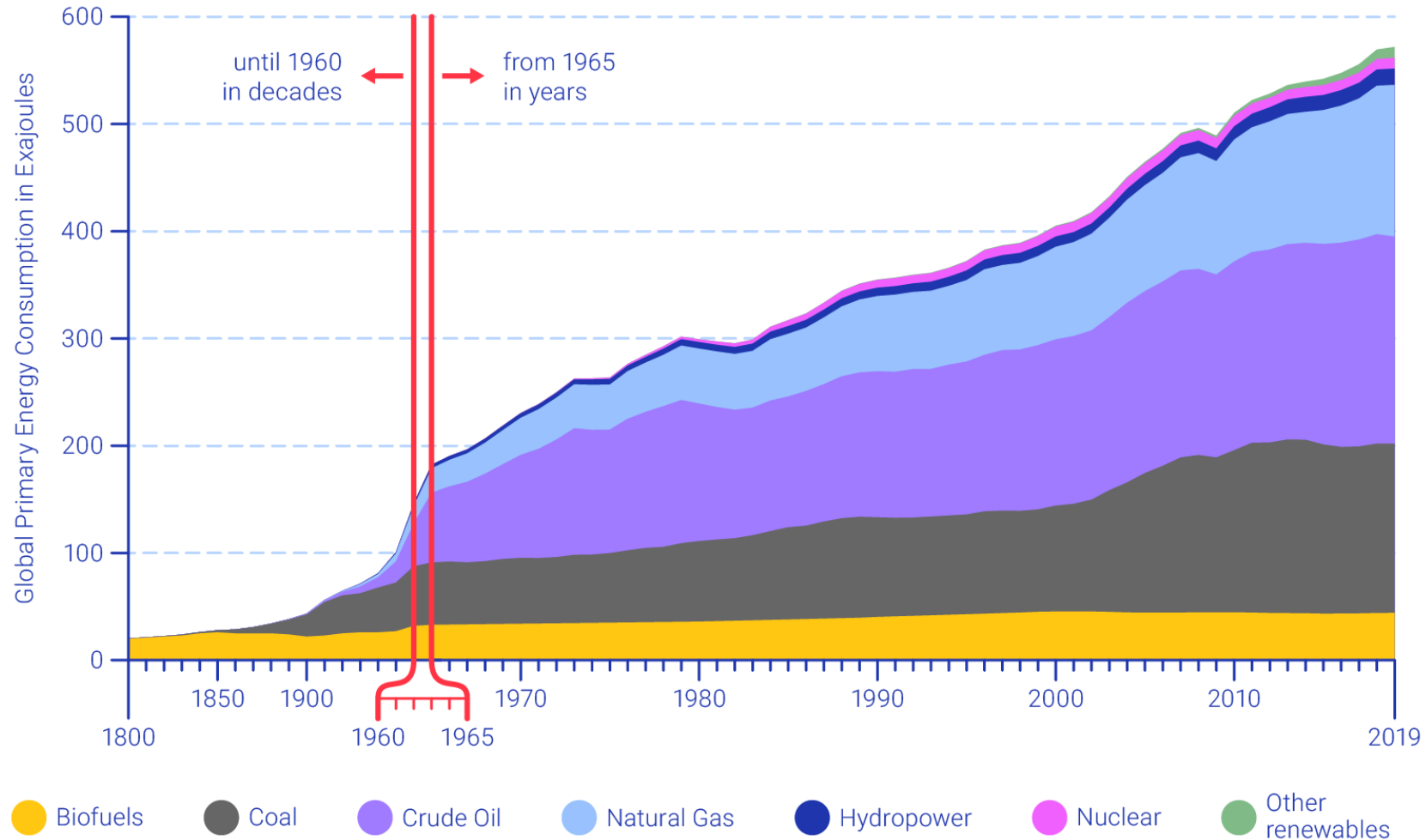
▲
Humans
0.06 Gigatons

▲
Domesticated animals
0.10 Gigatons

▲
Wild mammals
0.007 Gigatons

Extraction of natural resources and production of energy has tripled the past 50 years

2.5. Global Primary Energy Consumption by source

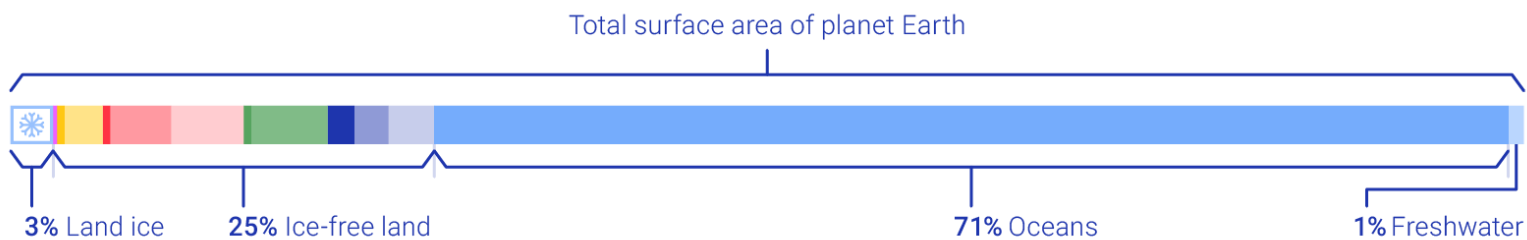
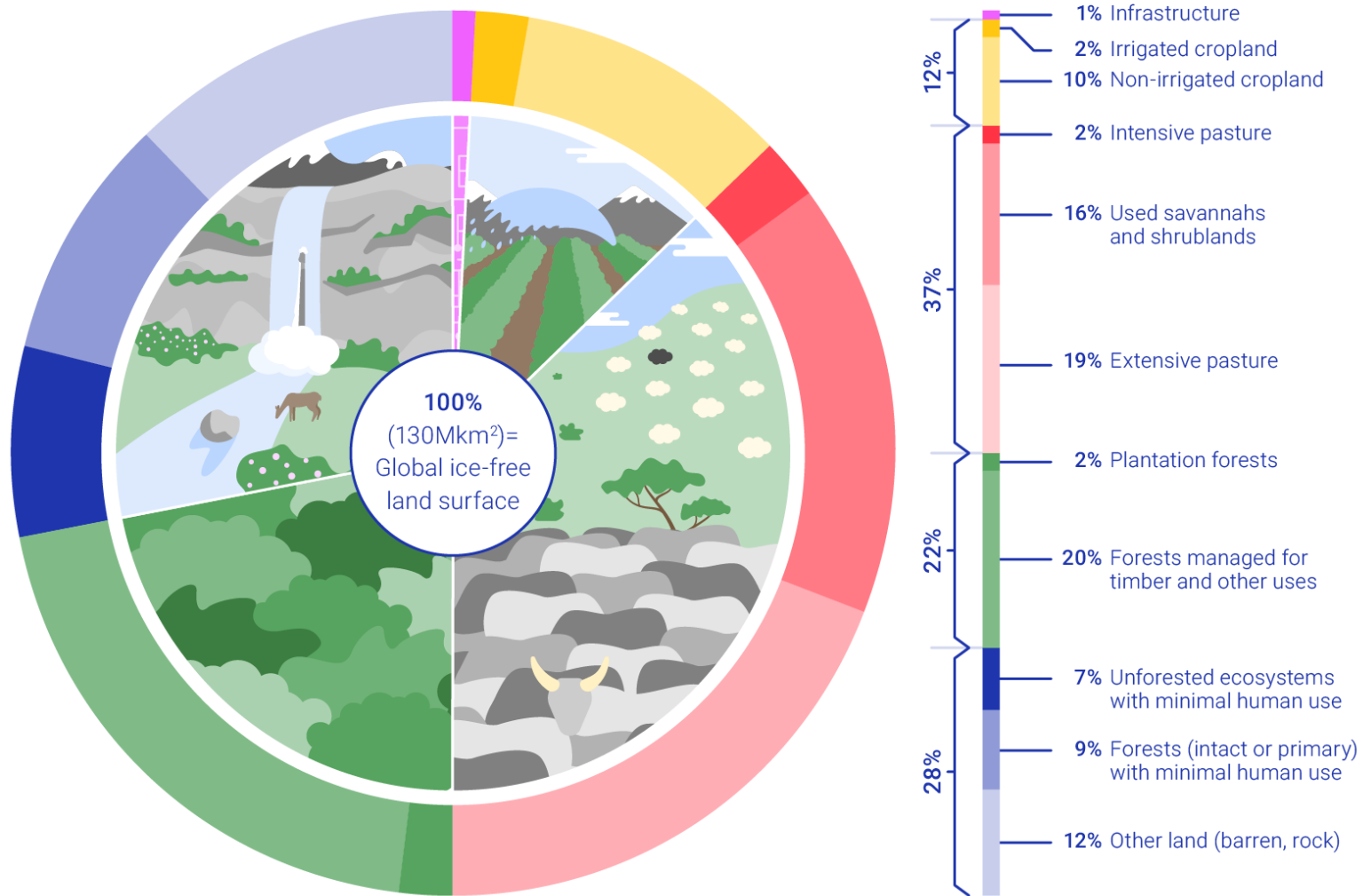


Humanity has a major impact on 3/4 of land and on 2/3 of oceans

1/4 of global warming results from activities related to land-use

1/4 land has been radically transformed

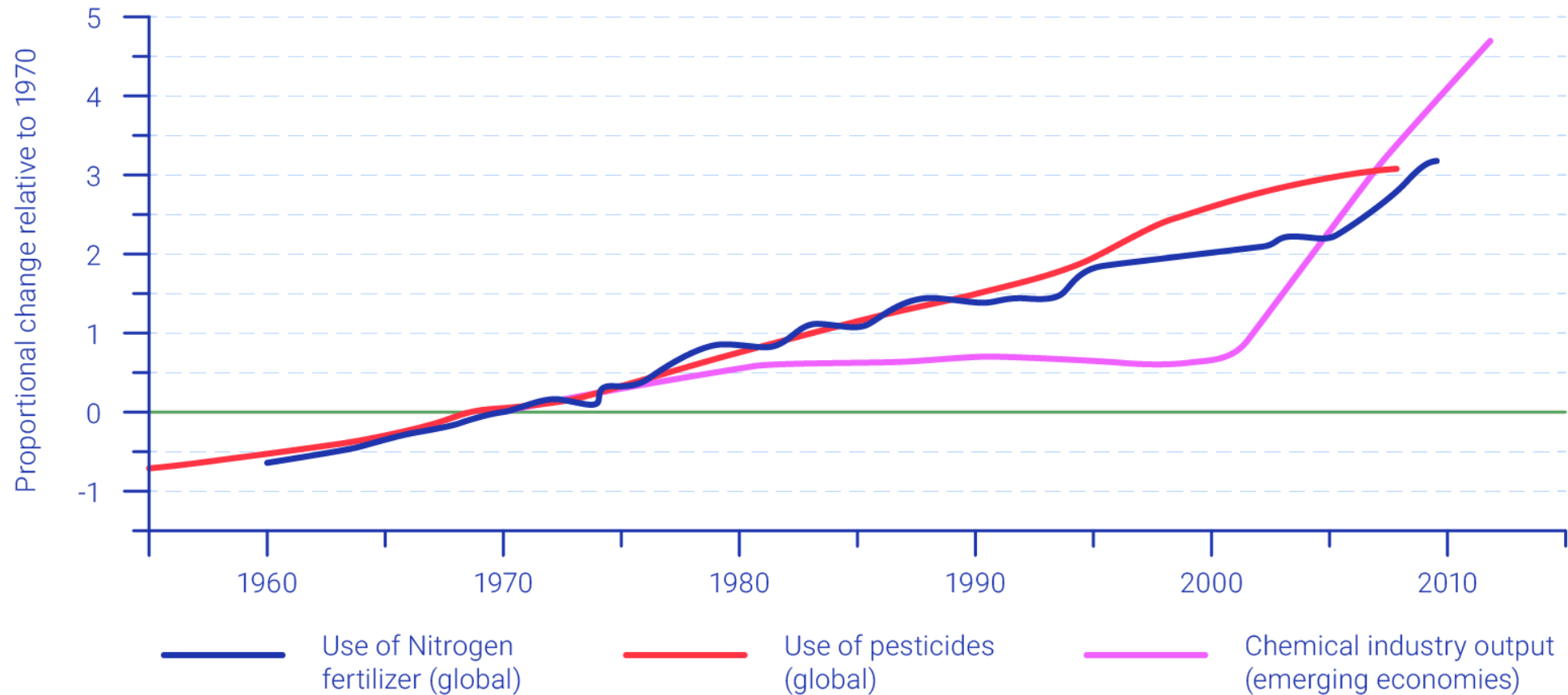
Remaining near-natural land is projected to be only 10 per cent by 2050



The production and release of chemicals is increasing fast

Some of these chemicals threaten human health and the environment

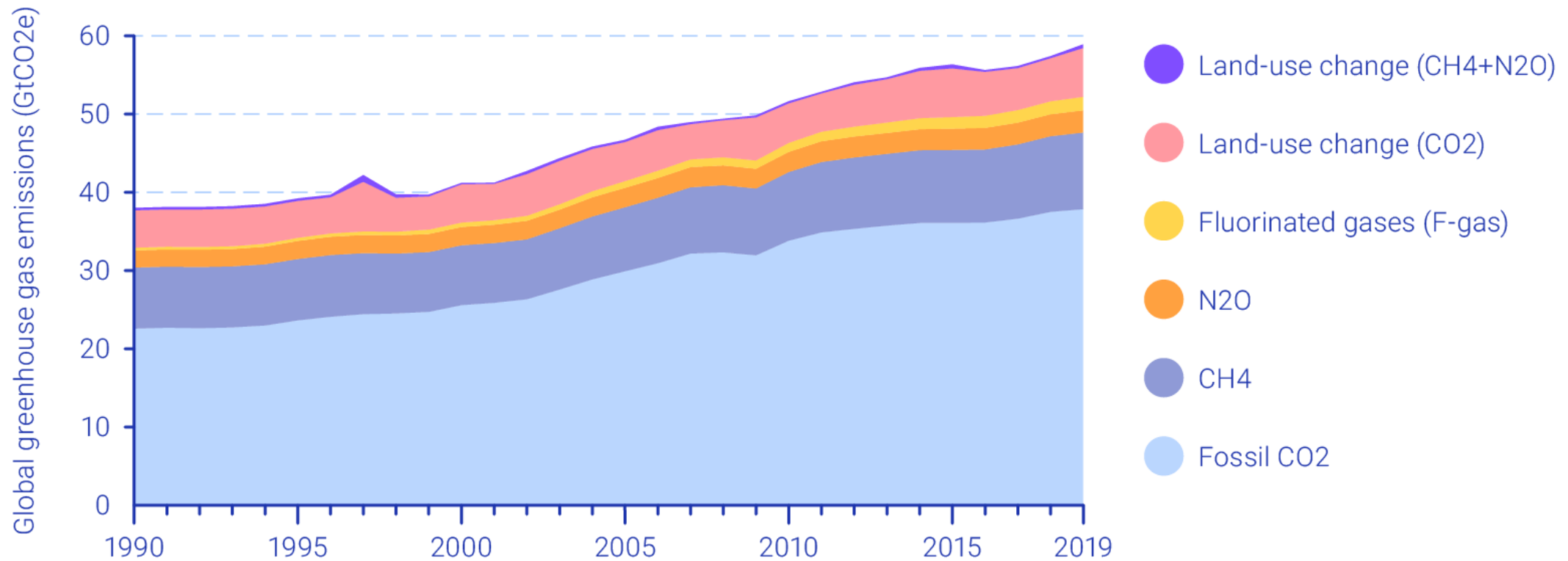
3.5. Chemical Intensification 1955 – 2015



Human Emissions of Greenhouse Gases Continue to Increase

The world is already more than 1°C warmer than a century ago, accelerating sea level rise, with more frequent and intense extreme events, threatening people and nature

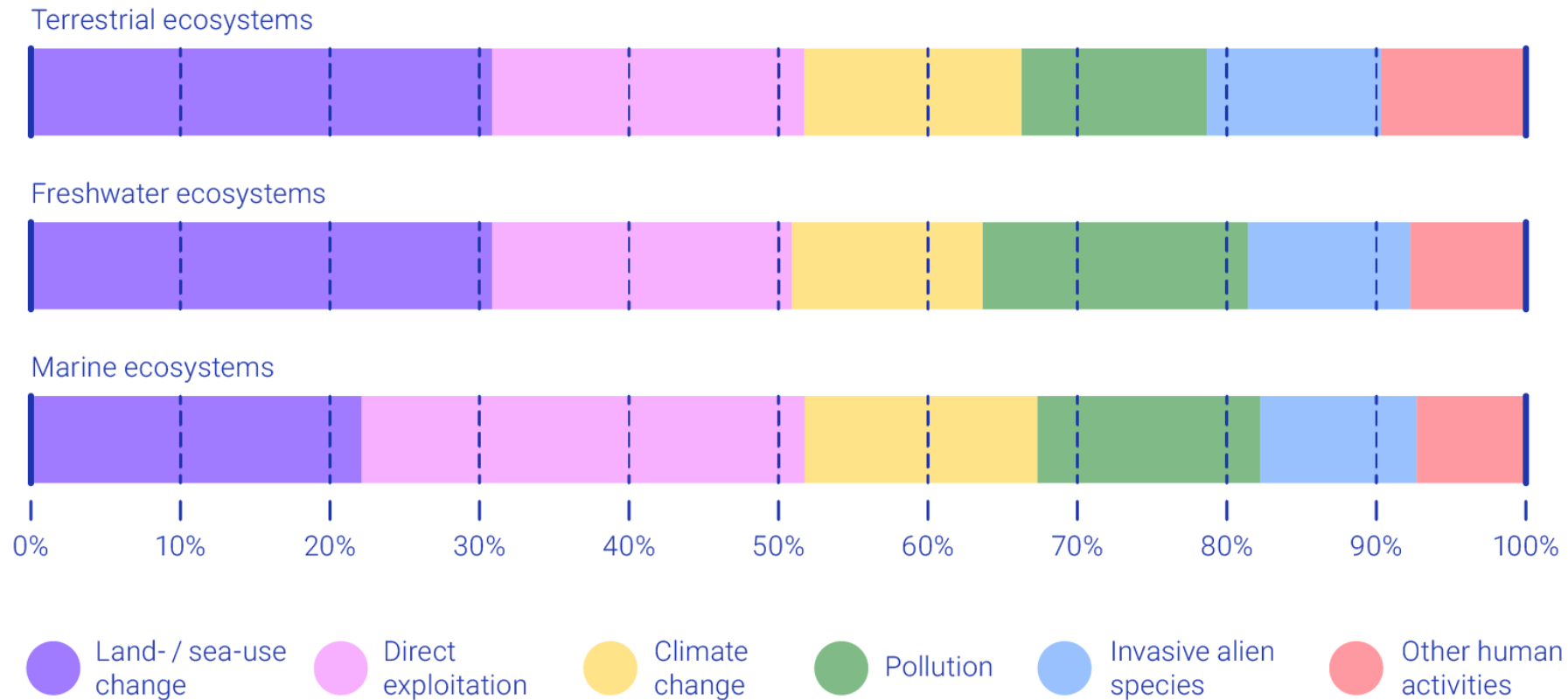
2.8. Global greenhouse gas emissions from all sources



Biodiversity continues to decline at an alarming and accelerating rate

1 million of the world's estimated 8 million plants and animals species are threatened with extinction - population sizes and abundance are dropping - ecosystems are being degraded - ecosystem services are eroding

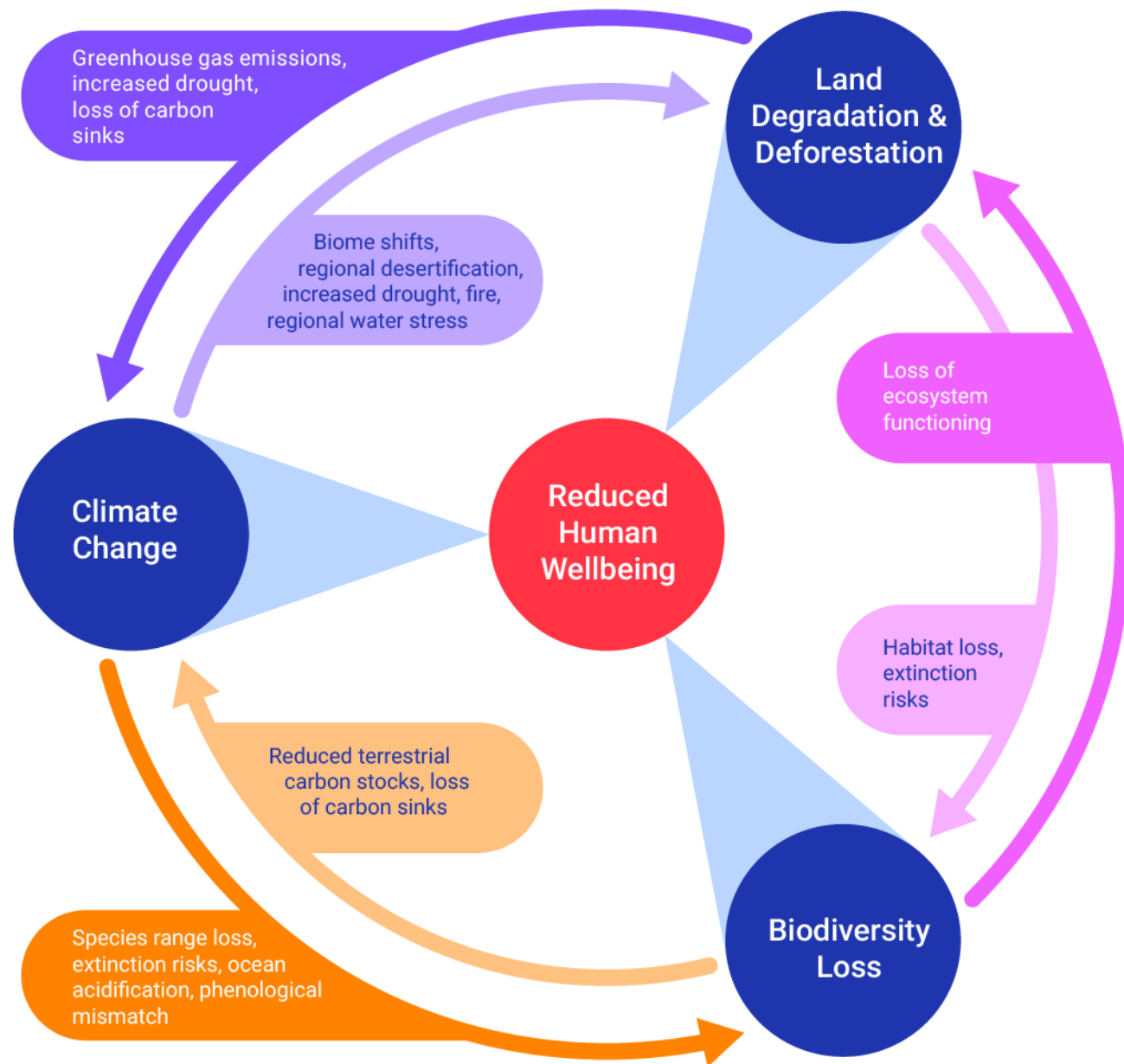
3.1. Relative global impact of direct drivers on major ecosystems



The environmental emergencies are intertwined

Earth's environmental emergencies and development challenges should be addressed together to achieve sustainability

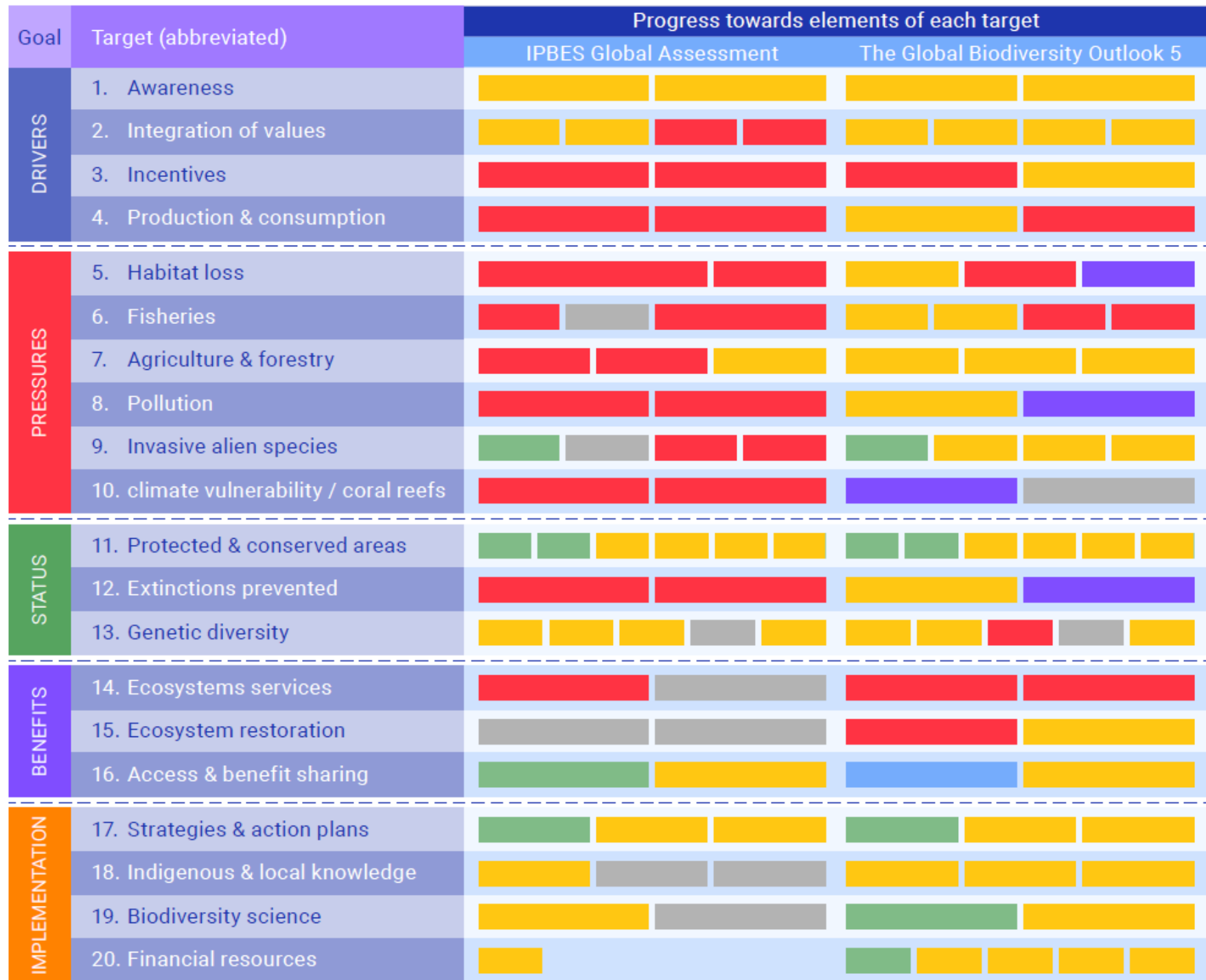
International environmental agreements need to be aligned and become more mutually supportive



We are going beyond limits agreed in international agreements

Society is not on course to fulfil the Paris Agreement to limit global warming to well below 2°C above pre-industrial levels and to pursue efforts to further limit the temperature increase to 1.5°C

None of the Aichi Targets have been fully met

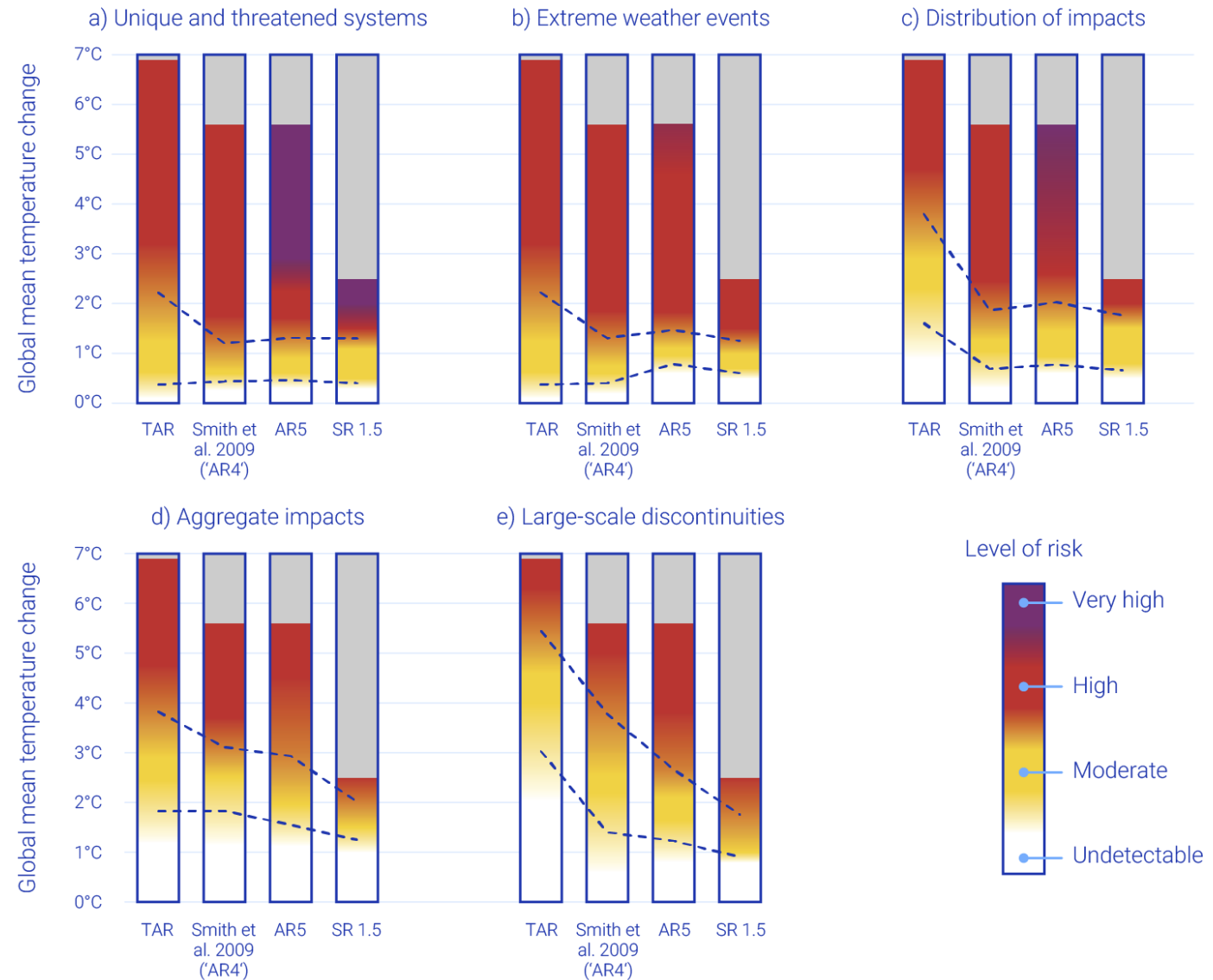


Risks associated with climate change

Risks of climate change are more severe than previously thought

And are occurring with smaller changes in temperature

1.1. Comparison of risk thresholds across Intergovernmental Panel on Climate Change (IPCC) Assessments



Environmental degradation threatens the achievement of the SDGs

In 2018, damages from climate-related natural disasters cost about \$155 billion

Worldwide, 3.2 billion people are adversely affected by land degradation

Pollution causes about 9 million premature deaths annually, primarily from indoor and outdoor air pollution

Environmental degradation threatens the achievement of the SDGs

Impeding poverty elimination, inequality reduction, economic development and peace

- ▶ Exacerbated multi-dimensional poverty
- ▶ Accentuated inequality, including gender inequality
- ▶ Lost income opportunities
- ▶ Increased risk of conflict over resources
- ▶ Increased risk of displacement and outmigration

Threatening human health

- ▶ Increased undernutrition, heat stress and air pollution-related diseases
- ▶ Exacerbated food- and water-borne infections and zoonotic diseases
- ▶ Reduced ability of nature to provide medicines and support physical and mental well-being

Hampering efforts to make cities and communities sustainable

- ▶ Increased vulnerability to natural disasters
- ▶ Stresses on urban infrastructure
- ▶ Rising air and water pollution
- ▶ Rising waste disposal problems

Weakening food and water security

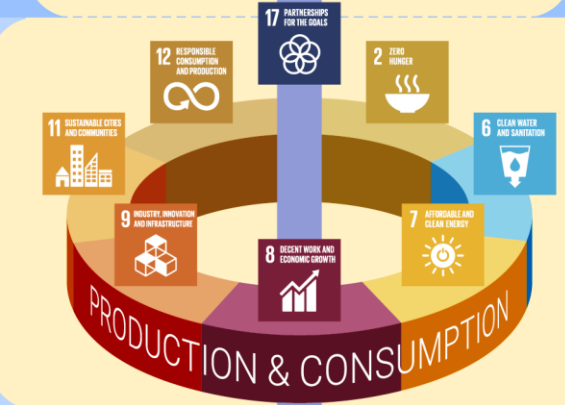
- ▶ Increased food-system vulnerability
- ▶ Reduced agricultural productivity
- ▶ Reduced nutritional value of crops
- ▶ Lower catch in fisheries
- ▶ Increased water scarcity

Changing climate

- ▶ Higher temperatures
- ▶ More extreme weather events, e.g. flooding, droughts, storm surges and heatwaves
- ▶ Rising sea level
- ▶ Changing precipitation patterns
- ▶ Ocean acidification

Biodiversity loss and ecosystem degradation

- ▶ Loss of species richness and accelerated species extinction
- ▶ Loss of genetic resources in domestic and wild species
- ▶ Loss of ecosystem functions, such as pollination, seed dispersal, soil formation and biological productivity



Transforming humankind's relation with nature is the key to a sustainable future

Human knowledge, ingenuity, technology and cooperation can transform societies and economies and secure a sustainable future

This transformation will involve a fundamental change in the technological, economic and social organization of society, including world-views, norms, values and governance

Major shifts in investment and regulation are key to just and informed transformations that overcome inertia and opposition from vested interests



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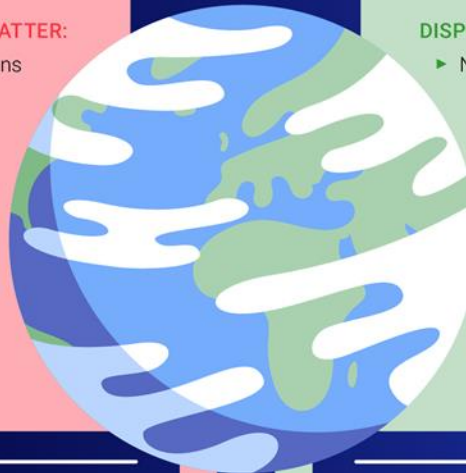
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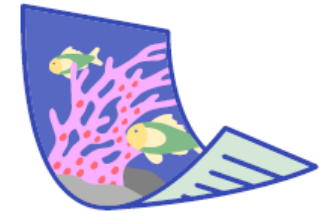
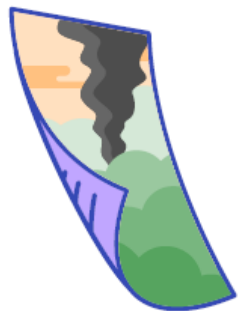
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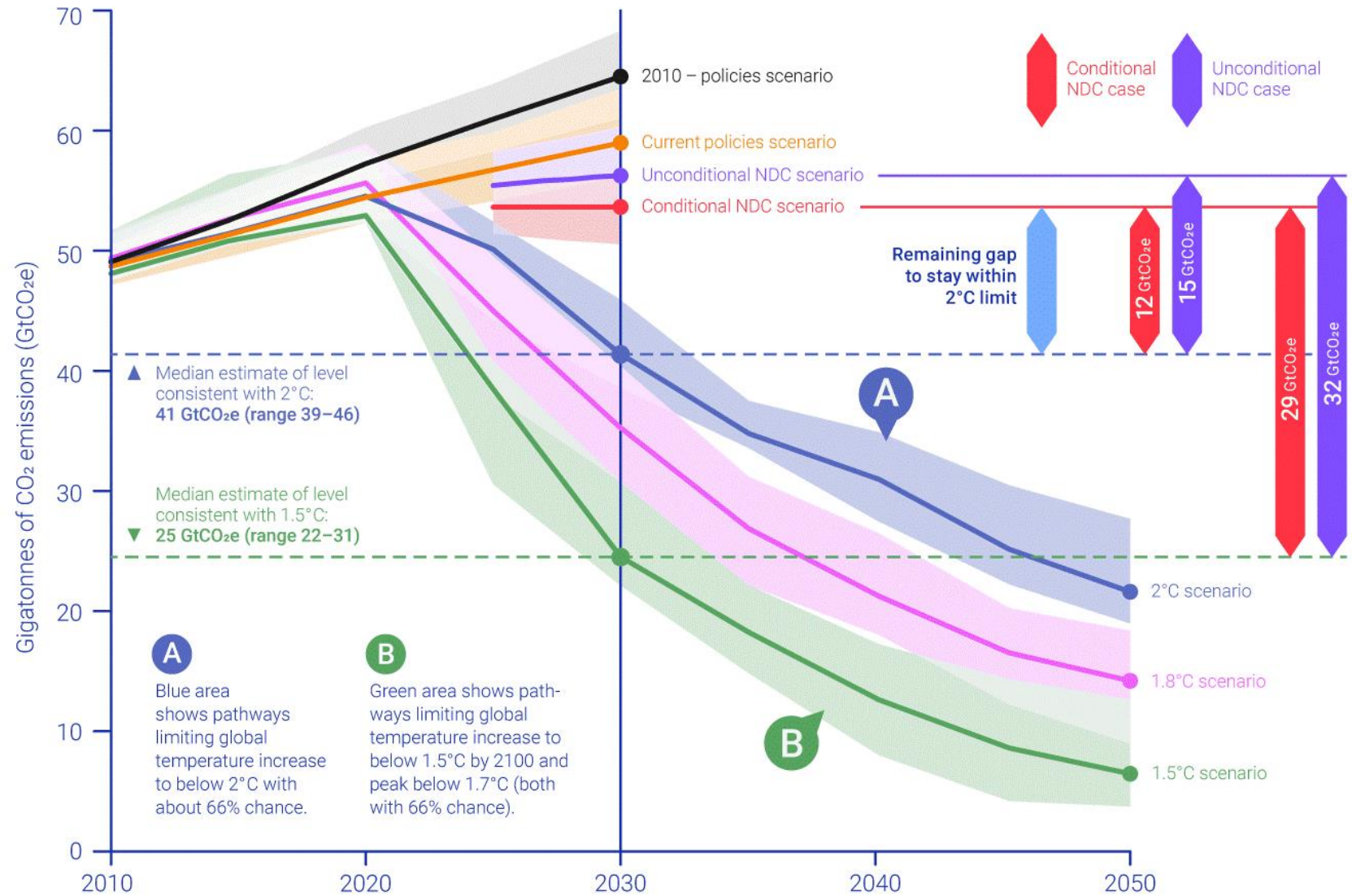
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Closing the Greenhouse Gas Emissions Gap

CO₂ emissions need to be:

- reduced by 45% by 2030 and
 - net zero by 2050
- to limit global warming to 1.5°C – and*
- decline by 25% by 2030 and
 - reach net zero by around 2070
- to limit warming to 2°C*

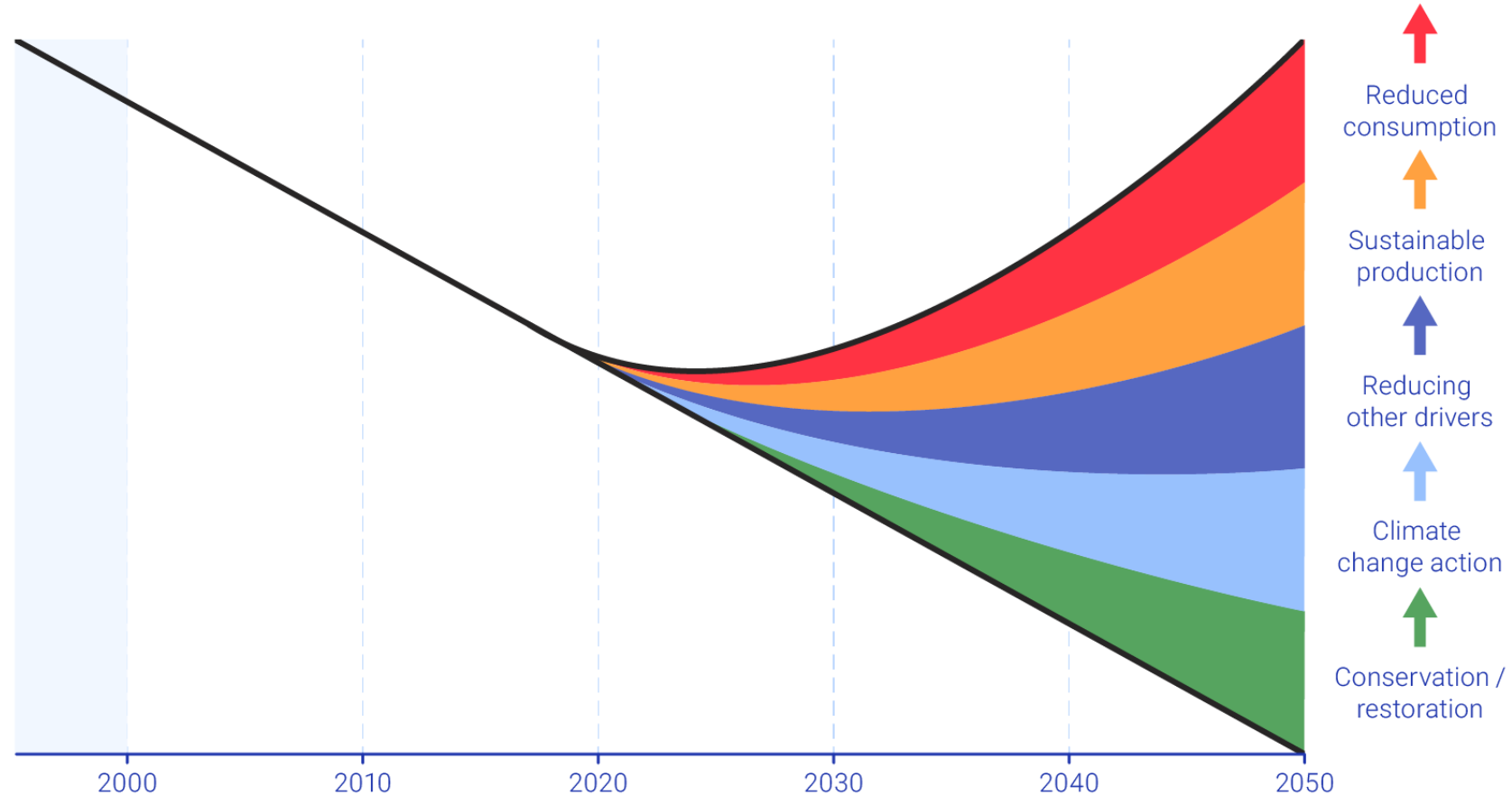


Aligned actions for protecting and restoring life on Earth

The loss of biodiversity can only be halted and reversed by providing space dedicated for nature while also addressing drivers such as:

- changing land and sea use,
- over-exploitation,
- climate change,
- pollution and
- invasive alien species

6.3. Aligned actions for protecting and restoring life on Earth



Zoonotic Diseases

- About 75% of all new infectious diseases have their origin in animals
- 700,000 potential viruses in animals and birds could pose a threat to human health
- The risks of future zoonotic pandemics could be reduced by managing human activities and applying a holistic one-health approach



Role of actors

A: Governments at all levels hold a leading role

B: Intergovernmental Organizations facilitate joint efforts

C: Financial Organizations direct investments

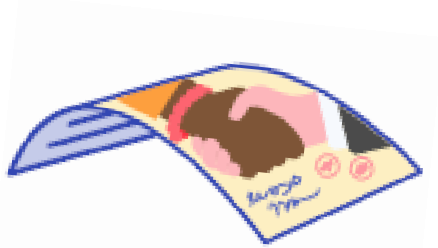
D: Private sector innovates and implements

E: Non-Governmental Organizations (NGOs) conceive ideas and raise awareness

F: Individuals, households, civil society and youth groups, and indigenous peoples and local communities) put theory into practice

G: Scientific and Educational Organization develops knowledge and understanding

1. Address Earth's environmental emergencies and human well-being together
2. Transform economic and financial systems so they lead and power the shift toward sustainability
3. Transform food, water and energy systems to meet growing human needs in an equitable, resilient and environmentally friendly manner



Key takeaways for Governments

Lead the change through cross-sectoral coordination of assessments, monitoring, policies, legislation, enforcement and financing for:

- Scaling up and accelerating action to address the climate, biodiversity and pollution emergencies together

Transform the economic and financial systems so they lead and power the shift to sustainability and circularity including when restarting economies stalled by the COVID-19 pandemic by:

- Accounting for natural capital and environmental costs in measures of economic performance and in decision-making
- Establishing carbon taxes, carbon pricing, markets for carbon trading, and schemes for offsetting of nature and payments for ecosystem services
- Shifting environmentally harmful subsidies and investments in economic activities, research and development towards low-carbon and nature-friendly solutions

Transform food, energy and production systems to provide access to sustainable, affordable and nutritious food, clean energy and safe water for all by

- Promoting healthy diets and reductions in food and water waste
- Developing energy efficiency regulations and infrastructure for electric vehicles



Key takeaways for UN Agencies

Facilitate international cooperation in science-policy interfaces and advance UN system-wide efforts including by promoting synergies among scientific assessments and multilateral environmental agreements through norms, implementation, financing, capacity-building and technological cooperation for:

- Coalitions and ambitious targets for addressing the climate, biodiversity and pollution emergencies together

Facilitate the transformation of the economic and financial systems so they lead and power the shift to sustainability and circularity including when restarting economies stalled by the COVID-19 pandemic by:

- Developing framework to account for natural capital and environmental costs in measures of economic performance and in decision-making
- Developing approaches to establishment of carbon taxes, carbon pricing, markets for carbon trading, and schemes for offsetting of nature and payments for ecosystem services
- Support cooperation on shifting environmentally harmful subsidies and investments in economic activities, research and development towards low-carbon and nature-friendly solutions
- Advancing international development assistance, capacity-building and transfer of technology

Facilitate the transformation of food, energy and production systems to provide access to sustainable, affordable and nutritious food, clean energy and safe water for all by

- Promoting healthy diets and reductions in food and water waste
- Developing approaches to energy efficiency regulations and infrastructure for electric vehicles

#PeacewithNature

Information, resources and contacts:

<https://www.unep.org/resources/making-peace-nature>

Email contact: rachel.kosse@un.org

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Norwegian Ministry
of Climate and Environment

