

# UN sustainable development goals 17 interconnected goals

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# Millenium development goals



# Lessons learned from MDGs

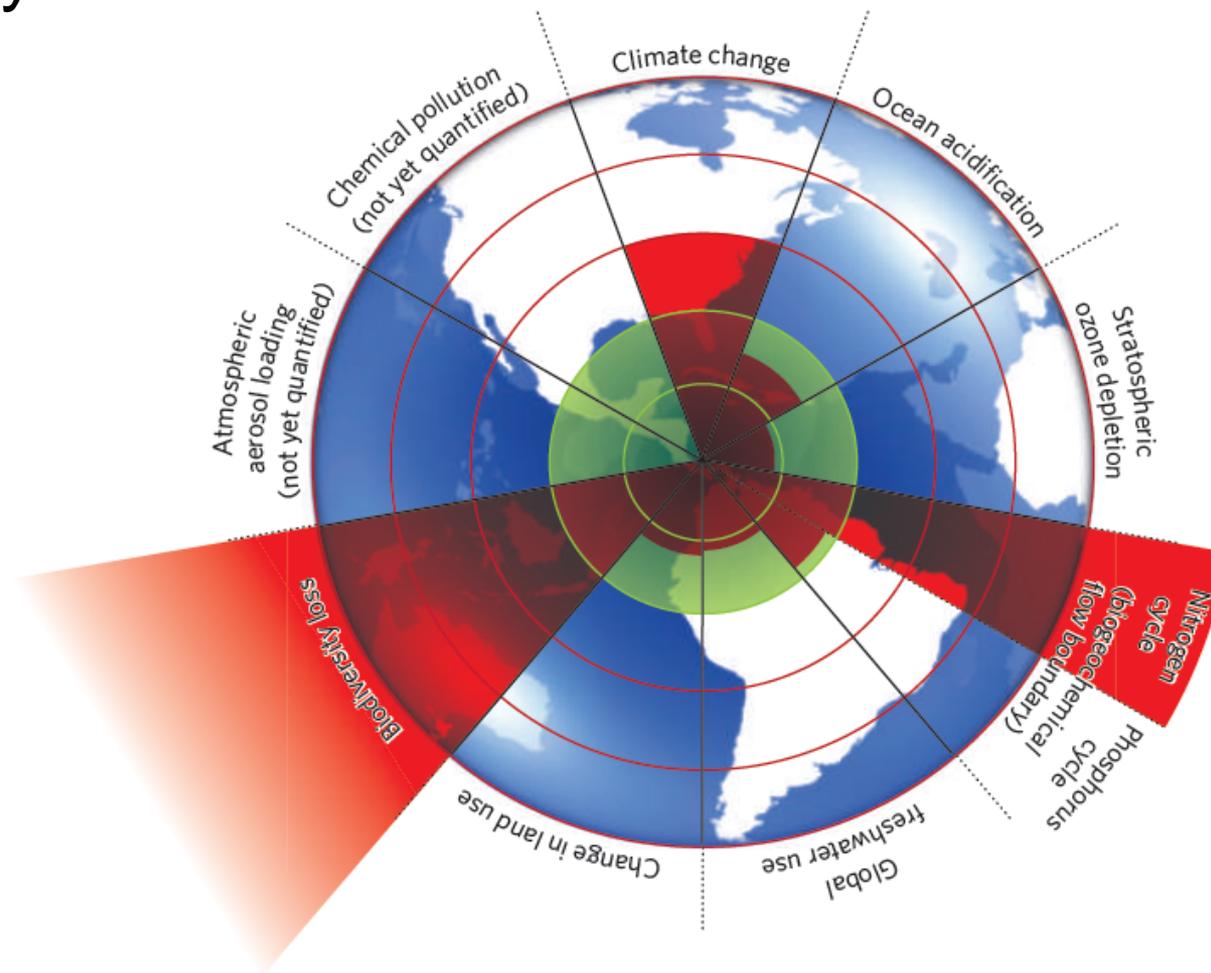
- The greatest triumph of the MDGs was to mobilize broad support for a global development agenda;
- It gave substantive attention to the well being of the people
- **Three major criticisms of the MDGs:**
  1. it was developed by a small group of experts and was not member state driven;
  2. it is too aid focused/donor driven, mostly targeting developing countries;
  3. it overlooked the issue of inequality;

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# Anthropocene (Wikipedia)

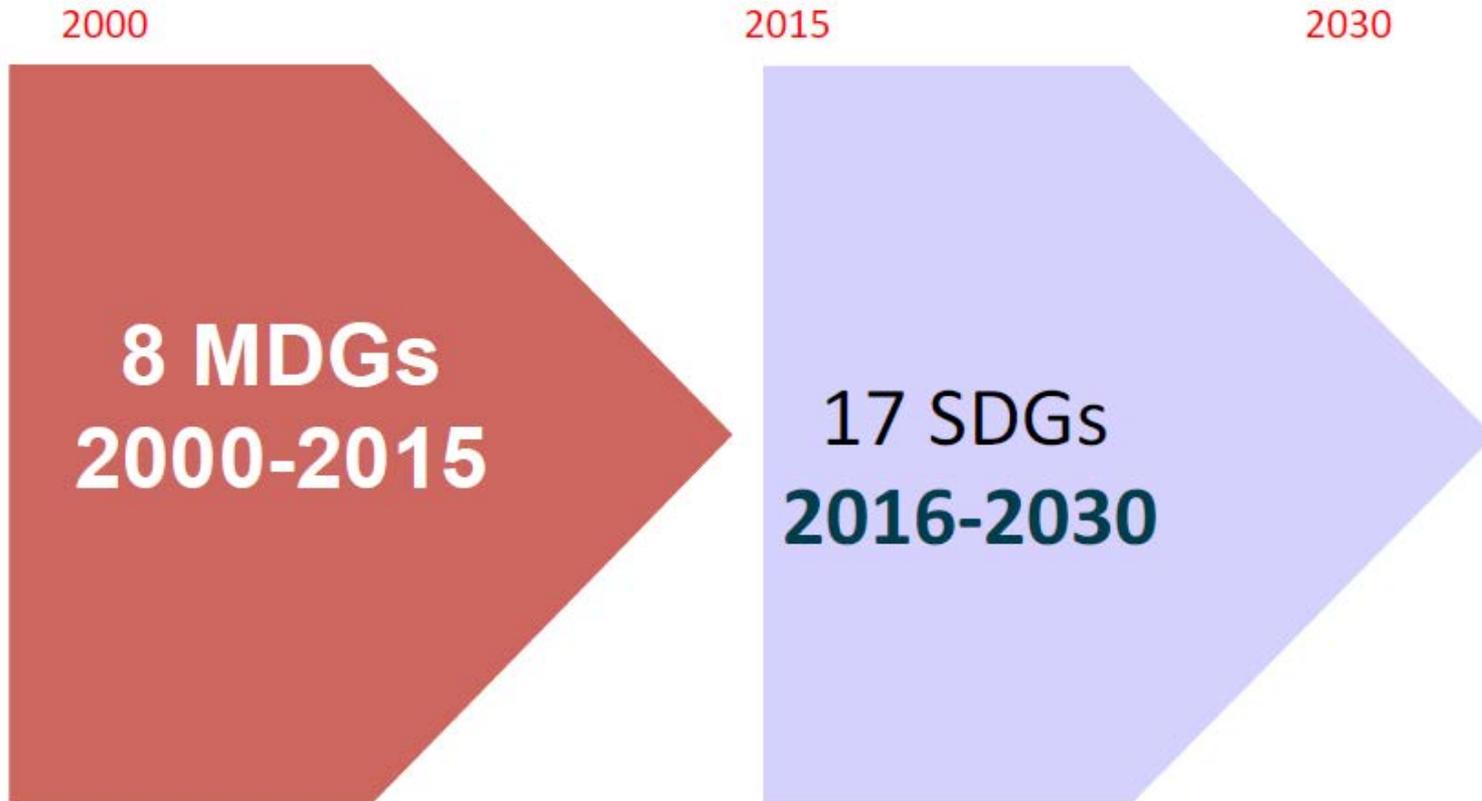
The Anthropocene is an informal geologic chronological term that serves to mark the evidence and extent of human activities that have had a significant global impact on the Earth's ecosystems. The term was coined recently by ecologist Eugene F. Stoermer, but has been widely popularized by the Nobel Prize-winning atmospheric chemist, Paul Crutzen, who regards the influence of human behavior on the Earth's atmosphere in recent centuries as so significant as to constitute a new geological epoch for its lithosphere. To date, the term has not been adopted as part of the official nomenclature of the geological field of study.

# Planetary boundaries



**Figure 1 | Beyond the boundary.** The inner green shading represents the proposed safe operating space for nine planetary systems. The red wedges represent an estimate of the current position for each variable. The boundaries in three systems (rate of biodiversity loss, climate change and human interference with the nitrogen cycle), have already been exceeded.

# From MDGs to SDGs





**SUSTAINABLE  
DEVELOPMENT  
GOALS**



**UNITED NATIONS  
SUSTAINABLE  
DEVELOPMENT  
SUMMIT 2015**  
25-27 SEPTEMBER

# Sustainable development goals

**One global development framework  
with :**

- 1. 17 goals**
- 2. 169 targets**
- 3. 232 indicators**

# Key features of the SDGs

For sustainable development to be achieved, it is crucial to harmonize three core elements: **economic** growth, **social** inclusion and **environmental** protection.

## Three key characteristics of the SDGs

- **Universal:** global goals set for the “World We want”, applicable to developing and developed countries.
- **Indivisible:** cannot be positioned in a hierarchical or prioritization order. Denial of one invariably impedes enjoyment of other rights and basics needs;
- **Transformative:** Transforming current challenges into opportunities for the 5P (peace, people, planet, prosperity and partnership)

**1** NO POVERTY



**2** ZERO HUNGER



**3** GOOD HEALTH AND WELL-BEING



**4** QUALITY EDUCATION



**5** GENDER EQUALITY



**6** CLEAN WATER AND SANITATION



**7** AFFORDABLE AND CLEAN ENERGY



**8** DECENT WORK AND ECONOMIC GROWTH



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE



**10** REDUCED INEQUALITIES



**11** SUSTAINABLE CITIES AND COMMUNITIES



**12** RESPONSIBLE CONSUMPTION AND PRODUCTION



**13** CLIMATE ACTION



**14** LIFE BELOW WATER



**15** LIFE ON LAND



**16** PEACE, JUSTICE AND STRONG INSTITUTIONS



**17** PARTNERSHIPS FOR THE GOALS



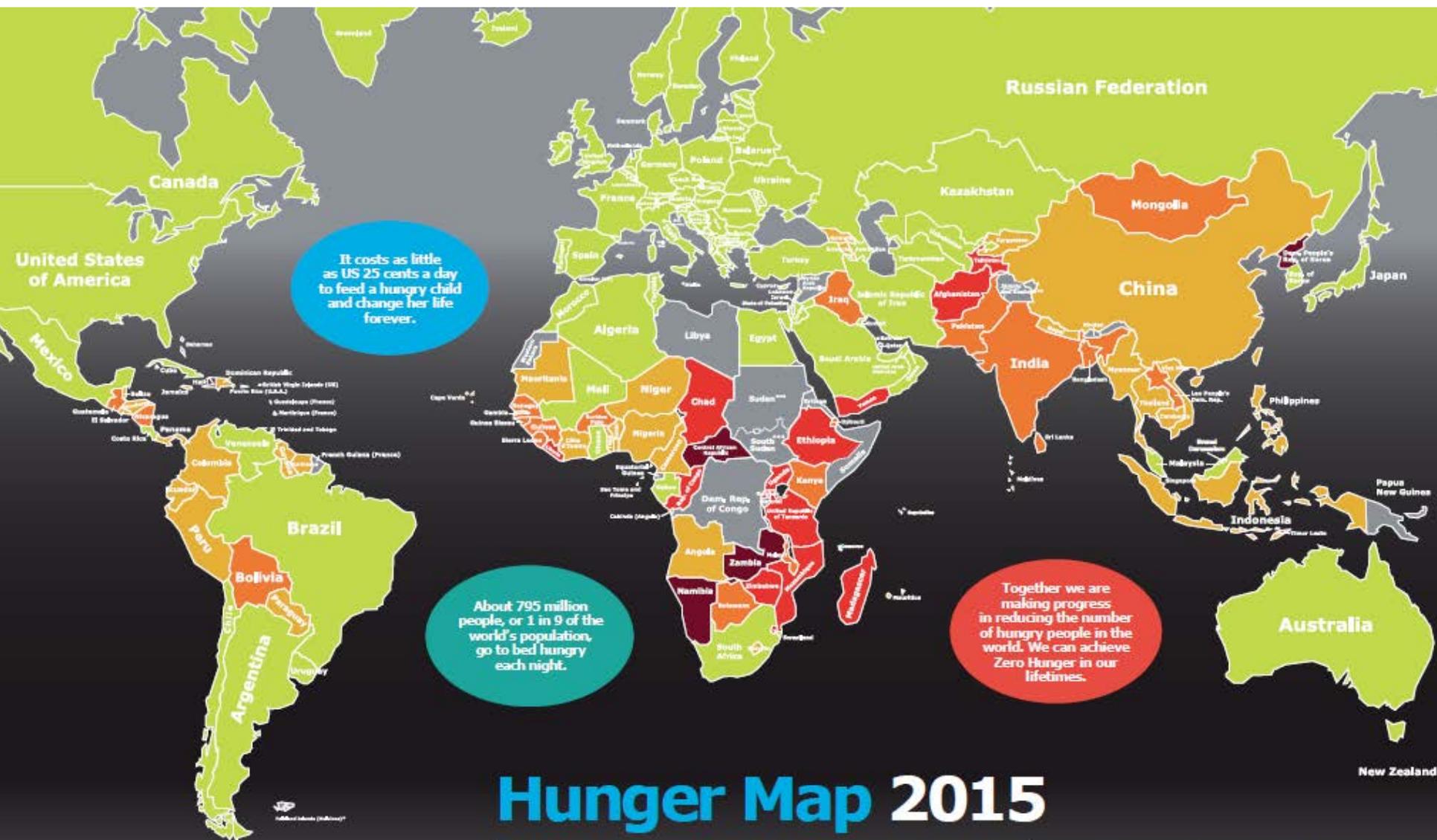


# Five pillars of the SDGs

- **Peace**
  - No Poverty
  - Gender Equality
  - Peaceful and inclusive societies
- **People**
  - Zero hunger
  - Good health and wellbeing
  - Quality Education

# Five pillars of the SDGs

- **Prosperity**
  - Affordable and Clean energy
  - Decent work and economic growth
  - Industry, innovation and infrastructure
  - Reduced inequalities
  - Sustainable cities and communities
- **Planet**
  - Clean water and Sanitation
  - Responsible consumption and production
  - Climate action
  - Life below water
  - Life on land
- **Partnership for the goals**



# Hunger Map 2015



**World Food Programme**

wfp.org



Prevalence of undernourishment in the population (percent) in 2014-16



The map shows the prevalence of undernourishment in the population of developing countries as of 2014-16. The indicator measures the probability that a randomly selected individual in the population is consuming an amount of dietary energy, which is insufficient to cover their requirements for an active and healthy life.

Source: FAO, IFPRI and WFP, 2015. The State of Food Security in the World 2015, Meeting the 2015 International Hunger Targets: Taking Stock of Latest Progress. Rome, FAO. Further information is available at [www.fao.org/stateofworldfoodsecurity/](http://www.fao.org/stateofworldfoodsecurity/)

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The designations employed and the presentation of material in this map do not imply the approval of any opinion whatsoever on the part of WFP concerning the legal or political status of any country, territory, city or village, or its authorities, or concerning the delimitation of its frontiers.

A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (South Georgia).

\*\* Spatial boundaries correspond to the use of Central European and Eastern regional codes by India and Pakistan. The final order of names and symbols has not yet been agreed upon by the states.

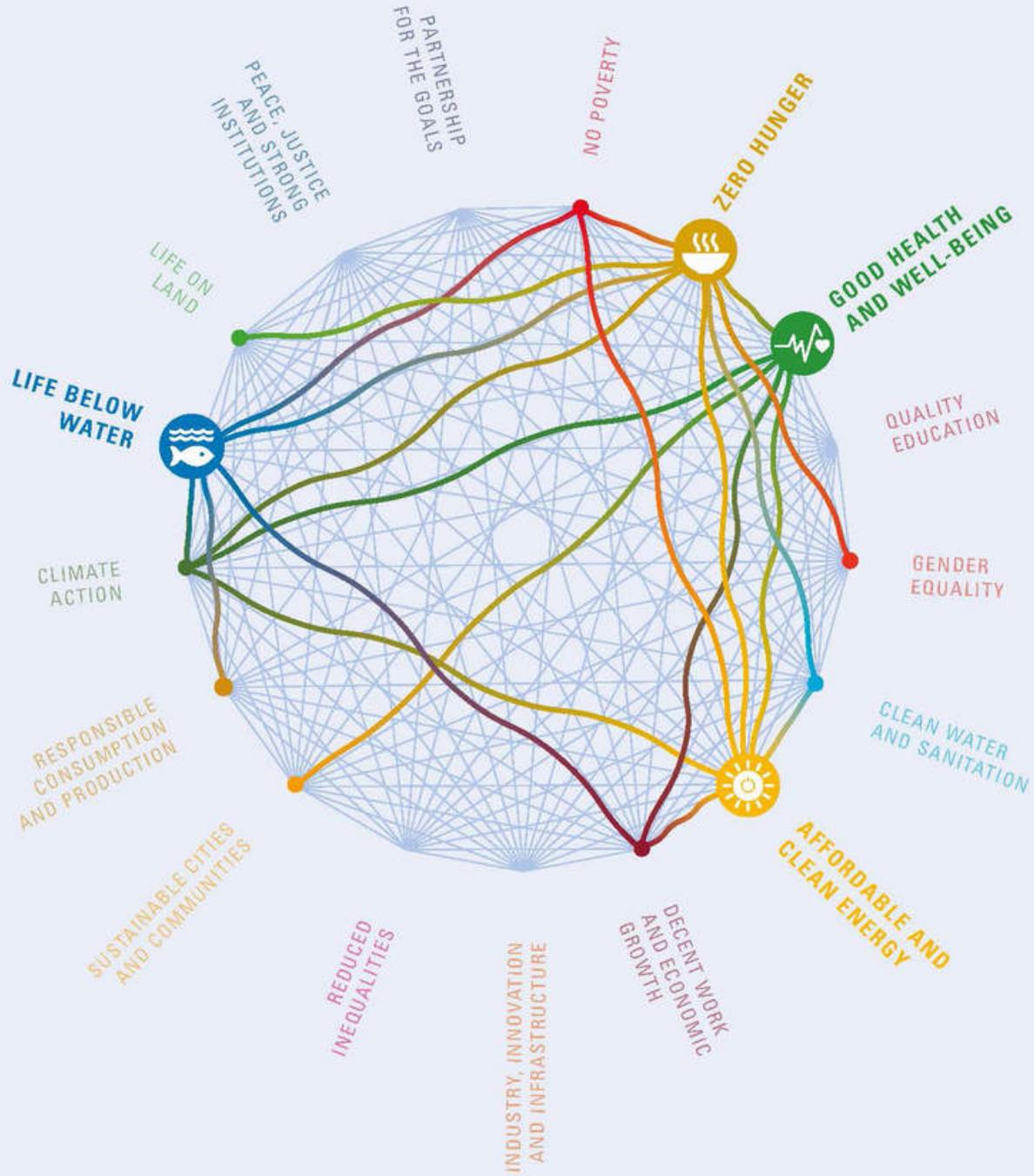
\*\*\* The boundary between the Republic of South Sudan and the Republic of Sudan has not yet been demarcated.

# SDG2: Zero hunger

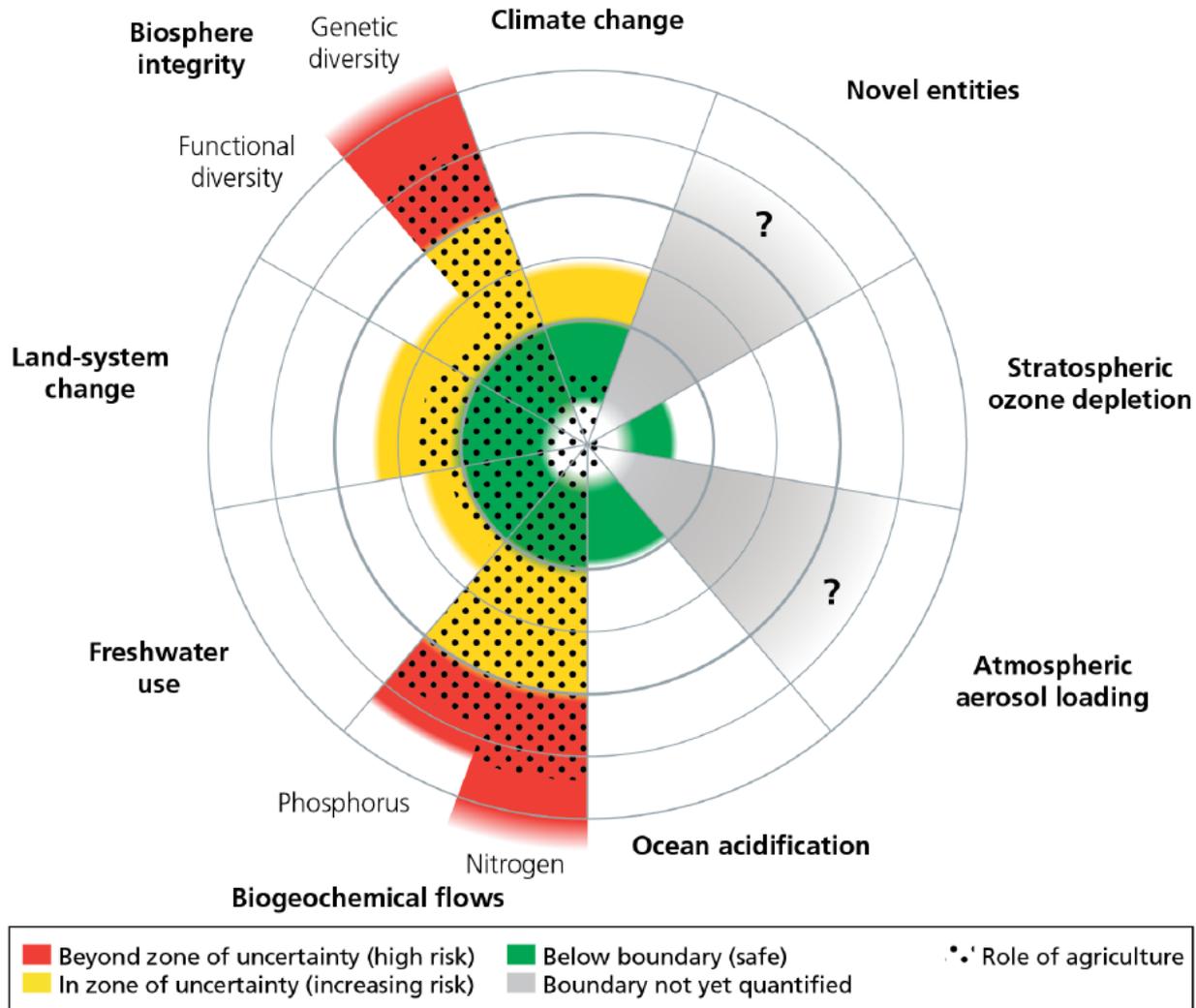
- › By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round
- › By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons
- › By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment
- › By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

# SDG2: Zero hunger

- › By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed
- › Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries
- › Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round
- › Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility.



# The role of agriculture



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# Solutions – concepts for agriculture/food

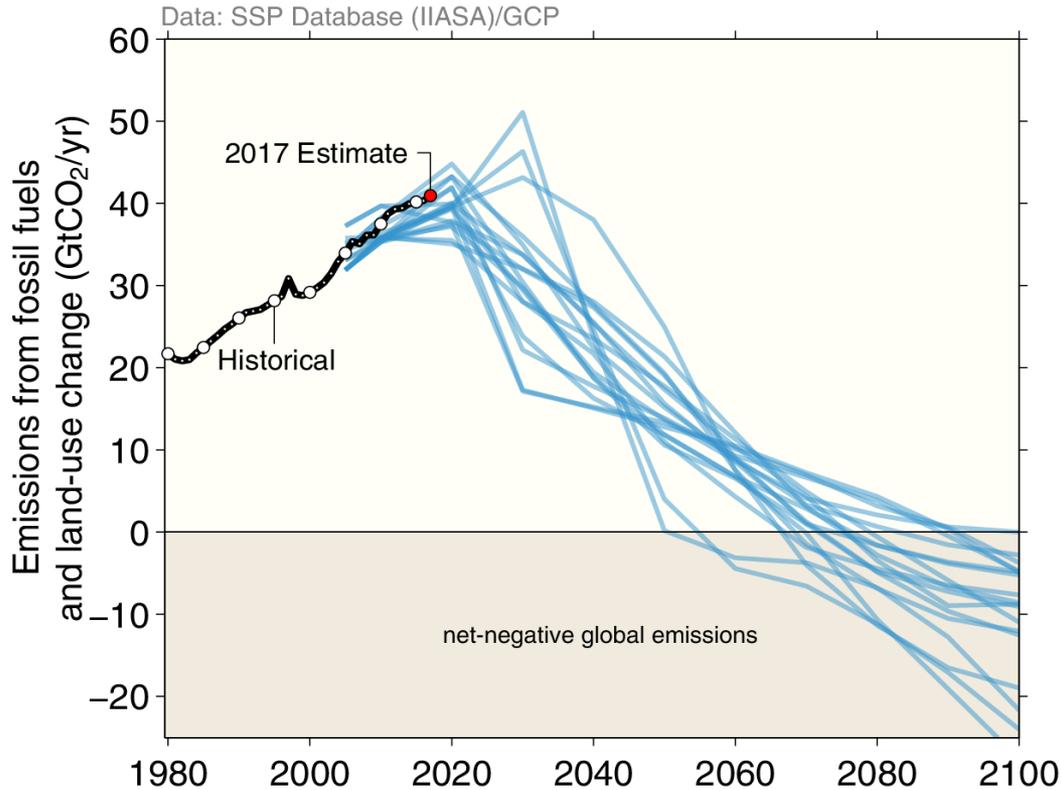
## > Production

- > Agroecology
- > Organic farming
- > Climate Smart Agriculture
- > Conservation agriculture
- > Permaculture
- > Urban farming

## > Consumption

- > Food loss reduction
- > Vegetarian
- > Vegan

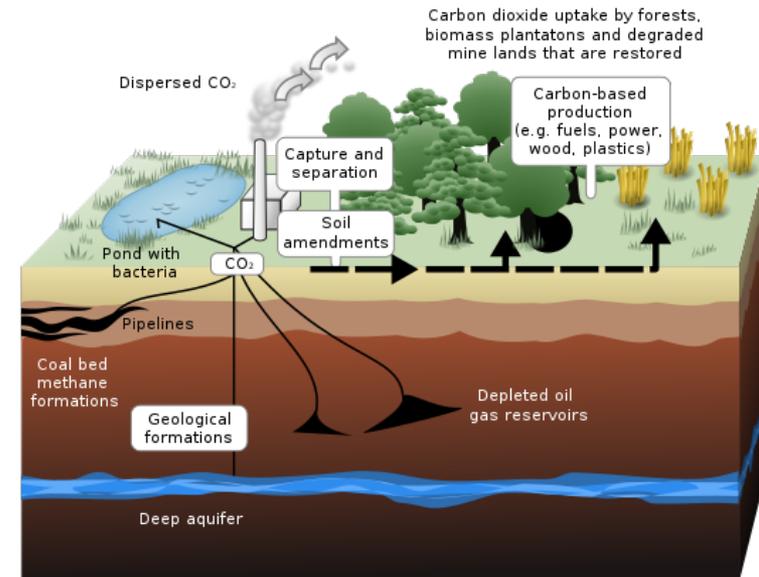
# Pathways to 2 degree target



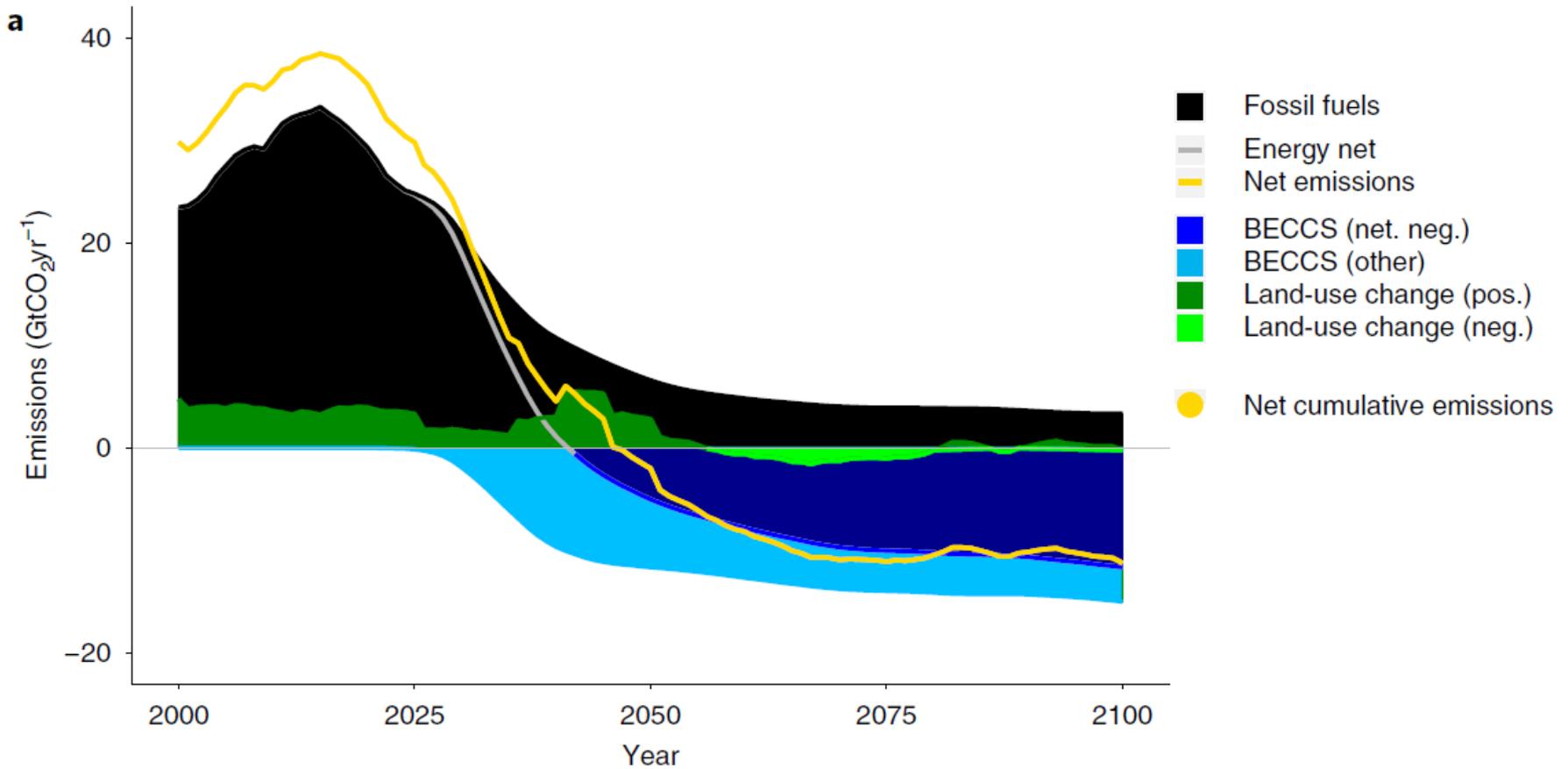
Sufficient emissions reductions can only be achieved with carbon removal (carbon storage).

Point sources (power plants):  
- CCS in geological formations

Atmosphere:  
- Storage in vegetation (forest)  
- Storage in soils



# Emissions in a standard 1,5 degree scenario



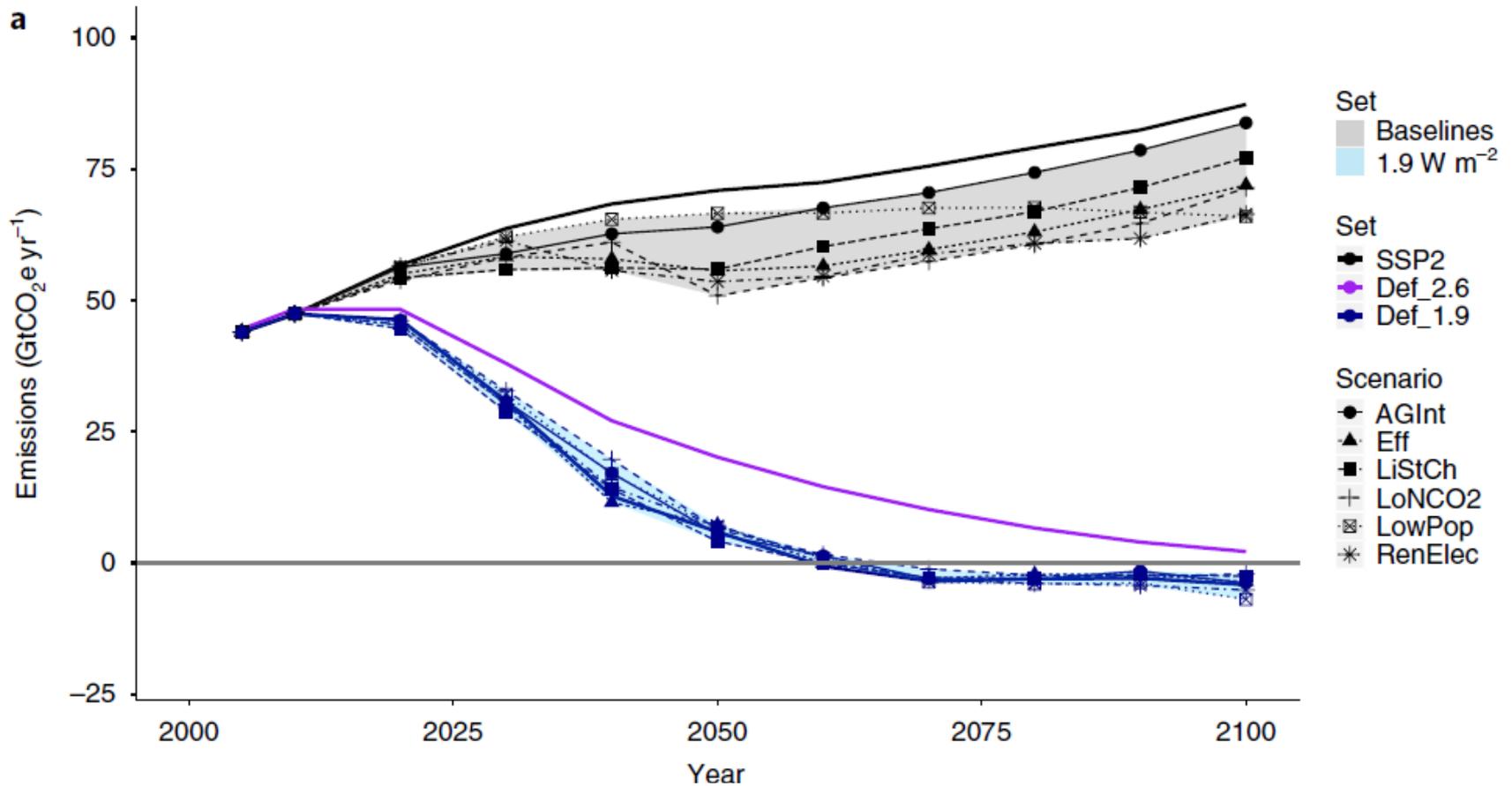
# Pathways to 1.5 C target (alternatives to BECCS)

**Table 1 | Scenario framework**

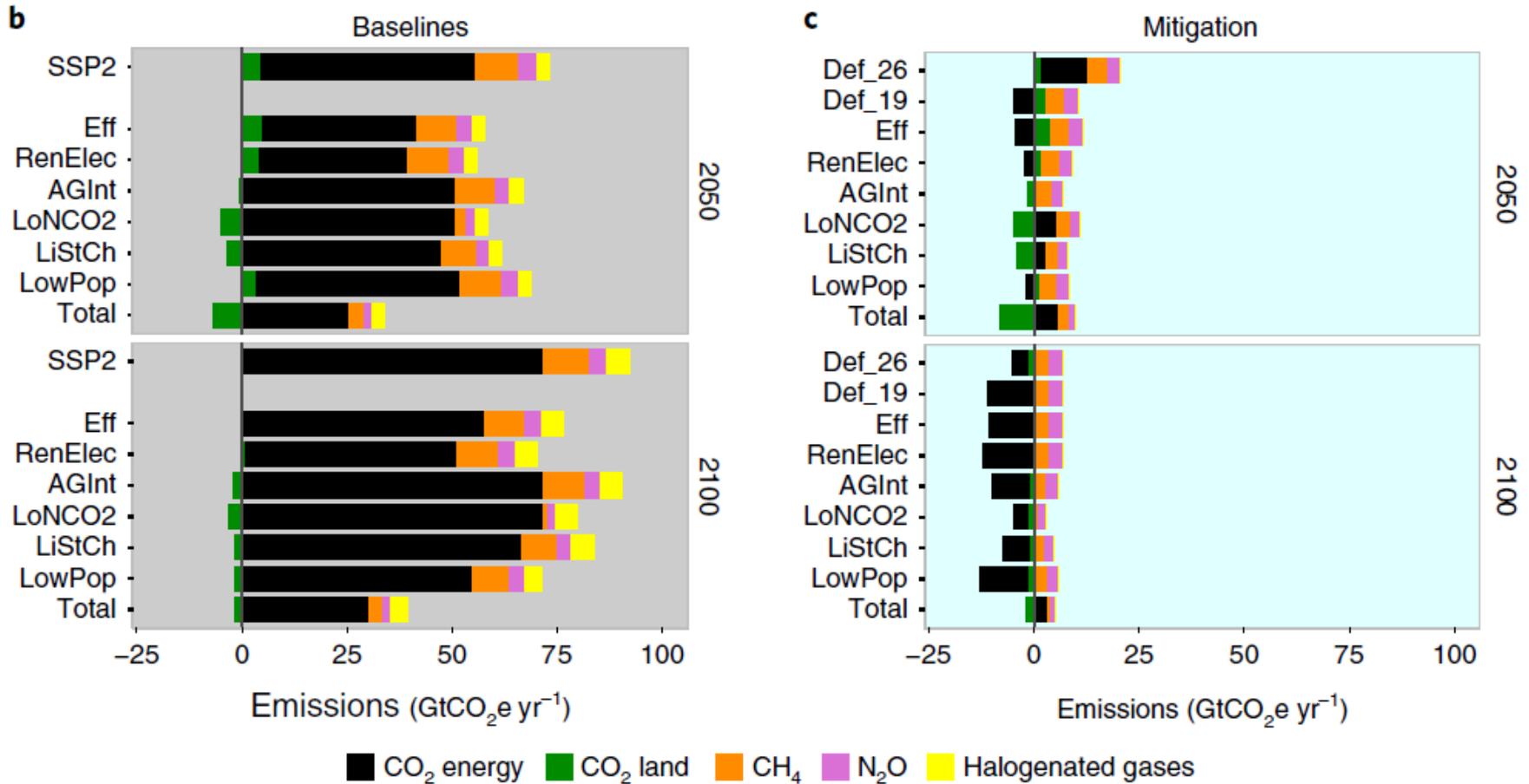
Scenario	Short name	Description and key assumptions
Baseline	SSP2	SSP2 implementation <sup>19</sup> .
Default 2.6	DEF_2.6	Climate policy is implemented by introducing a uniform carbon tax in all regions and sectors from 2020 onwards; the radiative forcing level is 2.6 W m <sup>-2</sup> in 2100 <sup>19</sup> .
Default 1.9	DEF_1.9	Climate policy is implemented by a uniform carbon tax in all regions and sectors from 2020 onwards; the radiative forcing level is 1.9 W m <sup>-2</sup> in 2100 <sup>23</sup> .
Efficiency	Eff	Rapid application of the best available technologies for energy and material efficiency in all relevant sectors in all regions.
Renewable electricity	RenElec	Higher electrification rates in all end-use sectors, in combination with optimistic assumptions on the integration of variable renewables and on costs of transmission, distribution and storage.
Agricultural intensification	AgInt	High agricultural yields and application of intensified animal husbandry globally.
Low non-CO <sub>2</sub>	LoNCO2	Implementation of the best available technologies for reducing non-CO <sub>2</sub> emissions and full adoption of cultured meat in 2050.
Lifestyle change	LiStCh	Consumers change their habits towards a lifestyle that leads to lower GHG emissions. This includes a less meat-intensive diet (conforming to health recommendations), less CO <sub>2</sub> -intensive transport modes (following the current modal split in Japan), less intensive use of heating and cooling (change of 1°C in heating and cooling reference levels) and a reduction in the use of several domestic appliances.
Low Population	LowPop	Scenario based on SSP1, projecting low population growth. <sup>29</sup>
All	TOT	The combination of all the options described above.

Note: The affixes \_2.6 and \_1.9 refer to scenarios that assume climate policies are enacted aiming to reach 2.6 and 1.9 W m<sup>-2</sup> forcing targets by the end of the century, respectively.

# Emissions in standard and 1,5 degree scenarios



# Emissions in standard and 1,5 degree scenarios



# The challenge is massive

- › The immense challenges should not lead to despair
- › Knowledge is basic – but not enough
- › Efficient action is essential
- › Action requires involvement of actors
- › A key element is therefore enabling people to become knowledgeable actors
- › Our role is to enable this transformation