

# Visualising and Mobilising Action Defending the Global Commons

## Climate change and biodiversity crisis: where do we stand and the way forward?

*Muscat, Oman, September 18th, 2022*

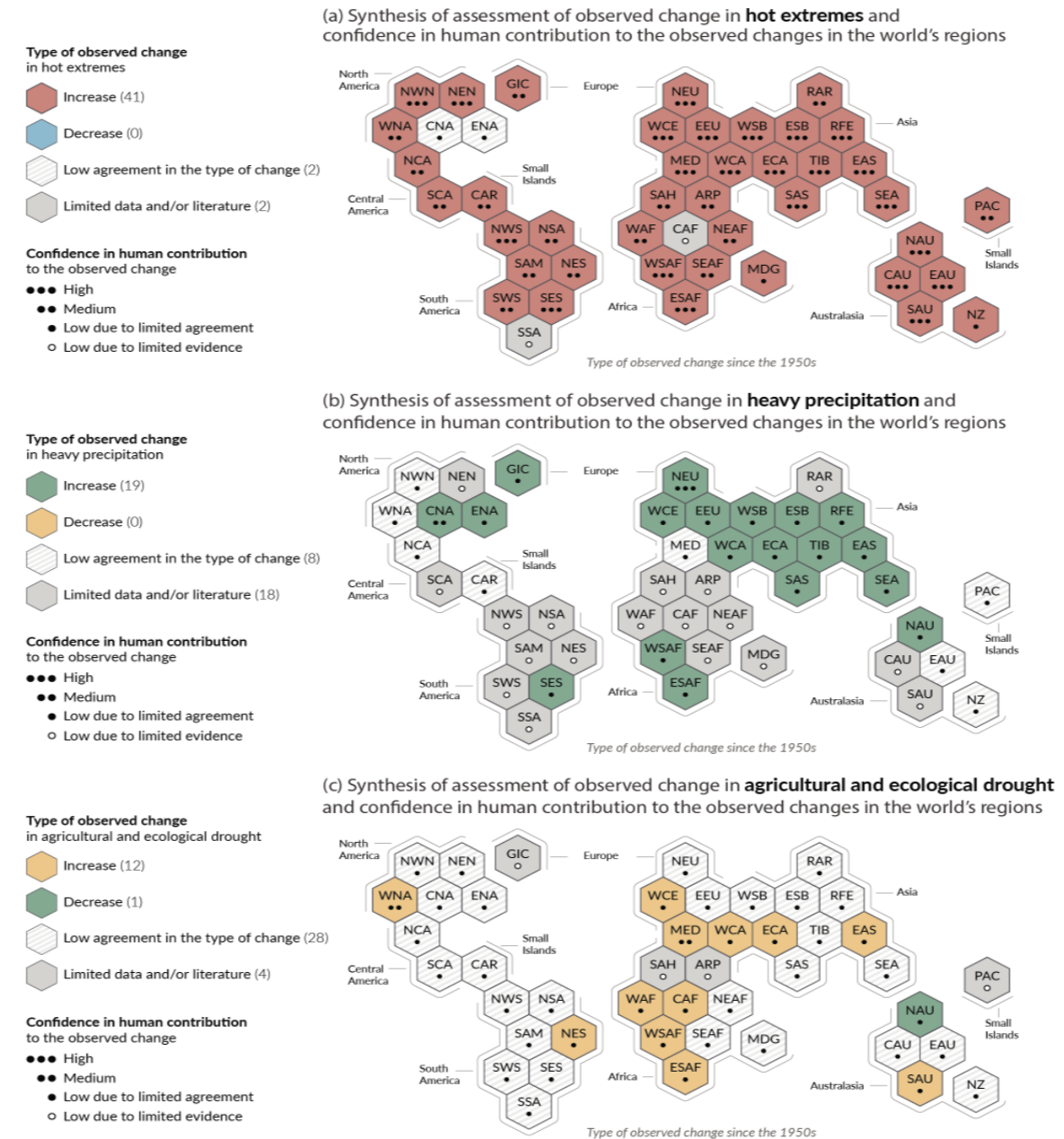
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# Observed regional changes in hot extremes, rainfall, and drought

Climate change is already affecting every inhabited region across the globe, with human influence contributing to many observed changes in weather and climate extremes

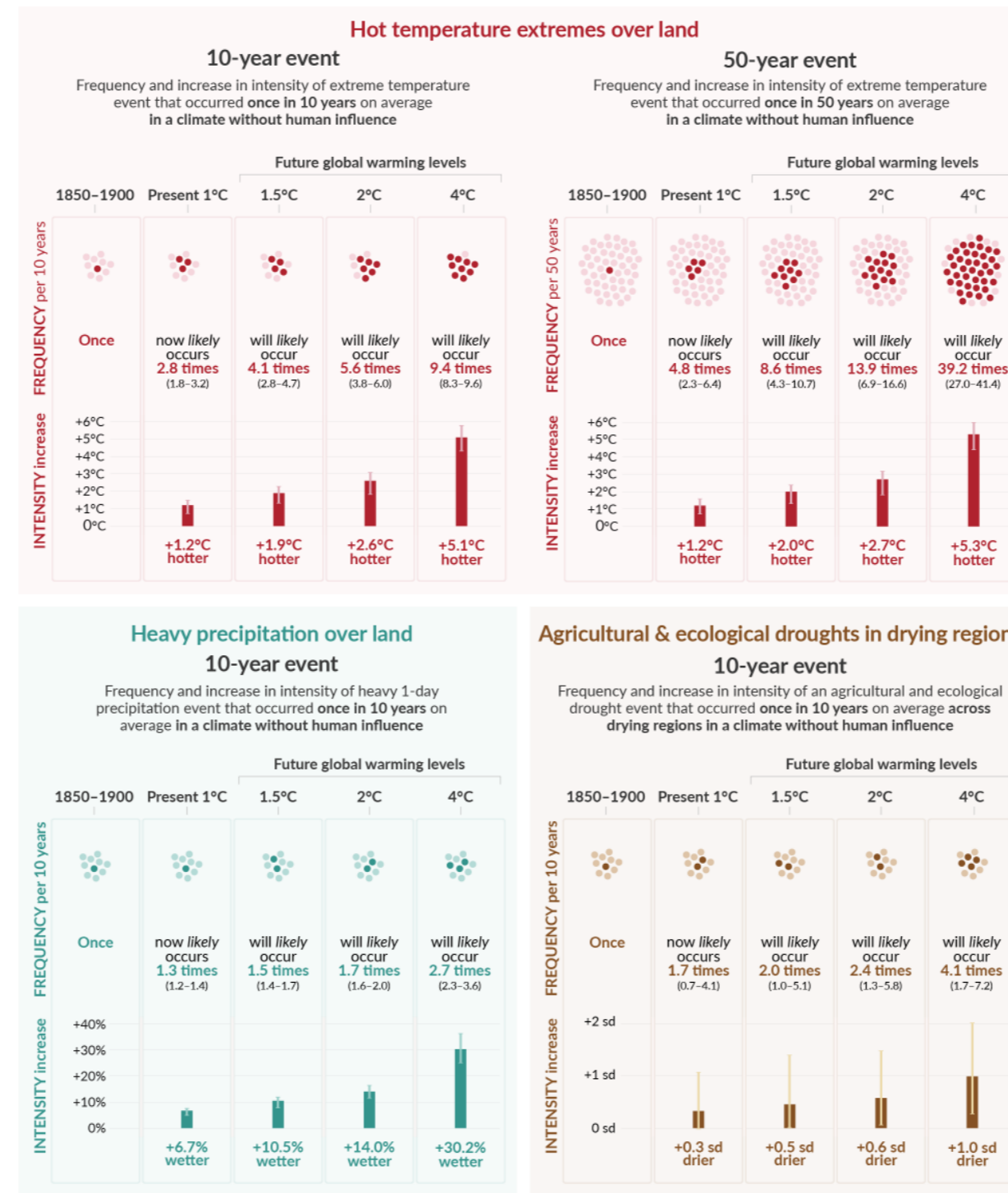


Each hexagon corresponds to one of the IPCC AR6 WGI reference regions

IPCC AR6 WGI reference regions: **North America:** NWN (North-Western North America), NEN (North-Eastern North America), WNA (Western North America), CNA (Central North America), ENA (Eastern North America), **Central America:** NCA (Northern Central America), SCA (Southern Central America), CAR (Caribbean), **South America:** NWS (North-Western South America), NSA (Northern South America), NES (North-Eastern South America), SAM (South American Monsoon), SWS (South-Western South America), SES (South-Eastern South America), SSA (Southern South America), **Europe:** GIC (Greenland/Iceland), NEU (Northern Europe), WCE (Western and Central Europe), EEU (Eastern Europe), MED (Mediterranean), **Africa:** SAH (Sahara), WAF (Western Africa), CAF (Central Africa), NEAF (North Eastern Africa), SEAF (South Eastern Africa), WSAF (West Southern Africa), ESAF (East Southern Africa), MDG (Madagascar), **Asia:** RAR (Russian Arctic), WSB (West Siberia), ESB (East Siberia), RFE (Russian Far East), WCA (West Central Asia), ECA (East Central Asia), TIB (Tibetan Plateau), EAS (East Asia), ARP (Arabian Peninsula), SAS (South Asia), SEA (South East Asia), **Australasia:** NAU (Northern Australia), CAU (Central Australia), EAU (Eastern Australia), SAU (Southern Australia), NZ (New Zealand), **Small Islands:** CAR (Caribbean), PAC (Pacific Small Islands)

The frequency of extreme events will increase

Projected changes in extremes are larger in frequency and intensity with every additional increment of global warming

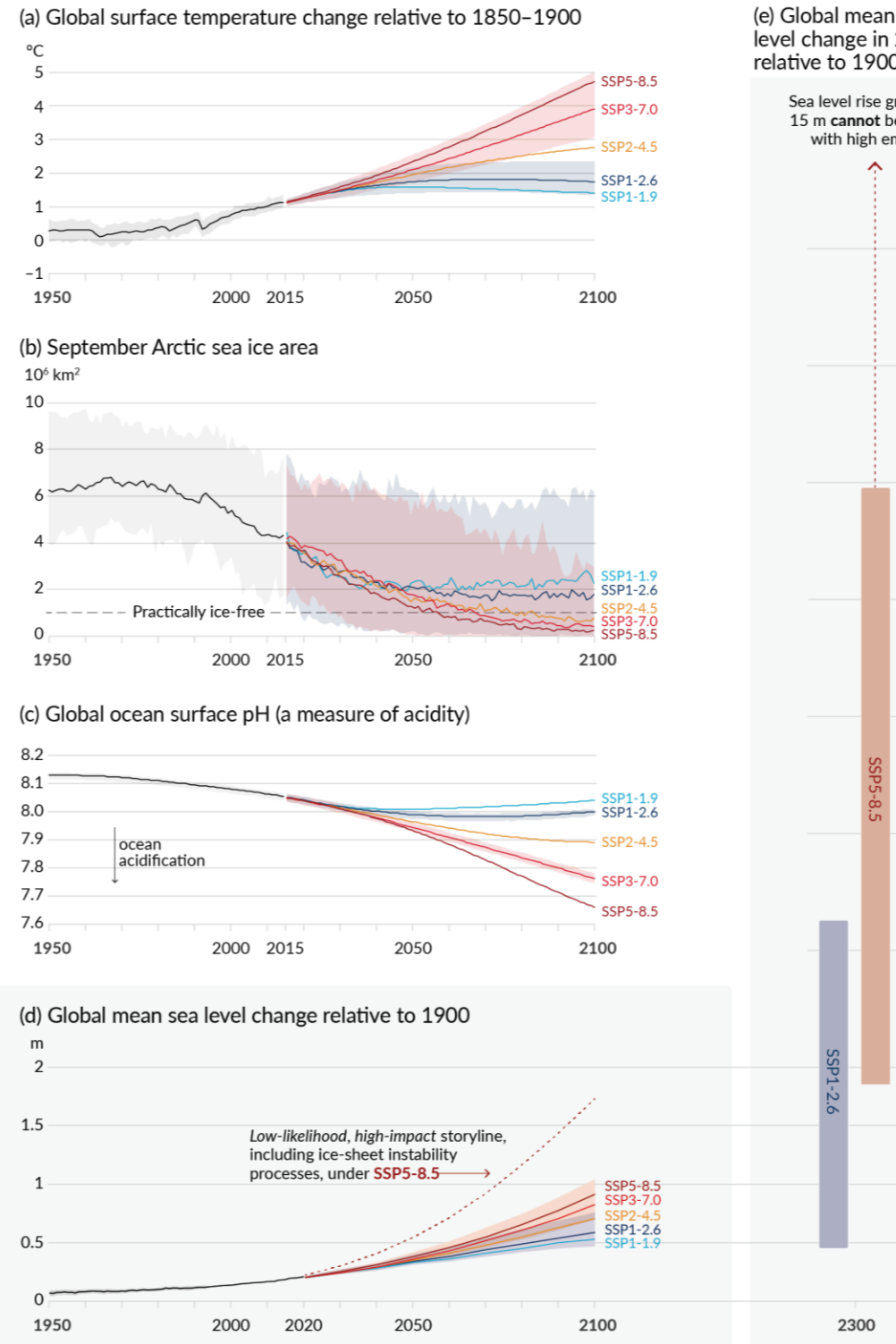


Human activities affect all the major climate system components, with some responding over decades and others over centuries

Predicted changes in temperature, sea ice, ocean pH and sea level

Note: Sea may rise more than 7 meters in the future (2300 vs 1900)

Future of coastal cities?



# Key West (Florida) sport fishing in 1950's



# Bycatch



# Decline in Biodiversity

- Between 1989 and 2016, the abundance of flying insects declined by over 75% in Germany.
- Worldwide, an average 68% drop in mammal, bird, fish, reptile, and amphibian populations since 1970
- The decline is linked to human activities and climate change
- 75% of crops depend on pollinators!
- Not only biodiversity – nature provides **ecosystem services** on large scale

# Sweden's Environmental objectives: A complete failure



- In 1999 the Swedish parliament identified 15 environmental objectives to be achieved within a generation, adding a 16th in 2005.
- The end date for reaching the objectives (one generation) was set to 2020.
- During the follow-up in 2020: **15 (!) out of the 16** environmental objectives had **not been reached**.
- Reaction from Swedish government(s)?



# Other Swedish Examples



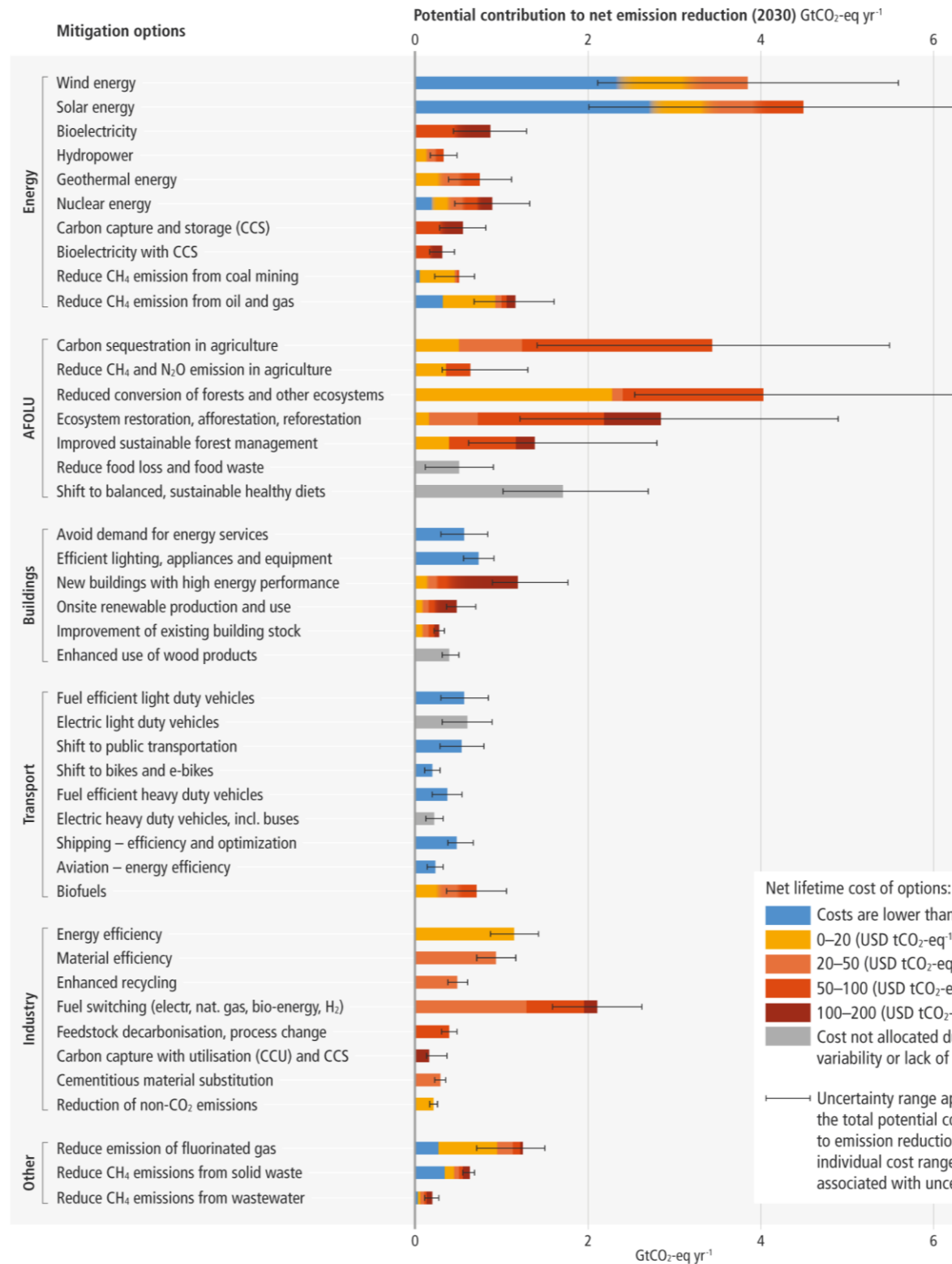
- Agriculture and Forestry have among the highest potential to mitigate climate change and support biodiversity
- Swedish policy:
  - Sweden actively lobbies to include Forest biomass as a green and sustainable energy source – resulting in immediate increases in greenhouse gas emissions.
  - Sweden actively lobbies to weaken the role of the forest industry to support biodiversity and to enable the continuation of large-scale clear cuts.
  - Swedish government is **actively instructing government agencies not to follow** the ECs directive on **water policy** (2000/60/EC).

# Ways forward

# Potential to reduce emissions and relative costs

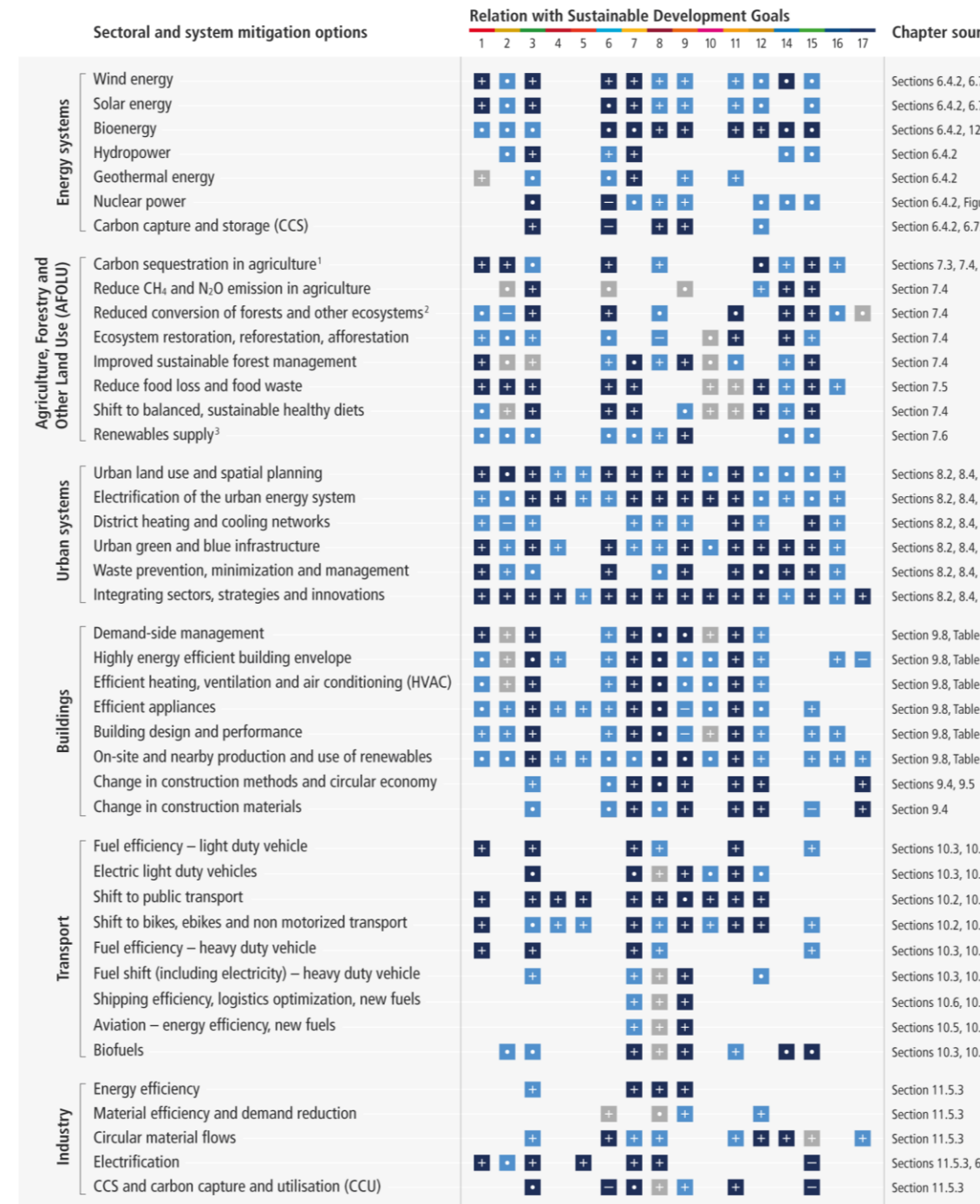
IPCC\_AR6\_WGIII\_FigureSPM7.png (PNG Image, 2016 × 2612 pixel... <https://www.ipcc.ch/report/ar6/wg3/figures/summary-for-policy-maker..>

Many options available now in all sectors are estimated to offer substantial potential to net emissions by 2030. Relative potentials and costs will vary across countries and in the long term compared to 2030.



Mitigation options have synergies with many Sustainable Development Goals, but some options can also have trade-offs. The synergies and trade-offs vary dependent on context and scale.

# Synergies between mitigation and Sustainable development Goals



Type of relations:  
 + Synergies  
 - Trade-offs  
 ■ Both synergies and trade-offs<sup>4</sup>  
 Blank represents assessment<sup>5</sup>

Related Sustainable Development Goals:  
 1 No poverty  
 2 Zero hunger  
 3 Good health and wellbeing  
 4 Quality education  
 10 Reduced inequalities  
 11 Sustainable cities and communities  
 12 Responsible consumption and production  
 13 Climate action

<sup>1</sup> Soil carbon man... in cropland and agroforestry, bio...  
<sup>2</sup> Deforestation, lo... degradation of p... and coastal wet...

# Ways forward



- **Reduce greenhouse gas emissions:** focus on areas with synergies
- **“Mapping” and protecting ecosystem services**
- **Reduce human pressure on biodiversity on land and oceans:** large regions in even densely populated countries are “rewilding” as natural vegetation, and wild animals can exploit the decreased human pressure on rural areas.
- **Reduce toxic pollutants** to support biodiversity, human health, and clean water

# References

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