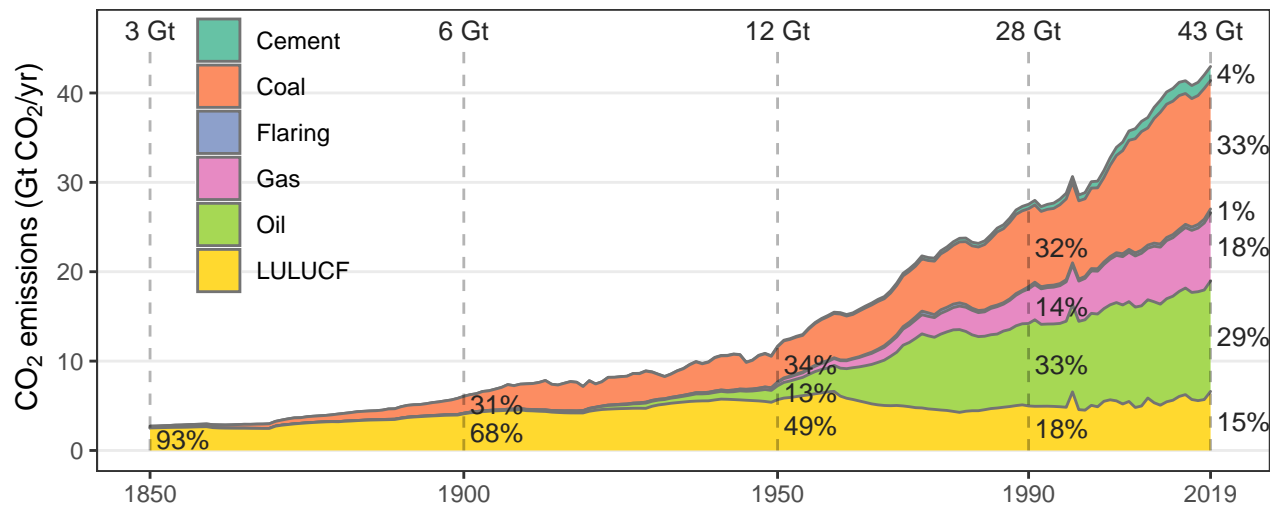
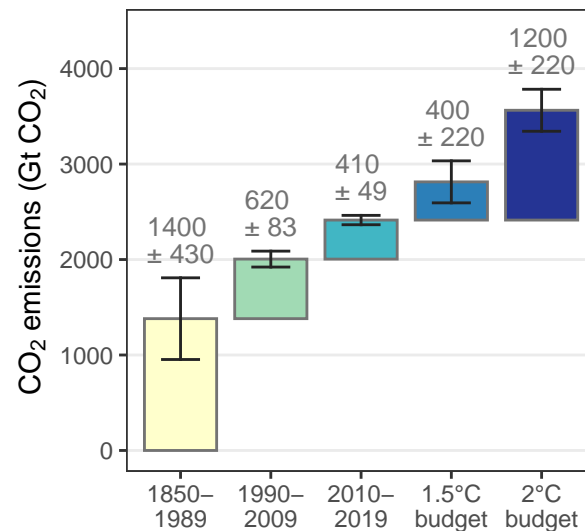


a. Long term trend of anthropogenic CO<sub>2</sub> emissions sources



b. Historic emissions vs. future carbon budgets



c. Carbon budget exceedance under different assumptions of current emissions, reduction rates and uncertainty

Budget	Variable	–0%/yr reductions	–2%/yr reductions	–5%/yr reductions
1.5°C (67%)	Budget exceedance year	2029 (2023–2036)	2030 (2023–2040)	2033 (2024–NA)
1.5°C (67%)	Net zero emissions year	NA	2070	2040
1.5°C (67%)	Overshoot (GtCO <sub>2</sub> )	3100 (3700–2400)	670 (1000–330)	45 (290–0)
2.0°C (67%)	Budget exceedance year	2046 (2039–2056)	NA (2045–NA)	NA (NA–NA)
2.0°C (67%)	Net zero emissions year	NA	2070	2040
2.0°C (67%)	Overshoot (GtCO <sub>2</sub> )	2300 (3000–1700)	0 (290–0)	0 (0–0)