

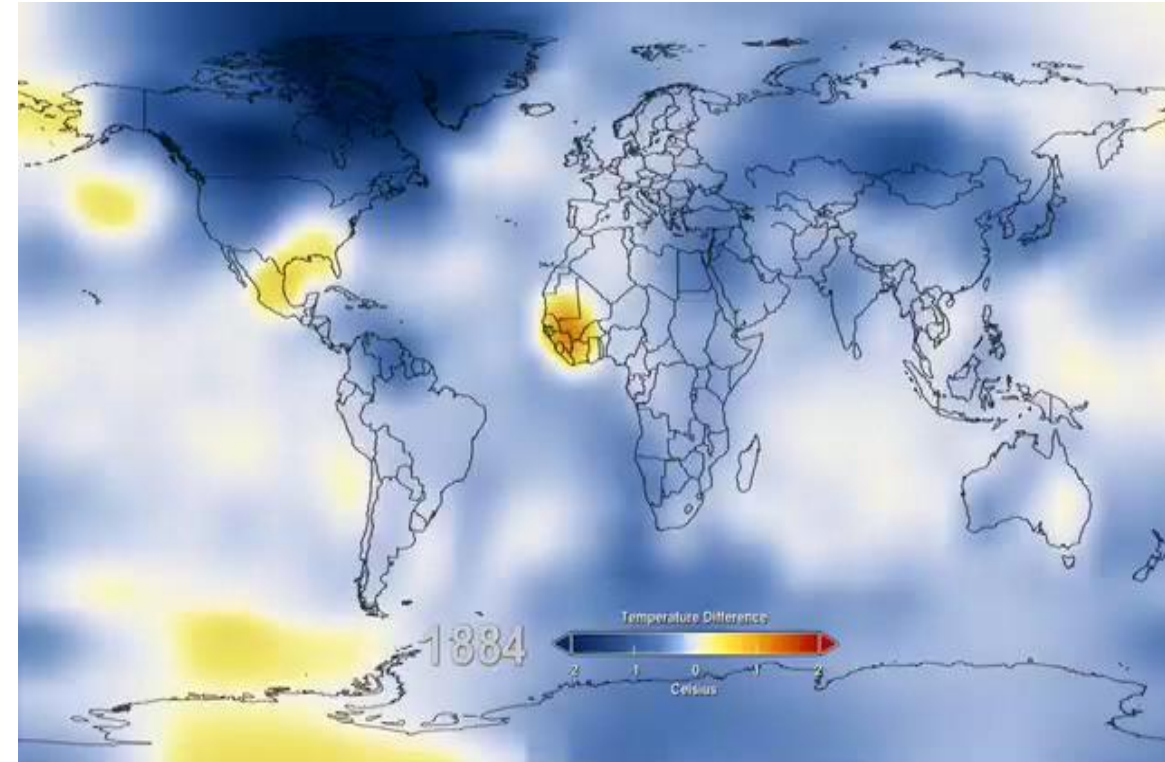
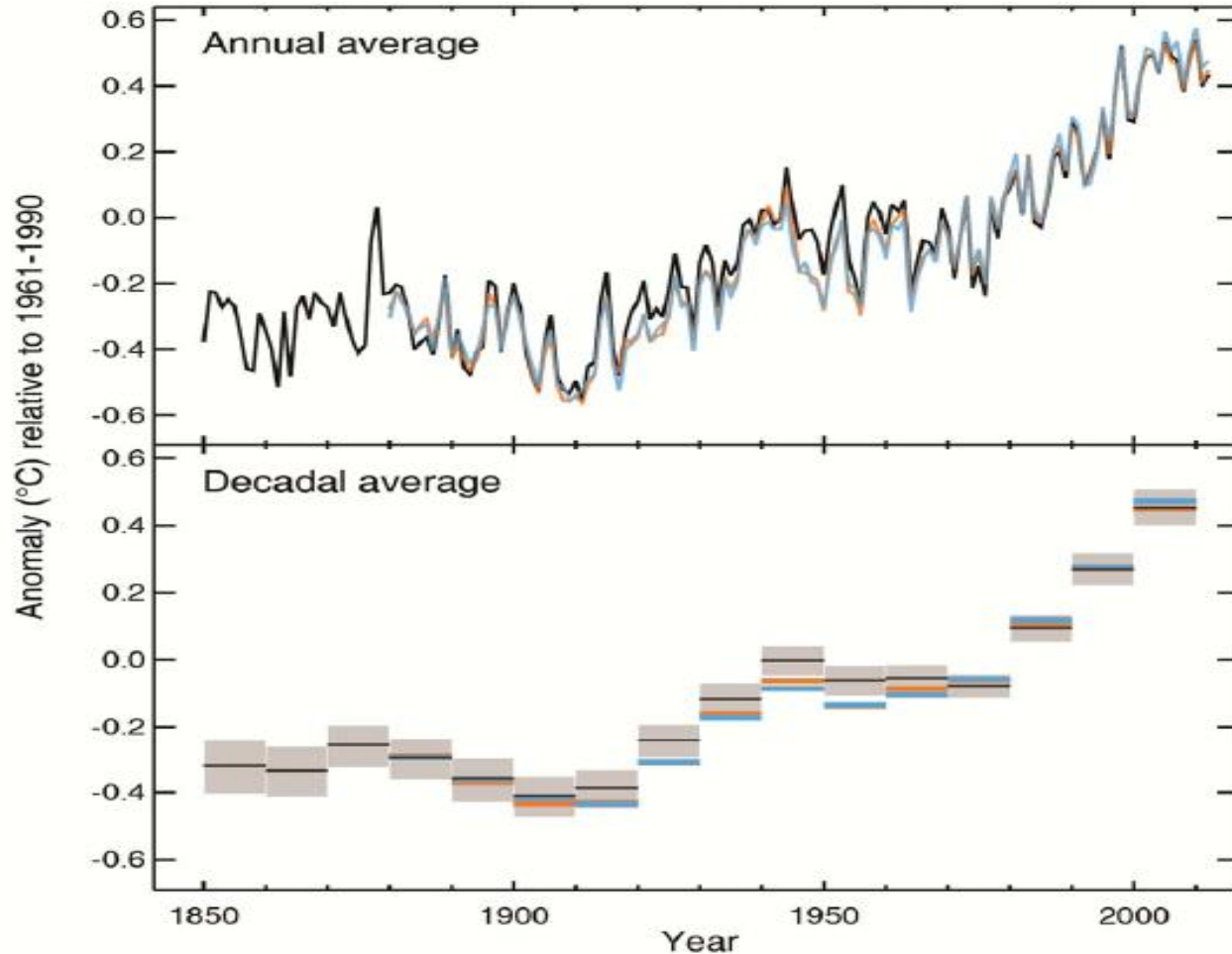
Climate Recovery Ordinance
350ppm Target
February 22, 2016



Observations

Observed globally averaged combined land and ocean surface temperature anomaly 1850–2012

(a)

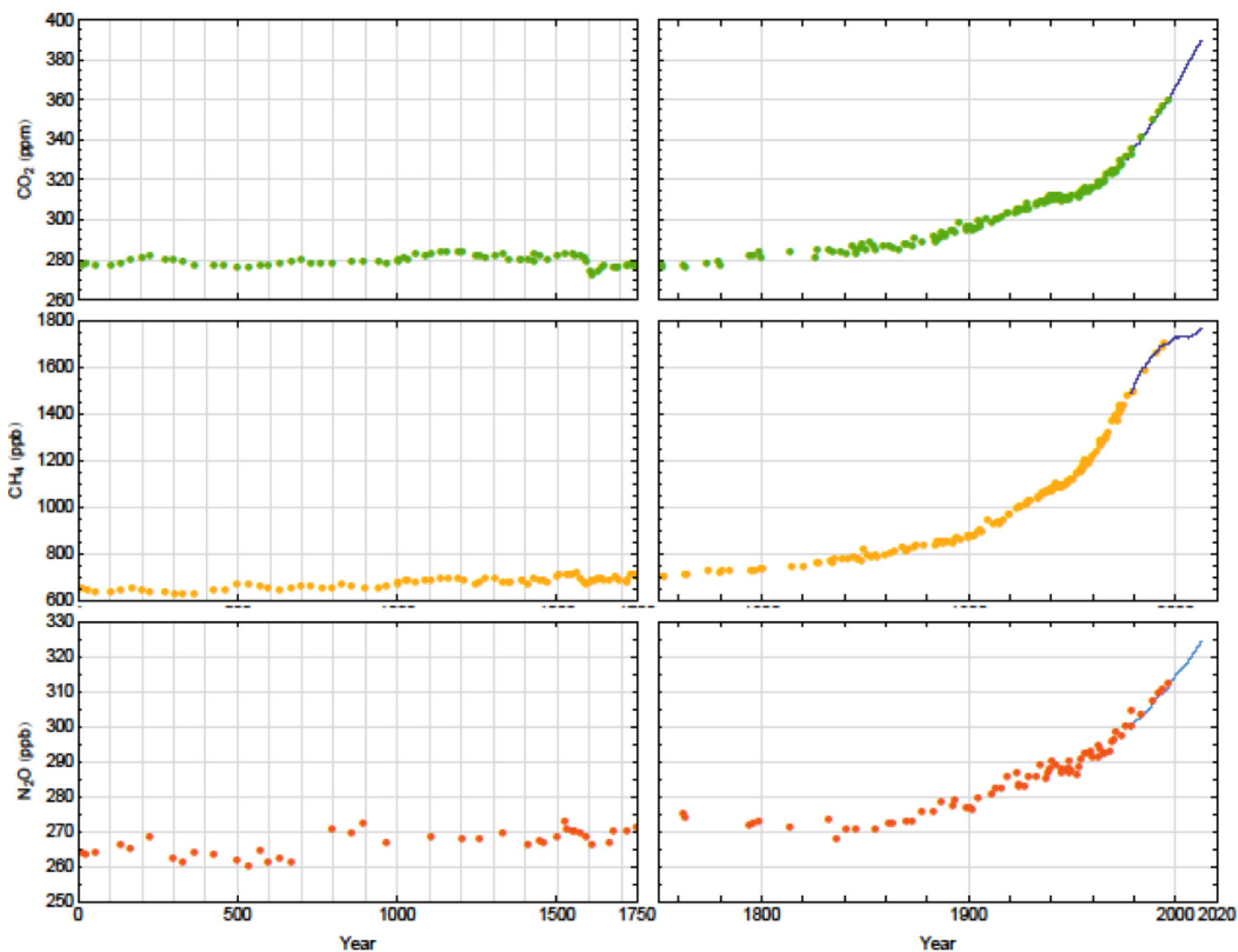


NASA GISS Surface Temperature Analysis
<http://data.giss.nasa.gov/gistemp/>

“Warming of the climate system is unequivocal...Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850.”

IPCC, 2013: Climate Change 2013: The Physical Science Basis. WG1. AR5 [Stocker, T.F. et al.]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp, doi:10.1017/CBO9781107415324.

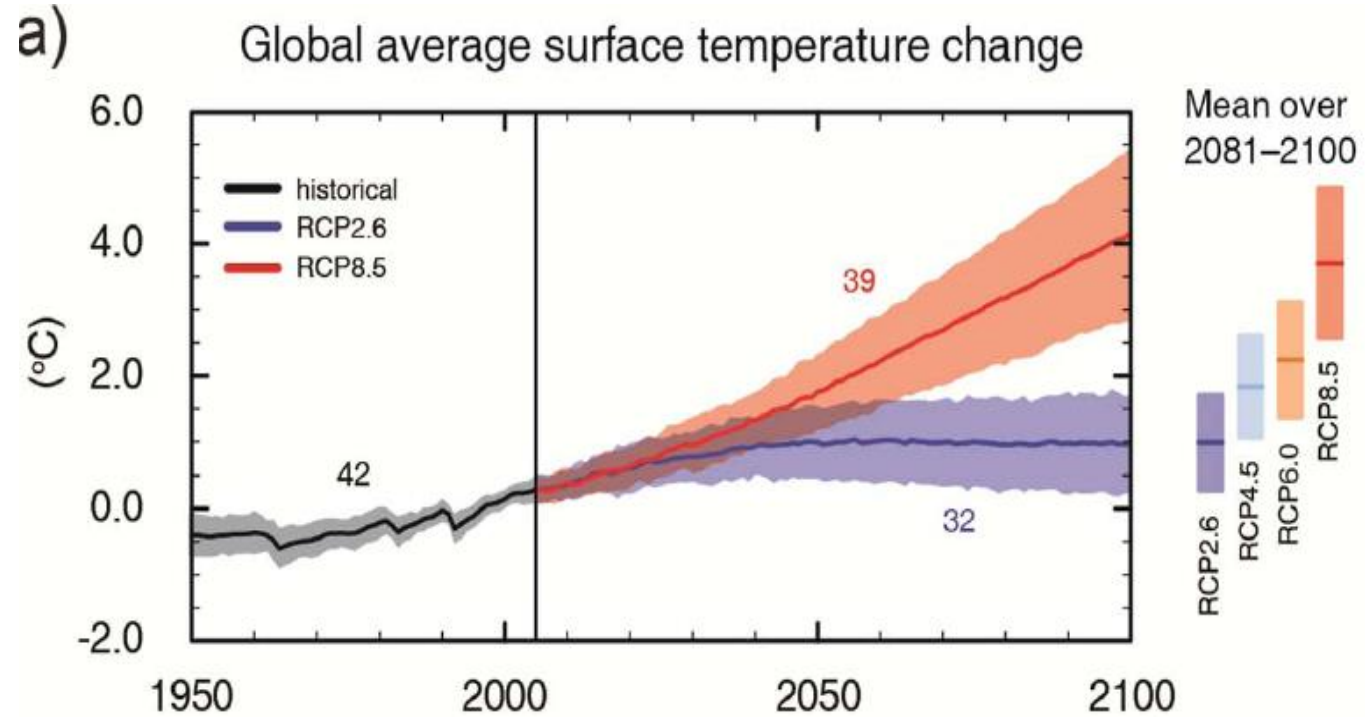
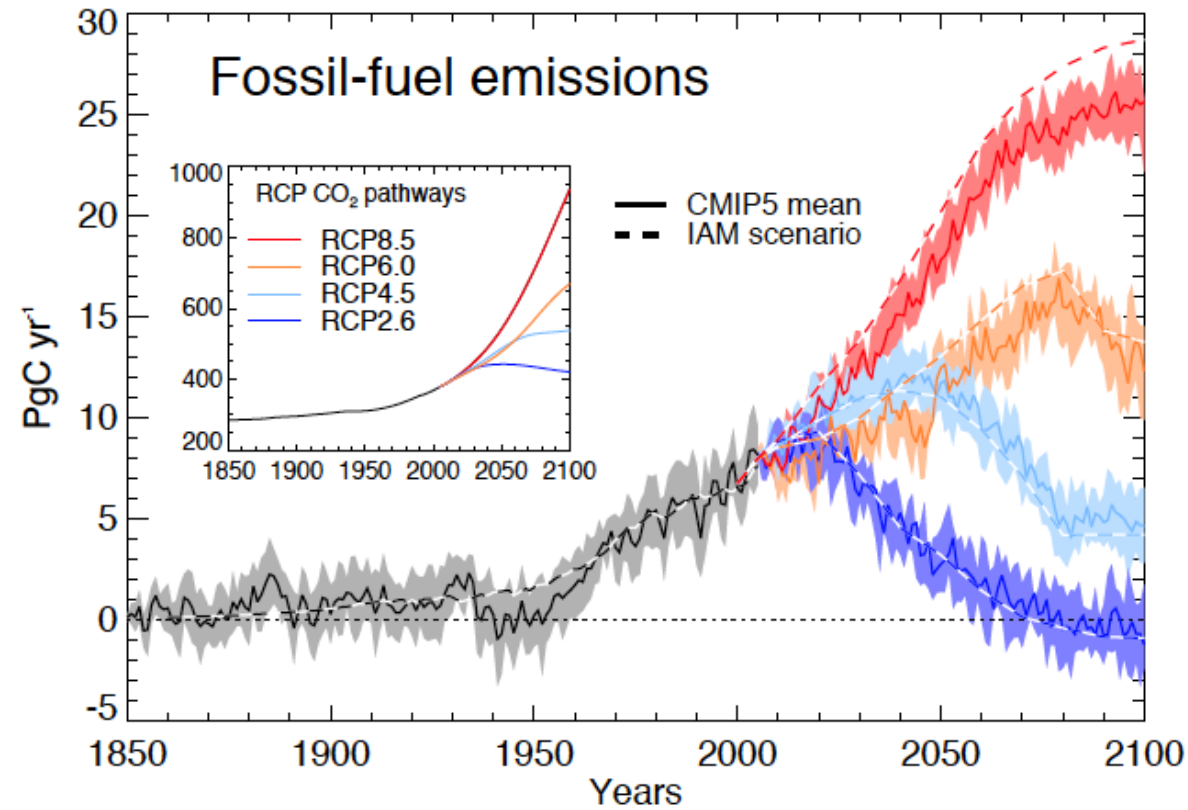
Observations



Concentrations of carbon dioxide, methane and nitrous oxide now exceed the highest concentrations recorded in ice cores during the past 800,000 years

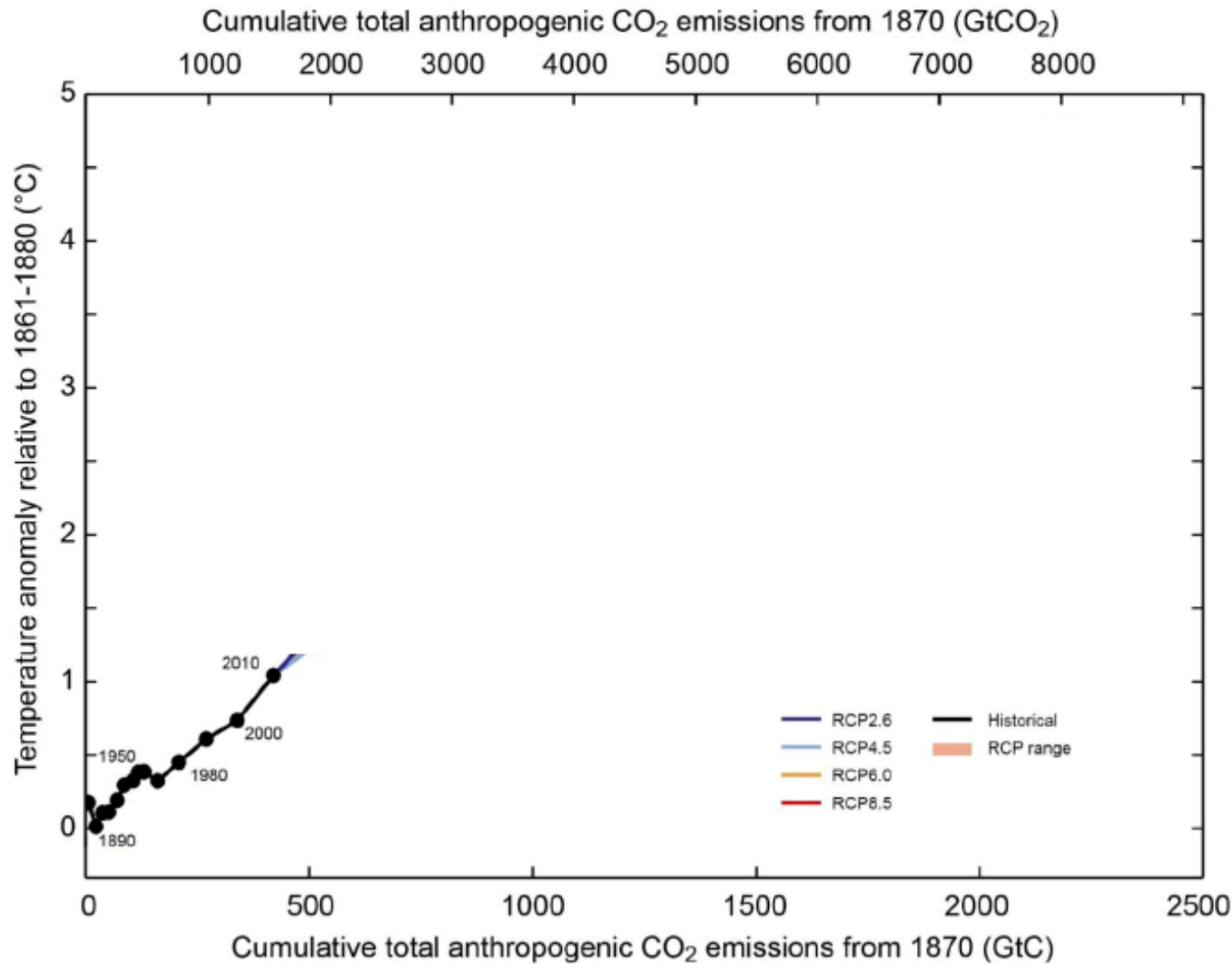
IPCC, 2013: Climate Change 2013: The Physical Science Basis. WG1. AR5 [Stocker, T.F. et al.]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp, doi:10.1017/CBO9781107415324.

Future Climate



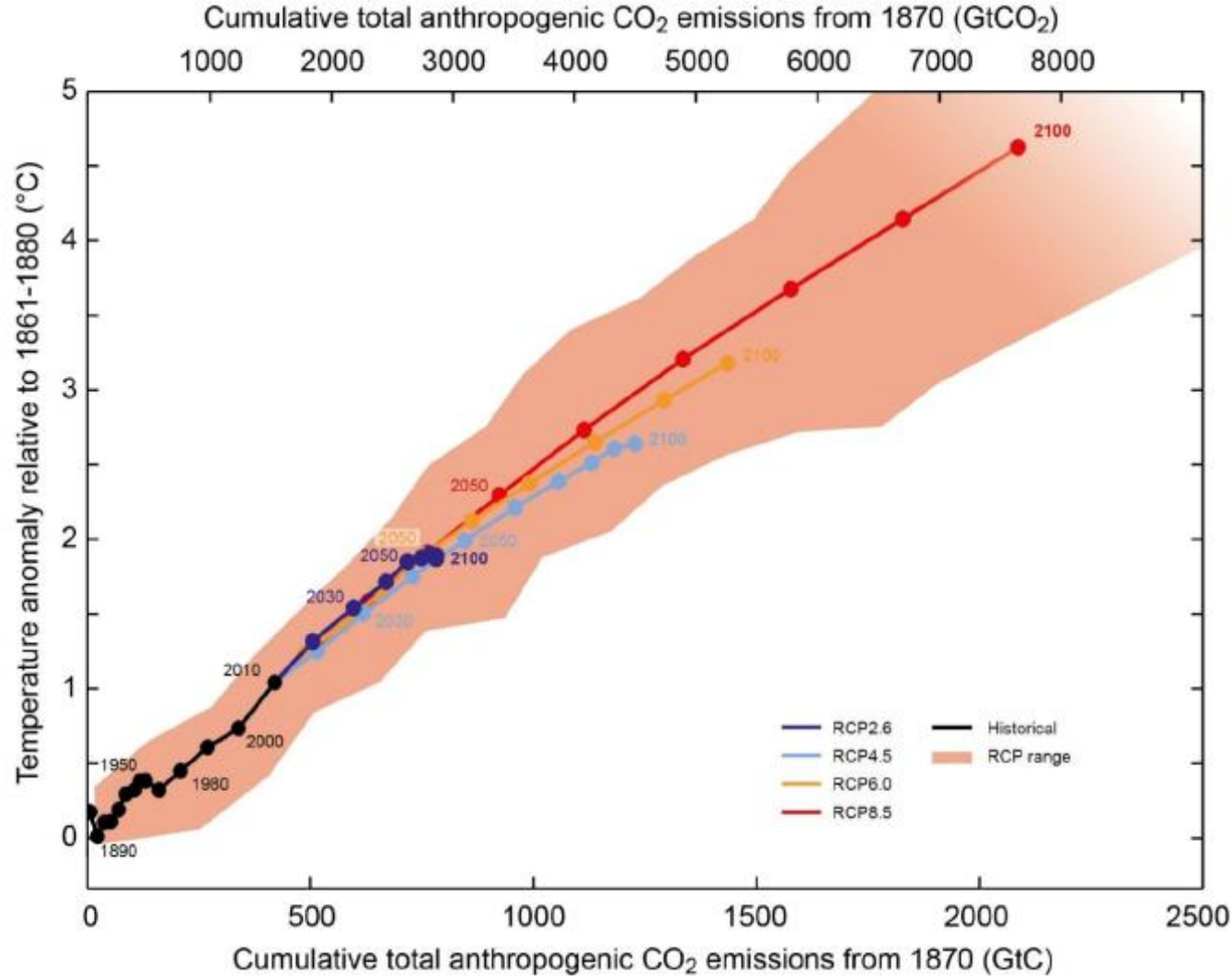
Under all IPCC scenarios global average temperature is expected to be more than 1.5°C higher than the period 1850-1900.

Future Climate



The total anthropogenic CO₂ released to the atmosphere is a good indicator of the global warming response to CO₂.

Future Climate



Limiting greenhouse gas warming to less than 2°C will require cumulative carbon dioxide emissions to remain below 1000 Gigatons carbon.

IPCC, 2013: Climate Change 2013: The Physical Science Basis. WG1. AR5 [Stocker, T.F. et al.]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, 1535 pp, doi:10.1017/CBO9781107415324.

Future Climate

Climate stabilization is linked to the ultimate objective of the UNFCCC [United Nations Framework Convention on Climate Change, Rio de Janeiro 1992], *“to achieve... stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.”*



United Nations

FCCC/CP/2015/L.9



Framework Convention on
Climate Change

Distr.: Limited
12 December 2015

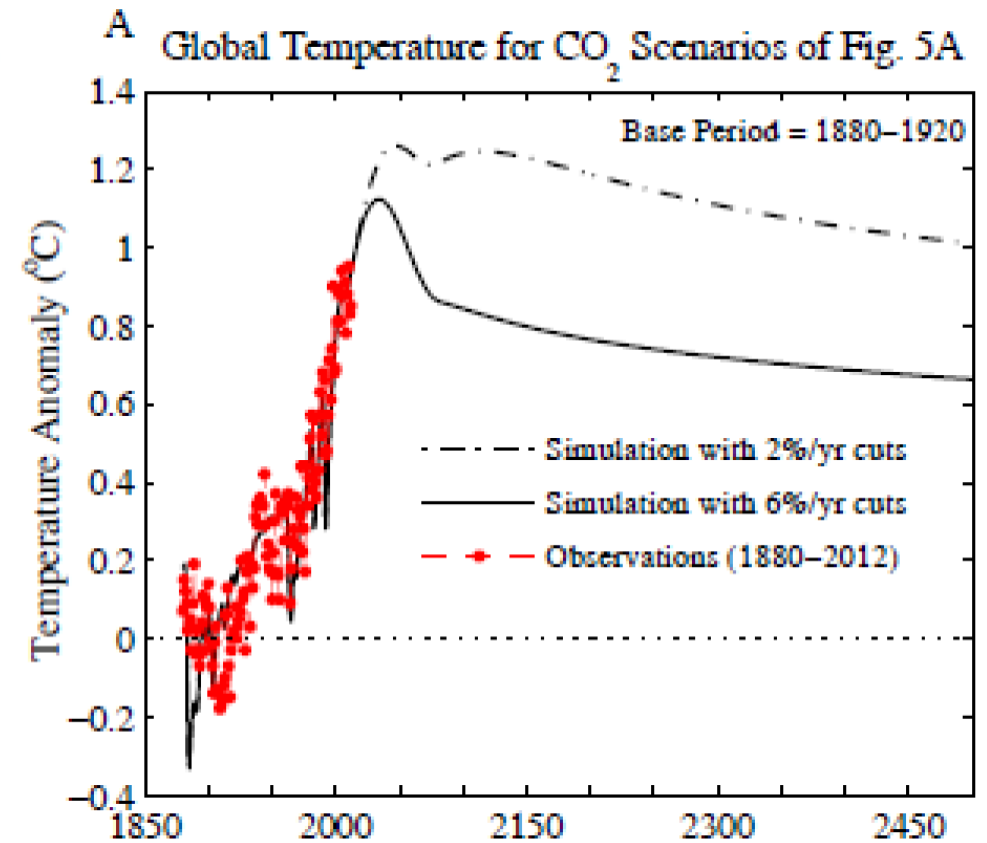
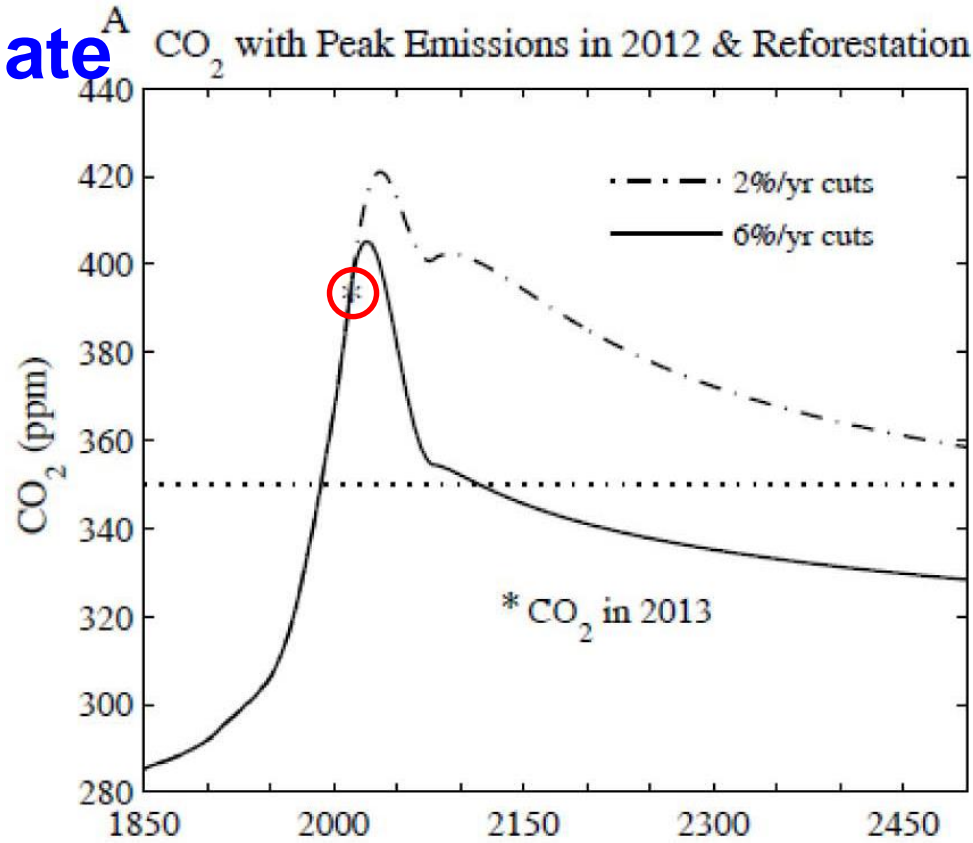
Original: English

Article 2

1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:
 - (a) Holding the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;

–United Nations Framework Convention on Climate Change, Conference of the Parties, Paris, 2015 FCCC/CP/2015/L.9

Future Climate



“Climate impacts accompanying global warming of 2°C or more would be highly deleterious... There is no practical justification for why emissions necessarily must even approach 1000 GtC”

A cumulative fossil-fuel carbon emissions budget of 500 GtC would return carbon dioxide to 350ppm and global temperature increase to less than 1°C

Hansen J, et al. (2013) Assessing “Dangerous Climate Change”: Required Reduction of Carbon Emissions to Protect Young People, Future Generations and Nature. PLoS ONE 8(12): e81648. doi:10.1371/journal.pone.0081648

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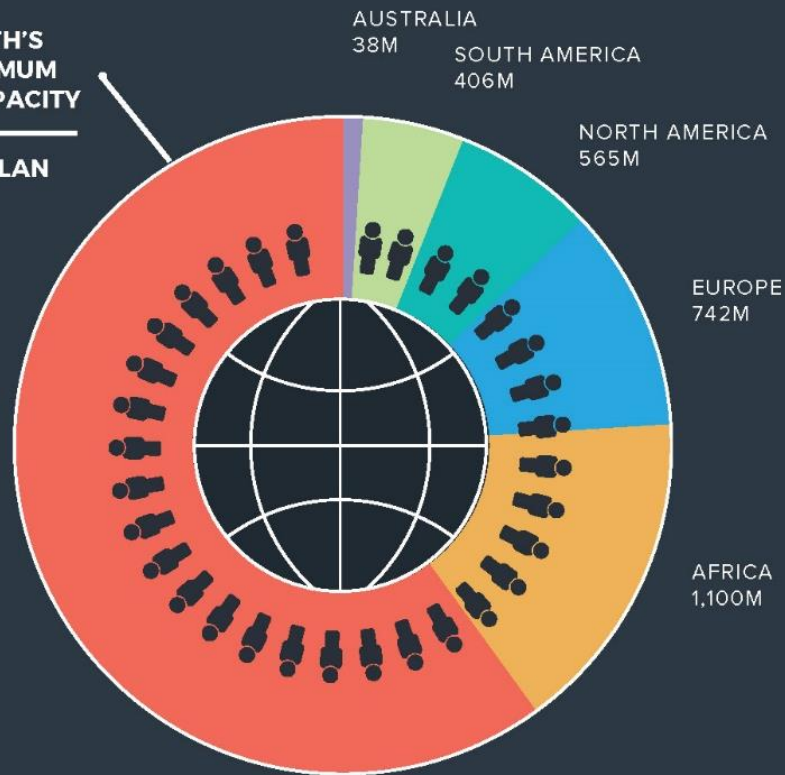
Carbon Budget Explained

WORLD EMISSIONS BUDGET

Shifting the way we think about emissions

**EARTH'S
MAXIMUM
CO₂ CAPACITY**

350 PLAN



GLOBAL CO₂ CAPACITY

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GLOBAL POPULATION

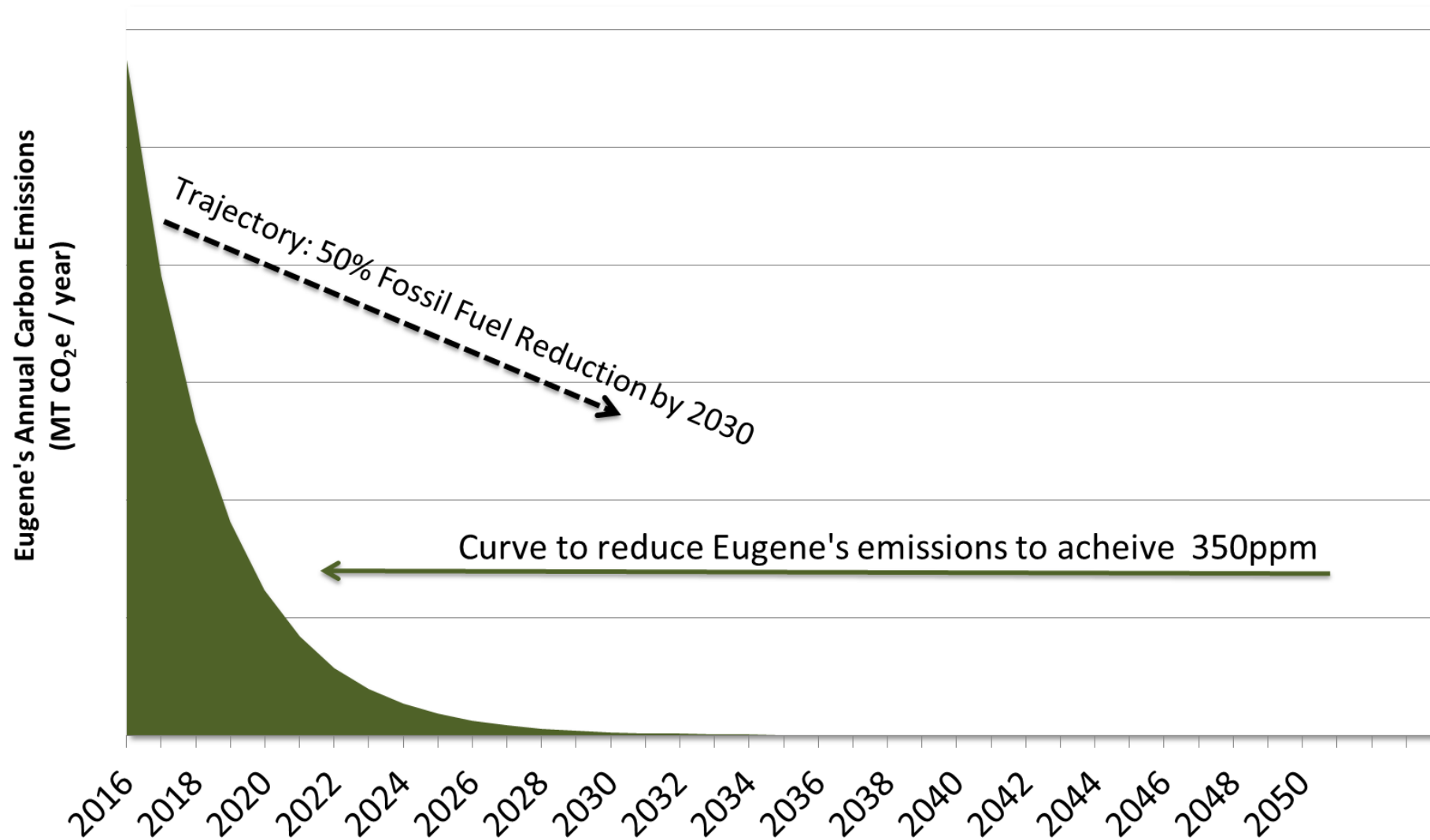
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**CO₂ BUDGET
PER PERSON**

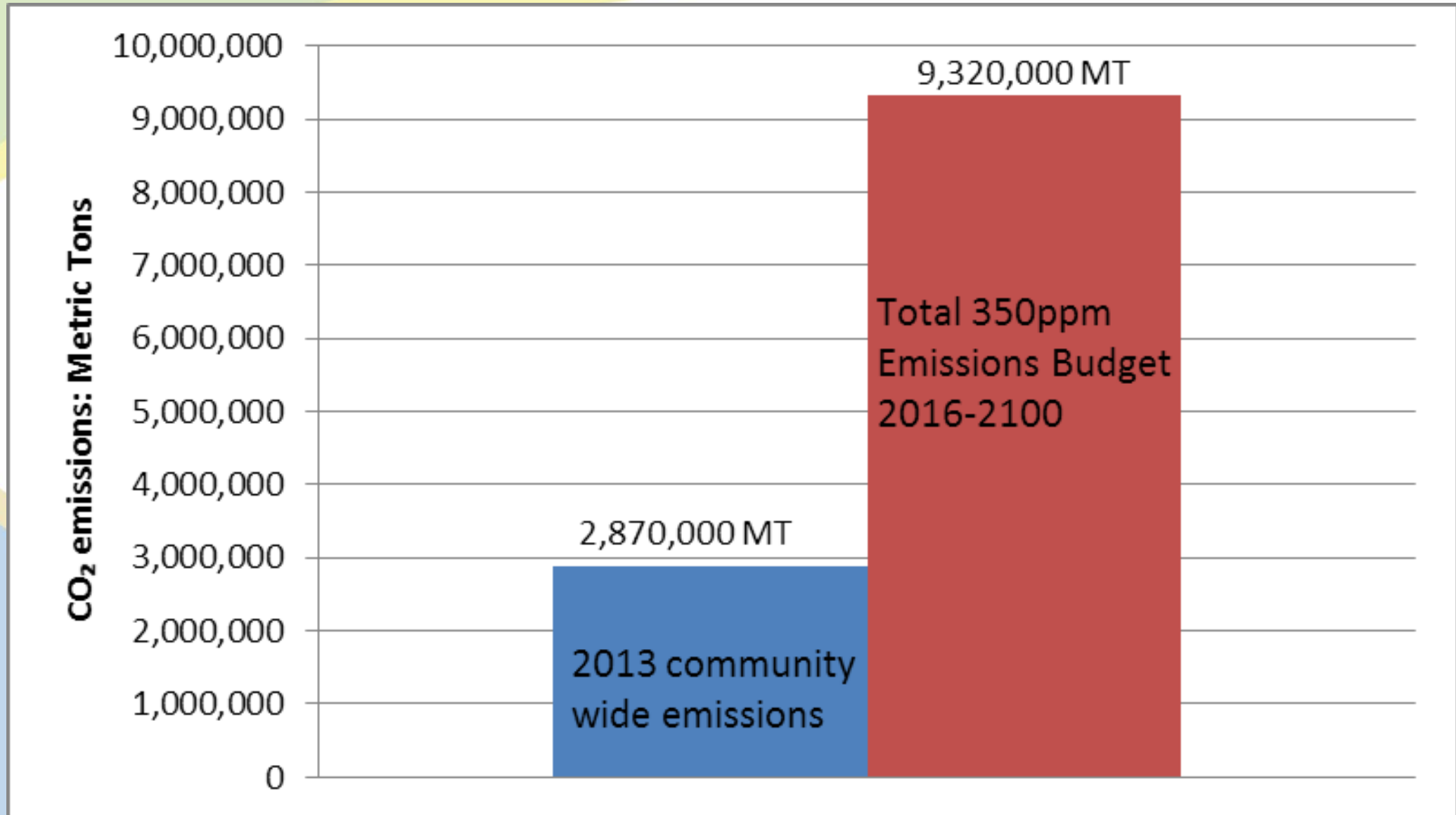


The 350 Curve

Figure 1: Spending Eugene's Carbon Budget



The 350 Budget



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