



# The Paris Agreement and the European carbon budget

Brussels, 31 January 2018

# Paris Agreement – long-term goals

## **Article 2**

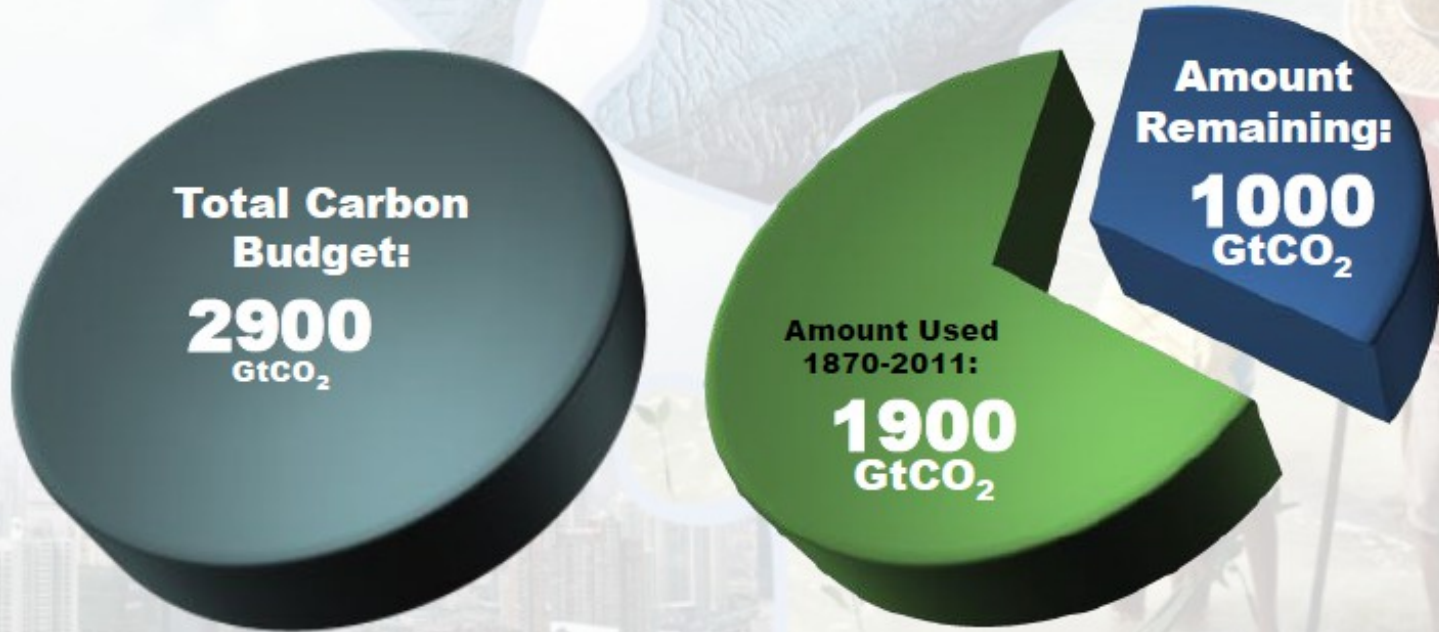
*1. This Agreement, in enhancing the implementation of the Convention, including its objective, aims to strengthen the global response to the threat of climate change, in the context of sustainable development and efforts to eradicate poverty, including by:*

*(a) Holding the increase in the global average temperature to **well below 2°C** above pre-industrial levels and **pursuing 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;*

# Carbon budgets

## The window for action is rapidly closing

65% of the carbon budget compatible with a 2°C goal is already used  
NB: this is with a probability greater than 66% to stay below 2°C



**NB: Emissions in 2011: 38 GtCO<sub>2</sub>/yr**

AR5 WGI SPM

# IPCC 2014 budgets

**Table 2.2** | Cumulative carbon dioxide (CO<sub>2</sub>) emission consistent with limiting warming to less than stated temperature limits at different levels of probability, based on different lines of evidence. {WGI 12.5.4, WGIII 6}

Cumulative CO <sub>2</sub> emissions from 1870 in GtCO <sub>2</sub>									
Net anthropogenic warming <sup>a</sup>	<1.5°C			<2°C			<3°C		
Fraction of simulations meeting goal <sup>b</sup>	66%	50%	33%	66%	50%	33%	66%	50%	33%
Complex models, RCP scenarios only <sup>c</sup>	2250	2250	2550	2900	3000	3300	4200	4500	4850
Simple model, WGIII scenarios <sup>d</sup>	No data	2300 to 2350	2400 to 2950	2550 to 3150	2900 to 3200	2950 to 3800	n.a. <sup>e</sup>	4150 to 5750	5250 to 6000
Cumulative CO <sub>2</sub> emissions from 2011 in GtCO <sub>2</sub>									
Complex models, RCP scenarios only <sup>c</sup>	400	550	850	1000	1300	1500	2400	2800	3250
Simple model, WGIII scenarios <sup>d</sup>	No data	550 to 600	600 to 1150	750 to 1400	1150 to 1400	1150 to 2050	n.a. <sup>e</sup>	2350 to 4000	3500 to 4250
Total fossil carbon available in 2011 <sup>f</sup> : 3670 to 7100 GtCO <sub>2</sub> (reserves) and 31300 to 50050 GtCO <sub>2</sub> (resources)									

# Global greenhouse gas budget

target	likelihood	2011-2100 budget GtCO <sub>2</sub>	2011-2016 emissions	2017-2100 CO <sub>2</sub> budget	all ghg budget 2017-2100 GtCO <sub>2</sub> -e
2°C	50%	1300	215	1.085	1.485
2°C	66%	1000	215	785	1.075
1.5°C	50%	550	215	335	455
1.5°C	66%	400	215	175	240

# EU budget

*“The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.” (Art 3.1 of the 1992 UNFCCC)”*

# EU budget

target	likelihood	all ghg budget 2017-2100 GtCO <sub>2</sub> -e	2016 population EU27	all ghg EU budget 2017-2100	number of years of current emissions	with linear reductions, reaching zero by
2°C	50%	1.485	5.99%	89	23	2062
2°C	66%	1.075	5.99%	64	16	2050
1.5°C	50%	455	5.99%	27	7	2031
1.5°C	66%	240	5.99%	14	4	2024

# Energy transition

- energy transition pathways involve end-use efficiency improvements, reduction in energy demand, a rapidly growing share of renewable energy and electrification of end-use
- we have clear demands/proposals for energy supply – 100% renewables; or transport: zero combustion engines; but not for efficiency
- IPCC identifies needs for large reductions of per capita energy demand in areas with high consumption but has no specific numbers





**CAN**

CLIMATE ACTION NETWORK

Europe