

Combating Climate Change: A Business Leaders Initiative

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Curbing climate change – starting points

- No doubts – emissions of greenhouse gases the most reasonable explanation
- A global solution is needed –in the end all countries and all greenhouse gases must participate
- Action to establish a robust and sustainable solution for the next 100 years
- Convergence towards a common goal should be prioritised - 2 degrees centigrade
- Knowledge available is still fragmented – adaptation must be built in
- Efficient use of resources and strong incentives for R&D are crucial
- A global pricing mechanism for emissions must be created

Curbing climate change – why cap-and-trade?

- The location of the emissions are unimportant from an environmental point of view
- The costs of reducing greenhouse gas emissions vary widely among sources and countries. The cost savings will thus be larger the wider the trading scheme is



Curbing greenhouse gas emissions is particularly well suited for trading

Vattenfall's adaptive global burden-sharing model

Basic principles (1):

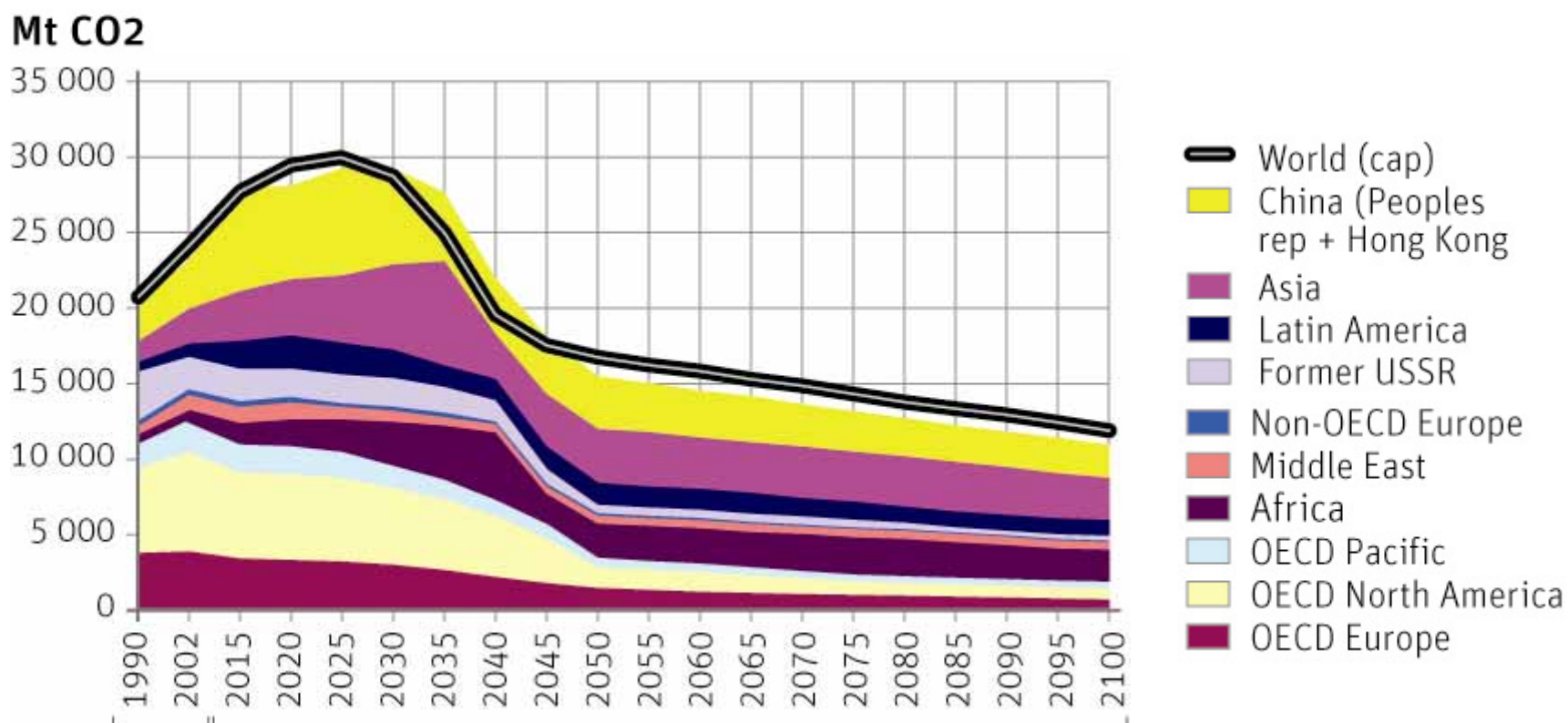
- All countries should participate
- No poor country shall be denied its right to economic development
- Richer shall countries pull a larger weight
- No country shall have to go through disruptive change
- Fair effects on competitiveness

Vattenfall's adaptive global burden-sharing model

Basic principles (2):

- The system shall be robust. As new knowledge is accumulated parameters may change, but not the basic principles
- Emission caps should be binding
- Emission allowances are allocated to each country in relation to its share of Gross Global Product (PPP)
- The final allocation will be made at the national level

Vattenfall's adaptive global burden-sharing model: Regional allocation of emissions – early-peak 2025



Business Leaders Initiative on Combating Climate Change

Guiding Principles

- 1. A switch-over to a low emitting economy is a necessity
- 2. A global solution is needed
- 3. Both short- and long-term actions are needed
- 4. A common, global goal limiting climate changes is needed
- 5. Greenhouse gas emissions must have a global price
- 6. No options should be excluded
- 7. A global emissions market is needed
- 8. The developed countries must lead the way
- 9. The developing countries should follow as soon as they are able
- 10. Fair and sustainable global burden-sharing must be reached

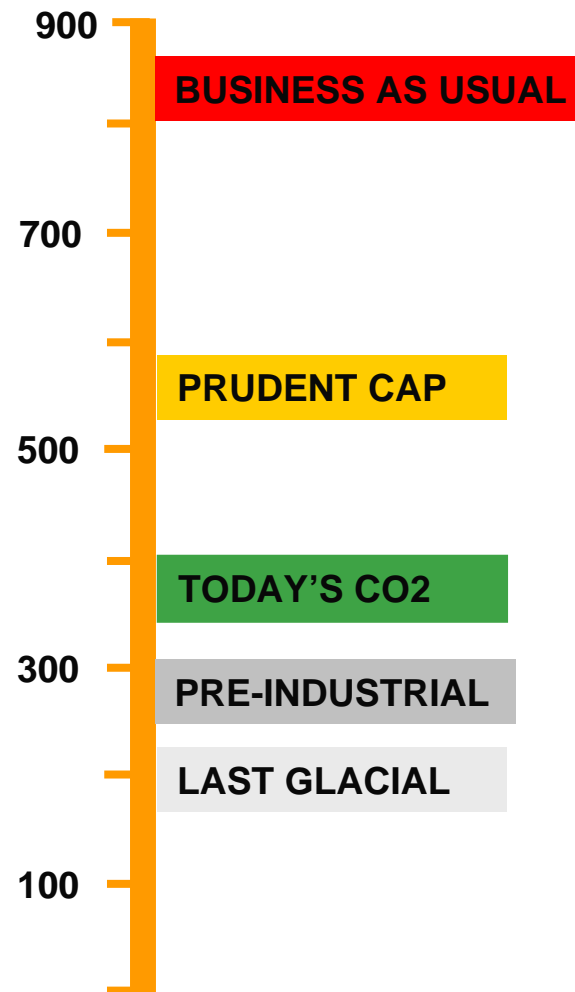
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- **Our commitment - Drawing a roadmap to a low-emitting society**

Vattenfall's global adaptive burden sharing model

How the model works

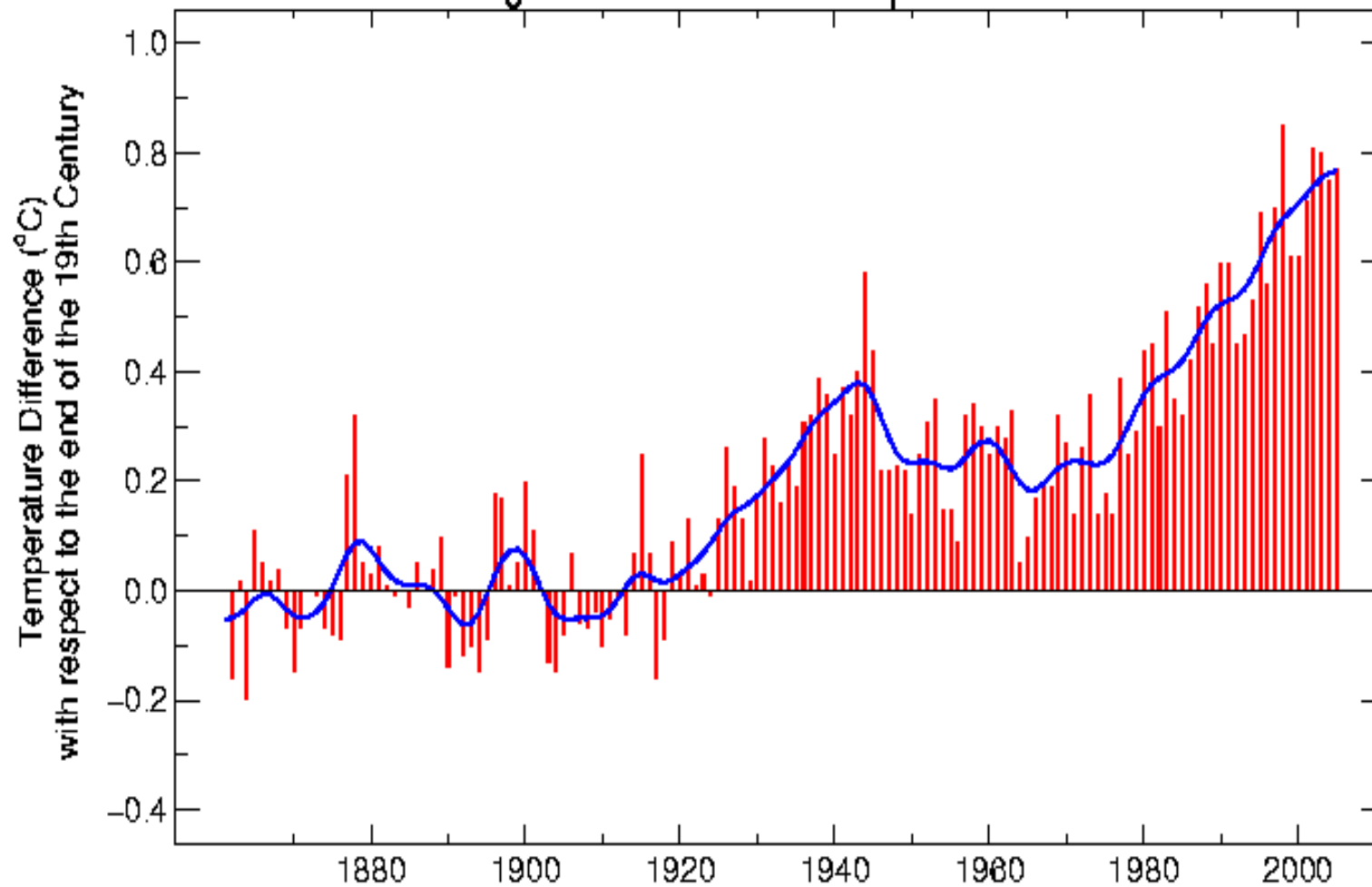
- Global target cap of 550 ppm CO₂-equivalent
- GDP/capita is assumed to converge globally in a 100 years perspective
- Deduction of emissions from the poor countries that do not face any emission restrictions initially
- Remaining room for emissions is divided between all countries facing restrictions according to their share of the total global GDP
- Allocations (in tonne CO₂ per GDP unit) varies over time depending on global cap and global GDP
- Higher allocations are given in the lower end of the GDP/capita curve than in the higher and mirroring differences in CO₂ intensity compared to economic development
- Mechanisms adjusting minimum and maximum reduction

Atmospheric CO₂ content (ppm)

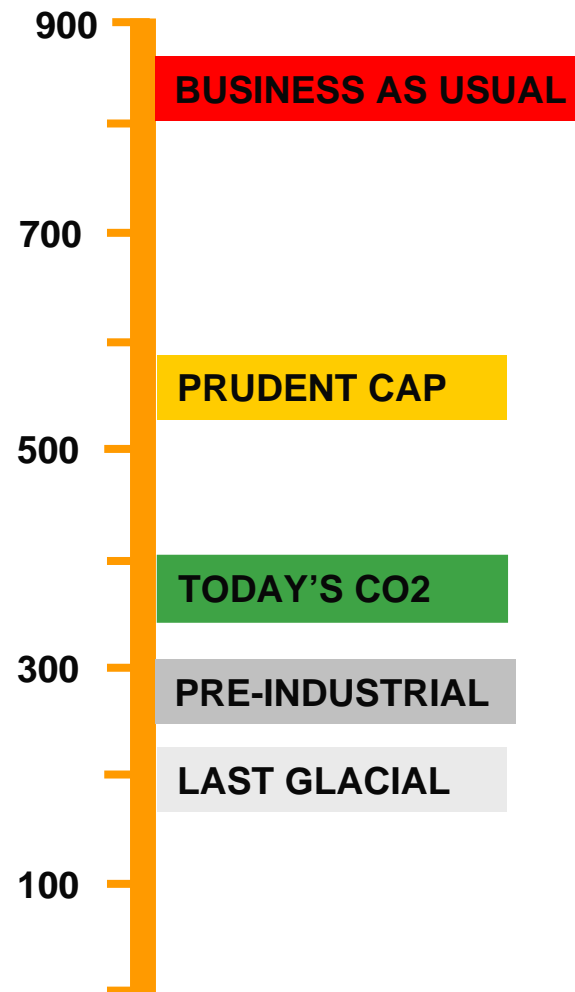


Source: W. Broecker

Global mean near surface temperature 1861-2005



Atmospheric CO₂ content (ppm)



Source: W. Broecker