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Update: technical paper on mitigation potential and ranges of emission reduction objectives of Annex I Parties (FCCC/2008/TP/10)



UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

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Overview

- Provides further information on approaches to assess stabilization scenarios and estimate mitigation potential
- Updates data for factors contained in the first version of the TP
- Compiles information from recent studies on mitigation potential



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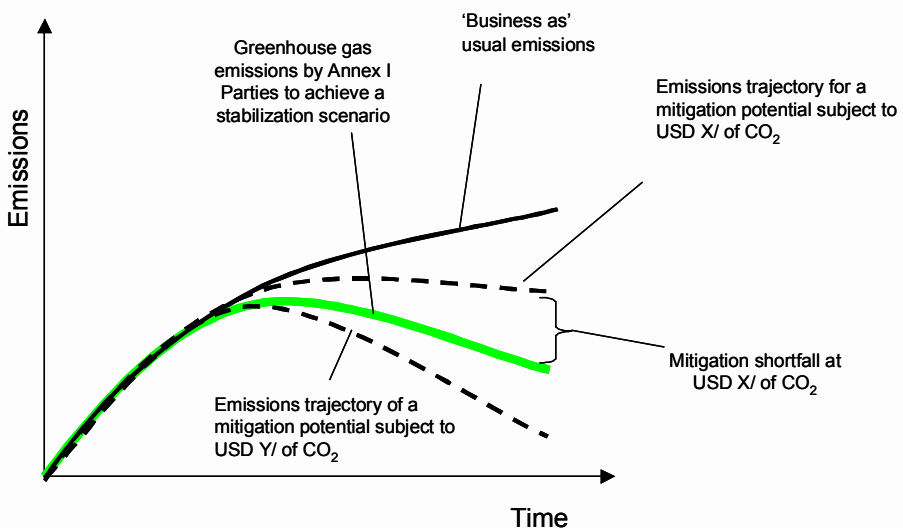
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IPCC's stabilization scenarios

| Category | CO ₂ eq concentration (parts per million) | Global mean temperature increase above pre-industrial level at equilibrium using 'best estimate' climate sensitivity ^a (°C) | Change in global CO ₂ emissions in 2050 (% of 2000 emissions) | Range of reduction in gross domestic product in 2050 because of mitigation (%) | Allowed emissions by Annex I Parties in 2020 (% change from 1990 emissions) | Allowed emissions by Annex I Parties in 2050 (% change from 1990 emissions) |
|----------|--|--|--|--|---|---|
| I | 445-490 | 2.0-2.4 | -85 to -50 | Decrease of up to 5.5 | -25 to -40 | -80 to -95 |
| II | 490-535 | 2.4-2.8 | -60 to -30 | | | |
| III | 535-590 | 2.8-3.2 | -30 to +5 | Slight gain to decrease of 4 | -10 to -30 | -40 to -90 |
| IV | 590-710 | 3.2-4.0 | +10 to +60 | Gain of 1 to decrease of 2 | 0 to -25 | -30 to -80 |
| V | 710-855 | 4.0-4.9 | +25 to +85 | - | - | - |
| VI | 855-1 130 | 4.9-6.1 | +90 to +140 | - | - | - |



Stabilization scenarios and mitigation potential



Main points raised in submissions by Parties

- Information by the IPCC on stabilisation scenarios; some quoted the range of emission reductions by Annex I Parties to achieve lowest stabilization levels.
- Significance of national circumstances and sectorial realities in the determination of mitigation potential
- Role of the means to reach emission reduction targets in offering greater mitigation potential
- National emission reduction goals: Belarus, EU, Norway and Canada



Factors and indicators of mitigation potential

- National level: total emissions, GDP, population, intensities and efficiencies.
- Sectoral level: sectoral emissions, sectoral intensities and efficiencies.
- Some Parties proposed additional factors and indicators
- Data updated for 2006 using the most recent sources
- Values submitted by Parties have been used (or data for 2006 from the same source)

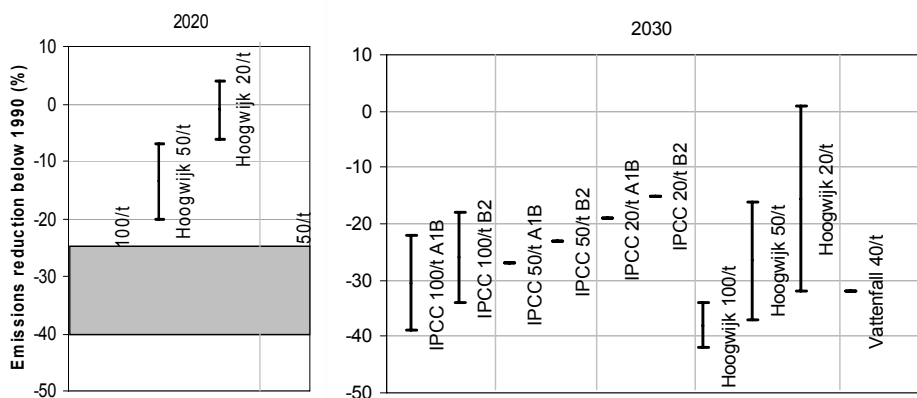


Using factors and indicators

- Top down approaches to estimate national mitigation potential
- Bottom up approaches to estimate mitigation potential by sector
- Comparisons across countries (complex owing to national circumstances)
- Selection of factors and indicators can be extensive



Summary (mitigation potential studies)



Summary

- Recent studies suggest that IPCC information remains valid
- Updated data for factors and indicators vary but marginally
- Results from different studies on mitigation potential at different carbon prices are relatively consistent
- Studies suggest that for stabilizing GHG concentrations at the lowest levels, mitigation options with a cost of USD 50-100 / tCO₂ would need to be implemented in 2020



Thank you

