

Targets by developed country Parties to the Convention: assumptions, conditions, commonalities and differences in approaches and comparison of the level of emission reduction efforts

Technical paper

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Overview

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Part I: Mandate

Decision 2/CP.17 requested the secretariat

- To prepare a technical paper to **update** document FCCC/TP/2011/1
 - Compiling all the information contained in Parties' submissions in a structured manner,
 - Updating the paper as new information is provided by Parties
- To produce a technical paper **exploring the commonalities and differences** of approaches
- *The latest version of the technical paper is document FCCC/TP/2012/5*

Decision 1/CP.18 requests the secretariat to annually update the technical paper based on information provided by developed country Parties in relation to their targets

- *The secretariat will update the technical paper in advance of SBSTA 39*



Part I: Content of the technical paper

- Compilation of the quantified economy-wide emission reduction targets of developed countries, including assumptions and conditions
- Discussion on the assumptions and conditions related to the attainment of quantified economy-wide emission reduction targets by developed countries, including
 - Use of LULUCF and carbon credits from market-based mechanisms
 - Base year, global warming potential values, coverage of gases and sectors, expected emission reductions and mitigation policies, legislation and institutional arrangements in relation to the targets
- Discussion of commonalities and differences in approaches to measure progress towards the achievement of economy-wide emission reduction targets of developed countries
- Comparison of the level of mitigation efforts among developed countries



Part I: Compilation of information on targets and relevant sources

The technical paper is based on information provided by developed countries:

- Targets contained in document FCCC/SB/2011/INF.1/Rev.1
- Assumptions and conditions related to the attainment of the targets of developed countries, provided during the workshops on this matter held in 2011 and 2012
- Submissions from developed countries, as part of the process of clarifying their targets, in response to paragraph 5 of decision 2/CP.17 (FCCC/AWGLCA/2012/MISC.1, Add.1 and Add.2)
- 2012 GHG inventory submissions of Annex I Parties
- Contribution from LULUCF and Kyoto Protocol mechanisms in attaining the pledges for emission reductions submitted by Annex I Parties that are also Parties to the Kyoto Protocol (FCCC/KP/AWG/2010/INF.2/Rev.1)



Part II: Assumptions and conditions related to the targets

2 Parties with unconditional target and 6 Parties with unconditional low target

Assumptions and conditions

- Achieving a comprehensive global agreement with the participation of all major economies capable of keeping the average global temperature increase below 2 °C
 - Advanced economies agreeing to comparable mitigation efforts and actions
 - Developing countries taking action in accordance with their differentiated responsibilities and respective capabilities
- Role of LULUCF and carbon credits from market based mechanisms
 - Effective set of rules and more comprehensive inclusion of LULUCF
 - Access to broad and effective international carbon markets

Summary

- Clarity on conditions attached to targets
- Clarity on conditions to enable Parties to move to the higher range of the targets
- **Little clarity on whether assumptions and conditions are fully or partly met**



Part III: Commonalities and differences in approaches to measure the progress

- Summary of approaches:
 - Base year: 1990 (2000 and 2005)
 - GWPs: IPCC AR4 (IPCC SAR)
 - Coverage of gases: CO₂ , CH₄ , N₂O, PFCs, HFCs, SF₆ (+ NF₃)
 - Coverage of sectors: IPCC sectors, economy-wide
 - Expected emission reductions: uncertainty related to LULUCF and use of mechanisms (carbon credits)
 - LULUCF: comprehensive land-based approach, activity-based approach
 - Carbon markets: new market-based mechanism, use of carbon credits from other established mechanisms
- Apart from base year, information not available for all Parties



Part III: Commonalities and differences in approaches (continues)

- Revised UNFCCC Annex I inventory reporting guidelines, from 2015 onwards
 - Base year: 1990 (with flexibility for EITs)
 - GWPs: IPCC AR4 (WG I)
 - Coverage of gases (including NF_3) and sectors (economy-wide)
 - Methodology: 2006 IPCC Guidelines
 - Parties still to confirm that approaches to measure the progress towards the targets will be based on common elements as defined in the UNFCCC Annex I reporting guidelines
 - Uncertainties regarding the role of LULUCF and carbon credits from market-based mechanisms
 - Most Parties defined their targets including LULUCF, but using different approaches
 - Comprehensive land-based approach versus activity-based approach (incl. election of non-mandatory activities, new pool, consideration of natural disturbances)
 - Several Parties to the Kyoto Protocol are yet to communicate if they will follow the same activity-based approach under the Convention
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Part III: Commonalities and differences in approaches (continues)

- Uncertainties regarding the role of LULUCF and carbon credits from market-based mechanisms
 - Most Parties indicate intent to use market-based mechanisms to achieve the target, but lack of clarity on
 - Assumptions about the scale of use
 - Rules and modalities for new market mechanism to be established under the Convention
 - Links with the KP mechanisms and how mechanisms will be used to achieve the targets under the Convention
- Limited information on and differences in the approaches to measuring the progress towards targets could lead to
 - Increased complexity of the reporting system under the Convention
 - Difficulties in assessing and reviewing the progress towards the achievement of developed countries' targets when conducting the IAR under the SBI
- Decision 1/CP.18 established a work programme to inter alia identify common elements for measuring the progress



Part IV: Comparison of the level of emission reduction efforts

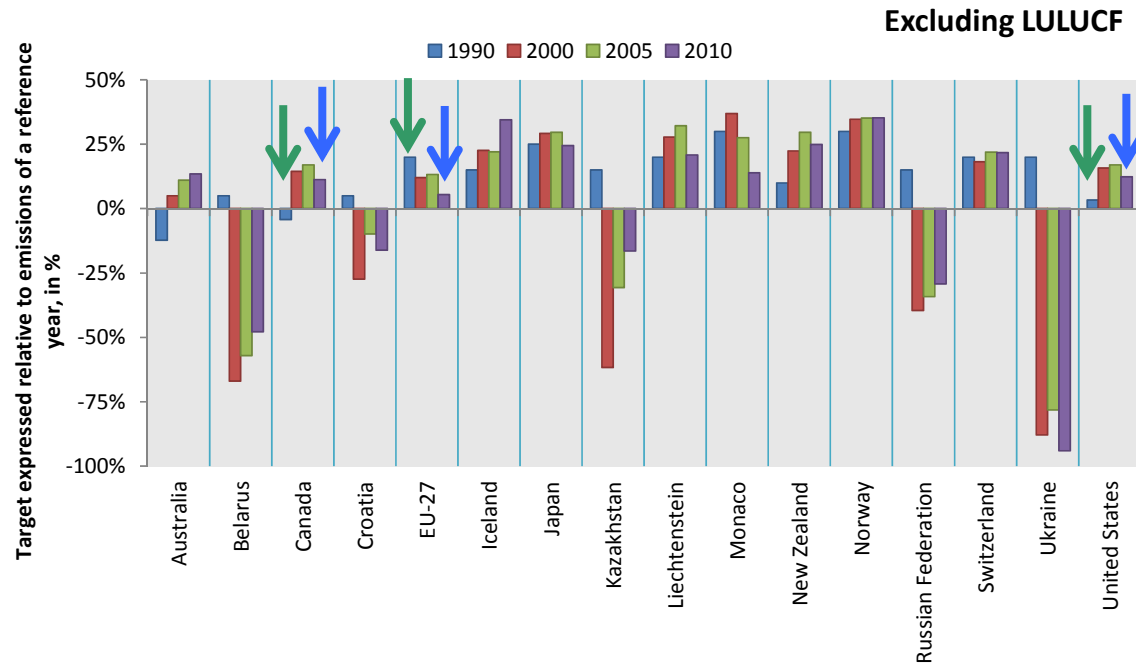
- Comparability of mitigation efforts was considered in relation to the economy-wide emission reduction targets of Annex I Parties set out in document FCCC/SB/2011/INF.1/Rev.1
- The approach used for assessing comparability of mitigation efforts is based on different metrics each of them reflecting different national circumstances
- In assessing comparability the following differences were not taken into account
 - Differences in the coverage of gases and sectors, and methodologies used to estimate emissions and removals
 - Differences in the contribution of domestic action, carbon credits from the market-based mechanisms and LULUCF, and associated efforts in the context of the overall mitigation efforts



Metrics used

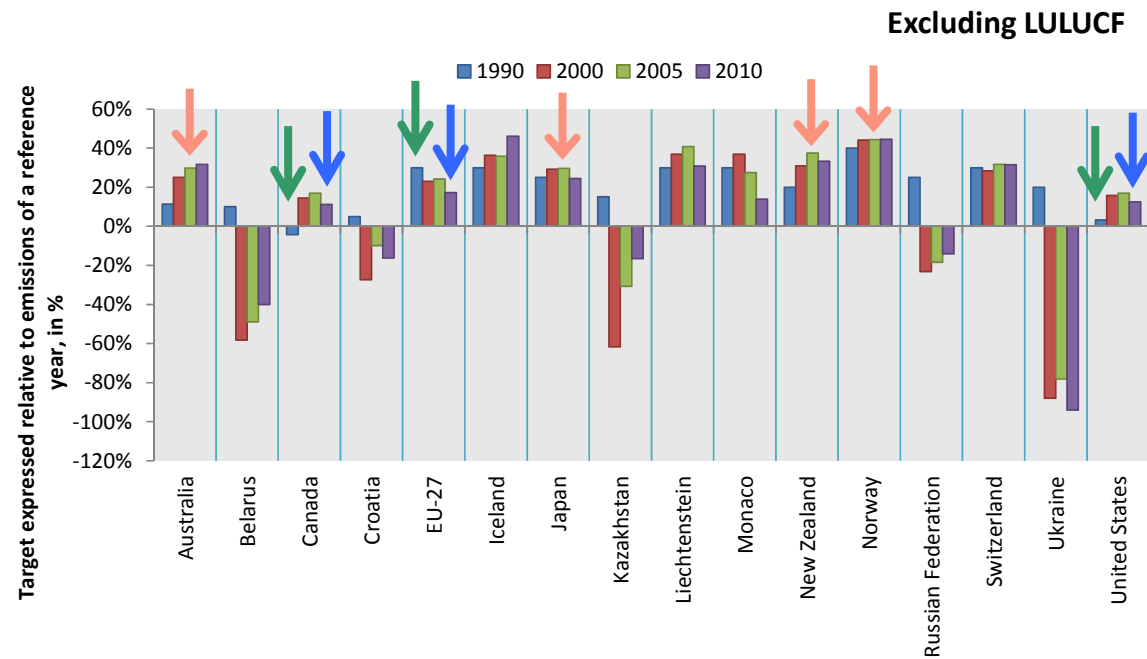
- Absolute and relative changes in GHG emission levels over different periods of time and relative to different reference years
 - Absolute and relative changes in per capita GDP and per capita GHG emissions over different periods of time
 - Absolute and relative changes in GHG emission intensity in relation to economic output (GDP)
- The metrics used and quantitative estimates are intended to be used for illustrative purposes only and not as proposals on how to determine comparability of efforts

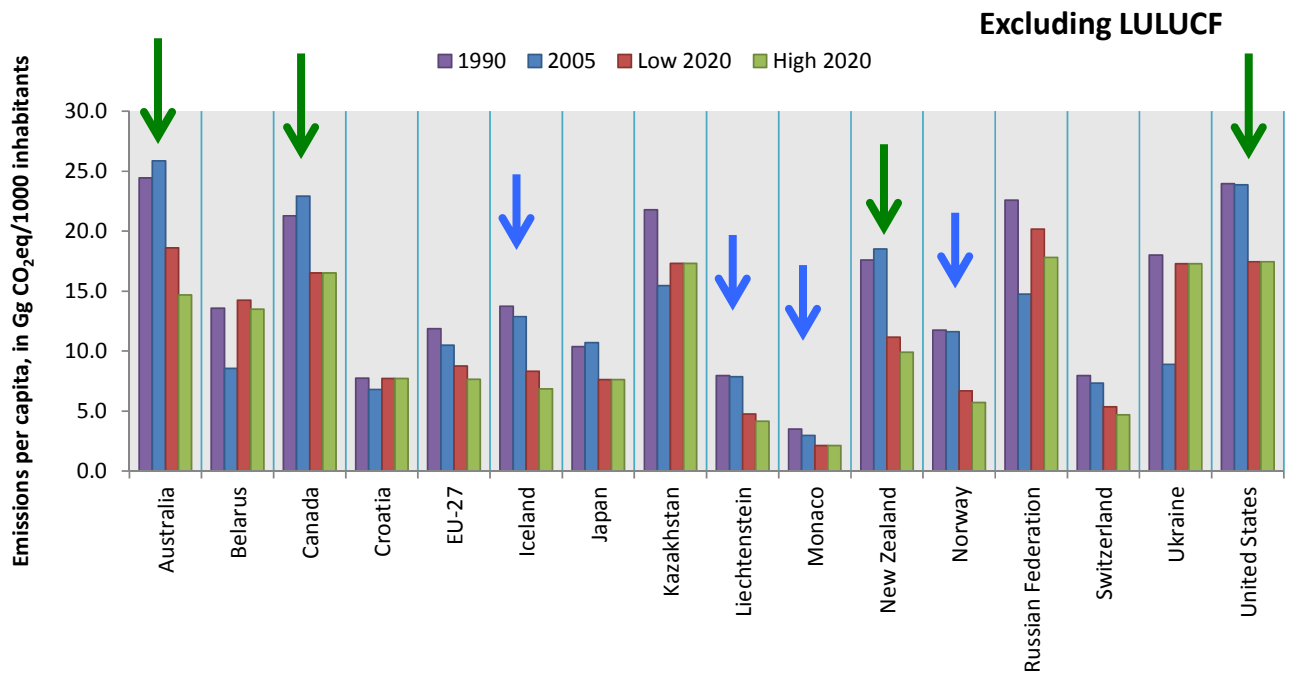




Emission reductions, excluding LULUCF, by 2020 relative to emission levels in 1990, 2000, 2005 or 2010 for *low targets*

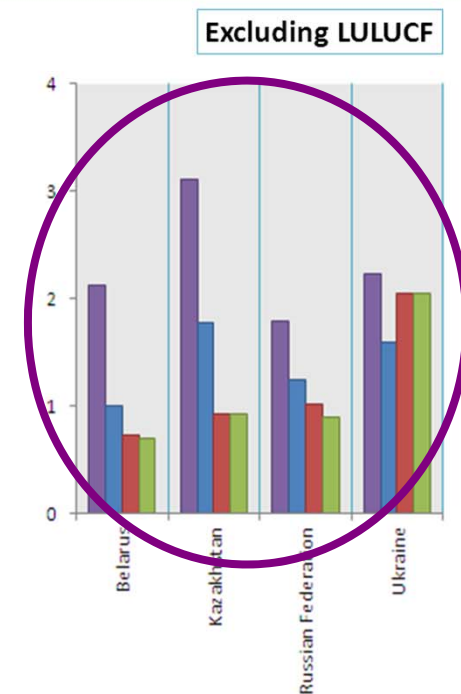
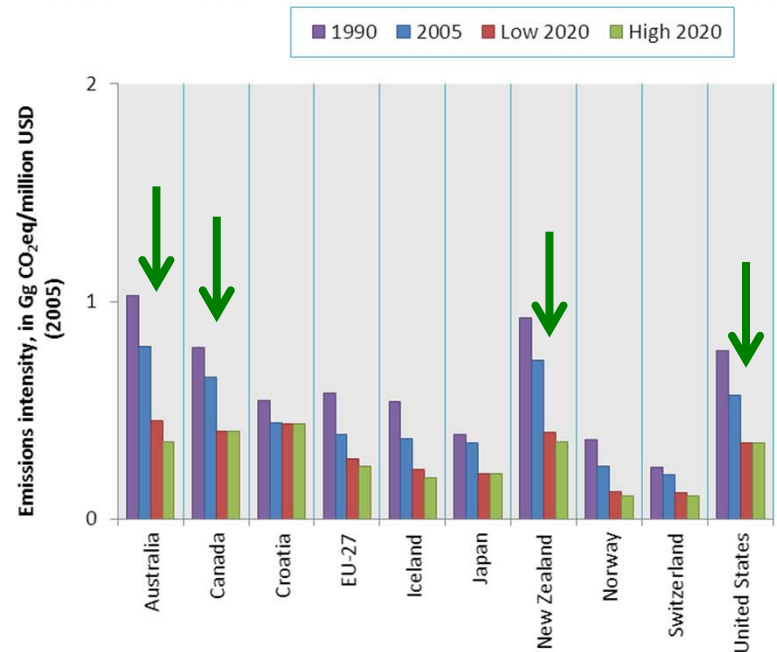
Emission reductions, excluding LULUCF, by 2020 relative to emission levels in 1990, 2000, 2005 or 2010 for *high targets*





Per capita emissions, excluding LULUCF, in 1990, 2005 and 2020 for the low and high targets

Emission intensity, excluding LULUCF, in 1990, 2005 and 2020 for the low and high targets



Part IV: Comparison of the level of emission reduction efforts (continues)

Summary

- The choice of a reference year affects how efforts are viewed – historical efforts may differ from projected efforts for 2020
 - Differing population growth rates can affect perceptions of national efforts
 - All developed country Parties expect major improvements in emission intensity between 1990 and 2020, but significant differences among countries
 - Use of different metrics leads to different outcome of comparability assessment
 - There is no single metric or a combination thereof that could capture different national circumstances across countries
 - Different assumptions, methods and national circumstances make it difficult to compare efforts by Parties, e.g.
 - Methods for estimating (and the use of) GHG emissions from international offsets, for estimating the contribution of the LULUCF sector
 - Coverage of sectors and gases
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THANK YOU FOR YOUR ATTENTION

