Japan's perspective on Mitigation Potentials

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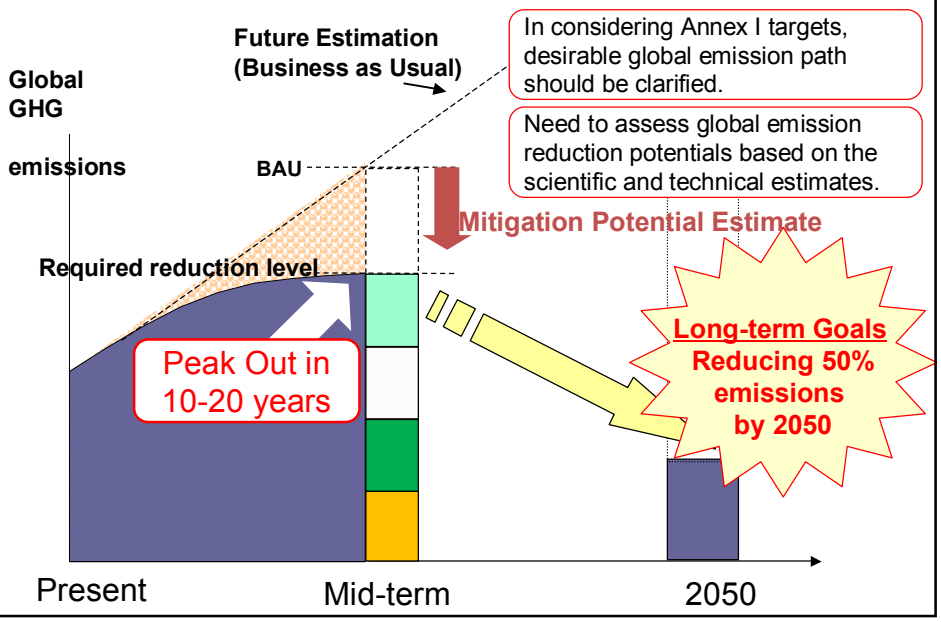
Japan's target setting

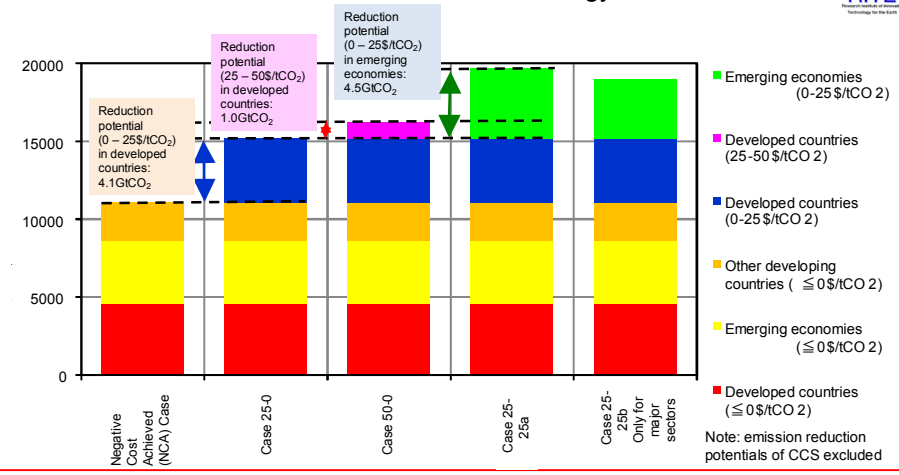
- Japan will set its quantified national target at an appropriate time next year based on sectoral approach.
- Japan launched an expert committee on its quantified national target under cabinet office last November.
- It aims to present options of target for national discussion through scientific and theoretical analysis from the environment, energy and economic perspectives, assessing mitigation potentials and associated costs using several global models (NIES and RITE), considering comparability of efforts among developed countries.
- It utilizes the results of other models presented in the international workshops on mitigation potentials last May and October in Paris hosted by Japan. (PBL, McKinsey, IEA, OECD, PNNL, IIASA, Ecofys, etc).

Need to assess global mitigation potential



Expected CO2 Emission Reduction

Global Reduction Potentials from Sectoral Technology-frozen Case



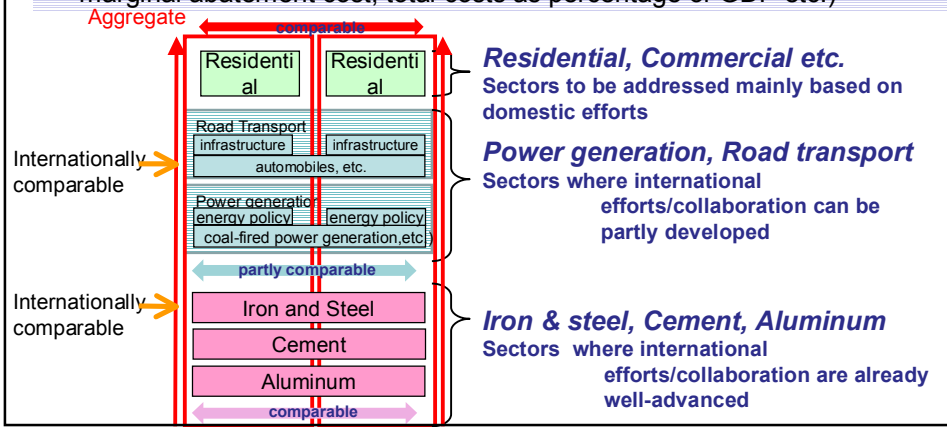
- **The reduction potential below at 0–25 $/tCO2 in developed countries is about 4.1 GtCO2, but that at 25–50 $/tCO2 is about 1.0 GtCO2.**
- **The reduction potential at 0–25 $/tCO2 in emerging economies is about 4.5 GtCO2.**
- **Large-scale emission reductions of 3.8 GtCO2 could be achieved even if CO2 intensity targets for major sectors are assumed in emerging economies.**

How to ensure comparability of efforts among developed countries

(1) Aggregate potential of each sector to estimate national potential

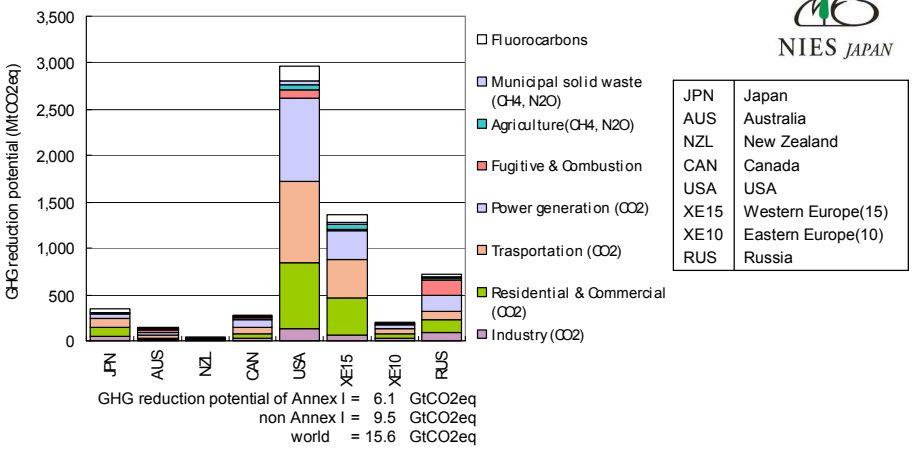
Iron & steel, cement, aluminum : based on international efficiency indicator
Power generation, road transport : based on international efficiency indicator and national policy
Commercial, residential : based on national policy

(2) Cross-check and adjust the level of aggregated national target from the viewpoint of comparability, using various indicators (e.g. GHG intensity, marginal abatement cost, total costs as percentage of GDP etc.)



Example of an indicator for ensuring comparability: Mitigation potentials by sector in 2020

Mitigation potentials under 100 US$/tCO$_2$ at a 5%/year discount rate



NIES JAPAN

JPN	Japan
AUS	Australia
NZL	New Zealand
CAN	Canada
USA	USA
XE15	Western Europe(15)
XE10	Eastern Europe(10)
RUS	Russia

- **Marginal abatement cost is one of the candidate of indicators for assessing comparability of efforts among developed countries.**
- **Compared results of various models will be provided to the AWG next March.**

Summary

- In considering Annex I targets, desirable global emission path should be clarified. Then global emission reduction potentials based on the scientific and technical estimates should be assessed.
- Comparability of efforts among all developed countries should be ensured with indicators such as GHG intensity, marginal abatement costs and total costs as percentage of GDP.
- Thus, range of reduction objectives of Annex I Parties should be considered in both AWGs.
- These issues can be further elaborated at the international workshop on methodologies of sectoral approaches to be held next March in Bonn under the auspices of Japan.