

Effectiveness of Sectoral Approach and Reasonable Indicators



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Presentation Outline

- ➡ Global Emission and Reduction Potential
- ➡ Why Sectoral Approach?
- ➡ Importance of Reasonable Indicator Setting
- ➡ Policy to Realize the Reduction Potential
- ➡ Future Task



Worldwide CO₂ Emissions and Anticipated Levels

Drastic reductions of greenhouse gas emissions are necessary for the entire planet.

Figure 5.1: Energy-Related CO₂ Emissions by Scenario

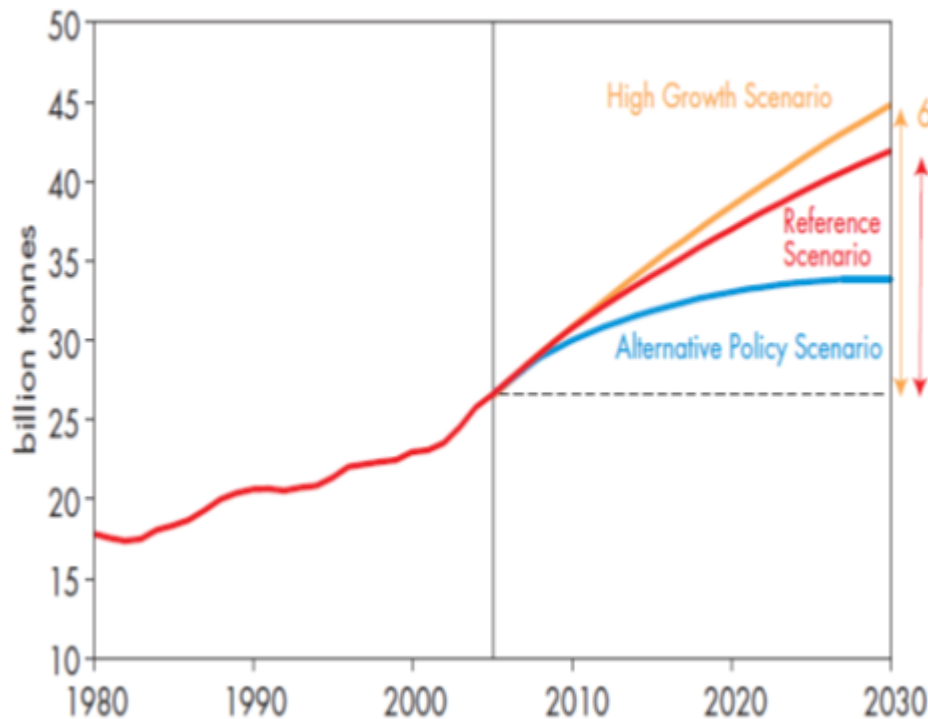
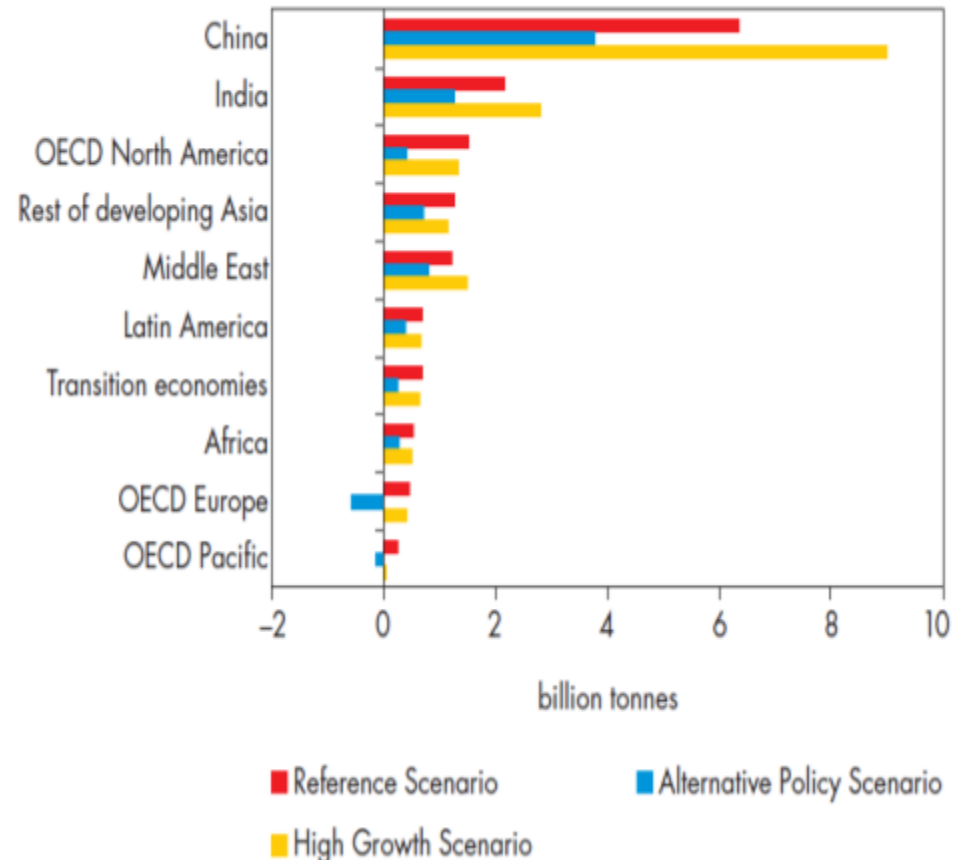


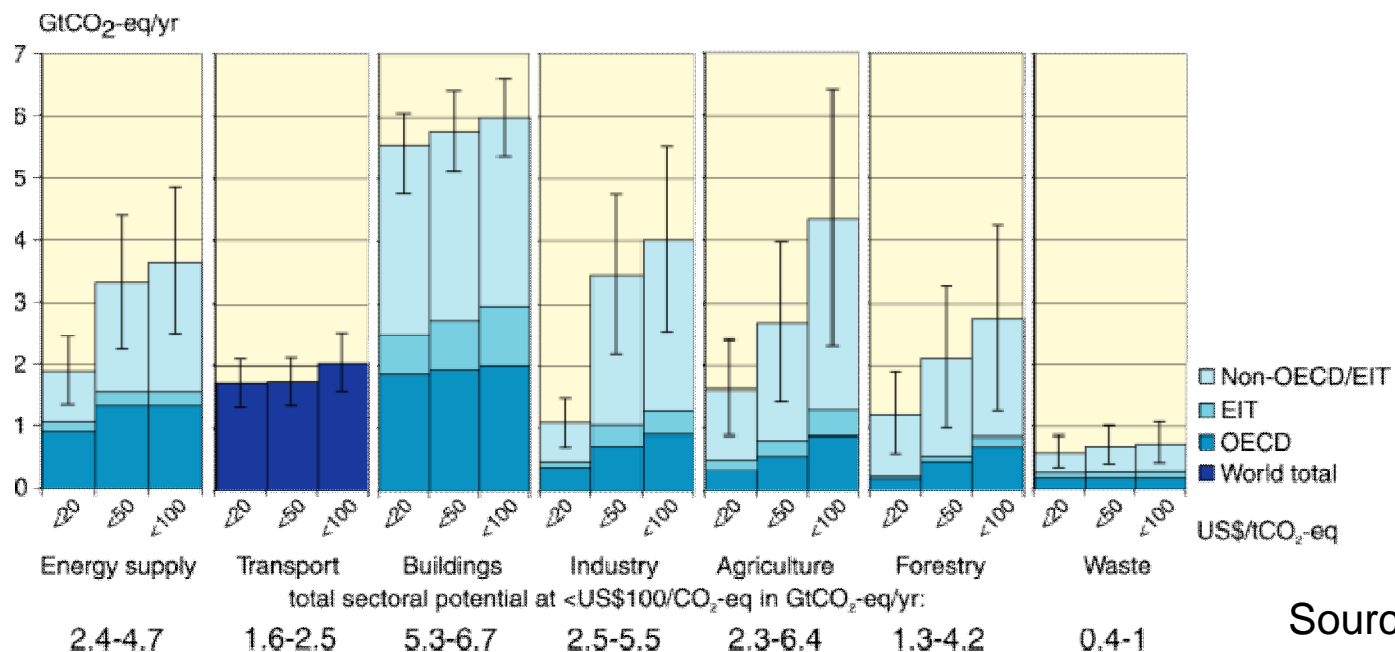
Figure 5.2: Incremental Energy-Related CO₂ Emissions by Scenario, 2005-2030



Source: IEA WEO2007

Economic mitigation potential by sectors in 2030

- There is substantial economic potential for the mitigation of global GHG emissions over coming decades, that could offset the projected growth of global emissions or reduce emissions below current levels.
- Mitigation potential differs between sectors, which suggests the necessity to consider situation of each sector.
- Also, there are large mitigation potential in both developed and developing countries.



Source: IPCC

What is the “Sectoral Approach” ?

- **“Sectoral Approach”** realizes practical mitigation actions through:
 - Identifying the targeting sector
 - Conducting detailed survey on technology and emission
 - Developing indicators for benchmarking (intensity)
 - Identifying the best technologies and estimating reduction potential
 - Setting target (intensity/absolute)
 - Implementing actual mitigation by introducing identified technologies
- **Being practiced in various forum:**
 - APP
 - IEA
 - WBCSD
 - IISI etc.

Sectors	Possible efficiency indicators
Power Generation	CO2 emissions / GWh
Energy intensive industries (Steel, Cement, Paper & pulp etc.)	CO2 emissions or energy use / production output (t)
Residential	CO2 emissions or energy use / household
Transportation	CO2 emissions or energy use / freight or passengers
Waste	Methane emissions / waste buried CO2 emissions / waste incinerated

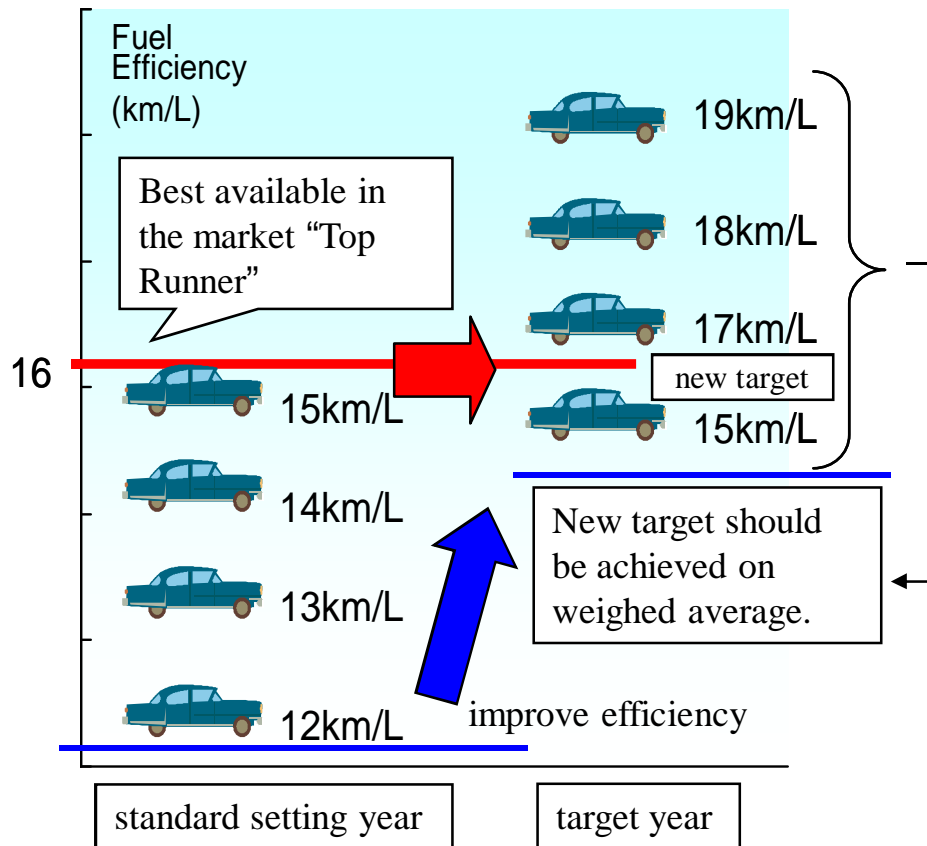
Role of Proposed Indicators

- **Proposed Indicators with benchmarking can be used for national/sectoral targets-setting**
- **Targets-setting by bottom-up sectoral approach have the following advantages:**
 - Enable setting realistic and ambitious targets by investigation and estimation of technology and its progress properly,
 - Enable setting quantifiable, measurable and verifiable targets,
 - Realizing CO₂ emission reduction, energy conservation and environmental protection simultaneously,
 - Applicable both to developed and developing nations,
 - Applicable to set comparable targets,
 - Giving confidence both to governments and the private sector by showing a tangible path to the targets.
- **Cement, Steel, Power-Generation and Transportation sectors can cover 60-70 % of the total worldwide basis CO₂ emissions.**

Policy to Realize Reduction Potential

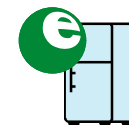
Legally-binding “**Top Runner Standards**” covering 21 products have successfully achieved the remarkable improvement in energy efficiency.

<Concept of “Top Runner Program”>



<The result of the Top Runner program>

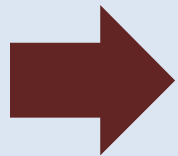
Equipment	Improvement of energy consumption efficiency (Results)
TV sets	25.7% (FY 1997 FY 2003)
Video-cassette recorders	73.6% (FY 1997 FY 2003)
Air conditioners	67.8% (FY 1997 FY 2004)
Electric refrigerators	55.2% (FY 1998 FY 2004)
Electric freezers	29.6% (FY 1998 FY 2004)
Gasoline passenger vehicles	22.8% (FY 1995 FY 2005)



Summary

Sectoral Approach

- can identify actual reduction potential with certain technologies; “Effectiveness”
- addresses international “Competitiveness”
- provides indicator for equitable framework establishing national reduction target, sectoral target and voluntary measure; “Equity”



is promising elements for post-2012 framework

Japan accelerate the work through G8 process next year.

(Broadening Countries and Sectors: Power, Transport, Home, Agriculture and Forestry, etc.)