

Sectoral Approaches

- Applications and Challenges -

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Possible Post-2012 Framework

■ Grouping of Parties

- ◆ Group A: Developed Countries (Annex I Countries + Non-Annex I countries comparable to the OECD members)
- ◆ Group B: Major Developing Countries defined based on criteria such as GDP/capita, share in global emissions etc)
- ◆ Group C: Developing Countries Particularly Vulnerable to Climate Change (LLDC, SIDS etc)
- ◆ Group D: Other Developing Countries

■ Actions by each Group

- ◆ Group A: Economy-wide emissions reduction targets (supplemented by intensity targets in key sectors)
- ◆ Group B: Intensity targets (economy-wide and key sectors)
- ◆ Group C & D: SD-PAM

- **Sectoral Approaches** can be key component for both developed and developing countries in the post-2012 framework

Scheme of Sectoral Approach

Through analyzing reduction potentials and setting indicators, SA

- helps to compare the developed countries' efforts
- accelerates global emissions reduction by
 - supporting national efforts of developing countries through transfer of technologies
 - helping to set MRV mitigation actions of major developing countries

CO2 emission reduction target

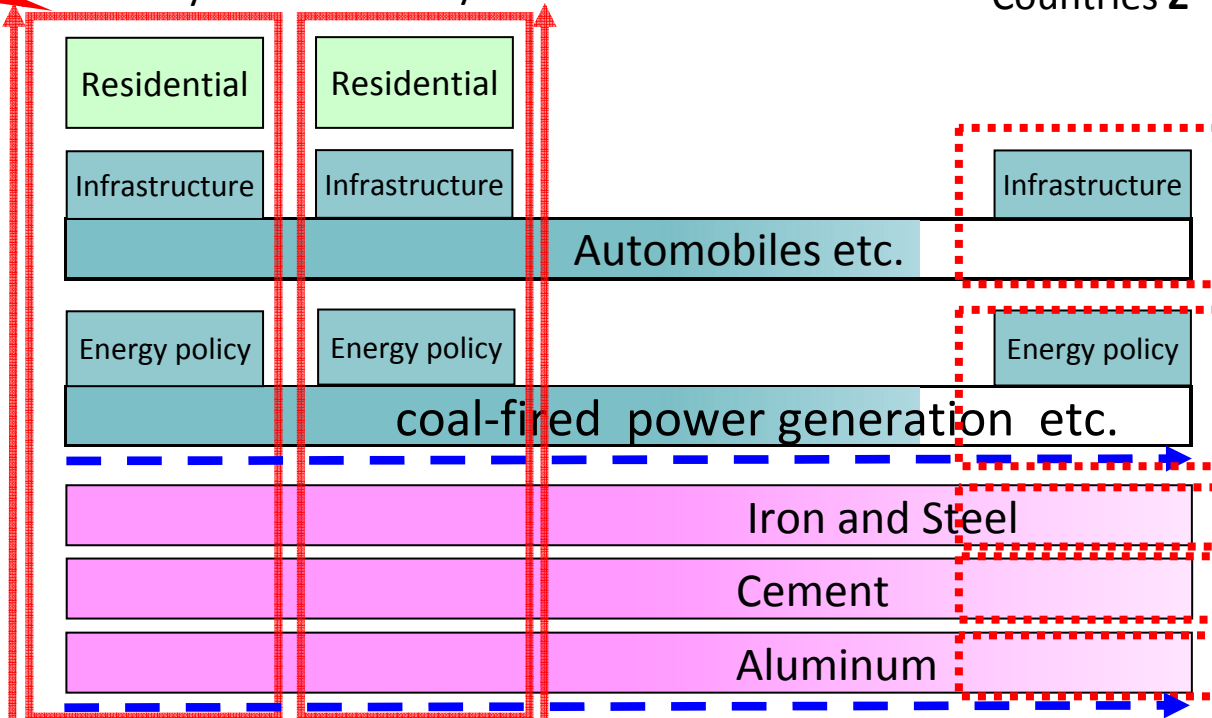
Compare the efforts

Developed Country X

Developed Country Y

Major Developing Countries Z

Aggregate



MRV actions
(e.g. based on efficiency indicators)

International Cooperative Actions
e.g. APP, IISI, IAI and CSI of WBCSD

Comparability among Developed Countries

- ◆ Aggregation of CO₂/GHG emissions reduction potential is a key for ensuring comparability (equity) of QUELROs among developed countries.
- ◆ Bottom-up aggregation does NOT automatically result in national targets. It needs to be complemented by various parameters such as economy-wide energy/CO₂ intensity, marginal abatement cost, mitigation cost per GDP etc). For example, there could be some adjustment for poorer countries with large GHG reduction potentials.
- ◆ Identifying emissions reduction potential using appropriate sectoral benchmarks (energy/CO₂ intensities) serves multiple purposes other than the above aggregation:
 - identifying high priority sectors for domestic mitigation actions
 - ensuring equitable benchmarking in domestic ETS
 - ensuring connectivity among different ETSs

How to put SA in the New Framework?

- ◆ Up to now, Sectoral Approaches have been promoted through voluntary initiatives such as IISI, IAI, CSI (industry) and APP (government + industry). Sectoral approaches in the new framework could be built on these on-going efforts.
- ◆ However, they need “official” endorsement in the UNFCCC framework.
- ◆ IEC and ISO could be used for this purpose because:
 - They are suitable fora for defining key elements on SA (e.g., setting boundaries, calculating energy efficiency performance, minimum efficiency standards)
 - They can ensure participation of sector-specific experts (public and private)
 - It is relatively easy to work out a consensus based on the agreements to date under the current initiatives.
 - Collaboration between the ISO/IEC and the IEA, which has developed energy efficiency indicators in response to the GPOA can help.
- ◆ Agreements in IEC and ISO could be referred to in the new Protocol.

Data Availability (1)

- ◆ Data availability is the prerequisite for effective MRV actions of both developed and developing countries, in particular, successful application of sectoral approaches.
- ◆ In key sectors (e.g., iron & steel, cement, aluminum, power generation) of major developing countries, there is often significant gap (e.g., energy/carbon intensity performance, data availability) between modern/large-scale plants and obsolete/small/medium size plants.
- ◆ For complete SA, comprehensive data collection of all the installations for defining sectoral intensity (energy/carbon) in relevant sectors is ideal. Capacity building in major developing countries with assistance of experts team is the key.
- ◆ However, such data collection is highly time consuming, which may not be in time for the start of new framework.
- ◆ Practical (or second best) solution for applying sectoral approaches with available (or possibly available) data warrants consideration.

Data Availability (2)

- ◆ Unless comprehensive data collection is immediately possible, we could launch SA focusing on large-scale plants (existing, replacement, incoming) and incoming automobiles.
- ◆ Major developing countries will phase out inefficient/small/medium plants for industrial restructuring (e.g., China aims to consolidate smelting companies so that the top 10 companies' production will comprise more than 70% by 2020).
- ◆ Ensuring high performance for large scale plants, in particular, incoming ones is crucial for avoiding “lock in” effect in coming years.
- ◆ It is worth considering a “minimum efficiency standard” for the following:
 - **Power sector: thermal efficiency (%), penetration of BAT (%) etc**
existing and incoming (including replacement) large-scale coal-fired/fossil fuel power plants (generation capacity > xx MW)
 - **Iron & steel, Cement, Aluminum: TFC/CO2 emissions/unit ton production**
existing and incoming (including replacement) large-scale plants (production capacity > xx ton)
 - **Automobile : fuel efficiency**
All the vehicles which will be produced and imported from 2013

No-lose Target and SCM

- ◆ For key sectors, major developing countries could utilize Sector Crediting Mechanism, covering the whole sector, instead of project-based CDM.
- ◆ Major developing countries will set “no-lose sectoral intensity targets” for key sectors based on their specific national circumstances.
- ◆ Sector-wide intensity no-lose targets will be internationally reviewed (or negotiated). Developed countries will help major developing countries to set as ambitious no-lose target as possible with financial/technical cooperation.
- ◆ Intensity improvement beyond “no-lose target” will generate credits after verification by third party, which can be sold to the international market.
- ◆ SCM will ensure more environmental integrity compared with CDM by awarding mitigation actions below no-lose targets, instead of BAU.
- ◆ Data availability is the key for judging appropriateness of BAU and no-lose targets. Major developing countries need to prove it.
- ◆ If sector-wide BAU and intensity performance can not be identified immediately due to data constraint, sub-sector (e.g., those installations exceeding certain level of capacity with relatively new vintage) could be addressed.

Labeling

- ◆ There should be some mechanism rewarding products and those produced from plants satisfying “minimum efficiency standards” (or classified efficiency standards) without resorting to border adjustment measures.
- ◆ Such products (or processes) could be differentiated making use of a labeling scheme linked with IEC/ISO standards and benefit preferential procurement by public and private sectors (e.g., WBCSD guideline)

Issues for Discussion (1)

1. Which sectors should be covered?

- “Competitiveness” or “carbon leakage” is not the only criteria for SA.
- We should always come back to our common objectives, i.e., GHG reduction

2. What should we have in common, what should be differentiated?

- Common metric (e.g., CO₂/t-prroduction)
- Reference intensity
- Differentiated goal/target/aim

3. What kind of data do we need?

- Purpose defines the range of data collection.
- Situation in developed and developing countries is different.
- “perfectionist approach” won’t work, in particular, in developing countries in the context of international negotiation.
- At the same time, we need “bare minimum” for internationally comparable MRV actions in key sectors, which is necessary for mobilizing MRV support from developed countries.
- We should not over-complicate issues by adding elements which should be addressed in other policies (e.g., social elements)

Issues for Discussion (2)

4. How can we translate on-going efforts for developing benchmarks (e.g., international industrial associations, APP, EU-ETS) into UNFCCC agreement?

- Level of detail could be different according to policy context (e.g., between EU-ETS and cooperative sectoral approach)
- Relatively simple benchmarks for comparing MRV actions across developed and developing countries and more detailed benchmarks for developed countries in their domestic requirements?

5. What can be agreed at Copenhagen and thereafter?

- Time matters. First, framework agreement and detail specification thereafter? (e.g., Kyoto Protocol and Marakesh Accord)
- Needs engagement of sectoral experts from public and private sectors. UNFCCC negotiators may not best suited. Delegating it to ISO/IEC could be a solution (confidence building for experts is the key)