

HCFC Phase-out Approaches Issues and Options to Consider

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Applying Lessons Learned from CFC Phase-out

- **Project-by-project approach alone cannot address drivers behind ODS supply and demand in a sector, much less cross-cutting issues.**
- **Effective import/export control system is a necessity**
- **A sector or national approach allows:**
 - Policy to be combined with investment and TA activities
 - A direct link to be made to country's obligations to the MP
 - Countries to rally support / foster inter-agency cooperation
- **Permanent aggregate reductions level the international playing field; lead to accountability and results; and permit longer-term, performance-based funding (for predictability in financing) and third party verification (necessary for other MEAs too)**



HCFC: Some Strategic Issues

- While the baseline of HCFC consumption in volume could be more than 3.6 times higher than the baseline of CFC consumption, total ODP impact of the HCFC consumption baseline (52,000 ODP MT) to the ozone layer is about 2 times less than CFC impact;
- Assuming similar conversion cost on a kilogram basis, the total cost of phase-out of HCFCs could be as high as 460% of the cost of CFC phase-out; and
- Based on past experience, enterprises in A5 countries financed, in average, 50% or more of the total conversion cost.



Options in HCFC Phaseout

■ Policy

- No control until the baseline is established could incur significant cost to the country even if MLF provides support on kg basis;
- Immediate control measures put in place to control growth before compliance period.

■ Investment Activities

- Conversion of HCFC-22 Split A/C industry to non-ODS technology: sector consumes the most HCFCs in many countries;
- Conversion plus improved product design and energy efficiency could provide significant global benefits;
- Reducing HCFC-22 supply in the servicing sector will support market penetration of new non-ODS A/C and together provide significant global benefits.



Options in HCFC Phaseout

- **Linkages to the Climate Change Agenda and Financing**
 - Other global benefits need to be considered to lower the overall economic cost to the country
 - With significant climate benefits, resources outside the MLF could be mobilized to support market transformation to more energy efficient equipment and processes – while phasing out HCFC
 - MLF would be one source in an HCFC resource mobilization plan
 - Other sources: carbon voluntary market, CDM (and other carbon funds), trust funds, GEF, private sector



Climate Benefits to be Gained from a Synergy of Various Funding Sources

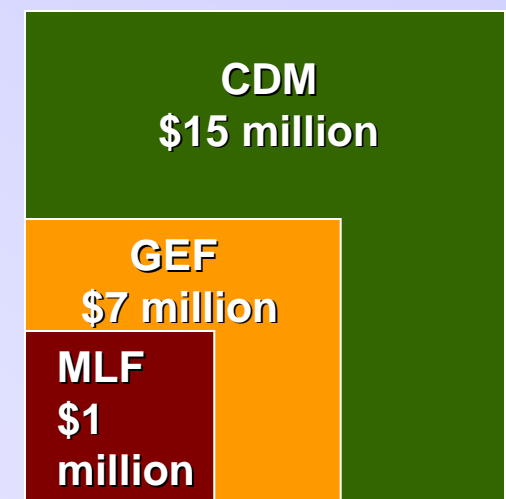
	CDM Credits (Million tons)	Non-CDM Credits (Million tons)
ER from MLF	0.095	0.15
ER from GEF	0.594	1.175
ER from CDM	0.854	2.652
Sub-total	1.543	3.977
Total	5.52	

*Example: India
Chiller EE Project*

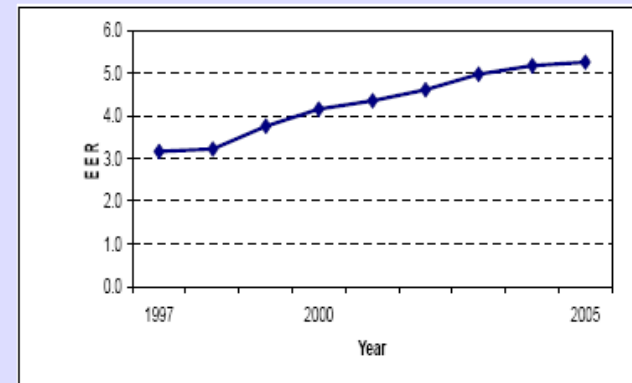
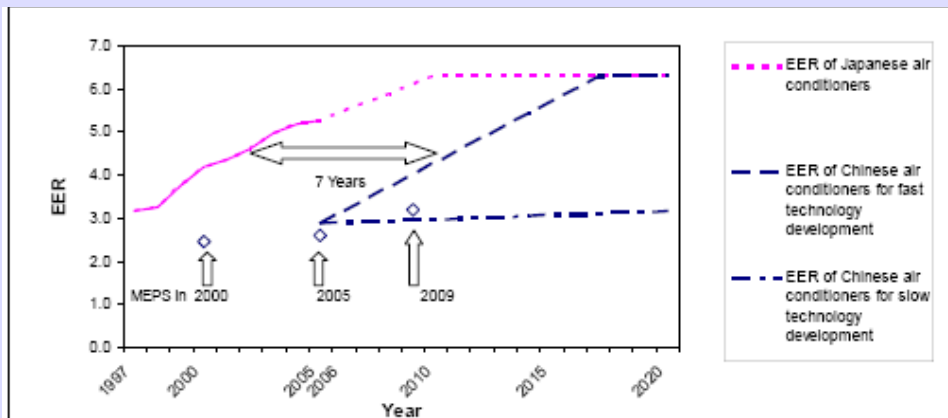
Environmental
Benefits:

MP: 189 ODP T

KP: 5.5 Mt CO₂



Mobilizing non-MLF Resources to Speed up HCFC Phase-out



EER for Japanese Air Conditioners

Example: Air Conditioners

Country	Baseline EER	Targeted EER	Units Sold/Yr	CO ₂ Emission Reduction (MT)	Revenue (EUR)
Ghana	2.55	2.8	100,000	3 million	30 million
China	3.4	5.00	4 – 18 million	28 – 61 million	280 – 610 million

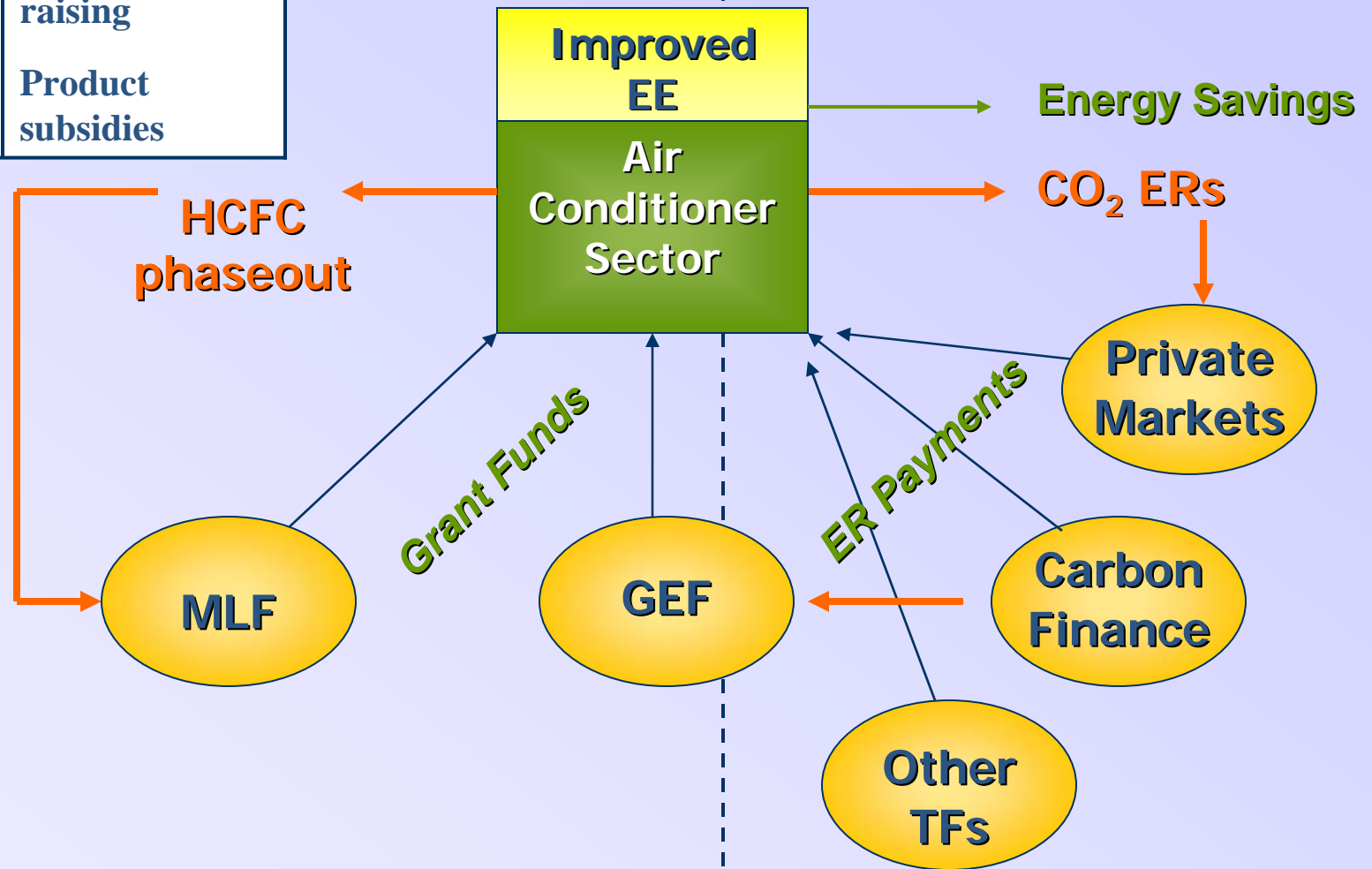
Source: Satoru Koizumi, IEA Information Paper (©OECD/IEA, November 2007)

Barriers	Measures
High investment cost	Capital
Perceived risks	Awareness raising
Opportunity cost	Product subsidies

Supply Side
Conversion

Demand Side
Market
Penetration

Market Transformation



Options in HCFC Phaseout

Blending options for a country-specific approach

SHORT TERM

- Establish import/export licensing systems
- Develop a communication plan to inform industry and consumers of the new HCFC controls
- Address growth in the pre-compliance period through aggregate consumption reduction for Annex C Group 1 chemicals (early cap on consumption (imports) or on the growth rate (manufacturing))

MEDIUM TERM

- Develop a strategy based on HCFC surveys, imports and patterns of use; economic trends; consultations with industry and ministries; cost-benefit analysis and options for resource mobilization
- Provide incentives to industry for early action by tapping into resources linked with generating climate benefits
- Seek permanent reductions on a chemical-by-chemical basis as supported by cost-benefit analysis
- Utilize a program approach to demonstrate how all these multi-pronged, cross-cutting, phased investment and policy activities can be combined for effective and sustainable HCFC phase-out in an HCFC national plan.



