

IPCC Working Group III

Policies, Instruments and
Co-operative Arrangements

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A wide variety of national policies and instruments are available to governments to create incentives for action

- Applicability depends on national circumstances
- There are advantages and disadvantages for any given instrument
- Instruments can be designed well/poorly, lax/stringent and need to be monitored to improve implementation

Four main criteria are used to evaluate national (and international) policies

National Policy Instruments

- *Integrating climate policies* in broader development policies makes implementation and overcoming barriers easier
- *Regulations and Standards*-Provide certainty about emission levels, preferable when consumers do not respond to price signal, but may not induce innovations
- *Taxes and Charges*-Set a price for carbon, but can't guarantee a particular emission level

National Policy Instruments

- *Tradeable Permits*- Can establish a price for carbon ... Volume determines environmental effectiveness ..permit allocation can have distributional consequences
- *Financial Incentives* (subsidies and tax credits)- can stimulate development and diffusion of technologies, but costs are generally higher than other instruments
- *R&D*- Can stimulate technological advances , reduce costs and enable progress toward stabilization

National Policy Instruments

- *Voluntary Agreements*-Raise awareness and can play a role in evolution of national instruments..majority have not achieved significant reductions beyond BAU
- *Information Instruments*- Can promote informed choices, possibly contribute to behavioral change, but impacts on emission have not been measured

Selected policies, measures and instruments that have shown to be environmentally effective in the transport sector in some countries

Sector	Policies, measures and instruments shown to be environmentally effective	Key constraints or opportunities
Transport	Mandatory fuel economy, bio fuel blending and CO ₂ standards for road transport	Partial coverage of vehicle fleet may limit effectiveness
	Taxes on vehicle purchase, registration, use and motor fuels, road and parking pricing	Effectiveness may drop with higher incomes
	Influence mobility needs through land use regulations, and infrastructure planning	Particularly appropriate for countries that are building up their transportation systems
	Investment in attractive public transport facilities and non-motorised forms of transport	

SPM Table 2 identifies a larger set of selected sectoral policies, measures and instruments

Government support through financial contributions, tax credits, standard setting and market creation is important for effective technology development, innovation and deployment

- The lower the stabilization levels (550 ppm CO₂-eq or lower) the greater the need for R&D efforts and investment in new technologies during the next few decades
- Government support for energy R&D in real terms has been flat or declining for two decades..even after the UNFCCC came into existence. It is now half of the 1980 level!
- Public benefits of RD&D are bigger than those captured by the private sector, therefore government support is justified

Governments have a crucial supportive role in providing an appropriate enabling environment (institutional, policy, legal and regulatory) for effective technology transfer

- Mobilizing financing of the incremental costs of low-carbon technologies is important
- Financial flows through CDM, GEF and development assistance for technology transfer have so far been limited and geographically unequally distributed.

Some corporations, local and regional authorities, NGOs and civil groups are adopting independent actions to limit emissions, stimulate policies and encourage deployment of technologies

Business Leader Initiative on Climate Change.

Carbon Disclosure Project.

Carbon Trust

Cement Sustainability Initiative

Chicago Climate Exchange.

Offset Programs.

Pew Center on Climate Change Business Environmental Leadership Council.

WWF Climate Savers

On their own, they generally have limited impact on national or regional emissions!

International Climate Change Agreements and other Arrangements

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- Notable achievements of the UNFCCC and the KP are the establishment of a global response to the CC problem, stimulation of national policies, creation of an international carbon market and establishment of new institutional mechanisms
- The impacts of the KP on global emissions is projected to be limited
- The economic impact on Annex B countries are projected to be smaller than the TAR

Future International Agreements could include many diverse elements

- For example.. emissions targets, RD&D programmes, adopting common policies, implementation of development oriented actions and expanding financial instruments.
- They can be integrated, but **comparing efforts made by different countries quantitatively would be complex and resource intensive.**

Future International Agreements

- Greater cooperative efforts to reduce emissions will help to reduce global costs for achieving a given level of mitigation, or will improve environmental effectiveness
- Improving, and expanding the scope of, market mechanisms (such as emission trading, Joint Implementation and CDM) could reduce overall mitigation costs

Future International Agreements

- Actions by different countries can be differentiated in terms of who participates, when actions are to be taken and what actions are taken
- Actions can be binding/non-binding, include fixed or dynamic targets and participation can be static or vary over time.

Further information:
IPCC Working Group III

Chapter 13

Also See TS and Chapter 13 for Detailed Discussion of Advantages/Disadvantages of Policy Instrument

Instrument	Criteria			
	Environmental effectiveness	Cost-effectiveness	Meets Distributional Considerations	Institutional Feasibility
Regulations and Standards	Emissions level set directly, though subject to exceptions. Depends on deferrals and compliance.	Depends on design, uniform application often leads to higher overall compliance costs.	Depends on level playing field, Small/new actors may be disadvantaged.	Depends on technical capacity, Popular with regulators, in countries with weak functioning markets.
Taxes and Charges	Depends on ability to set tax at a level that induces behavioural change.	Better with broad application; Higher administrative costs where institutions are weak	Regressive; can be ameliorated with revenue recycling.	Often politically unpopular; May be difficult to enforce with underdeveloped institutions.
Tradable Permits	Depends on emissions cap, participation and compliance	Decreases with limited participation and fewer sectors	Depends on initial permit allocation May pose difficulties for small emitters	Requires well functioning markets and complementary institutions.
Voluntary Agreements	Depends on programme design, including clear targets, a baseline scenario, third party involvement in design and review, and monitoring provisions	Depends on flexibility and extent of government incentives, rewards and penalties	Benefits accrue only to participants	Often politically popular. Requires significant number of administrative staff,
Subsidies and Other Incentives	Depends on programme design. Less certain than regulations/standards.	Depends on level and programme design; Can be market distorting	Benefits selected participants, possibly some that do not need it	Popular with recipients; potential resistance from vested interests. Can be difficult to phase out

Policies that provide a real or implicit price of carbon can create incentives for producers and consumers to invest in low-GHG products, technologies and processes

- Carbon prices between 20-80 US\$/tCO₂ by 2030 and 30-155 US\$/tCO₂ by 2050 are consistent with stabilization at 550 ppm CO₂-eq₂ by 2100
- Studies that take into consideration induced technological change get lower prices: 5-65 US\$/tCO₂ by 2030 and 15-130 US\$/tCO₂ by 2050
- A real or implicit price of carbon of 20 to 50 US\$/tCO₂ could lead to a power generation sector with low-GHG emissions and make many end-use sector options attractive

Insights and interactions with the private, local and non-governmental initiatives

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- Some corporations, local and regional authorities, NGOs and civil groups are adopting voluntary actions.
- These actions may limit GHG emissions, simulate innovative policies and encourage deployment of new technologies
- On their own, they generally have limited impact on national or regional emissions

International agreements

- Notable achievements of the UNFCCC/Kyoto Protocol that may provide the foundation for future mitigation efforts include the:
 - Establishment of a global response to the climate problem,
 - Stimulation of an array of national policies,
 - Creation of an international carbon market and
 - Establishment of new institutional mechanisms

Policies, Instruments and Co-operative Arrangements

- National policy Instruments, their implementation and interactions
- International Climate Change Agreements and other arrangements
- Insights and interactions with the private, local and non-governmental initiatives

Four main criteria are used to evaluate national (and international) policies

- Environmental effectiveness
- Cost effectiveness
- Distributional Effects, including equity
- Institutional feasibility