

Evaluating Policies for Air Pollution Prevention and Control

Introduction to team exercise

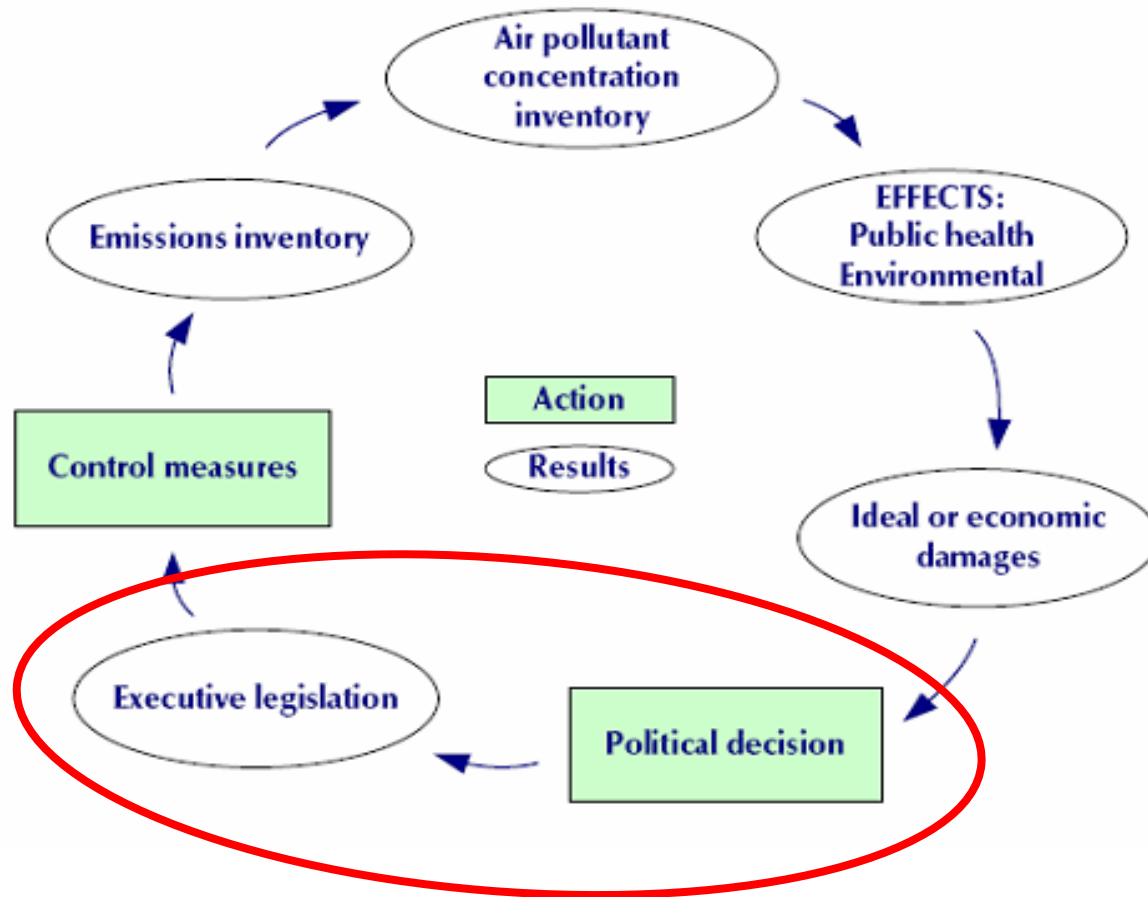
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Outline

- Brief review of policy instruments for air pollution prevention and control
- Introduction to policy evaluation exercise
- Four teams conduct policy evaluation exercise
- Teams present their results
- Final discussion

Policy Instruments in the Air Quality Management Cycle



Policy Instruments

1. **Command and control**
2. **Economic instruments / market-based instruments**
3. **Informative instruments**
4. **Voluntary agreements**
5. **Infrastructure and public services**

A variety of instruments for promoting “good environmental behaviour”

- **Command and control** (*Ambient standards, Emission standards, EIA, Property rights, Liability rules, Trade restrictions, Criminal sanctions, ...*)
- **Fiscal incentives** (*pollution taxes, tradable pollution permits, pollution subsidies, ...*)
- **Public Infrastructure**
- **Voluntary agreements** (*Negotiated Agreements, Environmental Reporting, EMS, Product Labelling, Demand Side Management, ...*)
- **Information based strategies** (*Education, Public Information, Awards, Recognition, Social sanctions, ...*)

1) Command and Control (CAC)

Transportation	Point sources (industry / power gen.)	Domestic / building sector
Emission standards	Emission standards	Emission standards
Fuel quality standards	Air quality standards	Building codes
Specification standards	Technology specification standards	
Vehicle inspection standards		

2) Economic Instruments

Transportation	Point sources (industry / power gen.)	Domestic / building sector
Vehicle taxation	Emission taxes	Fuel taxes
Road pricing	Fuel taxes	Subsidies
Congestion pricing	Product taxes	Provision of affordable micro credits
Parking fees	Emission trading schemes	
Vehicle quota systems	Tax exemptions / subsidies	
Tax exemptions / sub- sidies for emission control		
Public procurement		

3) Informative Instruments

Transportation	Point sources (industry / power gen.)	Domestic / building sector
Information & awareness rising campaigns	Public disclosure (of polluting industries)	Information & awareness raising campaigns
Eco-labelling of cleaner vehicles	Education / training / capacity building	Eco-labelling

4) Voluntary Agreements

Transportation	Point sources (industry / power gen.)	Domestic / building sector
Voluntary commitments by vehicle and fuel industry	Environmental management systems	
	Voluntary commitments	

- In Europe and North America, voluntary agreements are often used in the areas of energy-efficiency and climate change policies.
- Voluntary agreements are usually not exclusively used for air pollution policies; rather they complement and antedate regulation in order to reach environmental targets more rapidly.

5) Infrastructure and Public Services

Transportation	Point sources (industry / power gen.)	Domestic / building sector
Land-use planning & demand management	Land-use planning	Infrastructure for cleaner fuels
Infrastructure for cleaner fuels	Infrastructure for cleaner fuels	Research and development
Infrastructure for public transport systems	Research and development	
Investments in road infrastructure and intelligent traffic management systems		
R & D		

Which one to choose?

Command and control

Emission standards

Air quality standards

Fuel quality standards

Vehicle inspection programmes

Technology standards

Building codes

Infrastructure and public services

Land-use planning

Infrastructure for cleaner fuels

R & D

Infrastructure for public transport systems

Economic instruments

Emission taxes

Fuel taxes

Vehicle taxation

Public procurement

Subsidies

Vehicle quota systems

Emission trading schemes

Liability and compensation schemes

Parking fees

Congestion pricing

JI / CDM



Informative instruments

Eco labelling

Information disclosure

Voluntary agreements

Voluntary industry commitments

Environmental Management Systems

Information and awareness raising campaigns

Policy evaluation exercise

- This exercise shall help you to select and design **effective policy instruments** for air pollution prevention and control that can be **implemented** and **enforced** under the **specific conditions of your countries!**

Learning goals of the exercise

- Enhancing the **general understanding** about different **policy options** available to address air pollution problems.
- Training methods for **ex-ante policy evaluation**.
- Understanding the **pros and cons of different policy options** in effectively supporting air pollution prevention and control strategies.
- Analysing and understanding the **specific conditions of the South Asian Region** with regard to air quality management.

Policy evaluation exercise

- Group yourself into **4 teams**. Each team is given the task to **develop an effective policy strategy** for air pollution prevention and control in a specific sector.
 - Team 1: Large point sources: power sector
 - Team 2: Transport sector: private vehicles
 - Team 3: Transport sector: public transportation & trucks
 - Team 4: Informal sector: brick kilns

- Each team has a **portfolio of 5 policy options** that could help to mitigate the air pollution problem described in the workshop handouts.

Policy evaluation exercise

- The task is to **evaluate** each policy option according to a **range of criteria** for environmental policy evaluation.
- Evaluate every policy option with the help of the **evaluation grid**.
- Use **one** evaluation grid **per policy option and team**.
- You may have to **discuss** in your team to **agree** on an a common rating for each evaluation criteria.

Policy evaluation grid

TEAM: 1 Power sector POLICY INSTRUMENT: Sulphur tax	The policy instrument as described in the handout “does not fulfil the criteria at all (1)” “fulfils the criteria completely (5)”					
	1	2	3	4	5	don't know
1 Enforceability The policy can be enforced with the available human and financial resources of the governmental regulator and/or other enforcement agents!		X				
2 Appropriateness The polluters have the human, knowledge-based and financial resources to implement the environmental policy!			X			
3 Predictability It is possible for those regulated, as well as others, to prepare and take into account the policy instrument and its implications, both in the short term and in the long term!	X					
4 Persistence The effects are persistent in such a way that they have a lasting effect on the state of the environment. The policy gives incentive for long-run improvements and technological change!					X	
5 Flexibility The policy instrument can easily be adapted to changing conditions!						X
6 Economic efficiency The benefits to society are equal or almost equal to the costs imposed to society and polluters! (Both benefits and costs are valued in monetary terms.)			X			

Policy evaluation grid (cont.)

TEAM: 1 Power sector POLICY INSTRUMENT: Sulphur tax	The policy instrument as described in the handout “does not fulfil the criteria at all (1)” “fulfils the criteria completely (5)”					
	1	2	3	4	5	don't know
7 Cost-effectiveness Do the results justify the resources used? This is a cost-results criterion in which benefits are not valued in monetary terms. Could the same results have been achieved with fewer resources or could the same resources be used more effectively to achieve a better result?		X				
8 Administrative burden and costs to the government / EPA The implementation and enforcement of the policy requires only reasonable little human and financial resources from the government and its agencies? Distinguish between the required resources for monitoring and enforcement & sanctioning:						
...the policy requires little resources for monitoring.			X			
...the policy requires little resources for enforcement and sanctioning					X	
9 Legitimacy Individuals and organizations, such as non-governmental organizations (NGOs), interest organizations and firms accept the environmental policy instrument to a high degree!						X
10 Transparency Outputs and outcomes of the environmental policy instrument, as well as the processes used in the implementation are observable for outsiders with a high degree of transparency!		X				

Policy evaluation grid (cont.)

TEAM: 1 Power sector POLICY INSTRUMENT: Sulphur tax	The policy instrument as described in the handout "does not fulfil the criteria at all (1)" "fulfils the criteria completely (5)"					
	1	2	3	4	5	don't know
11 Equity The outcomes and costs of the environmental policy instrument are evenly distributed among different interest groups. All participants have equal opportunities to take part in and influence the processes used by the administration.		X				
12 Time scale of policy implementation The policy can be implemented in a short-term period. > 10 years (rating 1).....< 6 month (rating 5)			X			
13 Time scale of policy effects The policy shows the intended effects in a short-term period. > 10 years (rating 1).....< 6 month (rating 5)				X		
14 Overall expected environmental effectiveness The achieved outcomes correspond to the intended goals of the policy instrument to a high degree.			X			

Barriers to effective policy implementation and enforcement

What are other barriers for implementation and enforcement of this specific policy instrument?	No barrier (1)major barrier (5)					
	1	2	3	4	5	don't know
• Lack of top-level governmental support		X				
• Lack of governmental financing			X			
• Overlap of governmental competencies at national level				X		
• Overlap of governmental competencies between national, state, and municipal level					X	
• Industry lobbyism				X		
• Public resistance			X			
• Corruption		X				
• Lack of skilled human resources	X					
• Lack of trust between different actors						X

Final hints

- For the evaluation, use...
 - the **descriptions** of the policy instrument given in the hand-out,
 - your team's **combined experience** in air pollution prevention and control policies in your countries,
 - and **your best judgement!**

- Note that some of the policy options as described may have some good and also some less advantageous elements. If the “less advantageous elements” are not inherent to the policy instrument, try to **give recommendations for improvement**.

- Finally, try to identify possible **barriers for effective implementation and enforcement** of the specific policy instrument in your country / region.

Time to commence!

- **Team exercise starts now....**
- **...then the teams present their results.**
- **Final discussion**

Discussion

- What are “good” components of an effective policy for air pollution prevention and control?
- Are certain policy instruments likely to be more effective in developing countries than others?
- Which instruments would you recommend to your manager and other governmental agencies?
- About which policy instruments would you like to learn more?