

Economic Assessment of Environmental Impacts in Western Countries

Policies, Practice & Guidelines

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Overview

- What it is
- Brief history
- Polices
 - Western countries
 - Multilaterals/Development Banks
 - Bilateral institutions
- Practice
- Important guidelines
 - Asian Development Bank
 - OECD
 - World Bank
- EIA process and economic assessment

What it is

- Economic assessment of environmental impacts
- Starts from a detailed description of impacts or risks
 - like the impact that reforestation has on floods
 - or the risk that people will contract respiratory symptoms if a new point source of air pollution is established
- Using quantitative methods if possible
- Looks for market valuation of similar impacts
- To make an economic assessment of selected impacts
- Some impacts will be valued, some will not
- Improves the information content of the EIA

Brief history

- Economic valuation of environmental impacts first carried out in the USA in the 1970s
 - air and water pollution
 - natural parks & recreation
- In 1980, US legislation requiring “all major federal decisions passing a cost-benefit test”
- Most applications in USA, UK and Scandinavia since 1980s, but accelerating use in
 - Western and Eastern European countries
 - Developing countries
- Most famous application of economic valuation:
 - Environmental impacts from Exxon Valdez oil spill in Alaska

Policies & Regulations

- Most Western countries are committed to
 - "Appraisal of environmental impacts of projects, plans and policies"
- Type of appraisal varies between countries:
 - EIA legal requirement for most countries
 - Many also require economic valuation inside or outside EIA
- World Bank and Asian Development Bank:
 - Require EIA for all major projects and plans
 - Has guidance material on economic valuation in EIA
- Bilateral institutions, OECD/DAC
 - Some require economic valuation in EIA where possible
 - OECD has guidance material

Practice

- Practice is lagging behind intentions...
- ...but use of economic valuation is increasing fast
- Most common uses to date:
 - Air, water quality & health risks
 - Noise and materials impacts
 - Parks, nature reserves and wildlife
- Areas on the increase:
 - Ecosystem services & biodiversity
 - Greenhouse gas impacts
- Recent major application:
 - US economic analysis of its Clean Air Act



Important guidelines & manuals

■ Asian Development Bank manuals

- "Economic eval. of environmental impacts" 1996
- "Env. and economics in project preparation" 1999

■ OECD guidelines

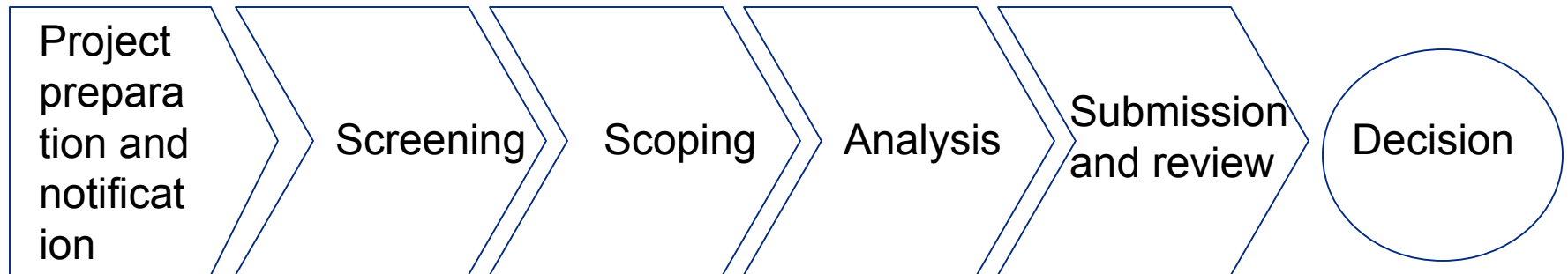
- "Economic appraisal of projects and policies" 1995
- "Coherence in environmental assessment" 1996

■ World Bank

- "Economic analysis and env.assessment" 1998

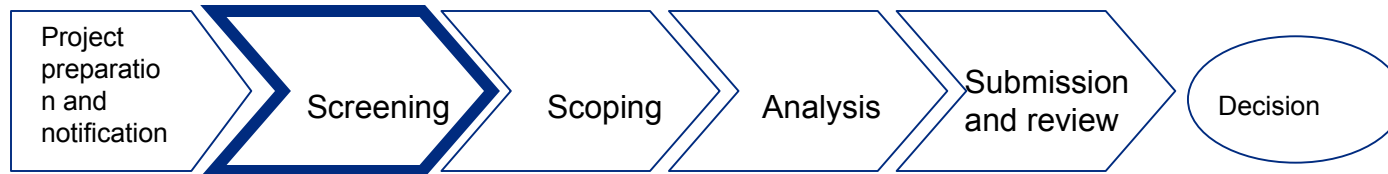
■ Integration of environmental economic analysis in EIA and project cycles

Typical steps in Western EIAs

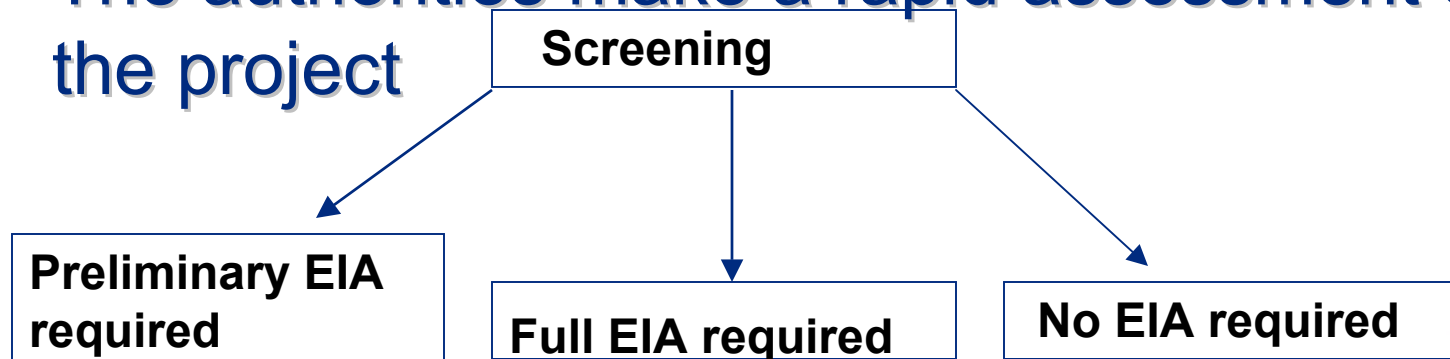


- **Environmental economic assessment may enter at several stages:**
 - Screening & scoping
 - EIA analysis & report

Screening



- Intention: to decide whether full EIA is required
- The authorities make a rapid assessment of the project



Environmental economic assessment a guide in rapid assessment

Scoping



- Intention: to develop "Terms of Reference" for the EIA report
 - Often proposed by the project developer, and approved by the authorities
- Use environmental economic analysis to identify key impacts to be analysed:
 - Local environment: eg noise, air pollution
 - Natural resources: eg forests, lakes
 - Cultural heritage: eg temples
 - Community: Resettlement & compensation

The structure of the analysis



- Analysis and assessment of potential impacts
 - Sometimes a verbal description – monetary valuation of selected damages makes the description more precise
 - Comprehensive impact analysis could be carried out
- Propose mitigation measures
 - Environmental economic analysis of benefits and costs
- Propose monitoring plan