



Integrating SEA into Planning Tools

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Presentation Outline

- Introduction
- Policies, Plans and Programs
- SEA versus EIA
- SEA examples
- Using valuation in PPP and Projects
- A real life example from South Africa
- Conclusion

Policies, Plans, Programs, and Projects

- The Planning process has several levels:
 - Policies
 - Plans
 - Programs
 - Projects
- But why not just an EIA ...?

SEA Versus EIA

	SEA	EIA
Nature	Strategy, conceptual	Operational
Focus	Along decision process	Final outcomes
Type Dec.	Facilitate	Required
Alternatives	Integrate	Specific

SEA Versus EIA

	SEA	EIA
Scale	Macro (glob, reg)	Micro (local)
Scope	Social,econ.	Physical, biological
<u>Use of Econ. Methods</u>	<u>I/O models, CGE, Valuation, CBA</u>	<u>CBA, valuation</u>
Responsibility	Planners	Project Propon.

SEA Versus EIA (Cont'd)

	SEA	EIA
Time	Med. To LT	Short to Med.
Data sources	Env. Rep, Age. 21, Plans, Pol., stats	Field, sample analysis, local stats
Data	Descriptive and quantitative	Quantitative
Uncertainty	More	Less

SEA Versus EIA (Cont'd)

	SEA	EIA
Benchmarks	Objectives	Best Practices
Public perception	Distant	NIMBY
Post Evaluation	Strategic action, projects	Construction, operation

SEA Applications – Examples

- Policies, Plans and Programs:
 - Spatial and Land plans
 - Regional Development
 - NRM Strategies
 - Legislation and regulatory bills
 - Investment and lending
 - National Budgets
 - National Development Plans
 - International Treaties: Example – Trade agreements.
 - And more ...

Using Valuation in PPP and Projects

- **Project level: Environmental Impact Assessment (EIA)**
- **PPP Levels: Prevention, Understanding compliance, and Correction**
- **International Agreements**

An Example of an EIA Type Problem

- **Jamaica Portland Blight Protected Area: NPV terms over 25 years at 10 % discount rate - incremental costs = US\$ 19.2 million, the incremental benefits = US \$ 41 million to US \$ 53 million depending on the tourism scenario.**
- **Typically, environmental laws are based on EIAs as the environmental policy instrument. Good EIAs look at alternatives. Valuation enables a better understanding of alternatives and cost / benefits of mitigation measures.**
- **Valuation has been used to influence projects, programs and policies throughout the world, but not consistently.**

An Example of Policy Level - Prevention

- **Colombia Env. Law # 99 (1993): Pollution charge and Natural Resource user charge.**
- **Law # 99 and valuation:**
 - **MOE determines method annually. Full depreciation needs to be accounted including social and environmental costs and return to prior state.**
 - **Depreciation should be calculated using an economic assessment.**
 - **Charge should be mathematically defined based on coefficients and variables.**
 - **Coefficients should take into account local and physical – chemical aspects.**

An Example of Policy Level – Understanding Compliance

- European Directives: UK parliament worried about complying to new EU standards (Beach quality and Municipal Waste Water treatment)

Location	Study / Method	Values (US \$)	Notes
UK	Georgiu et. al. (1998) / CVM	Great Yarmouth and Lowestoft (15 – 22 per resid / year)	Perceived reduc. Of illness (GY failed EU dir). Later study for tougher standards (32 – 60 / hh / year)
UK	Day et. al. (2001) / CVM	(9 – 20 /hh/year)	Ayr and Irvine (Scotland)
UK	Hanley et. al. (forthcoming)/ CB – TC	(0.80 / trip or 12.50 / person, aggregate benefit 2 million / year)	Combines revealed and stated pref.

An Example of Policy Level - Correction

- **Liability type legislation (Restoration): US example, EU White Paper (2000).**
- **EU White Paper:**
 - Many EU members have liabilities law (e.g. Germany Env. Liability Act 1990, Danish Compensation for Environmental Damages Act 1994). Assessments based on market techniques.
 - Covering legal gaps - Theme focused, e.g. Biodiversity, Non-use value / individual preferences.

An Example of International Agreement: Valuation and the Convention on Biological Diversity

- **Conference of the Parties (COP) Decision IV/10:**
 - Recognizes that “economic valuation of biodiversity and biological resources is an important tool for well-targeted and calibrated economic incentive measures”.
 - Encourages the parties, governments and relevant organizations to, among other issues, “take into account economic, social, cultural and ethical valuation in the development of relevant incentive measures”.

SEA Example: National Park in South Africa

- **Place: Addo Elephant Nat'l Park, Eastern Cape, Near Port Elizabeth**
- **Problem: Decision to expand the area of the Park**
- **Solution: Contract several studies, including a detailed SEA, and implement them.**
- **Source of Funding: GEF**

SEA Example: National Park in South Africa (Cont'd)

- Opportunities (Nat. Res.): Biodiversity Conservation, Limited human populations, Low agricultural potential, Climate change protection, Research opportunities, Important fossil deposits
- Constraints (Nat. Res.): Environmental fragmentation, Fishing, Existing agricultural potential, Competing land use, Industrial development, Presence of alien floral and faunal species

SEA Example: National Park in South Africa (Cont'd)

- **Opportunities (Socio-Econ):** Low population density, Benefits to neighboring communities, Unstable agricultural sector, Availability of donor money, Poverty alleviating potential, Growing wildlife industry, Cross-subsidization between National Parks (taking advantage of some gov. incentives)
- **Constraints (Socio-Econ):** Resettlement issue of farm laborers, Negative perceptions of people, Park establishment costs, Equitable benefits. **Mitigation:** Developing a Resettlement Policy Framework, Developing a communication strategy, Resolving neighbor issues, Minimizing establishment costs, Creating employment options.

Results

- **Economic Agents (most in the area for number of years, Total gross income):**
 - **Subsistence Farming (pastoralism): R80/ha (60% of the extension)**
 - **Game Farming w/o ecotourism: R103/ha**
 - **Intensive Dairy Farming: *R177/ha***
 - **Ecotourism: R157/ha**

Results (Cont'd)

- **Total cost of land acquisitions and game introduction: R170 million (grants and donations of wildlife).**
- **Park's O&M to be covered by ecotourism and sales**
- **SEA process continues with negotiations with private sector and different stakeholders**

Conclusions

- **SEA allows for the incorporation of different economic planning tools and methods, involving macroeconomics and microeconomics.**
- **It has the potential to be more than an assessment to involve scenario projections.**
- **Since it is a planning exercise, it has to face and deal with uncertainty.**
- **In fact, if all necessary variables are considered, the planning process in itself can be a SEA, i.e. Mainstreaming.**

Conclusion (Cont'd)

- China has a long and well development planning history dominated by 5 year plans
- It continues to have a substantial investment program to foster its high rates of economic growth.
- Yet, it is also interested in the quality of its growth, which translates into sustainability, equity and environmental quality.
- An SEA linked to the 11th Five Year Plan may be a way to go.