Strategic Environmental Assessment (SEA): A Tool for Mainstreaming Environmental Sustainability into Development Planning

CSD-14 Learning Centre

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About the Instructors

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- **Brendan F.D. Barrett** has expertise in environmental planning and environmental impact assessment in both the private and public sectors, and has developed online educational materials on Strategic Environmental Assessment and EIA. He heads the Media Studio at the UN University in Tokyo.

Structure of the Session

- Opening Remarks
- Interactive Exercise
- Some Background - EIA and SEA
- What is SEA?
- Why is SEA Important?
- How to use SEA for sustainability?
- Interactive Exercise
- Case Studies
- Closing Remarks

Why is SEA relevant to CSD 14?

- Offers a **cross cutting perspective** that looks at the inter-linkages between the CSD14 themes (sustainable energy; industrial development; air pollution/ atmosphere; and climate change).

- Promotes an **integrated** approach, taking into account economic, social and environmental dimensions of sustainable development.

- Timely since more and more practitioners around the world (not just in developing countries) are using SEA as a tool to mainstream environment into their strategies (e.g. poverty reduction strategies, energy policies, etc.).

Trends in Sustainable Development

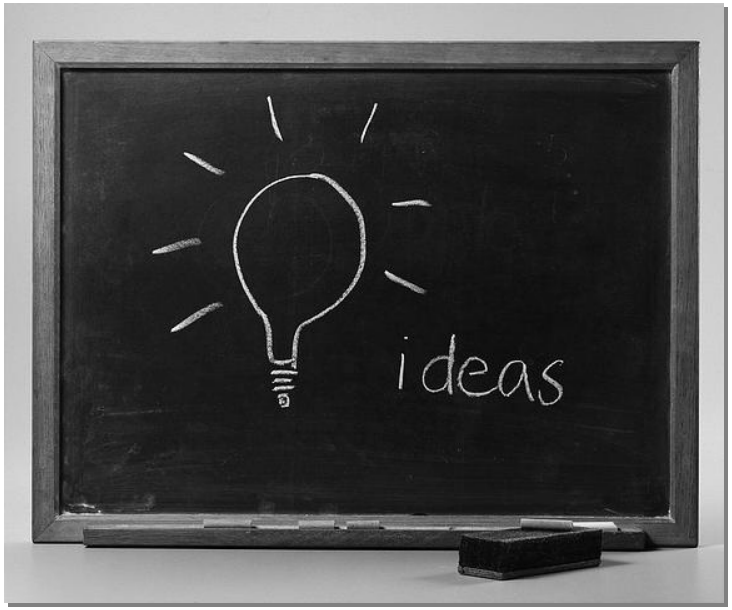
In April 2006, DESA published a report on trends in sustainable development around the world as a basis for CSD 14 deliberations.

Lets review a few of those trends and consider them in the context of SEA.

- Example No.1: The report argues that energy consumption is the main source of urban air pollution.
- Example No. 2: Particulate air pollution and SO_2 pollution levels remains high in large cities in developing countries.
- Example No. 3: GHG emissions from transport are growing faster than emissions from any other sector.
- Example No.4: Tourism poses a long-term sustainable development challenge for small Island developing states.

Interactive exercise

Perception of what SEA is and what role it plays in development planning?
Use examples from trends report if possible.



(15 minutes, work in pairs, discuss and present findings)

Start with the Basics

Is this a good way to understand SEA?

ENVIRONMENTAL ASSESSMENT + **STRATEGIC**

Or is this better?

SEA = GOOD STRATEGY

EIA = GOOD DESIGN

Let’s explore an example of how EIA can sometimes be problematic.

Case 3: New Ishigaki Island Airport - Japan

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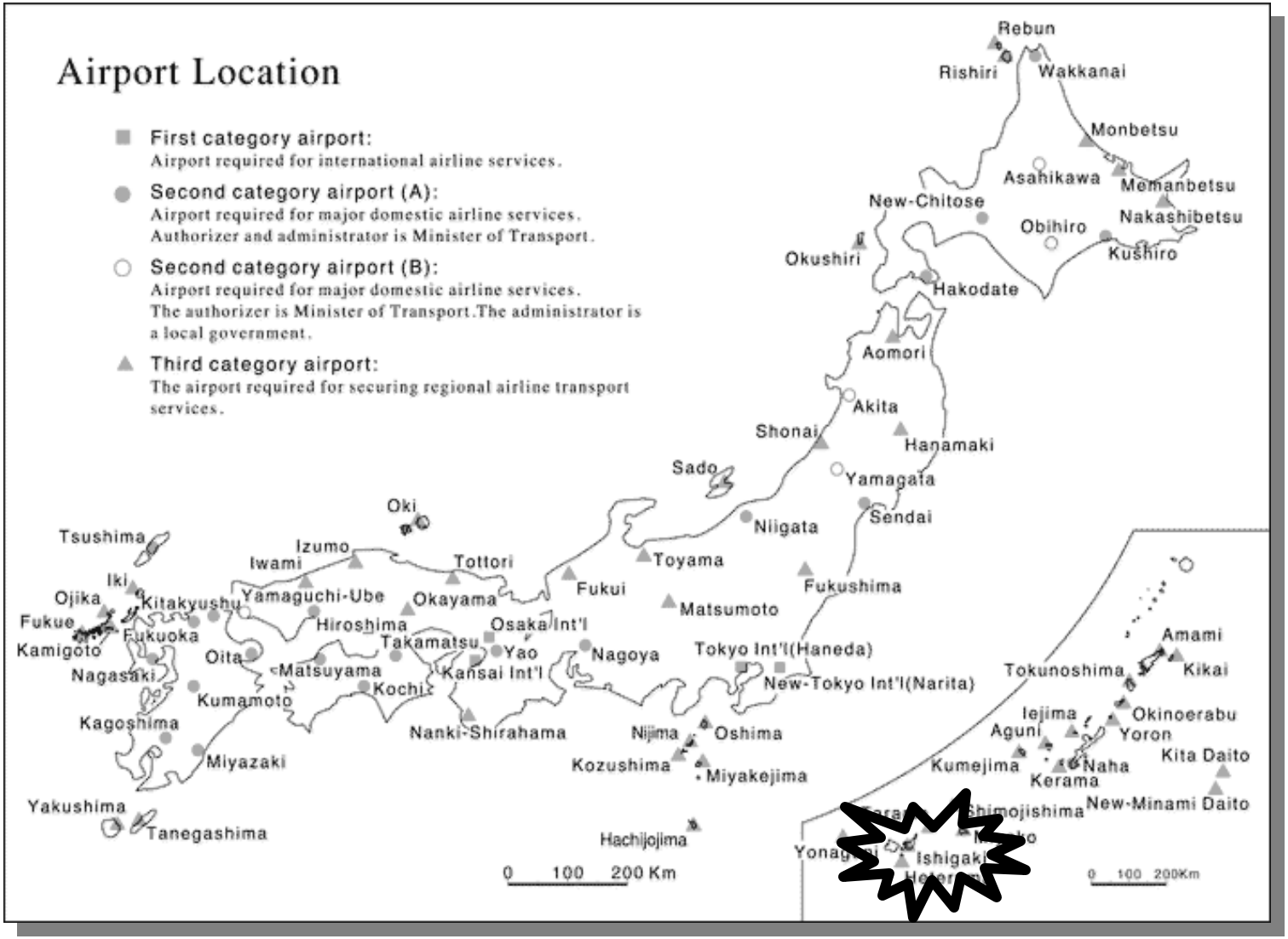
Airport development policy in Japan may represent a good candidate for SEA



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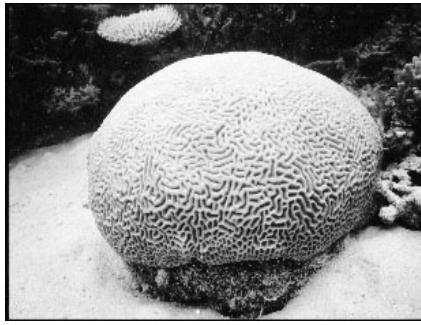
About the New Ishigaki Island Airport

Original proposal for 2nd airport in the early 1970s (tourist interests with local and national government support).
Current airport substandard and near town. Passengers increasing.
1976 - three sites identified.
1979 - preferred site on Shiraho coral reef. Opposition from locals and environmental groups.
1981 - 1st environmental impact statement (EIS) by private consultants.
1983- 2nd EIS by private consultants.
1986 - 3rd EIS - this time by local government.
1988 - Runway length reduced and 4th EIS undertaken.
1989 - Site shifted to Karadake (north of island). New assessment starts but never finished.
1993 - Site shifted to Miyara. 5th EIS completed in 1998. Process stalled by opposition from local farmers.
2000 - Application to start construction.
2001 - Special committee recommends relocating terminal. buildings to eastern side of airport.
2005 - Permission to construct the airport given by relevant national Ministry



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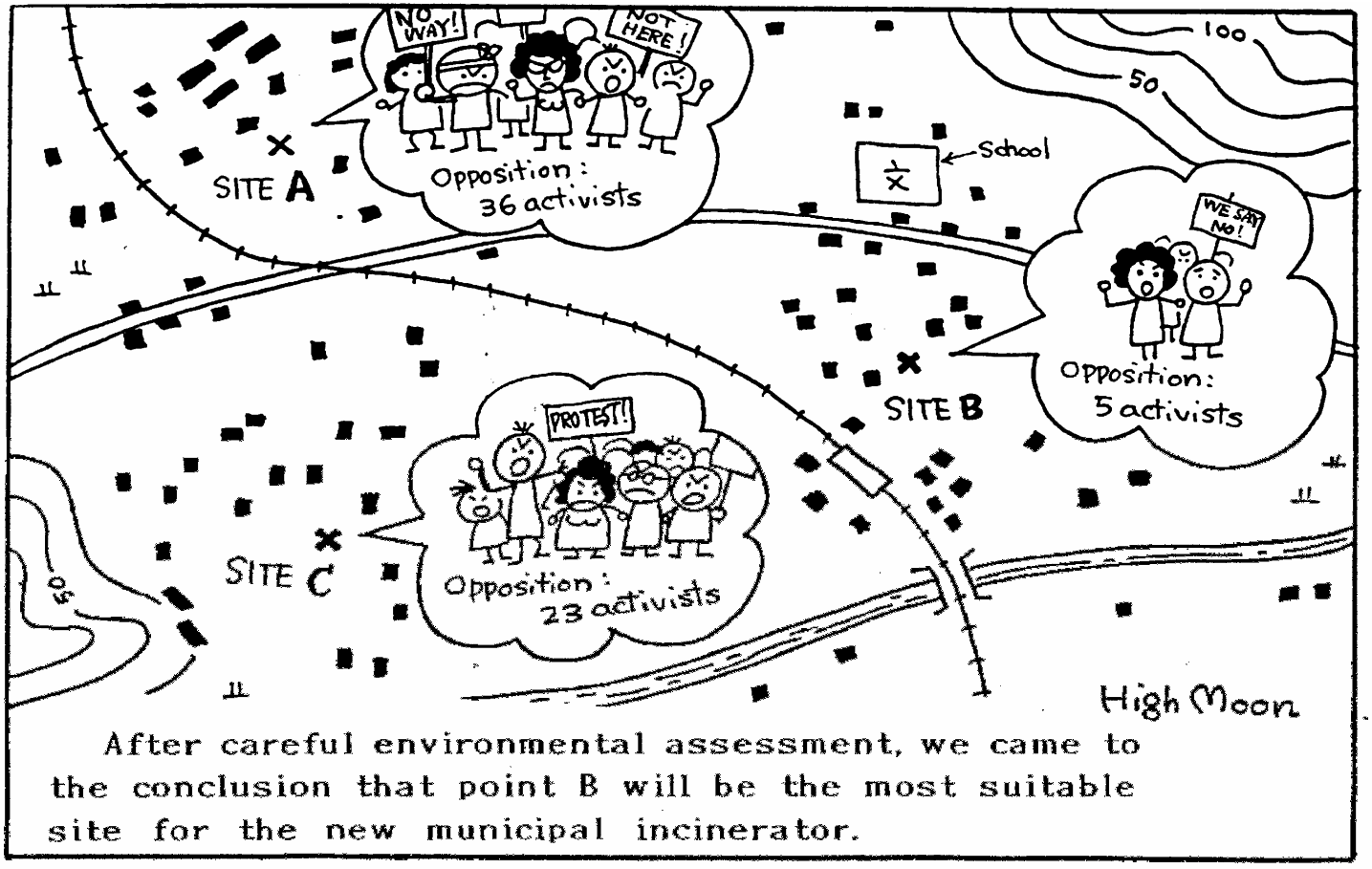
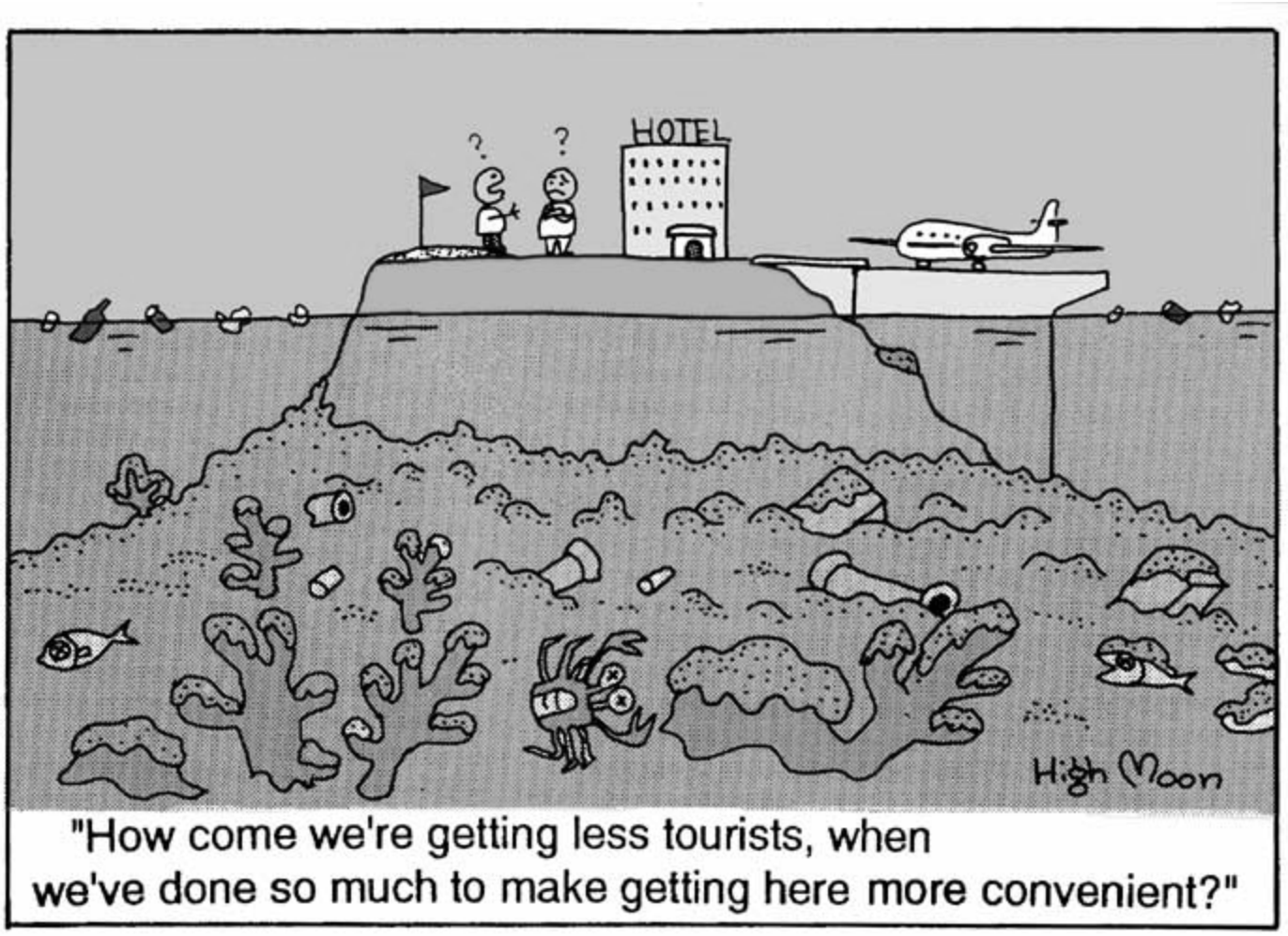
EIA is not the perfect tool….



Perhaps SEA could answer this question….



Case 1: SEA of the Development Plan of Victoria Falls "promotes multiple SD objectives"

Goal of SEA: analyse a variety of alternative development scenarios (tourism, water and power infrastructure, urban) and through public participation predict the cumulative environmental and social impacts, considering legal and institutional backgrounds of bordering countries

Recommendations: setting specific tourism limits, economic development plans, strengthening municipalities capacities to manage and plan for development using municipal master plans; all proposals for river regulation and water abstraction should be subjected to project EIA.

Examples on the use of SEA

Case 2: Environmental effects of trade liberalization

Trade-environment interactions, e.g.

- social impacts
- pollution spill-overs
- downward pressure on environmental standards
- economic competitiveness
- loss of sovereignty

SEA - environmental effects of trade liberalization

- structure of economies (influencing what is produced, who will produce it and where and how it is produced)
- employment, national income and the distribution of income within and among countries
- rate at which, and the efficiency with which, renewable and non-renewable resources are exploited
- rate of innovation and rate of diffusion of new technologies
- ability of nations to make investments in social and regional development
- manner in which pollution standards are set
- mechanisms used to protect the global commons

Source: Schramm, 2000

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Even with its faults some commentators argue:

“Environmental impact assessment is one of the most successful policy innovations of the 20th Century.”

Barry Sadler 1996

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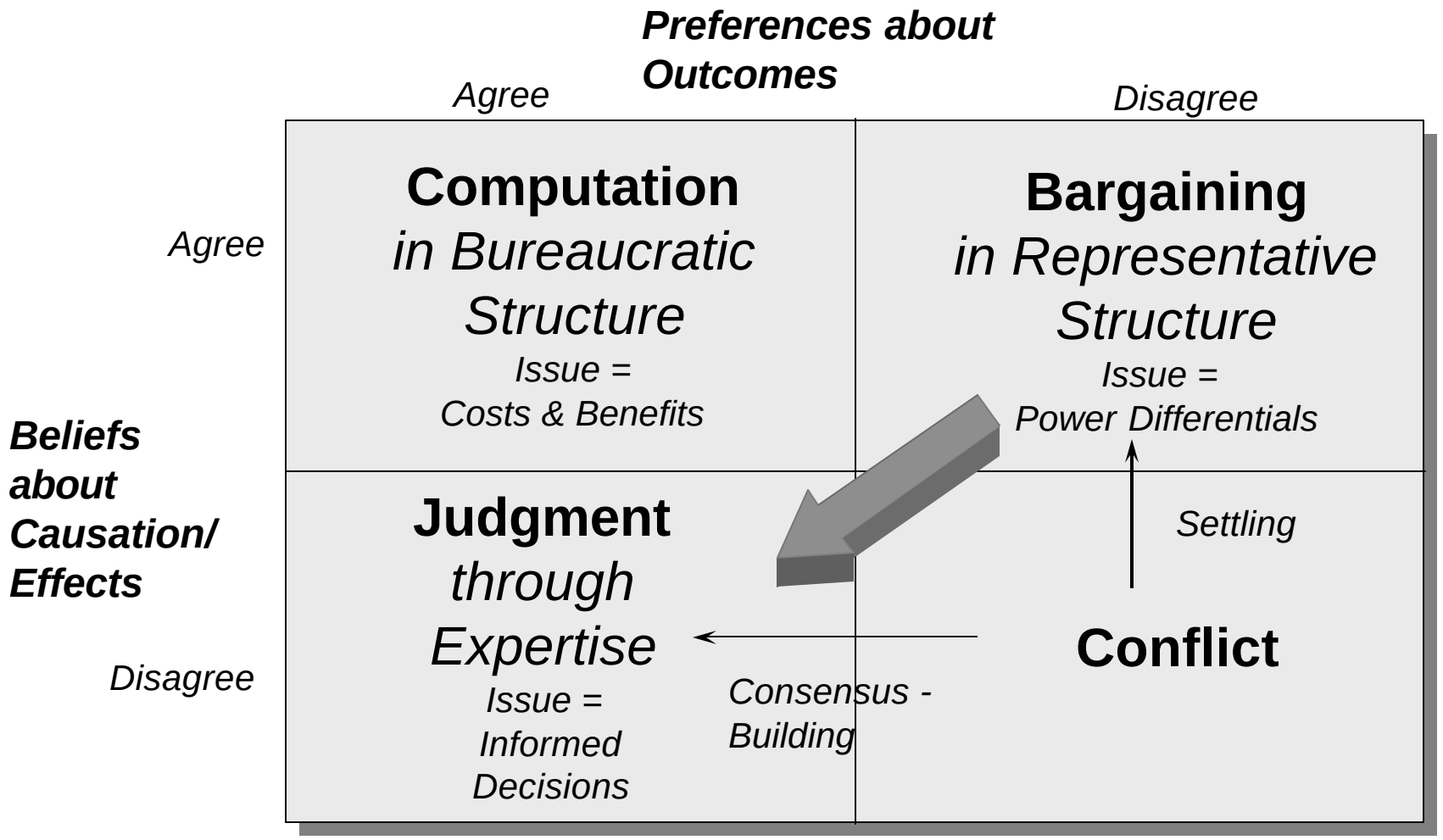
Did EIA divert our attention from the real issue? We ended up shifting from political bargaining to making judgments….
Can SEA re-focus our attention on what matters?



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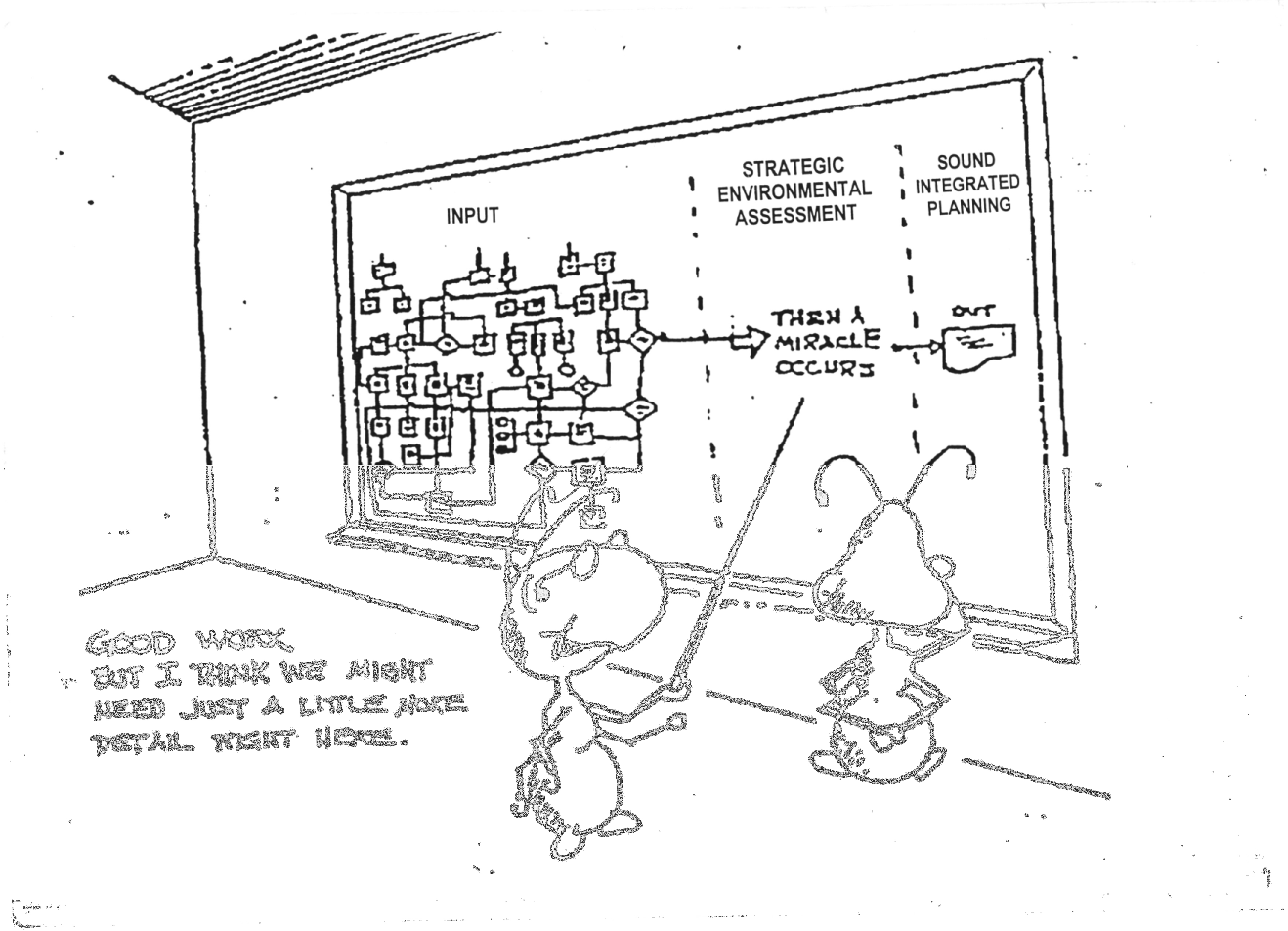
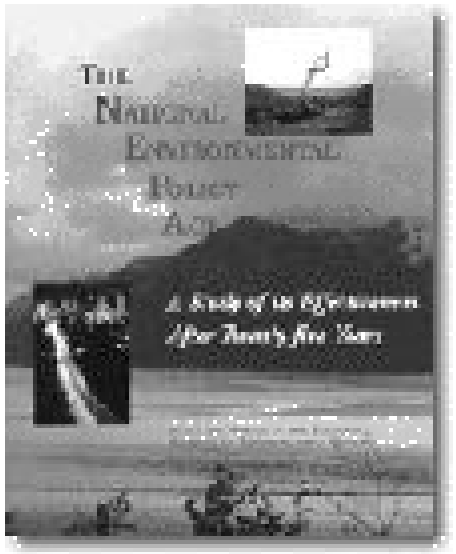
There is still a lot of work to be done on SEA.
A Miracle……in the making…..



They share the same origins



US Tradition of Administrative Reform and Natural Resource Management
National Environmental Protection Act 1969

Experience with Natural Resource Economics and Cost Benefit Analysis

CBA - Places a monetary value upon non-economic variables such as health impacts of air pollution

Emergence of a system of Global Environmental Governance
1972 Stockholm Environment Conference

Recognition of need for rational planning as a tool to reconcile conflicts between development and environmental protection

NEPA Influences

- US resource management tradition recognized the environment as the backbone of the economy and source of livelihoods.

- NEPA (1969) promoted efforts to prevent environmental damage through a **systematic interdisciplinary approach** to ensure appropriate consideration of presently unquantified environmental values.

- Clause relevant to SEA contained in Section 102, with requirement for a detailed statement to accompany ***"proposals for legislation and other major federal actions significantly affecting the ….. environment."***

Global endorsement

EIA was endorsed 1992 Earth Summit and 2002 WSSD. At the former it was stated that EIA:

"… as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority."

EIA is now a formal process in over 100 countries around the world.

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According to Dalal-Clayton and Sadler (2005)

“SEA is not referred to in the WSSD Plan of Implementation, but it is implied in, for example, sub-section 136.

“Promote and further develop methodologies at policy, strategy and project levels for sustainable development decision-making.”

Adoption of SEA?

- SEA systems are in place in more than 25 countries and jurisdictions
- Countries with legal and administration provisions for SEA include Australia, Bulgaria, Canada, China (and Hong Kong), the Czech Republic, Denmark, Finland, the Netherlands, Norway, Poland, Slovakia, the UK and the US.
- Interest in SEA in developing countries is growing but domestic application is still at the embryonic stage.

Different approaches to SEA

- UNECE Kiev Protocol to the Espoo Convention on Transbounday impacts
- EU 2001/42 Directive on the effects on the environment of certain plans and programmes
- World Bank Regional and Sectoral EAs
- Canadian SEA 1999 Directive on policies and programmes
- New Zealand 1990 Resources Management Act
- Dutch SEIA (plans and programmes) and E-test for policies
- Danish SEA of government bills

and more....

What is SEA?

- Instrument (process) that assists and facilitates decision-making
- Acts at strategic levels of decision-making
- Flexible, diversified, taylor-made to each decision process
- Participated

Objectives of SEA

- To contribute to an environmental and sustainable decision;
- To improve conditions for doing project's EIA, in particular cumulative impacts assessment;
- To promote integrated decisions and new forms of decision-making

Key message

SEA is not simply about policy, plans and programmes

SEA is about being strategic and able of contributing to search for sustainability

To consider environmental issues in strategic decision-making is a double challenge:

1. choose environmental issues that are strategically relevant, and
2. ensure that the integration of the environmental dimension is strategic

The environment is

Multi-dimensional
Holistic
Interconnected
Dynamic
Complex
Uncertain

The environment requires

- Multi-disciplinary problem solving
- Holistic approaches
- Balanced and Integrated decision-making:
  - Environment and Development
  - Social, Economic and Environment

Roots of environmental problems

Technologies and Policies

Attitudes

Affluence and

Poverty

John Hobbs' myths and realities

- The poor cause most environmental degradation? (Who uses the resources?)
- Economic growth inevitably leads to environmental degradation) (Economic growth can pay for improved environmental management to sustain growth?)
- Poor don't care about environment? (Depend directly on it for survival)
- Poor lack knowledge and resources? (Traditional knowledge often undervalued)

Where is SEA needed?

Country Assistance Strategies
Privatization
National SD Strategies
Poverty Reduction Strategies
Fiscal Reforms
Trade Negotiations
Trans-frontier initiatives
Macro Economic Reform
Land Reform
Energy Policy Reform

SEA is recognized and promoted as an approach towards sustainability

Estonia

Ms. Kerli Lorvi, Ministry of Finance, Estonia

- SEA is not a complicated and theoretical tool. It was a **flexible mechanism** that gave us feedback from environmental experts.
- It **ran in parallel** to the elaboration of the Estonian Single Programming Document and provided operative and practical inputs.

Poland

Piotr Zuber, Ministry of Economy, Labour and Social Policy,

- The SEA for the first National Development Plan of Poland provided us with **useful recommendations** for improved consideration of environmental issues.
- The SEA has a **wider applicability** and can also be used in elaboration of other documents. We will be able to use the lessons learned and methodology developed in the future.

Hungary

Ms. Ágnes Somfai, Prime Minister´s Office, Hungary

- The SEA team **identified** the main relevant environmental issues and helped us to **consider this information throughout** the entire planning process.
- SEA also facilitated our **cooperation with the Ministry of Environment**, other sectoral ministries and regional authorities during environmental optimising of the programme.

Czech Republic

Mr. Tomas Nejdl, Ministry of Regional Development, CR

- SEA was very useful experience in elaboration of the Czech National Development Plan. It had benefits that went beyond its original purpose of ensuring **full consideration of sustainable development** during the planning process.
- SEA helped us to **improve openness** of the entire programming process and established a "**bridge**" between the planning team and the public. This turned out to be very positive feature that we later very much appreciated.

Strategic Environmental Assessment

SEA is one of the main analytical tools and processes to achieve sustainable development results

-Evaluation of potential impacts

-Enhance integration of environmental concerns into policy/planning processes

-Facilitate design of environmental sustainability practices

UNDP web site (www.undp.org/fssd/sea.htm) on 2006.01.04

South Africa CSIR - SEA principles (2000) define SEA

“as a process of integrating the concept of sustainability into strategic decision-making”

EU Directive 2001/42/EC

"To provide a high level of protection to the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development….."

Why is SEA important?

SEA is important because it…

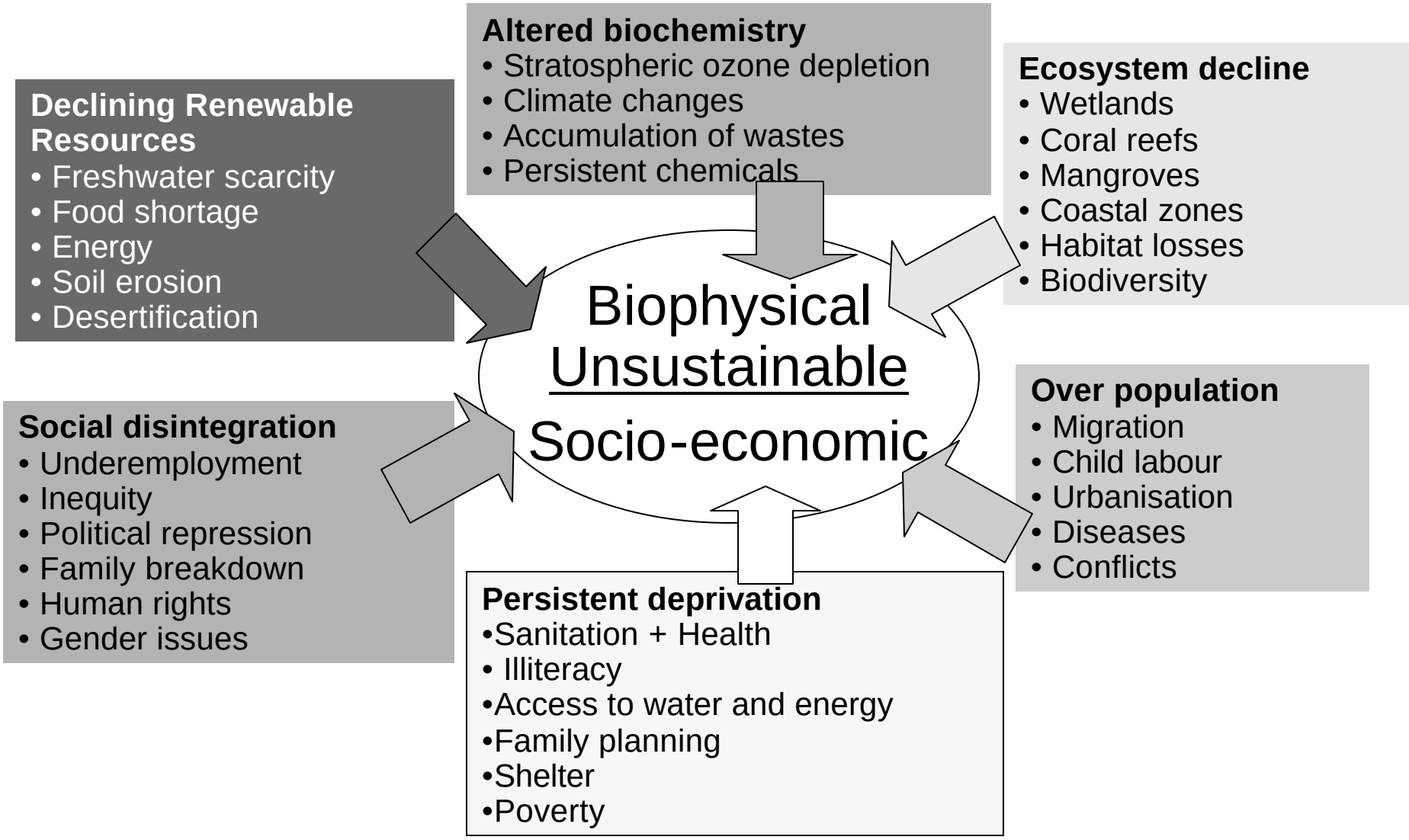
- Supports strategic decision-making
- Incorporates principles of sustainability in policy-making and planning processes
- Discusses alternatives while options are still open
- Considers cumulative processes
- Anticipates problems that may occur at project level

SEA is key to help countries achieve the Millenium Development Goals

How?

by helping to integrate the principles of sustainable development into countries policies and programmes, reversing the losses of environmental degradation and consequently reversing poverty

Trends we cannot ignore (John Hobbs)



What are the benefits of SEA in development cooperation?

- Hobbs, WB-IAIA, SEA distance learning course (www.worldbank.org)

- SEA is meeting needs for an holistic balanced and integrated approach to decision-making
- SEA is contributing to more sustainable outcomes
- Recognizes the complexity of environment and poverty
- Allows for the links between poverty and environment
- Moves environmental assessment processes up the decision-making hierarchy

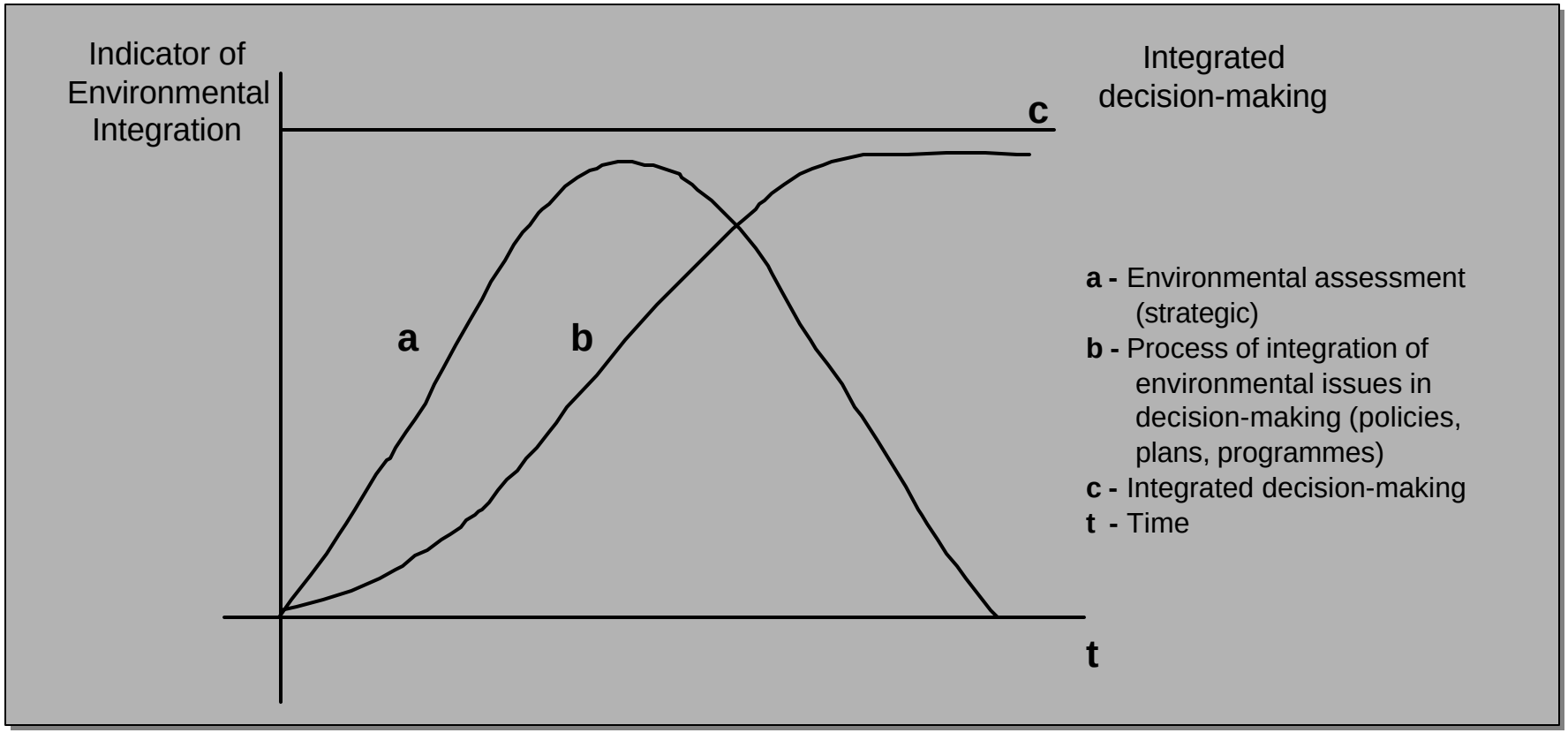
Three key challenges for SEA

1. Promote, and help understand, sustainability challenges

2. Encourage political will towards integration of environment and sustainability issues in decision-making

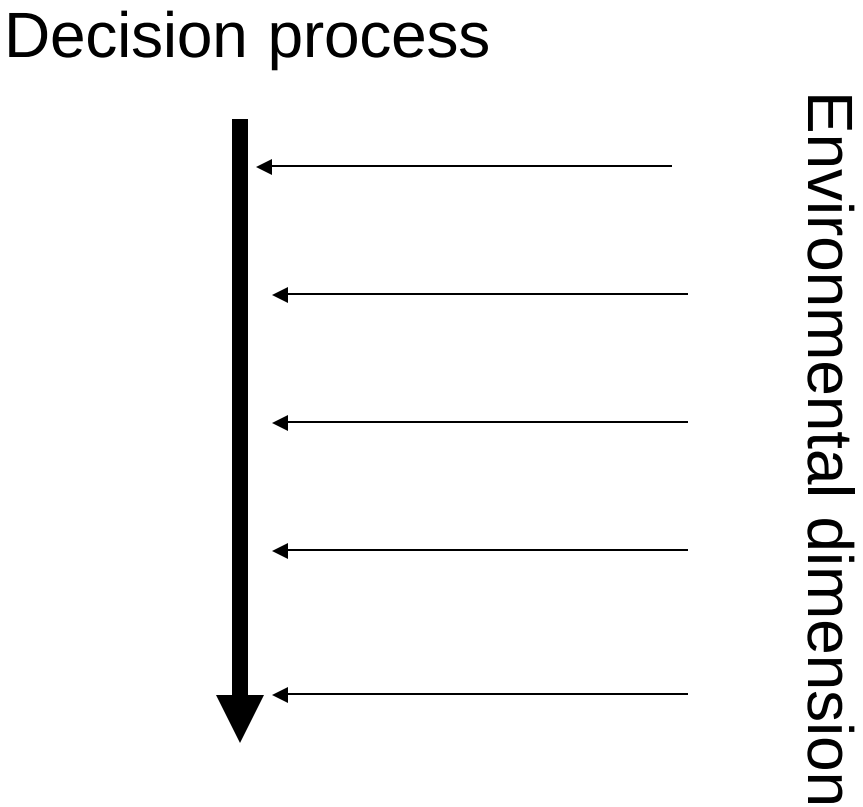
3. Change minds and create a strategic culture in decision-making

The role of SEA in integrated decision-making (Partidário, 1996)



Integrated decision-making = sustainability

Ensure that the integration of the environmental dimension is strategic



SEA and sector policy/planning have strategic dimensions that should link, through:

1. Process analysis to find critical decision moments when SEA advice is strategic

2. Sharp focus on few yet relevant issues that are strategic in situation analysis

3. Shared concepts and tools

4. Multi-stakeholders engagement

Sustainability focus of SEA can assist better governance:

1. Improved financial and budget management
2. Strengthen government institutions
3. Promote greater transparency and accountability
4. Ensure fairer administrative and judicial systems
5. Encourage multi stakeholder engagement

Strategic Environmental Assessment

Case-studies

-Port of Cape Town, South Africa - port development, good example of integration of SEA into development planning, albeit absent of alternatives, stakeholders involvement, and strategic approach to environmental, social and economic issues

- Energy policy in Slovakia - description of the SEA process with strong public engagement

- Waste management in the Netherlands - description of issues addressed, methods used and public involvement

Port of Cape Town SEA, 2004

SEA driven by the need to ensure:

- Economic objectives of the Port
- Maximizing the benefits for the surrounding communities
- Minimizing the impacts on the biophysical environment

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Integration approach included links to:

- Port planning process
- Corporate social investment programme
- Environmental Management Systems
- Appropriate stakeholders engagement

Methodology for SEA

- Defining a vision for the sustainable development of the port
- Defining SEA objectives and process
- Establishing an instituional approach and stakeholders envolvement
- Assessment (scoping, strategic assessment, sustainability framework)
- Guidelines

Strategic Environmental Assessment

SEA objectives - to improve:

1. **Port-city relationships**
2. **Relationships between the port authority and stakeholders**
3. Understand how **surrounding biophysical environment** relates to and may impact on future port development and operation
4. Understand how **livelihood and quality of life of local communities** surrounding the port may be influenced by and impact on future port development and operation
5. Understand how **local, provincial, national and regional economic and other policies and plans** will influence the future port development
6. Improve the **collection of economic, social and biophysical environmental data** within the port sphere of influence.

Strategic issues - Scope of SEA

- Marine ecology
- Marine archaeology
- Shoreline stability
- Port accessibility
- Port-city land-use planning
- Socio-economics / Corporate and Social Responsibility
- Economic Impact of the Port

Sustainability Framework
- guidelines prepared for:

- Research / baseline studies
- Considerations for port planning
- Considerations for port operations and management
- Monitoring
- Stakeholders engagement
- Sustainability reporting and data collection, storage, analysis and presentation

SEA of draft energy policy, Slovak Republic

The SEA included:

- expert review, including presentation of opinions for public discussion
- public forum on the UEP, including participation by NGO and industry groups
- statement by the Ministry of Environment (MoE) on the basis of expert opinion, other comments and public discussion
- submission of a new version of proposal of the UEP to the Slovak government (subsequently approved)
- public and NGO discussion of the strengths and weaknesses of the SEA process (under draft Regulation)
- positive features included consultation and inputs from interested parties
- limitations included inadequate guidance on scope and consideration of results in decision-making

SEA for the 2002 Dutch Waste Management Plan (based on Rob Verheem)

Basic approach of SEA in the Netherlands

SEA strengthens good governance:

- Engaging all relevant **stakeholders**
- Ensuring **transparent** planning processes
- To get the best possible **information**

SEA improves both the planning process and the information that is used in this process.

Purpose of SEA

- To establish minimum standards for waste management processes (Standard = minimum environmental performance for processing techniques)
- To compare environmental performance of different waste processing alternatives
- Considered 26 different types of waste
- Attracted great interest in the civil society

Alternatives

- Alternatives for each type of waste
- Example: oil waste
  - Waste Incinerator
  - Cement oven
  - Electric power plant
  - Destilation
- Methodologies used: life-cycle analysis

Environmental issues

- Climate change
- Acidification
- Eutrofication
- Toxicity
- Use of resources
- Use of space
- Biodiversity

Public participation

All larger national NGOs :

- Round tables on alternatives and impacts

National selected ONGs:

- Continuous consultation committee

Techniques

Local NGO and local governments:

- Encouraged to send comments
- In both moments: scope and review

Individual citizens:

- Written comments during scope and review
- Informative meetings
- Newsletters

Results on public participation:

- High response from national NGO: alternatives
- Increased scope on new alternatives: separation
- High response from local groups: local themes
- Low response from individual citizens

Results

- Best technology was selected
- Very important positive effects of re-use

Also important:

- Use of resources
- Winter effect
- Soil toxicity

Decision-making based on

- Environmental effects
- Costs
- Health
- Trust
- Import/Export

Lessons learned

- LCA useful but not always
- Extensive public participation:
  - Enabled a large acceptance by the public
  - Increased the holistic focus on NGOs
- SEA enabled EIA to be easier:
  - Developing methodologies
  - Comparing alternatives

Key message

SEA apply to decisions of strategic nature, and
need to be used strategically in relation to decision-making

Strategic Environmental Assessment

Strategic Environmental Assessment (SEA), in its wider sense, is one possible instrument to assist this integration at strategic levels of decision-making. To achieve that purpose it must however:

- look beyond the narrow meaning of environment and keep the focus on sustainability;

-ensure a long-term perspective in a real strategic context;

- clearly assume its socio-political role in the decision-making context.

SEA of the Poverty Reduction Strategy (PRS) Ghana

- PRS - framework for the government economic policy and for all development assistance
- SEA followed the PRS to adjust its policies
- SEA purpose: build up a mutual understanding on poverty reduction and the environment
- How:
  - Mapping natural resources, provide options pro-environment and pro-poor
  - Multi-stakeholders approach
  - SEA based on dialogue, mostly qualitative
- Outputs: sectoral awareness, recommendations for sustainable up-dates of PRS and institutional arrangements

Interactive Exercise

SWOT Analysis of SEA with respect to enabling sustainable development as a form of development planning

20 minutes

small groups of 3-4, discuss, present

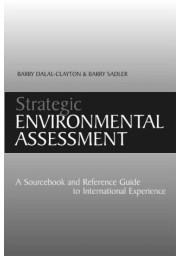
Closing remarks

SEA can help search the way for sustainability as long as it does not miss its “strategic attributes”:

1. What you need to think about (decision context and needs)?
2. Who you need to involve?
3. What you need to study?

Want to learn more….?

1. Review the CD-ROM course module on SEA.
2. Sample reference materials:



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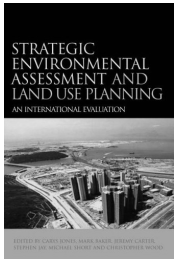

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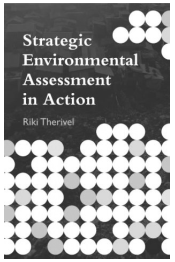

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Thank you for your participation