



# SEA as a tool for sustainable infrastructure development

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# SEA

- Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (SEA Directive)

and

- Protocol on Strategic Environmental Assessment to the Convention on Environmental Impact Assessment in a Transboundary Context (SEA Protocol, Kyiv 2003)

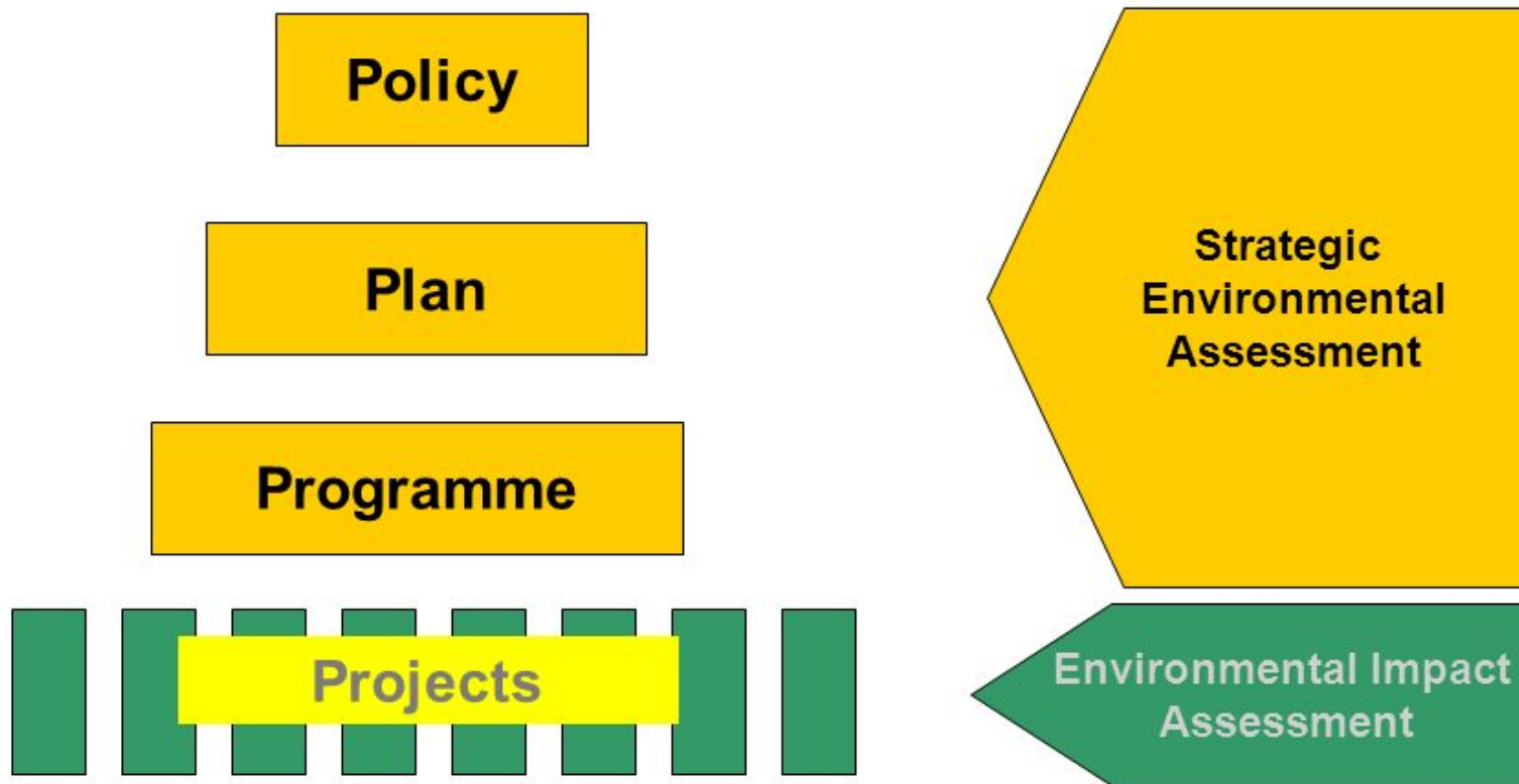
entered into force on 11 July 2010.

- The EU ratified the Protocol on Strategic Environmental Assessment on 21 November 2008. The SEA Directive (Directive 2001/42/EC) transposes the Protocol in the EU legislation.

# SEA and aid effectiveness

- In 2005 the **Paris Declaration** commits donors and their partner countries to **“develop and apply common approaches for Strategic Environmental Assessment”**.
- Need for addressing implications of global environmental issues such as **climate change, desertification and loss of biodiversity**
- Development agencies and partner countries jointly committed to:
  - Strengthen the application of EIAs and deepen common procedures for projects, including consultations with stakeholders; and develop and apply common approaches for “strategic environmental assessment” at the sector and national levels.
  - Continue to develop the specialised technical and policy capacity necessary for environmental analysis and for enforcement of legislation.”
- OECD working party on Aid effectiveness

# Decision-making



Source: OECD. 2006. *Applying Strategic Environmental Assessment: Good practice Guidance for Development Co-operation*.





# EIA





## Cumulative Impacts

- SEA – Strategic environmental assessment Is an **important tool to help decision makers to have the “big vision”** of the territorial or sectoral context
- SEA helps assessing cumulative impacts
- SEA sets the framework for monitoring of effectiveness of actions and parts of PPP



# SEA and EIA compared (OECD, 2006)

EIA	SEA
Applied to specific and relatively short-term (life-cycle) projects and their specifications.	Applied to policies, plans and programmes with a broad and long-term strategic perspective.
Takes place at early stage of project planning once parameters are set.	Ideally, takes place at an early stage in strategic planning.
Considers limited range of project alternatives.	Considers a broad range of alternative scenarios.
Usually prepared and/or funded by the project proponents.	Conducted independently of any specific project proponent.
Focus on obtaining project permission, and rarely with feedback to policy, plan or programme consideration.	Focus on decision on policy, plan and programme implications for future lower-level decisions.
Well-defined, linear process with clear beginning and end ( <i>e.g.</i> from feasibility to project approval).	Multi-stage, iterative process with feedback loops.
Preparation of an EIA document with prescribed format and contents is usually mandatory. This document provides a baseline reference for monitoring.	May not be formally documented.
Emphasis on mitigating environmental and social impacts of a specific project, but with identification of some project opportunities, off-sets, etc.	Emphasis on meeting balanced environmental, social and economic objectives in policies, plans and programmes. Includes identifying macro-level development outcomes.
Limited review of cumulative impacts, often limited to phases of a specific project. Does not cover regional-scale developments or multiple projects.	Inherently incorporates consideration of cumulative impacts.

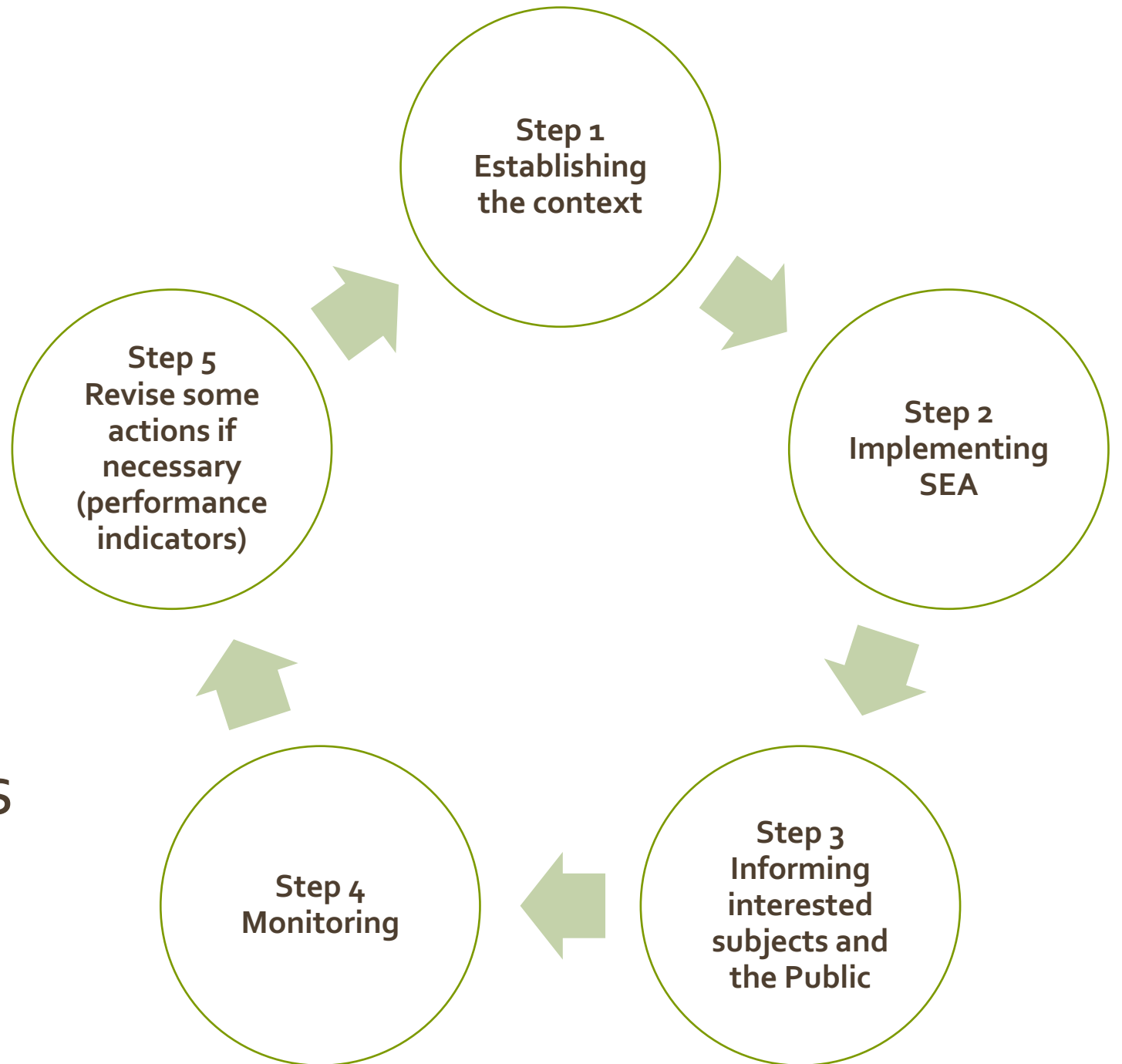






## SEA steps

- The sustainability framework set up in the SEA can be used also for the monitoring of the performance of the PPP and of its actions





# Some TOOLS applied in SEA

Tools for ensuring full stakeholder engagement:

- Stakeholder analysis to identify those affected and involved in the PPP decision
- Consultation surveys
- Consensus building processes

Tools for predicting environmental and socio-economic effects:

- Modelling or forecasting of direct environmental effects
- Matrices and network analysis
- Participatory or consultative techniques
- Geographical information systems as a tool to analyse, organise and present information

Tools for analysing and comparing options:

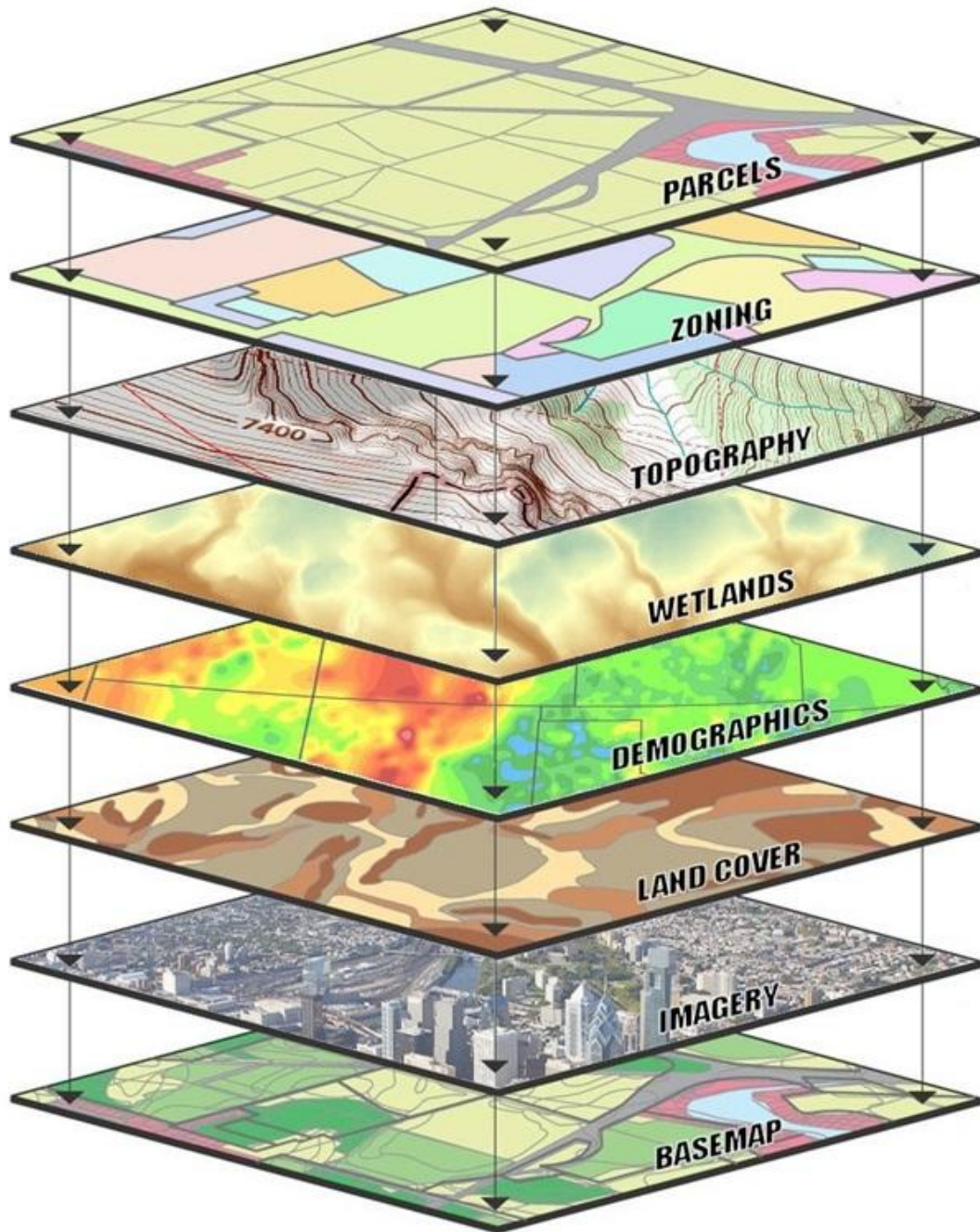
- Scenario analysis and multi-criteria analysis
- Risk analysis or assessment
- Cost benefit analysis
- Opinion surveys to identify priorities

## Cumulative effects across the SEA issues/topics

SEA topic	Part of Plan–Program–Strategy / Alternative (e.g. policy 1–7)							Potential cumulative impact of PPS
	1	2	3	4	5	6	7	
Biodiversity etc.	+	–	+	+	0	...		no effect
Population	+		0	+		...		
Human health	0	?	0	?	?			more study needed
Soil	+	?	–	?	?			
Water	+		0	+				
Air	+	+	0	+				
Climatic factors	–	–	–	0	–			Potential adverse effect Suggest appropriate mitigation measures here
Material assets								cumulative effects on SEA topic can be identified by 'reading across'
Cultural heritage								
Landscape								
Interrelationship	...	...						

# Infrastructures are better framed

- SEA helps building better frameworks for infrastructure development
- The sustainability evaluation is anticipated at the higher level and facilitates the following application of EIA for the single infrastructures to be developed in the same or adjacent territory
- SEA serves as a framework for environmentally sound project proposals/requests for funding





# Thank you

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