

Introductory Remarks-SEA Theme Forum

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Outline of presentation

- ◆ Brief background on SEA trends and developments internationally
- ◆ Highlight the particular contribution of regional environmental assessment (REA) as a CEAM tool
- ◆ Consider the value-added by an ecosystem-based approach

SEA -- the big picture

- ◆ SEA as a second generation process
- ◆ On the verge of further generational change
- ◆ SEA is a generic process >> family of approaches
- ◆ Instruments have different names and features but functionally related by common aim
- ◆ Three axes of classification
 - 1) formal > informal > para process
 - 2) level of decision-making (PPPP scale)
 - 3) spectrum of integration (environment > sustainability)

Key trends

- ◆ Recent take up impressive (about 50 countries)
- ◆ Some countries have track record of practice
- ◆ SEA arrangements are relatively diversified
- ◆ Scope of coverage and application increasing, some countries have two/three-track systems
- ◆ Impact of international legal and policy instruments on SEA >> standardization and harmonization
- ◆ Push toward REA and its strategic integration with land use/ environmental planning

REA potential and practice

- ◆ Driven by increasing scale and complexity of cumulative environmental impacts
- ◆ Evident need for more systematic, resource-based, spatially appropriate approach
- ◆ Experience with this approach dates back to early days of NEPA implementation
- ◆ Elements of approach also drawn from land use and strategic planning
- ◆ Shift now toward RSEA – adapting SEA to the specific challenge of cumulative effects

REA as a paradigm shift?

- ◆ REA as a predictive framework raises critical questions about the limits of conventional IA methodology
- ◆ Focus on controlling processes and interactions over large scales and long time frames
- ◆ Asks difficult questions about the resilience of ecosystems, whether habitat losses and changes (impacts) are sustainable, how these vary spatially (cross-scale interactions) and which processes are important in buffering or amplifying them (resilience or vulnerability dynamics)
- ◆ At these scales, scientific knowledge and analytical tools are coarse and imprecise
- ◆ Sufficient understood to identify the comparative risks associated with different pathways of development

DPSIR characteristics and components of REA

- ◆ Baseline and effects-based [*state* of the resource]
- ◆ Multi-activity, area-wide focus [*drivers*, relationships to VECS]
- ◆ Trend and change orientation [*pressures*, early warning signs of cumulative effects]
- ◆ Synoptic perspective; data and knowledge synthesis [understanding critical ecosystem features and functions]
- ◆ *Impact* analysis [from preliminary CRA to prediction of potential changes of different development options]
- ◆ Decision linkage [*response* to findings from approvals to planning/management strategy]