



**DECIVIL**

DEPARTAMENTO DE ENGENHARIA  
CIVIL, ARQUITETURA E GEORRECURSOS

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Área Científica de Sistemas Urbanos e Regionais

Mestrado em Ordenamento do Território e Urbanismo  
Master in Territorial Management and Urban Studies

Avaliação Ambiental / Environmental Assessment

# Methodology. Strategic thinking for sustainability (ST4S) in SEA

Strategic Issues, Problem Framework, Strategic Reference Framework,  
Governance Framework

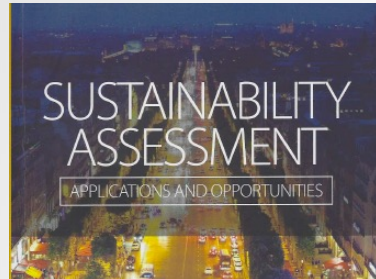
Prof. Doutora Maria do Rosário Partidário

# Bibliography

Strategic Environmental Assessment - a spectrum of understandings

Maria Rosário Partidário

Ch2, in Handbook of EIA, Kevin Hanna (Ed) (in press)

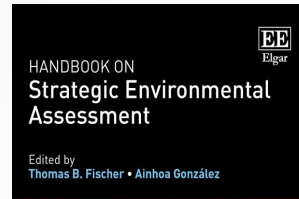
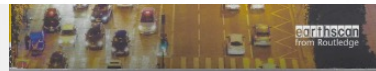


Chapter 10

**Using strategic thinking and critical decision factors to achieve sustainability**

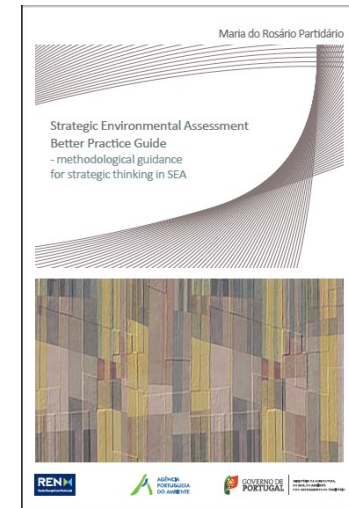
Three cases in Portugal

Maria Rosário Partidário



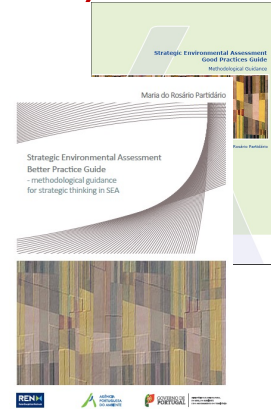
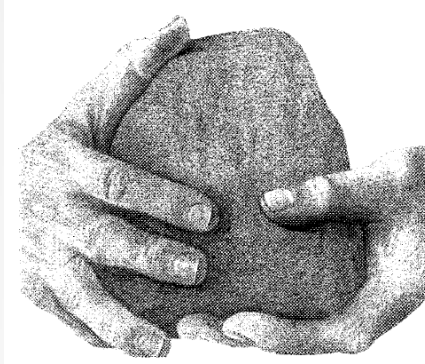
4. Strategic thinking for sustainability (ST4S) in strategic environmental assessment

Maria R. Partidário



# Framework for Strategic Thinking for Sustainability (ST4S)

(Partidário 2007, 2012)



To help create contexts for sustainable development

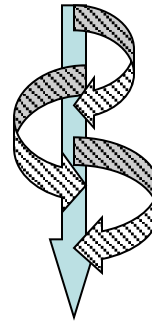
Through SEA or through other strategic approaches to sustainability

# ST4S – three combined components

Communication and Engagement  
- governance

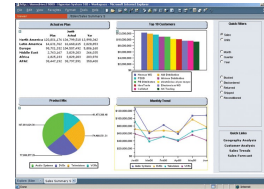


Process



SEA/SAIA – framework of  
structural elements

Technical  
analysis



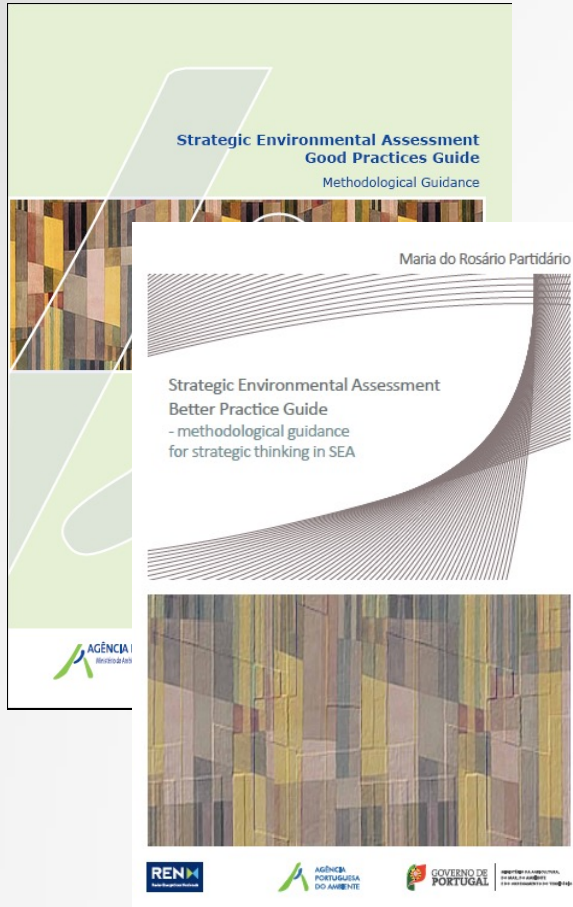
# ST4S - Three functions

Three functions make the strategic thinking SEA:

- Integration – at least 60% of effort
- Assessment – 25-30 % of effort
- Validation – 10-15% of effort

In SEA if assuring good integration, assessment will be easier and validation only a formality, to sign off

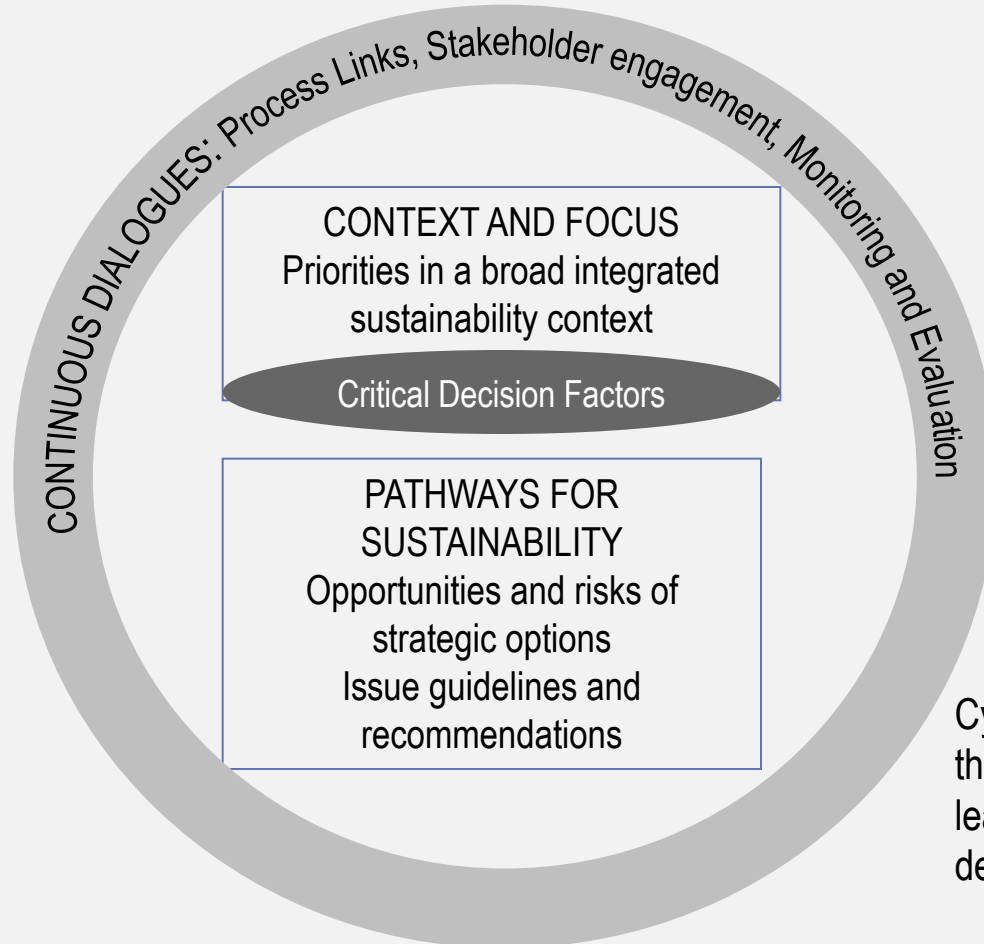
(Partidário, 2007, 2012)



## ST4S - Three distinguishing features

1. Critical decision factors – the pinpoints in the assessment framework
2. Pathways for sustainability – options assessment (risks and opportunities)
3. Continuing dialogues between processes and people (actors networks), throughout decision cycles

# ST4S - Creating contexts for sustainable development



Cyclical re-assessment as the context change and learning takes place with development unfolding



4. Strategic thinking for sustainability (ST4S) in strategic environmental assessment  
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# Object of assessment in SEA

What will be assessed with the SEA?

The strategies for development, associated to a futures vision and long-term objectives, in particular public policies, sectorial and territorial planning, investment programmes

e.g. strategy for multi-purpose water management,  
strategy to enhance renewable energy use



# Vision



# Understanding the problem

What are development priorities

What are the driving forces

What are environmental and sustainability priorities

What are leading macro-policies (Strategic reference framework)

What are the powers in place

Who are the winners and losers

# Strategic issues

The strategic development (PPP) objectives and priorities

Policy choices that address critical challenges to achieve a vision – requires positioning in the future, rather than simply reacting to problems

Criteria to define strategic issues:

- Relates to long-term objectives
- Is a priority issue
- Covers broad range of issues

# Problem framework

What are the key problems?

What are development, environment and sustainability:

- Problems
- Sensitivities
- Potentials

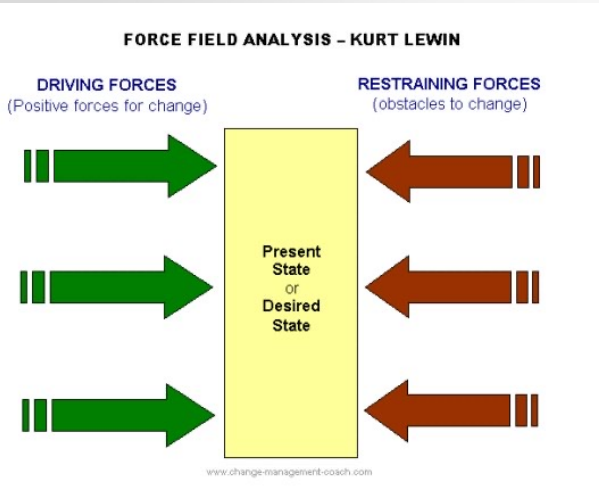
What are the underlying (root) causes of stress and the drivers of change

Explanatory  
indicator



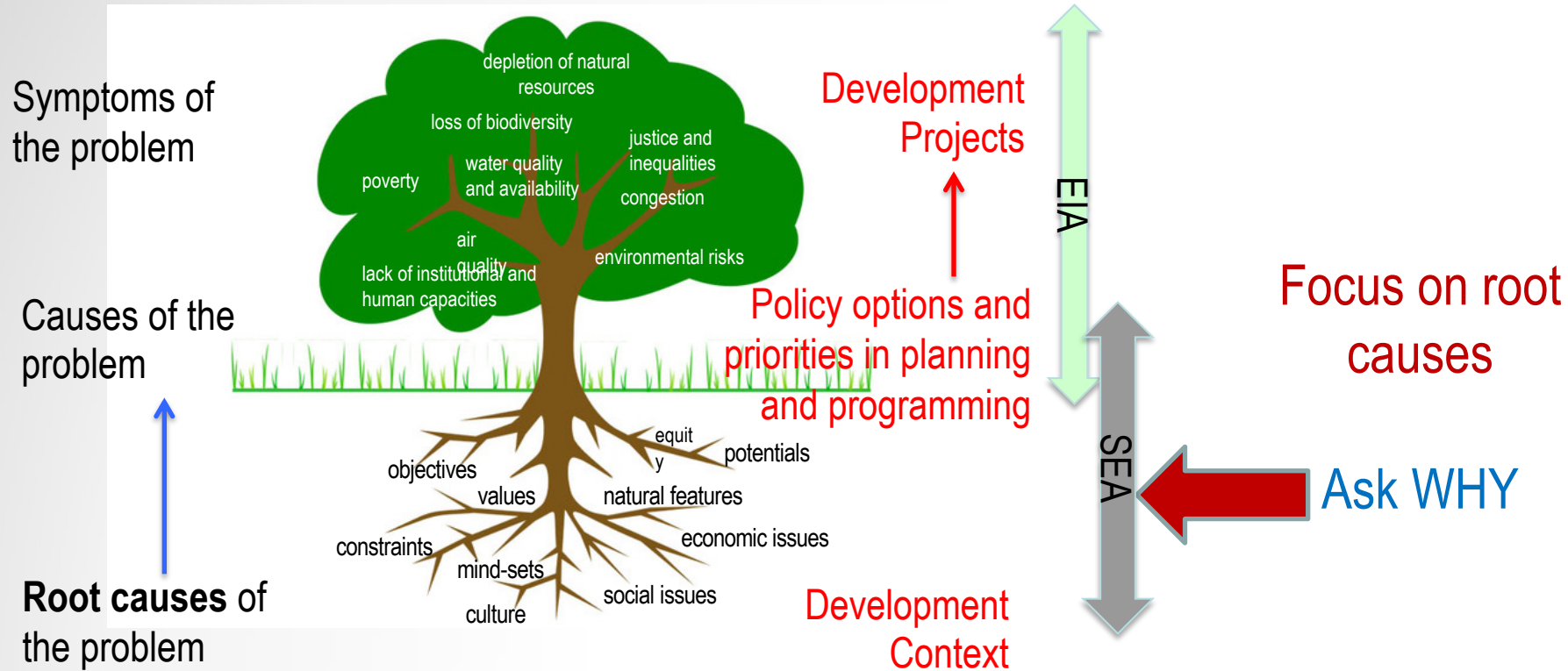
Descriptive indicators

# Driving forces - megatrends



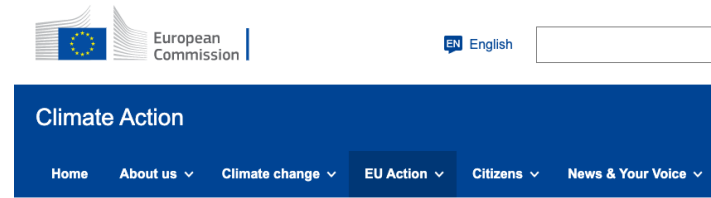
# Seek the root causes

## Problem tree



# Strategic Reference Framework

The macro policy context (agenda for priority setting - directions for the future)  
– macro-policies that set the reference for strategic assessment



## 2030 climate & energy framework

The 2030 climate and energy framework includes EU-wide targets and policy objectives for the period from 2021 to 2030.

# Strategic Environmental Assessment (SEA)

As a strategic assessment framework for achieving sustainable development

SDG set the reference for strategic assessment

## Questions

- Which SDG / targets are relevant for this strategic assessment?
- How can strategy S contribute to achieving SDG X, Y and Z?





# Governance framework



Who are the stakeholders and their linkages?

Engagement for creativity and governance

Institutional analysis – look for intersectoral links and coordination.

Public engagement practices.

Stakeholders' perceptions

Stakeholder analysis tools – analyse power balances

Participatory assessments to prioritize environmental issues

Build a **problem framework** – strategic environmental and sustainability (ES) issues that are a priority in the context (with multi-actor and multi-sector perspectives)

Need to focus on:

- Priorities (key strategies)
- Problems, sensitivities, potentials
- Driving forces (enablers or inhibitors)
- Macro-policies (Strategic reference framework)

To get us to the **Root causes** – the problem, rather than the symptoms

SEA for the coastal development strategy of Mozambique

Problem framework (developed on 2012.01.20)		
Major problems	Major Sensitivities	Major potentials
<b>High competition for the resources</b>	<b>Sensitive ecosystems/habitats</b> (legally protected conservation areas and species or not)	<b>Natural and social resources based activities through sustainable planning and management</b>
<ul style="list-style-type: none"> <li>- Energy: Oil and gas, wind power</li> <li>- Mining: heavy sands, sand dune mining</li> <li>- Tourism</li> <li>- Fisheries (industrial and semi-industrial, artisanal)</li> <li>- Aquaculture</li> <li>- Agriculture</li> <li>- Forestry</li> <li>- Transports (ports, maritime transportation, rail and road infrastructures)</li> <li>- Urban development (cities in the coastline)</li> <li>- Industries and infrastructures (including access to the coast)</li> <li>- Salt exploration</li> </ul>	<ul style="list-style-type: none"> <li>- Mangroves</li> <li>- Estuaries</li> <li>- Seagrass beds</li> <li>- Fresh water lakes</li> <li>- Wetlands</li> <li>- Dunes</li> <li>- Islands</li> <li>- Coral reefs</li> <li>- beaches</li> <li>- Fish banks (Sofala bank) Fishing stocks</li> <li>- Biodiversity hotspots</li> </ul>	<ul style="list-style-type: none"> <li>- Capitalize on the resilient segments of the coast line</li> <li>- Capitalize existing natural resources (eg O&amp;G) in those areas where it can be readily accommodated</li> <li>- Investment share on environmental conservation (either though legal requirement or not)</li> <li>- Improve the environment to generate wealth to generate skills and linked employment opportunities</li> <li>- Tourism opportunities based on the uniqueness of coastal resources (sailing Mecca (young, active) and other coastal recreational activities (warm and calm waters – in the shelter of ))</li> <li>- Tourism and visitors diversification (eg community based tourism, specialist tours for tourism)</li> <li>- Natural deep water areas that offer opportunity for harbors, aquaculture</li> <li>- Geostrategy</li> </ul>
	<b>Culture heritage</b>	
	<ul style="list-style-type: none"> <li>- Archaeology</li> <li>- Built heritage</li> <li>- Religion and traditions</li> </ul>	
<b>Population concentrated on coastal area and living on natural resources</b>	<b>Risks</b>	<b>Environmental and cultural assets and unique values create economic advantage and competitiveness</b>
<ul style="list-style-type: none"> <li>- Sustainability of livelihood                             <ul style="list-style-type: none"> <li>o Viability of traditional activities</li> <li>o Natural Resources management (including viability of natural resources harvesting activities: agriculture, fisheries, logging)</li> <li>o Land tenure systems</li> <li>o Land occupation</li> </ul> </li> <li>- Leadership, ownership</li> <li>- Capacities (knowledge, action)</li> <li>- Community structure (age,</li> </ul>	<ul style="list-style-type: none"> <li>- Erosion (including coastal erosion)</li> <li>- Flooding</li> <li>- Change in water temperatures</li> <li>- Droughts</li> <li>- Sea level rise</li> <li>- Tropical storms</li> <li>- Fluctuation of fish stocks</li> <li>- Storm water run-off</li> <li>- Activities in the catchments</li> <li>- Slash and burn agriculture</li> <li>- Wood harvesting</li> <li>- Over-harvesting of marine species</li> <li>- Pollution</li> </ul>	<ul style="list-style-type: none"> <li>- Increase satisfaction in livelihoods and lifestyles rather than change it</li> <li>- Research and knowledge building, creating inventory</li> <li>- Capitalize on uniquenesses</li> <li>- The Indian ocean maritime history</li> <li>- Bush and beach opportunities</li> </ul>

# Strategic Issues

The Ministry of Transport and Communications (MTC) is implementing the Spatial Development Program (SDP) to create institutional capacity on spatial planning, and to prepare Spatial Development Initiatives (SDIs).

An SDI attempts to unleash the sustainable economic development potential in development corridors, underpinned by anchor projects and underlying infrastructure investments for transport, power, water and the like.

Anchor projects are owned and operated by the private and/or public and private sectors and utilize physical, human, natural and infrastructure resources.

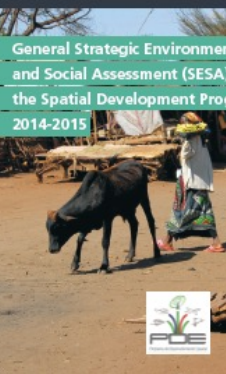




# Problem framework

Table 3 - Problem framework – key aspects

Key Potentials	Key sensitivities and risks	Key challenges
<ul style="list-style-type: none"><li>• Growth of infra-structure</li><li>• Development of value chains linked to anchor projects</li><li>• Increase in economic advantage and competitiveness</li><li>• Strengthening of the local economy and social opportunities</li></ul>	<ul style="list-style-type: none"><li>• Sensitive ecosystems</li><li>• Cultural heritage</li><li>• Climate change risks</li><li>• Poverty</li></ul>	<ul style="list-style-type: none"><li>• Economic and social valuation of natural resources</li><li>• Engagement and benefits for vulnerable communities</li><li>• Public governance leadership and inter-sectoral cooperation</li></ul>



# ST4S core focus inputs

## Strategic issues (SI)

- Development.....
- Capacity-building.....
- Sustainability.....
- .....

## Strategic reference framework

Macro-policies	Objectives	Targets

## Problem framework (PF) - Environmental and sustainability issues (ESI)

Conflicts	Sensitivities	Potentials	Drivers of change

- Looking into:
- Policy area
  - Sustainability theme
  - Geographic area

## Governance framework

	Stakeholders (relational matrix)	
Roles and responsibilities	links	links