‘Assessing the sustainability impacts of European policies – stakeholder-based research methods’

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International Conference 6 -9 April 2008: Impact Assessment of Land Use Changes
Presentation overview:

Objective: give an overview of Framework for Participatory Impact Assessment (FoPIA)

- Role of participatory research in SENSOR project
- Primary functions of FoPIA
- Design & implementation of FoPIA
- Results from one case study - Malta
Participatory research within SENSOR:

Main purpose: stakeholder-based methods and results to complement and problematise model-based SIAT

Model-based SI AT  Stakeholder-based FoPI A

Ex-ante

Integrated analysis

Decision-support
(=EC’s IA process)

General analysis across EU27

Ex-ante

Integrated analysis

Decision-support
(=EC’s IA process)

Detailed analysis within ‘SACS’
Why develop a participatory approach?

Inherent limitations of model-based SIAT:

- Limited data availability (limited temporal +/- or spatial resolution)

- Limited capacity of models to represent complex systems (simple causal principles)

- Application of neutral, value-free, objective evidence within highly political, value-laden, decision-support environment (results vs interpretation)
Participatory research within SENSOR:

SIAT and FoPIA both adhere to same logical framework:

OECD’s ‘DPSIR’ framework - Driver-Pressure-State-Impact-Response:

**Drivers** - changes in policy (new economic, fiscal, or legislative conditions)

**Pressures** - predicted changes in land use or management

**State** - changes in social, environmental and economic systems (indicators)

**Impact** - comparing indicator value changes against sustainability thresholds

**Response** - decisions taken in light of IA process
**FoPI A as ‘gap plugger’:**

<table>
<thead>
<tr>
<th>DPSIR</th>
<th>SIAT</th>
<th>FoPI A</th>
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</thead>
<tbody>
<tr>
<td><strong>Drivers:</strong></td>
<td>Policies uniformly applied across EU27</td>
<td>Policy scenarios specific to MS / regions</td>
</tr>
<tr>
<td><strong>Pressures:</strong></td>
<td>Assumes predictable responses by landowners</td>
<td>Land use change scenarios reflecting local conditions</td>
</tr>
<tr>
<td><strong>State:</strong></td>
<td>Indicator selection &amp; responses based on available data for EU 27</td>
<td>Indicator selection &amp; responses to reflect local conditions</td>
</tr>
<tr>
<td><strong>Impact:</strong></td>
<td>Indicator values compared with pre-set thresholds for EU27</td>
<td>Explore local ‘acceptability’ of impacts</td>
</tr>
<tr>
<td><strong>Response:</strong></td>
<td>Left up to end-user. Decisions reflect priorities at political centre</td>
<td>Analysis of criteria allows interpretation of IA results. Decisions reflect priorities at political periphery</td>
</tr>
</tbody>
</table>
Application of FoPIA:

Where?

- Sensitive Areas Case Studies: Eisenwurzen (AT), Malta, Silesia (PL), Valais (CH), High Tatras (SK), Western Estonian Coastal Zone (EE), Lusatia (DE)

What?

<table>
<thead>
<tr>
<th>SACS / Policy</th>
<th>Eisenwurzen</th>
<th>Malta</th>
<th>Estonia</th>
<th>Silesia</th>
<th>Valais</th>
<th>Lusatia</th>
<th>High Tatras</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bioenergy</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Biodiversity</td>
<td>X</td>
<td>X</td>
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</tbody>
</table>
Framework for Participatory Impact Assessment (FoPIA)

Results from SIAT

End user

Policy scenarios

Criteria

Elicit preferences

Stakeholder participation

Results

Impacts and ‘acceptability’

Indicators

Sustainability Impact Assessment of multifunctional land use

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Implementation of FoPIA:

**What?**
- SENSOR policy cases - Issues of strategic importance within EC (e.g. bioenergy, biodiversity, CAP reform)
- Investigate policy implementation & land use change implications
- Derive policy scenarios (combinations of instruments & land use change implications)
- Refine policy scenarios

**How?**
- Interviews with national policy stakeholders
- Analysis of policy documents
- Interviews with regional land use stakeholders

‘Step 1’ – discussion in IA workshop
Implementation of FoPI A:

What?
- Derive key sustainability criteria from SENSOR’s 9 Land Use Functions:

Social:
1. Provision of work
2. Health and recreation
3. Cultural

Economic:
4. Residential & non land-based industries & services
5. Land-based production
6. Infrastructure & mobility

Environmental:
7. Provision of abiotic resources
8. Provision of habitat
9. Maintenance of ecosystem processes

How?
‘Step 2’ – discussion in workshop

Results from SIAT
End user
Scenarios
Criteria
Preferences
Stakeholder Participation
Indicators
Results
Impacts and ‘acceptability’

Preferences

Stakeholder Participation

Indicators

Results

Impacts and ‘acceptability’

End user

Scenarios

Criteria

Results from SIAT
Implementation of FoPI A:

What?

- Assess relative importance of criteria for regional sustainability

How?

‘Step 3’ – discussion / scoring & ranking / discussion
Implementation of FoPI A:

What?
- Derive key sustainability indicators from the 9 criteria

How?
- ‘Step 4’ – discussion
Implementation of FoPIA:

What?

- Perform IA for each scenario
- Determine acceptability of impacts

How?

‘Step 5’ – discussion / scores (-3/+3) assigned to each indicator under each scenario / discussion

‘Step 6’ – discussion of minimum standards for each indicator / scores (-3/+3) / discussion
Implementation of FoPIA:

Results:

- Policy scenarios that reflect national and regional conditions
- Analysis of sustainability criteria (inform interpretation of IA results)
- Impact assessment using locally-derived indicators
- Analysis of acceptability of changes in functionality

- Development of stakeholder-based methods for regional SIA of European policies
Thank you for your attention
<table>
<thead>
<tr>
<th>Land Use Functions</th>
<th>Criteria</th>
<th>Indicators</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC Provision of work</td>
<td>Employment generation</td>
<td>How would employment change in Scenario x?</td>
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<tr>
<td>SOC Health and Recreation</td>
<td>Physical and mental wellbeing</td>
<td>How would the number of people who regularly access the countryside change in Scenario x?</td>
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<tr>
<td>SOC Cultural</td>
<td>Cultural heritage &amp; national identity value</td>
<td>How would the number of designated &amp; managed heritage sites change in Scenario x?</td>
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<tr>
<td>ECO Residential &amp; non land-based industries and services</td>
<td>Housing and workplace provision</td>
<td>How would the land available for housing and employment (offices, warehouses &amp; industry) change in Scenario x?</td>
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<tr>
<td>ECO Land based production</td>
<td>Competitiveness and productivity</td>
<td>How would the share in GDP of the agricultural, hunting and forestry sector change in Scenario x?</td>
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<tr>
<td>ECO Infrastructure and mobility</td>
<td>Infrastructure</td>
<td>How would the provision of infrastructure change in Scenario x?</td>
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<tr>
<td>ENV Provision of abiotic res.</td>
<td>Water status</td>
<td>How would groundwater quantitative status change in Scenario x?</td>
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</tr>
<tr>
<td>ENV Provision of Habitat</td>
<td>Biodiversity</td>
<td>How would the status of selected groups of species change in Scenario x?</td>
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<tr>
<td>ENV Maint. of ecosystems proc.</td>
<td>Environmental quality</td>
<td>How would air quality be affected by Scenario x?</td>
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</table>
Results from Silesia / bioenergy

Impact score vs. Relative importance (ranking)

- scenario 1
- scenario 2
- scenario 3
- Limits

Sustainability Impact Assessment of multifunctional land use

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