

EaP GREEN

Partnership for Environment and Growth



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Monitoring

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Monitoring

” ... shall monitor the significant environmental, including health, effects of the implementation of the plans and programmes ... to identify, at an early stage, unforeseen adverse effects and to be able to undertake appropriate remedial action.

The results of the monitoring undertaken shall be made available ... to the authorities referred to in article 9, paragraph 1, and to the public.”

UNECE SEA Protocol

Why Monitor?

- Early warning system: spot unanticipated adverse effects, hopefully at an early stage.
- Auditing:
 - Were the impact predictions/compatibility assessments accurate?
 - Have the SEA recommendations/ mitigation measures/ conditions been implemented correctly/ complied with?
 - Are the mitigation measures/ conditions working as expected?
- Learning: What could we do better in the future? What contribution to decision-making did SEA make?

What to monitor?

- The objectives, targets and indicators that were developed for the SEA.
- Features of the environmental baseline that will indicate the effects of the plan or programme.
- The likely significant effects that were identified during the effects assessment.
- The mitigation measures that were proposed to offset or reduce significant adverse effects.

Selecting Indicators

- Change indicators: The effects of plans and programmes can be gauged by examining patterns of change in the indicators and the extent to which related indicators have changed.
- Baselines and predicted effects: Changes in the direction of indicators can be measured against the baseline position and predicted effects.
- Benchmarking: Changes in the direction of indicators can also be measured against other comparable locations or receptors to establish whether similar effects are occurring. Benchmarking may help in the assessment of relative performance by taking into account external change factors.

Monitoring Practices

- Use performance and strategic monitoring indicators (e.g. Carbon dioxide emissions).
- Establish appropriate thresholds which should trigger when remedial action should be undertaken.
- Arrangements should be clearly set out along with responsibilities, frequency of monitoring, analysis, and reporting on monitoring.
- Sufficiently flexible so as to be able to react to unforeseen / unexpected events.
- Maximum use should be made of existing environmental monitoring programmes.

Case example – Offshore wind energy, UK

- Online portal hosting all data collected during SEAs and EIAs.
- SEA recommendations / implementation auditing
 - Compilation of recommendations from SEAs and action status.
- SEA Research Programme:
 - Commission research in response to identified data gaps.



Scottish National Park Strategy

Table 8 Proposed SEA Monitoring Framework.

Indicator	Related Objectives	Rationale	Source	Frequency
Number of vehicles at Inverdrue	1a Reduce greenhouse gas emissions 2 Protect and enhance air quality	The potential effects of the Strategy on climate change and air quality have been raised as a concern. These effects are largely due to the likelihood of an increased use of private motor vehicles. These indicators will provide an indication of the numbers visiting Cairngorm and Glenmore as well as the number of visits made by private motor vehicle.	<ul style="list-style-type: none"> ➤ The Highland Council, ➤ Forestry Commission Scotland, ➤ Natural Retreats. 	All indicators will be reported annually.
Number of vehicles at Cas Car Park				
Number of people at Glenmore Visitor Centre				
Ticket sales at Cairngorm Mountain				
Number of people using old logging way	6a Value, conserve and enhance biodiversity, distinctive wild species and habitats	The Strategy's potentially adverse effects on important species such as capercaillie have been raised as a concern. Measuring the use of the path network will give an indication of the number of people using areas that are sensitive to disturbance. The indicator will also provide information on whether or not the Strategy is successful in both encouraging physical activities such as walking and cycling while also encouraging most visitors to remain in the core area.	<ul style="list-style-type: none"> ➤ Cairngorms National Park Authority. ➤ Forestry Commission Scotland. ➤ Natural Retreats. 	
Number of people using paths at Lochan na Freith				
Number of people at eight points on Cairngorm Estate				

Scottish Land Use Plan

Table 11 – Monitoring Indicators (to be finalised at post-adoption)

SEA Topic and Objective	SEA Criteria	Indicator	Source
Biodiversity, Flora & Fauna			
To conserve and where possible enhance biodiversity and accord to the protection of valued nature conservation habitats and species.	Will the proposal affect biodiversity, flora and fauna interests, e.g international and national designations and protected species?	Proportion of notified features of protected nature sites (SSSI, SPA & SAC) in favourable condition.	SNH
	Will habitat connectivity or wildlife corridors be affected by the proposal – will it result in habitat fragmentation or greater connectivity?	Extent of habitat fragmentation or connectivity associated with new development	Monitoring of Planning Applications
Population & Human Health			
To improve the living environment for all communities and promote improved health of the human population.	Will the proposal affect access to open space?	Access to Open Space – % of population within 400m of 1ha of open space/Usable open space per 1000 residents	Stirling Council Open Space Audit and Strategy
	Will the proposal affect residential amenity, including noise?	Submitted Noise Assessments	Monitoring of Planning Applications

Case example: Enterprise and Innovation 2007 – 2013, Czech Republic

- SEA proposed
 - Monitoring indicators
 - Environmental criteria for the project selection (which followed indicators)

Indicators

- GHG emissions
- Energy savings
- Energy from alternative sources

Criteria

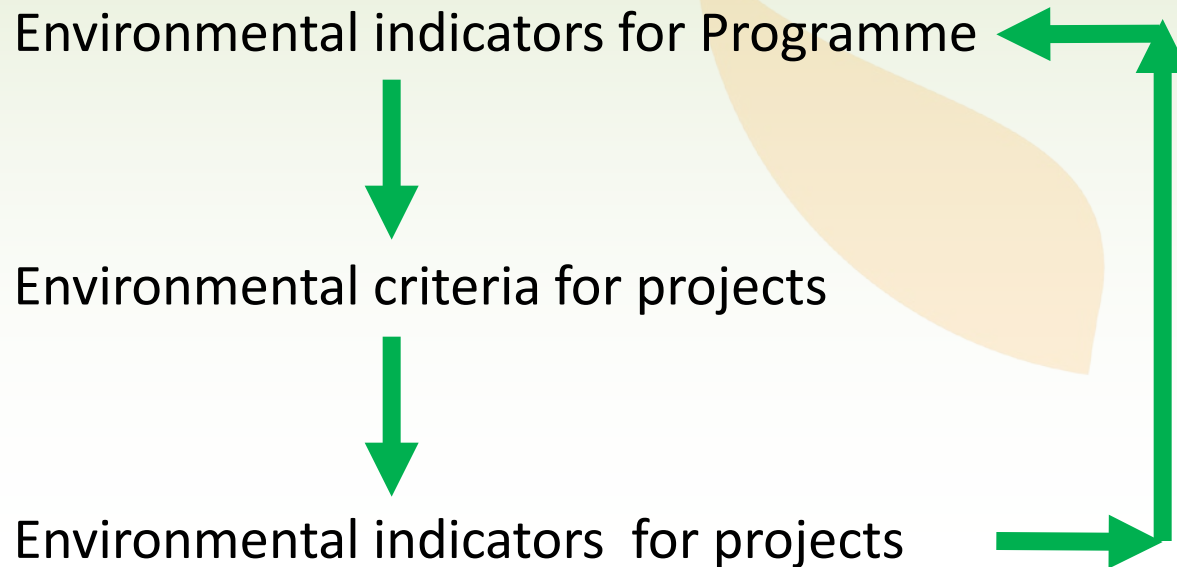
- How the project will contribute to reducing GHG emissions
- How the project will support energy savings?
- How the project will increase energy production from alternative sources?

Case example: Enterprise and Innovation 2007 – 2013, Czech Republic

- The Ministry of Industry and Trade integrated selected environmental criteria to the overall project evaluation system
- Applicants could get additional points for environmental performance of the project
- Results from the project evaluation then could be used to estimate overall contribution of the Programme to environmental indicators

Case example: Enterprise and Innovation 2007 – 2013, Czech Republic

System for environmental monitoring and for projects' evaluation and selection



Thank you for your attention!