



SOSEA

Strategic Overview of Significant Environmental Aspects

A procedure to summarise significant environmental aspects of
Port Authority and their management

(A complementary document to SDM)



Introduction

Role and purpose

The Strategic Overview of Significant Environmental Aspects (SOSEA) has been designed to help port managers **identify their Significant Environmental Aspects (SEAs)** and reinforce the awareness about them in order to prioritise work in environmental management. Moreover, SOSEA assists the Ports in getting a proper knowledge of the management carried out as to the environmental aspects that actually represent a concern for them.

Structure

SOSEA consists of three parts:

1. Identification of significant environmental aspects by the use of a matrix of activities and aspects¹.
2. “Aspect Specific Strategic Questions”: set of questions focussed on analysing the management of the significant environmental aspects. Two kinds of questions are asked, about the current situation and about the current actions.
3. “Strategic Aspect Overview”. Its function is to summarise the results of the tool and help the Ports realise why the aspects are significant (reasons of interest-ratification of the significance).

The completion of the tool has to be considered a starting point on the way to the implementation of other environmental tools like (PERS, EMS-VAL, EMAS, ISO 14001) since the identification of the significant environmental aspects is a key subject in environmental management.

Benefits of SOSEA

- Help Ports identify significant environmental aspects (SEA).
- Reinforce the awareness about SEAs.
- Give knowledge of Port activities and aspects related with them.
- Assess the current management carried out for each Significant Environmental Aspect by the Port.
- Identify the reasons why the aspect is important for the Port.
- Assist Ports to prioritise the most important actions to be carried out concerning the environmental management.
- Be aware of the legislation related to Port’s SEAs.
- Check compliance with environmental legislation.
- Link the different ECOPOINTS tools within EMIS (SOSEA is directly related with SDM and is the base for other environmental management tools such as PERS, EMS-VAL, ISO 14001, EMAS)
- Periodical self-assessment of the Port’s environmental improvement;
- Motivate the Port Authority towards environmental management and raising staff environmental awareness.

¹ This approach is based on the Leopold Matrix used in Environmental Impact Assessments and also in the Environmental Management System by the Port of Valencia.



Procedure

In order to fill in SOSEA, a help guide is available, where the Port can find a detailed list of activities and aspects, examples, instructions and a glossary with the more complex terms. SOSEA can be filled in in paper version or, alternatively, ports will be able to complete it online at <http://www.ecoport.com/>

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ANSWER KEY FOR SOSEA

Here the Port can find some instructions on how to fill in the different sections of SOSEA. For a further understanding of this process, it is strongly recommended to use the Help Guide attached to the ECOPOINTS tools. There, the Port can find thorough explanations and examples on the filling in of the different tools. Moreover the help guide contains a description of the key environmental aspects, a detailed list of activities and aspects (very helpful in order to complete the matrix) and a glossary with useful terms.

As said before, the SOSEA consists of three different sections:

Filling in the matrix....

Before starting to fill in the matrix, it may be interesting for the Port to have a look at the checklist of activities and aspects (see section 4 of guidelines for SOSEA) in order to get a complete overview of the relations between each activity and the aspects affecting it.

After that, the Port is ready to fill in the matrix. Each cell has to be ticked if the activity it represents (column) is actually affected by the aspect in the corresponding row, i.e. if that aspect, belonging to that activity, represents a concern for the Port. It is important to remember that those aspects which are regulated by legislation are always considered significant independently of any kind of ranking, since in any environmental management system, the compliance with the legislation is absolutely required.

Once the matrix is filled in, the aspects could be ranked as to their significance. This process is carried out by summing up the number of ticks for each aspect (row) and then establishing a threshold over which the aspect will be considered as a significant one (5 ticks or more means that the aspect is significant or being up of 50% number of ticks of the most ticked).

Concerning the structure of the matrix, it is necessary to say that the division of activities according to the body that is responsible for them, is merely indicative. Moreover, the possibility of adding more activities or aspects into the matrix (maybe overlooked by it, but important for the Port) is given.

Fill in Aspect Specific Strategic Questions....

After the identification of the significant environmental aspects by the use of the matrix, the Port can turn to answer the Specific Strategic Questions focussed on analysing the management of such aspects.

This section consists of two different kinds of questions about current situation (A1-A8) and about current actions (B1-B5). Despite this differentiation, both follow the

same guideline. Each question has to be answered for all the SEAs² identified in the previous section (matrix); before answering a question the SEAs have to be specified in the grid (depending on each port the number of significant aspects will be different). The possibility to add further information for each question has been given.

Again it is recommended to look up the *Guidelines for SOSEA* before answering these set of questions since there the port manager can find some useful examples.

Fill in the Strategic Aspect Overview....

The aim of the section is to summarise the information gathered up through the tool and also to ratify which the SEAs for each port are. There is a set of reasons of interest in the rows; in the columns the port must insert its SEAs. Once more, the intersection cells will be ticked if an aspect comes out to be a concern for the Port due to a particular reason of interest represented in the rows. At the bottom of the table, the port manager can find a ranking of importance for the SEAs: this is useful to ratify that the results are similar to the ones achieved by the matrix.

² SEAs=Significant Environmental Aspects

ACTIVITIES		Port Area												Result								
		Port Authority						Tenants							Other Agencies							
		Coastal Engineering	Dredging	Marine engineering	Administrative and Planning Activities	Shipping and Navigation	Emergency Situations	Cargo handling operations	Cargo storage	Port based industry	Fisheries & Aquaculture	Ship building and repair		Stakeholders activities	Waste Management	Port installations maintenance	Land traffic	Recreation and tourism	Bunkering	
ASPECTS	Emissions to air	X	X		X	X		X		X					X		X			X	9	
	Emissions to water	X	X	X		X		X		X		X			X		X		X		X	12
	Emissions to soil	X					X			X					X							6
	Emissions to sediments		X	X		X				X												6
	Noise	X	X	X		X						X						X		X		9
	Waste production								X						X							5
	Changes in terrestrial habitats	X																				2
	Changes in marine ecosystems		X	X		X														X		5
	Odour			X		X																3
	Resource consumption	X		X		X																5
Port development (land)	X																				1	
Port development (sea)		X																		X	3	

Which are the regulations that affect the Port's significant environmental aspects?

A1

Significant Environmental Aspect	Regulations	Specify / further detail
Emission to air	<ul style="list-style-type: none"> a) Euro Class- Engines on Cargo Handling Vehicles b) Air Quality for nitrous dioxide and particulates c) Emissions from cars and trucks used in the ports activities d) 	
Emission to water	<ul style="list-style-type: none"> a) Discharges of ballast water b) Discharge of oil from Oil harbour c) d) 	
Noise	<ul style="list-style-type: none"> a) EU Directive b) National regulations soon valid, most probably. c) d) 	
Emissions to soil	<ul style="list-style-type: none"> a) National regulations of contaminated soil b) c) d) 	
Emissions to sediments	<ul style="list-style-type: none"> a) Permission of sediment disposal b) Sediment disposal in Natura 2000 area c) d) 	
	<ul style="list-style-type: none"> a) b) c) d) 	

A2

Which organisation(s) is / are legally responsible for the enforcement of the regulations related to the Port's Significant Environmental Aspects (SEAs)?

- Options: a) Port authority
b) Others
c) None
d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail (compulsory if Answer = b)
Emission to air	B	The terminals are responsible for the fulfil of regulations
Emissions to water	A,B	The terminals are responsible for the fulfil of regulations
Noise	B	As above
Emissions to soil	B	Construction department
Emissions to sediments	B	Construction department

A3

Does the Port Authority have any difficulties complying with the regulations related to its SEAs?

Options: a) Yes, because of:	1. Cost	2. Lack of information	3. Lack of appropriate technology	4. Lack of in-house expertise
b) No	5. Involvement of multiple organisations	6. Changes in legislation	7. Other	
c) Don't know				

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to air	B	
Emissions to water	B	
Noise	A	1,2,3,5,6
Emissions to soil	B	
Emissions to sediments	A	

A4

Do any of the Port's SEAs or any of the regulations related to them affect the development plans of the port?

- Options: a) Yes
b) Partial
c) No
d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to water	A	Development in the neighbourhood of Natura 2000 Area
Noise	A	Plans of locating appartments near the terminals
Emissions to air	C	Developing areas are situated near Natura 2000 area
Emissions to soil	A	Developing areas are situated near Natura 2000 area
Emissions to sediments	A	Developing areas are situated near Natura 2000 area



Are the Port's SEAs especially important for the port's image?

A5

- Options: a) Yes
 b) Partial
 c) No
 d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to air	A	The exhausts from ships
Emissions to water	A	Water quality and turbidity
Noise	A	The relations to people living near the harbours
Emissions to soil	C	
Emissions to sediments	C	

Are the Port's SEAs especially important for the port users?

A6

- Options: a) Yes
 b) Partial
 c) No
 d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to air	c	
Emissions to water	A	Tenants in the Oil harbour
Noise	c	
Emissions to soil	c	
Emissions to sediments	A	Ship repair and painting



Have been reported any incidents in the port related to SEA during the last year?

A7

- Options: a) Yes
 b) No
 c) Don't know

Significant Environmental Aspect	Answer	Number	Nature	Follow-up action	Specify / further detail
Emissions to air	B				
Emissions to water	A	7	1 Leakage from Tenant Oil tank pollute some beaches. The others small leakages	Oil removed from water and beaches	
Noise	B				
Emissions to soil	A		During reconstruction of the container terminal	Contaminated soil sent to disposal	
Emissions to sediments	B				

Have there been any complaints during the last year concerning the Port's SEAs?

A8

Options: a) Yes
 b) No
 c) Don't know

Significant Environmental Aspect	Answer	Number	Nature	Specify / further detail
Emissions to air	B			
Emissions to water	A	1	Oil in water	
Noise	B			
Emissions to soil	B			
Emissions to sediments	B			



Are the Port's SEAs regularly monitored?

B1

- Options: a) Yes
 b) Partial
 c) No
 d) Don't know

Significant Environmental Aspect	Answer	Environmental Performance indicators used	Specify / further detail
Emissions to air	B	Emissions of NOx, Emissions of CO2	Emission from Cargo Handling Vehicles calculated and reported regularly. The calculations are based on Euro Class status
Emissions to water	A	Oil in water	Oil and metals monitored regularly. Effects on disposed dredged material monitored
Noise	A		Monitored in problem areas near the Port
Emissions to soil	B		
Emissions to sediments	A	Hg, Cd, PCB in sediments	Mainly before dredging

Does the Port Authority have special procedures for its own employees regarding its SEAs?

B2

- Options: a) Yes
 b) Partial
 c) No
 d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to air	C	New cargo handling vehicles must have catalyzed and dust filter
Emissions to water	A	Procedures to avoid spills of oil reaching sewer systems
Noise	C	
Emissions to soil	C	
Emissions to sediments	C	



Does the Port Authority have special procedures for the port users (e.g. port operators) regarding its SEAs?

B3

- Options: a) Yes
 b) Partial
 c) No
 d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to air	A	Ships may not exhaust soot (Port Regulations)
Emissions to water	A	Ships may not realise oily ballast water
Noise	C	
Emissions to soil	C	
Emissions to sediments	C	

Are there management programs or action plans dealing with the Port's SEAs at the present?

B4

- Options: a) Yes
 b) Partial
 c) No
 d) Don't know

Significant Environmental Aspect	Answer	Specify / further detail
Emissions to air	A	Less emissions from Cargo Handling Vehicles
Emissions to water	A	Less oil to water and soil during charging/discharging ships
Noise	C	
Emissions to soil	C	
Emissions to sediments	B	



Strategic Aspects Overview

This table provides an overview of the significant environmental **aspects** in European Ports. Please tick the **reasons for interest** (see left column) that apply to each aspect. The completed table will give a strategic overview of the SEAs in your Port!!

	Emissions to air	Emissions to water	Noise	Emissions to soil	Emissions to sediments	
Legislation and Regulations						
• International conventions / legislation	√	√			√	
• European legislation	√	√	√		√	
• National legislation	√	√	√		√	
Policy						
• Own port environmental policy	√	√	√		√	
• European / international policy	√	√	√			
• National / local policy	√	√	√			
Public and Employee Health						
• Public health	√		√			
• Employee health & safety	√		√	√		
Port Image and Public Relations						
• Port image (general)	√	√	√			
• Marketing of the port	√	√	√			
Complaints from External Parties	√	√	√			
Financial costs	√		√	√	√	
Port Development						
• Current actions		√	√	√	√	
• Short term (1-2 years)		√	√	√	√	
• Long term (3-10 years)		√	√	√	√	
Natural Environment						
• Terrestrial habitats					√	
• Marine ecosystems		√			√	
• Global concern	√					
Others (please specify:)						
Importance of Issue on a scale of 1 to 10*	8	7	9	6	8	

* Assess for your Port the importance of each significant environmental aspect, independent from other significant environmental aspects, on a scale of 1 to 10 (e.g. emissions to air: 5, emissions to water: 8, etc.):

not important	1	2	3	4	5	6	7	8	9	10	very important
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