

STRATEGIC ANALYSIS
QUESTIONNAIRE FOR
THE (ENVIRONMENTAL)
PORT MANAGER



SDM

SELF DIAGNOSIS METHOD

Port of	Responsible manager
<input type="text"/>	<input type="text"/>

Circulate to	Responsible for analysis-part	Date received
1	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>

Return to (name)	Date completed
<input type="text"/>	<input type="text"/>



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Introduction

Goal

This Self Diagnosis Method (SDM) has been designed to support port managers to regularly review the environmental management performance in their port. This tool can lead to a comparison of environmental management performance with previous years and the assessment of the opportunities for improvement. Moreover it provides an opportunity to benchmark the performance with other ports in Europe.

Aims

The questionnaire concentrates on the status of Port's Environmental Management. The main objective is to review the management activities and procedures regarding the environment and the way the port authority is now dealing with its significant environmental aspects. The results should be a list of attention points and can be used to detail the port's environmental strategy and to communicate the good work done.

The present tool is designed as a first step in the voluntary implementation of an Environmental Management System for port communities. For this reason, the SDM is based on the ISO 14001 vocabulary, requirements and structure.

Advantages

The Self Diagnosis Method was first developed in the ECO-information European research project by 25 ports and several research organisations. SDM is an active tool in continued use for environmental management in European ports. This present version is a substantial improvement and has been carried out under the European project ECOPORTS (2002-2005). The project partners will continue to improve the quality and usefulness of the tool based on feedback from users.

Procedure

After completing the Self Diagnosis Method, each participating port is asked to return a copy of the booklet to the Ecoports Foundation. Answers will be kept in confidence. University researchers will analyse the answers individually and will prepare a short summary and conclusion. The results will be confidentially sent to the related port manager only. Alternatively, ports will be able to download an electronic version of SDM at <http://www.ecoports.com/>

Benefits

Specific benefits for participating ports are:

- Assessment of its environmental context and management;
- Checking compliance with environmental legislation;
- Identifying the significant environmental aspects;
- Effective comparison of its environmental performance against a European benchmark;
- Periodical self-evaluation of the port's environmental improvement;
- A first step to implement an EMS consistent with ISO 14001 standard;
- Monitoring the quality of current environmental management, to identify points of Strength / Weakness / Opportunity / Threat and relevant environmental management gaps;
- Identifying business risk;
- Motivating the Port Authority towards environmental management and raising staff environmental awareness.

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Contents

	Introduction	3
	Port Profile	7
	Characterise your port	
	Environmental Management & Procedures	11
	Identify present good management practices within your Port and points of attention	
M1	Environmental Policy	13
M1A	Environmental Policy Document	
M1B	Environmental Policy Scope	
M1C	Environmental Regulations & Port Activities / Aspects	
M1D	Objectives and Targets	
M1E	Resources and Budget	
M2	Management Organisation & Personnel	19
M2A	Responsibilities of the Environmental Management Representative	
M2B	Environmental Responsibilities of Key Personnel	
M2C	Individual Environmental Responsibilities	
M3	Environmental Training	23
M4	Communication	25
M4A	Internal Communication	
M4B	External Communication	
M5	Operational Management	27
M5A	Environmental Management Programs and Actions Plans	
M5B	Standard Operating Procedures and Working Instructions	
M5C	Environmental Management Manual	
M5D	Environmental Documentation Management	
M6	Emergency Planning	29
M7	Monitoring and Records	31
M7A	Environmental Monitoring	
M7B	Monitoring of Environmental Management Program	
M8	Review & Audit	33
M8A	Environmental Audit	
M8B	Review	



Definitions and guidance. The majority of the terms used in the Port Profile and in the Environmental Management and Procedures are defined in the Glossary of the *Guidelines for SDM*. Where a term is followed by an asterisk, e.g. environmental aspect*, this refers to an entry in the **Glossary**. **Footnotes** are included to provide additional guidance and explanation; these are indicated by numbers (¹), which start from 1 in each page.



Port Profile

General Port Information

Legal Status and Port Operators

What is the Port's legal position? Municipality State Private Company
 other _____
 Further detail: _____

Who is the owner of the land? Municipality State Private Company
 other _____
 Further detail: _____






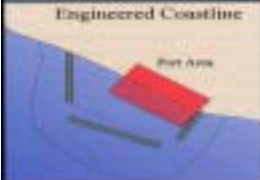
Who operates the terminals*? Public Companies Private Companies
 other _____
 Further detail: _____

Who does the stevedoring? Public Companies Private Companies
 other _____
 Further detail: _____

Who carries out cargo handling*? Public Companies Private Companies
 other _____
 Further detail: _____

Port Location and Port Area

Please tick the geographic setting of the Port

<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input type="checkbox"/>	
<input type="checkbox"/>		<input checked="" type="checkbox"/>	

Please describe the area of the Port

Area of Port's land (km² or specify units):
8.150 km²
 Further detail: _____

Port jurisdiction limit onshore (km or specify units): **300 ÷ 400 m**
 Further detail: _____

Area of Port's navigable water (km² or specify units): **15.91 km²**
 Further detail: _____



Other location: _____ Port jurisdiction limit offshore (nautical miles): **1**
 Further detail: _____

Total quayage (m): **N/A** _____ Length, largest vessel (m): **no limit**

Maximum draught (m): **25 m, 12 m at berthings** Draught, largest vessel (m): **13 m**

Tidal range (m): **0.3 ÷ 0.5 m**

Further detail: _____

2a. Use of Surrounding Land

- | | |
|---|---|
| <input type="checkbox"/> Agricultural land | <input type="checkbox"/> Open water (lakes, rivers, reservoirs) |
| <input type="checkbox"/> Conservation / Protected Areas | <input checked="" type="checkbox"/> Urban / City |
| <input type="checkbox"/> Forestry / Woodlands | <input checked="" type="checkbox"/> Industry |
| <input type="checkbox"/> Nature | <input checked="" type="checkbox"/> Recreational* |
| <input type="checkbox"/> other _____ | <input type="checkbox"/> other _____ |

2b. Coastal and Marine Characteristics

- | | |
|---|---|
| <input type="checkbox"/> Boulders | <input type="checkbox"/> Offshore Islands |
| <input checked="" type="checkbox"/> Cliff | <input type="checkbox"/> Offshore Banks |
| <input checked="" type="checkbox"/> Rocky foreshore | <input checked="" type="checkbox"/> Rivers |
| <input type="checkbox"/> Tidal flats (mud) | <input type="checkbox"/> Sandy Beach |
| <input checked="" type="checkbox"/> Sea Walls / Coastal defence | <input checked="" type="checkbox"/> Shingle Beach |
| <input type="checkbox"/> Dune Systems | <input type="checkbox"/> Salt Marsh |
| <input type="checkbox"/> other _____ | <input type="checkbox"/> other _____ |

Port Business

Tonnage:(million tons / year) < 5 5 < 15 25 < 50
 50 < 100 50 < 100 > 100
 Further detail: _____

TEU¹ –containers:(thousands / year) < 250 250 < 500 500 < 1000
 1000 < 2000 2000 < 3000 3000 < 5000
 > 5000
 Further detail: _____

Passengers: (thousands / year) < 1000 1000 < 3000 3000 < 7000
 > 7000
 Further detail: _____

¹ TEU: container equivalent to 20 feet



Main Commercial Activities and Cargo Handling*

Commercial Activities

- Aggregates (sand, gravel..)
- Ship repair, marine engineering*
- Petroleum product processing
- Marinas / Leisure
- Chemical industry
- General manufacturing
- Fish market and processing
- Storage and packaging
- Refrigerated cargo
- other _____

Cargo Handling*

- Dry bulk
- Liquid bulk (non-oil)
- Trade cars / Vehicles
- Perishable goods
- Petroleum / Oil products
- Ro-Ro
- General cargo
- other: **containers** _
- other _____
- other _____

Main Cargoes

Petroleum:

- Crude oil
- Refined products²
- LNG (liquefied natural gas)
- other _____

Pyrites minerals:

- Aluminium
- Cement
- Phosphates
- Potash
- Pyrites
- Sulphur
- other _____

Dry bulk:

- Animal feed
- Chemicals
- Cocoa
- Coke
- Grains
- Scrap (iron)
- Soya
- Tapioca
- Timber
- Wood products
- other _____

Ores:

- Bauxite
- Coal
- Iron ore
- other _____

Liquid bulk (non-oil):

- Liquid chemicals
- Liquefied gases
- Perishable liquids
- Water
- other _____

Other:

- Cars / Vehicles
- Fish
- Fruit
- Livestock
- other _____

² Refined oil products include fuel oils, kerosene, motor spirit, asphalt and bitumen

Environmental Management*

Who is the designated officer for Environmental Management* (name and job title):

XXXXXXXXXX (Environmental Executive, under Operation Department)

How is environmental management* organised in the Port? Does the Port have environmental review* tools?

Designated personnel:

If yes, how many employees:

Environmental Committee

Environmental working group

External consultants

Environmental department

Environmental management plan*

ISO 14000 certification

EMAS certification

Is environmental responsibility defined at board level?

Yes No

Other remarks regarding the Port: the Port of XXX is currently under a process of certification ISO 14001. This is expected to be achieved in spring 2004.

Environmental Management & Procedures

Overview:

Section M1: Environmental Policy

- Environmental Policy Document
- Environmental Policy Scope
- Environmental Regulations & Port Activities/Aspects
- Objectives & Targets
- Resources & Budget

Section M2: Management Organisation & Personnel

- Responsibilities
- Environmental Responsibilities of Key Personnel
- Individual Responsibilities

Section M3: Environmental Training

Section M4: Communication

- Internal Communication
- External Communication

Section M5: Operational Management

- Management Programs and Action Plans
- Standard Operating Procedures and Working Instructions
- Environmental Management Manual
- Environmental Documentation Management

Section M6: Emergency Planning

Section M7: Monitoring and Records

- Environmental Monitoring
- Monitoring of Management Program

Section M8: Environmental Review and Audit

- Environmental Audit
- Environmental Review



Environmental Management* & Procedures:

Answer Key

YES / NO Questions

The majority of questions are designed to be answered either **Yes** or **No**. In this case, please enter your answer, as shown below, by circling the appropriate response in the box provided.

Y N = Yes
 Y N = No

YES / PARTIAL / NO Questions

In some cases you will be asked to gauge the degree to which your Port has achieved the **task** (for example, management procedure, monitoring, survey, or inventory) or **step** required in the question. Please answer **Yes**, **Partial** or **No** by circling the appropriate response as shown.

Y P N = Partial

In some questions you will be offered one more option (NA = not applicable), must be chosen when the feature related with the question is not present in your port.

RANKED Questions

In several cases you will be asked to **rank** the degree to which your Port has achieved the **task** (for example, management procedure, monitoring, survey, or inventory) or **step** required in the question. Your answer can be simply qualified using percentages as shown below.

>75% >50% >25% <25%

Please indicate the required percentage (proportion) by circling the appropriate box. However, where it is difficult to qualify your answer numerically please refer to the written definitions for each **rank** provided in the table below.

Definition	Percentage achievement
Task achieved in <i>most</i> cases with only a few exceptions.	>75% - 100%
Task achieved in <i>many</i> cases although several may need further management attention.	>50% - 75%
Task achieved in <i>a number</i> of cases.	>25% - 50%
Task achieved in <i>few</i> cases.	0% - <25%

Definitions and guidance

The majority of the terms used in the questionnaire are defined in the glossary of the *Guidelines for SDM*. Where a term is followed by an asterisk, e.g. environmental aspect*, this refers to an entry in the **glossary**. **Footnotes** are included to provide additional guidance and explanation. These are indicated by numbers (¹), which start from 1 in each page.

Section M1: Environmental Policy*

M1.1 Has an Initial Environmental Review* been conducted (e.g. PERS*)? Y N
 If Yes; please give date of last review (dd/mm/yy) _____

M1A: Environmental Policy Document

M1.2 Do you have an Environmental Policy*? Y N
 Date of Publication (dd/mm/yy) _____
 If No; proceed to section M1C

M1.3 Is the policy?

M1.3.1 Signed by the Chief Executive / Senior Management Y N

M1.3.2 Communicated to all relevant interest groups³ Y N

M1.3.3 Communicated to all employees³ Y N

M1.4 Does the policy?

M1.4.1 Specify objectives (main goals) Y N

M1.4.2 Demonstrate commitment to

- Publish an environmental annual report Y N
- Continual improvement* Y N
- Train employees on environmental issues* Y N
- Introduce an Environmental Management System* Y N
- Reduce resource consumption Y N
- Improve environmental standards beyond those required under legislation⁴ Y N
- Encourage improved environmental performance* of Port users (including suppliers) Y N

Further details / Notes

M1.1: the Port has not conducted an explicit Environmental Review, but it may be said that review issues are scattered in several recent environmental activities

M1.2: similarly the Port does not have an Environmental Policy, but environmental declarations/ compromises are implicit in many documents

M1.3 – M1.5.1 have then been answered as if such documents constituted a single policy document

-

³ Communication of the environmental policy: Environmental management standards require the environmental policy to be brought to the notice of all employees and made publicly available. The environmental policy could be distributed to each employee. It could be made available through a nominated member of staff, internal newsletters, briefings, seminars and training videos.

⁴ An environmental management program should ensure, at least, compliance with regulatory standards on the environment, health and safety.



M1B: Environmental Policy Scope⁵

M1.5	Does the Environmental Policy refer to the following issues?			
M1.5.1	Implementation of the ESPO Code of Practice	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> P	<input type="checkbox"/> N
M1.5.2	Operations carried out in the port	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> P	<input type="checkbox"/> N
M1.5.3	Substances ⁶ involved in port operations	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P	<input type="checkbox"/> N
M1.5.4	Emissions / effluents generated by port activities	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> P	<input type="checkbox"/> N
M1.5.5	Wastes produced in the port	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P	<input type="checkbox"/> N
M1.5.7	Cargoes loaded / unloaded	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> P	<input type="checkbox"/> N
M1.5.8	Premises and land	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> P	<input type="checkbox"/> N
M1.5.9	Investment and expansion plans	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P	<input type="checkbox"/> N
M1.5.10	Energy use and energy conservation	<input type="checkbox"/> Y	<input type="checkbox"/> P	<input checked="" type="checkbox"/> N
M1.5.11	Public relations	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P	<input type="checkbox"/> N
	Further details / Notes _____			

M1C: Environmental Regulations & Port Activities / Aspects

M1.6	Does the Port authority have an inventory of relevant environmental regulations and their requirements for all Port activities⁷?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P	<input type="checkbox"/> N
	If No ; Proceed to question M1.7			
M1.6.1	Have you specified procedures to collate and update your inventory(ies)?	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
M1.6.2	Is the information readily available?	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
M1.6.3	Is the information distributed to relevant port personnel?	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N	
	Further details / Notes _____			

⁵ Environmental policy should cover significant environmental aspects of activities, products, services or aspects for which the port is responsible, may reasonably influence or of local importance and The port shall provide a framework upon which to prepare environmental objectives for the site or organisation* involved.

⁶ Substances include materials and chemicals used in Port operations and management, for example, packaging, hydraulic fluids, paper, cleaning fluids, fuels and non-renewable resources*.

⁷ Each department may keep a record or inventory of relevant environmental regulations and their requirements. However, this may be regarded as an inventory if the information is accessible and available to all other departments and senior management.



M1.7 Has the Port prepared an Environmental Aspects Inventory* of Port activities? Y P N

If No; Proceed to section M1D

M1.8 Does the Environmental Aspects Inventory* consider aspects from the following Port Activities:

- | | | | | | |
|---------|--|---------------------------------------|---------------------------------------|----------------------------|--|
| M1.8.1 | Bunkering | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.2 | Dredging | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.3 | Marine engineering* | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.4 | Ship building and repair | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.5 | Shipping & Navigation* | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.6 | Land traffic | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.7 | Waste management | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.8 | Cargo handling* operations | | | | |
| | • Chemicals (not hazardous/ oil) | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Containers | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Dry bulk | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | • General cargo | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Hazardous cargo*/ Oil, gas and petroleum products | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Liquid bulk (non-oil) | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Perishable goods | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Ro-Ro | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Vehicles / Trade cars | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Other (specify)_____ | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.9 | Cargo Storage * | | | | |
| | • Chemicals (not hazardous/ oil) | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Containers | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Dry bulk | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • General cargo | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Hazardous cargo */ Oil, gas and petroleum products | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | • Liquid bulk (non-oil) | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Perishable goods | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Vehicles / Trade cars | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Other (specify)_____ | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.10 | Port based industry | | | | |
| | • Aggregate industry (sand, gravel, cement) | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Chemical & pharmaceutical plants | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Fish market and processing | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Agrofood industries | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Metal ore processing and refining | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Oil refineries and petroleum processing plants | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Power stations | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | • Steelworks | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| | • Waste reception *, treatment and processing | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | • Other (specify)_____ | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.11 | Fisheries & aquaculture* | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.12 | Coastal Engineering * and Port infrastructure | | | | |
| | • Piers & breakwaters | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | • Coastal & Flood defence * | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |



- Port development (sea)⁸ Y P N NA
- Port development (land)⁹ Y P N NA
- Other (specify)_____ Y P N NA

Does the Environmental Aspects Inventory* consider aspects from the following Port activities (continued)?

- | | | | | | |
|---------|-----------------------------------|---------------------------------------|---------------------------------------|----------------------------|--|
| M1.8.13 | Maintenance of Port Installations | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.14 | Military Use | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.15 | Recreation* and tourism | | | | |
| | Cruise Ships | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | Marinas | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | Commercial / Leisure activities | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| | Watersports | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input checked="" type="checkbox"/> NA |
| M1.8.16 | Past Activities | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |
| M1.8.17 | Other (specify)_____ | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N | <input type="checkbox"/> NA |

Further details / Notes **The inventory of activities exists only for the activities under direct control of the Port Authority; therefore M1.7 = P. For the same reason M1.8.X have been answered NA when either the specified activity is not under such control or is not present at the Port.**

M1.9 Does the Environmental Aspects Inventory* consider aspects from the following Administrative and Planning activities?

- | | | | | |
|--------|---------------------------------|---------------------------------------|----------------------------|----------------------------|
| M1.9.1 | Strategic Planning | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.9.2 | Master Plan / Investment Policy | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.9.3 | Projects & Programmes | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.9.4 | Other (specify)_____ | <input type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |

M1.10 Does the Environmental Aspects Inventory* consider aspects from the activities of the following stakeholders*/tenants?

- | | | | | |
|---------|--|---------------------------------------|----------------------------|----------------------------|
| M1.10.1 | Suppliers | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.10.2 | Logistic Operators (activities associated with the logistic chain) | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.10.3 | Building Contractors | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.10.4 | Service Contractors | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |

M1.11 Does the Environmental Aspects Inventory* consider aspects from:

- | | | | | |
|---------|-------------------------|---------------------------------------|----------------------------|----------------------------|
| M1.11.1 | Emergency situations | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |
| M1.11.1 | Environmental incidents | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> P | <input type="checkbox"/> N |

⁸ Activities related to the expansion of port towards the sea (docks, new facilities, etc.).

⁹ Activities related to the expansion of port on land, including building of new infrastructures in port's jurisdiction.



Further details / Notes _____

M1.12 Does the Environmental Aspects Inventory* consider the following key aspects?

- | | | | |
|--------------|--|---------------------------------------|---------------------------------------|
| M1.12.1 | Emissions to air | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| M1.12.2 | Emissions to water | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.3 | Emissions to soil | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| M1.12.4 | Emissions to sediments | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.5 | Noise | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.6 | Waste production ¹⁰ | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.7 | Changes in terrestrial habitats | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.8 | Changes in marine ecosystems | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.9 | Odour | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| M1.12.10 | Resource* (water, energy, ...) consumption | <input type="checkbox"/> Y | <input checked="" type="checkbox"/> N |
| M1.12.11 | Port development (land)* | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.12 | Port development (sea)* | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.12.14 | Other (specify) _____ | <input type="checkbox"/> Y | <input type="checkbox"/> N |
| M1.13 | For the Environmental Aspects* under Port Authority responsibility, does the Inventory evaluate the significance of the aspects identified? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |

Further details / Notes

M1.13: 4 significant aspects have been identified. Among these water quality and waste management are the most important.

M1D: Objectives* and Targets*

- | | | | |
|--------------|---|---------------------------------------|--|
| M1.14 | Have objectives* and targets* for environmental improvement been defined? | <input checked="" type="checkbox"/> Y | <input type="checkbox"/> N |
| | If No; proceed to section M1E | | |
| M1.15 | How many general objectives* have been specified?
(write the number of objectives in the box, e.g. 0, 1, 2, etc.) | 3 | |
| M1.16 | Have these objectives* been published? | <input type="checkbox"/> Y | <input type="checkbox"/> P <input checked="" type="checkbox"/> N |

¹⁰ It includes waste materials and effluents created by Port operators and users on land.



M1.17 Do you have quantitative objectives*? Y P N

M1.18 Has the Port defined targets* for its objectives*? Y P N

Further details / Notes

M1.1: these are on wastes, Port water quality, port-city relationship.

M1E: Resources and Budget

M1.19 Does the Port have a specific budget for Environmental issues^{11*}? Y N

M1.20 Does the Port allocate financial resources (budget) to the following?

M1.20.1 Environmental training for employees Y N

M1.20.2 Impact minimizing Y N

M1.20.3 Emergency response & prevention Y N

M1.20.4 Environmental monitoring* Y N

M1.20.5 Review and audit Y N

Further details / Notes **M1.20.4:** the actual answer, if possible would be “P”: the Port is searching for funds from external parties (municipality, EU, etc.) for monitoring activities

¹¹ Has the Port allocated a defined proportion of its budget to environmental issues alone?



Section M2: Management Organisation & Personnel

M2A: Responsibilities of the Environmental Management Representative

- M2.1** Has a management representative been appointed with responsibility for the Environment^{12*}? Y N
If No proceed to question M2B
- M2.2** Does this representative?
- M2.2.1 Communicate directly with the Board of Directors Y N
- M2.2.2 Report to Senior management Y N
- M2.3** Is this representative responsible for?
- M2.3.1 Co-ordination of environmental management throughout the Port Y P N
- M2.3.2 Response to internal and external enquiries Y P N
- M2.3.3 Ensuring compliance with Environmental Policy* Y P N
- M2.3.4 Implementation of an Environmental Management System* Y P N
- M2.3.5 Monitoring* current environmental issues and legislation Y P N
- M2.4** Are all personnel aware of the responsibilities and authority of this representative? Y P N

Further details / Notes

M2.3.1: not of the terminals

M2.4: technical workers are aware of the Environmental Manager's responsibilities, administrative workers are less aware of that.

-

¹² This management representative oversees the development and co-ordination of environmental management within the organisation* as well as monitoring and advising on environmental issues in general. The management representative is responsible for the implementation, review and update of the environmental management program(s) and policy when present. To be effective this representative will probably be in senior management and report to the board of Directors or senior management group.

M2B: Environmental Responsibilities of Key Personnel¹³

M2.5 For those areas for which the Port authority has responsibility, what personnel are responsible for the following functions?

	Job title or name	Department
Port operations (Dredging)	XXXXXX	Environmental Office/ Technical Office
Port operations (Navigation&Shipping)	XXXXXX	Harbour Master's Office
Port operations (Terminals)	XXXXXX	Private_
Cargo handling operations	XXXXXX	private/ terminals_
Jetty / wharf management	XXXXXX	private terminals (under Harbour Master's Office control)
Site management	XXXXXX	Surveillance / Control / Technical Office
Strategic planning	XXXXXX	Operation Management
Civil engineering	XXXXXX	Technical Office
Supplies acquisition	XXXXXX	Purchase Office (under Administrative Management)
Operator licensing / permit	XXXXXX	Administrative Management_
Public relations & marketing	XXXXXX	General Secretarial Office
Quality management	XXXXXX	Technical Management
On site contractor management	XXXXXX	Technical Management/ Environmental Office
On site conservation	XXXXXX	Technical Management
Emergency planning	XXXXXX	Prefecture, in collaboration with PA and terminals
Waste management	XXXXXX	Environmental Office
Port Authority workboats	XXXXXX	Private
Port Security	XXXXXX	Security Office (PA)
Marina / slipway management	XXXXXX	Private
Environmental document and data management	XXXXXX	Environmental Office
Soil pollution assessment	XXXXXX	Environmental Office
Air quality monitoring*	XXXXXX	Environmental Office
Water quality monitoring*	XXXXXX	Environmental Office
Vehicular management of terminal traffic	XXXXXX	Operation Management
Other (please specify)	_____	_____

¹³ Key personnel are those managers and others who are responsible for environment critical activities that may affect the environment. These are activities that may cause, control or minimise environmental aspects when managed, or may cause effects if control was lost or that may result in a breach of environmental policy or regulations.

Further details / Notes _____

M2C: Individual Environmental Responsibilities

- M2.6 Are individual environmental responsibilities documented?** Y N
 If Yes; Which of the following steps has the Port achieved?
- M2.6.1 Responsibilities specified in job descriptions Y N
 M2.6.2 Responsible party designated in written procedures Y N
 M2.6.3 Authority specified in written specification Y N
 M2.6.4 Inter-relations between other key personnel documented Y N
 M2.6.5 Reporting procedures documented Y N

Further details / Notes

M2.6.5: procedures are implicit in laws





Section M3: Environmental Training¹⁴

- M3.1 Are all Port employees aware of the following?**
- M3.1.1 Importance of compliance with environmental policy* Y P N
- M3.1.2 Potential environmental impacts of their work activities Y P N
- M3.1.3 Their responsibility to conform to the environmental policy* and management objectives* Y P N
- M3.1.4 The objectives*, actions and programs carried out by the Port in order to improve its environmental performance* Y P N
- M3.2 Does the Port authority have an environmental training program for its employees?** Y N
If **NO** proceed to section M4
- M3.3 Is the Environmental Training fitted to employees' activities and responsibilities?** Y N
- M3.4 What proportion of Port employees receives Environmental Training?** >75% >50% >25% <25%

Further details / Notes

M3.2: there is an office whose specific task is organizing training and courses in general, also on environmental issues. There is no specific "program" because there is no real need for it.

¹⁴ Environmental management guidance recommends that employees should not take on unfamiliar tasks, involving systems, machinery or substances with which they have no experience. Training is recommended to do their job safely with the minimum risk to the environment. Employees may be monitored to ensure that environmental training is applied effectively.





Section M4: Communication

M4A: Internal Communication¹⁵

- M4.1** Are there procedures to communicate environmental information internally within the environmental key personnel? Y N
If No; proceed to section M4B
- M4.2** Which of the following communications tools are used?
- M4.2.1 Oral / informal communication Y N
- M4.2.2 Electronic media Y N
- M4.2.3 Internal newsletters Y N
- M4.2.4 Seminars & briefings Y N
- M4.2.5 Staff / Management working groups Y N
- M4.2.6 Suggestion boxes Y N
- Further details / Notes _____

M4B: External Communication¹⁶

- M4.3** Are there procedures to
- M4.3.1 Communicate Port environmental information to interested parties* Y N
- M4.3.2 Obtain the views of external groups about the Port environment Y N
If No; Proceed to section M5
- M4.4** Are these procedures achieved by:
- M4.4.1 Attending coastal fora and coastal management groups? Y N
- M4.4.2 Brochures? Y N
- M4.4.3 Complaint procedures? Y N
- M4.4.4 Local liaison committees? Y N
- M4.4.5 Newsletters to Port neighbours? Y N
- M4.4.6 Port website? Y N
- M4.4.7 Press releases? Y N
- M4.4.8 Reading media (papers, TV, radio)? Y N
- M4.4.9 Reading pressure group literature Y N
- M4.4.10 Sending speakers to local events and conferences Y N
- M4.4.11 Site visits for local groups (e.g. families, schools) Y N
- M4.4.12 Special reports Y N
- M4.4.13 Other _____ Y N
- Further details / Notes _____

¹⁵ Internal communication raises environmental awareness, encourages employees to improve environmental performance* and encourages support of environmental management.

¹⁶ External communication demonstrates the Ports' achievements in environmental management to the general public, local communities, insurers, government legislators, pressure groups and investors.



Section M5: Operational Management

M5A: Environmental Management Programs* and Action Plans

M5.1 Have management programs* and action plans* been prepared to achieve each objective*? Y N

If No; proceed to Section M5B

M5.2 Do the environmental management programs* and action plans* specify the following?

M5.2.1 Agency / person responsible for the action (Who will do it?) Y P N

M5.2.2 Duration and / or frequency (When and how often will it be done?) Y P N

M5.2.3 Method or standard operating procedure to be used (How will it be done?) Y P N

Further details / Notes _____

M5B: Standard Operating Procedures¹⁷ and Working Instructions

M5.3 Are there methods to deal with non-compliance with internal and external standards? Y N

If No; Proceed to section M5C

M5.4 Do these methods?

M5.4.1 Identify problems Y N

M5.4.2 Determine causes Y N

M5.4.3 Initiate preventative and corrective action Y N

Further details / Notes

M5.3: not yet present, but the will be in place at the moment of the identification of significant environmental aspects (on the way to ISO 14001 certification)

¹⁷ Standard operating procedures are written protocols or working instructions that specify how a task will be carried out.

M5C: Environmental Management Manual*

- M5.5** Have you prepared an environmental management manual*? Y N
 If No; Proceed to section M5D
- M5.6** Does the manual examine or contain the following?
- M5.6.1 Environmental policy* statement Y N
- M5.6.2 Integration of environmental management* within overall management Y N
- M5.6.3 Key environmental roles and responsibilities Y N
- M5.6.4 Targets* Y N
- M5.6.5 Environmental Management program* (standard operating procedures) Y N
- M5.6.6 Records and monitoring* program Y N
- M5.6.7 Reference to site(s) emergency plans Y N
- M5.6.8 Reference to environmental control documentation and records Y N
- Further details / Notes
- M5.5: not by now**

M5D: Environmental Documentation¹⁸ Management

- M5.7** Where are environmental documentation and records maintained?
- M5.7.1 Centrally Y N
- M5.7.2 By Departments Y N
- M5.7.3 Other _____ Y N
- M5.8** Have the following been specified for your records?
- M5.8.1 Officer / Manager responsible for its maintenance Y P N
- M5.8.2 The records' subject and date of last update Y P N
- M5.8.3 Confidentiality Y P N
- M5.8.4 Review and update procedure Y P N
- Further details / Notes _____
- _____
- _____
- _____

¹⁸ Environmental documentation includes written material and records generated by and used in the environmental management program; for example, environmental policies, reports and statements, environmental management manual, standard operating procedures, environmental inventories, environmental training and monitoring records.



Section M6: Emergency Planning

M6.1	Does your Port have an Emergency and Incident Plan?	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> N
	If NO ; Proceed to section M7		
M6.2	Does your Emergency* and Incident Plan include the following?		
M6.2.1	Possible environmental consequences of likely incidents	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.2	Actions to be taken in case of an explosion	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.3	Actions to be taken in case of a fire	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.4	Actions to be taken in case of floods / storms	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.5	Actions to be taken in case of oil / chemical spill on land	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.6	Actions to be taken in case of oil / chemical spill on navigable water	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.7	Actions to be taken in case of shipping accident	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.8	Actions to be taken in case of vandalism / terrorism	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.9	Actions to be taken in case of vehicular accident	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.10	Responsibility and role of Port Authority personnel	<input type="checkbox"/> Y	<input type="checkbox"/> P <input checked="" type="checkbox"/> N
M6.2.11	Responsibility and role of land private operators	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.12	Responsibility and role of ship agents	<input type="checkbox"/> Y	<input type="checkbox"/> P <input checked="" type="checkbox"/> N
M6.2.13	Responsibility and role of external agencies	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.14	Communication procedures (who to call and when)	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.15	Control and containment procedures	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.16	Location and type of equipment (on and off site)	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.17	Location and skills of trained personnel (on and off-site)	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.18	Communication procedures with neighbouring industry, public and media	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.19	Responsibility for follow-up and reporting	<input checked="" type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N
M6.2.20	Other _____	<input type="checkbox"/> Y	<input type="checkbox"/> P <input type="checkbox"/> N

Further details / Notes

M6.1: the emergency plan scope is the whole Port (AP + terminals + Harbour Master, etc.)

M6.2.10 & M6.2.12: answer = "N" because neither the AP personnel nor the ship agents have actual means to take part in emergency procedures





Section M7: Monitoring* and Records

M7A: Environmental Monitoring*

M7.1 Are the environmental aspects of Port activities monitored? Y P N

If No; Proceed to section M7B

M7.2 How many monitoring* programs exist in the Port? **1**

M7.3 What proportion of the Ports monitoring* programs include the following items?

M7.3.1	Selection of the parameter to be monitored	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.2	Design of the sampling program for each parameter	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.3	Specification of standardised data collection methods	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.4	Specification of data format and its storage	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.5	Specification of data analysis method	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.6	Estimation of the cost	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.7	Interpretation of results	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%
M7.3.8	Feedback to management program	<input checked="" type="checkbox"/> >75%	<input type="checkbox"/> >50%	<input type="checkbox"/> >25%	<input type="checkbox"/> <25%

Further details / Notes

M7.1: the aspects under monitoring are those which law compels to monitor; these are water quality, noise, air quality, etc. Of these just one (water quality) is directly monitored by the AP, while e.g. noise is monitored by the municipality and air quality by the Provincial Administration.

M7.2: water quality; noise will soon be monitored in collaboration with the municipality.

M7B: Monitoring* of Environmental Management Program*

M7.4 Is the environmental management plan* monitored? Y N

If No; Proceed to section M8

M7.5 Do you monitor the following?

M7.5.1	Correct application of standard operating procedures	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.2	Effectiveness of standard operating procedures	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.3	Compliance with Environmental Policy* and follow up	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.4	Compliance with legislation and corrective action	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.5	Maintenance procedures	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.6	Incidents and follow up	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.7	Inventories (waste, materials, fuels and energy use)	<input type="checkbox"/> Y	<input type="checkbox"/> N
M7.5.8	Training information	<input type="checkbox"/> Y	<input type="checkbox"/> N

Further details / Notes

M7.4: this will be done in view of the ISO certification





Section M8: Environmental Review* and Audit*

M8A Environmental Audit*

M8.1 Has an Environmental Audit* been conducted? Y N

Date of latest audit (dd/mm/yy): _____

If No; Proceed to section **M8B**

M8.2 Did the environmental audit* examine?

M8.2.1 General management (Corporate) Y N

M8.2.2 Compliance (Regulation) Y N

M8.2.3 Specific activities Y N

M8.2.4 Environmental issues* Y N

M8.2.5 Suppliers & Operators Y N

M8.2.6 Environmental Management* Standard Accreditation Y N

Further details / Notes _____

M8.3 How was the Audit conducted?

• By Local Government Y N

• By own staff Y N

• By external consultants Y N

• By Environmental Enforcement Agency Y N

• According to ISO 14000 or EMAS Standards Y N

Further details / Notes _____

M8B: Environmental Review*

M8.4 Is there a procedure to review the Port environmental management program*? Y N

M8.5 Does this environmental review* procedure specify the following?

M8.5.1 Who carries out the environmental review*? Y N

M8.5.2 How often the review will be conducted¹⁹ Y N

¹⁹ Different objectives, targets or management programs may be reviewed at different time intervals



M8.6 Does the environmental review* procedure examine?

- | | | | |
|--------|--|----------------------------|----------------------------|
| M8.6.1 | Organisational structures | <input type="checkbox"/> Y | <input type="checkbox"/> N |
| M8.6.2 | Administrative and managerial procedures | <input type="checkbox"/> Y | <input type="checkbox"/> N |
| M8.6.3 | Activities, operations and aspects under Port Authority responsibility | <input type="checkbox"/> Y | <input type="checkbox"/> N |
| M8.6.4 | Documentation, reports and records | <input type="checkbox"/> Y | <input type="checkbox"/> N |
| M8.6.5 | Environmental performance | <input type="checkbox"/> Y | <input type="checkbox"/> N |
| M8.6.6 | Costs and benefits | <input type="checkbox"/> Y | <input type="checkbox"/> N |

Further details / Notes _____

References:

Morris, R. and Therivel, R., 1995. *Methods of Environmental Impact Assessment*. UCL Press, London, 378pp.

ISO, 1996. *ISO14001 Environmental management systems: Specification with guidance for use*. Reference, ISO/TC207/SC1/WG1 N71.

British Standards Institute (BSi), 1992. *BS 7750: Specification for Environmental management systems*. BSi. 15pp.

Taylor, B., Hutchinson, C., Pollack, S., Tapper, R., 1994. *Environmental Management Handbook*. Institute of Management, Pitman Publ., London, 486pp.

UNEP, 1996. *Environmental Impact Assessment: Training Resource Manual*. United Nations Environment Program, 700pp.

Ecoports Foundation, 2002. Port Environmental Review System (PERS). Introduction, specification and guidelines. Ecoports Foundation & ESPO.

