



ESPO / EcoPorts Port Environmental Review 2009

European Sea Ports Organisation's Review of Environmental Benchmark Performance in collaboration with the EcoPorts Foundation (EPF)

National Benchmark Denmark

1. Introduction

Environment issues are key components of the management of port activities and those of the logistic chain. Close cooperation between port authorities and their stakeholders is identified as essential for port development. Building on the increasing significance of sustainable port area management, the European Sea Ports Organisation (ESPO) and EcoPorts Foundation launched the ESPO / EcoPorts Port Environmental Review 2009. The review reveals the priorities of the European port sector in environmental management and updates the European benchmark of performance. The executive summary of the outcomes of the review is available online through the ESPO website (www.espo.be).

This summary presents the Danish outcomes of the ESPO / Ecoports Environmental Review 2009. The 16 Danish ports that contributed to the Review are considered a representative sample and therefore the National analysis of the outcomes has been enabled. ESPO and Ecoports want to thank the Danish ports for their contribution.



2. The sample of respondent ports

122 ports from 20 European Maritime States participated overall to the 2009 survey. The Maritime States represented were: Belgium (3¹), Bulgaria (1), Croatia (3), Cyprus (1), Denmark (16), Estonia (1), Finland (5), France (11), Germany (9), Greece (2), Ireland (5), Italy (1), Latvia (1), Netherlands (4), Norway (2), Romania (2), Slovenia (1), Spain (13), Sweden (13), and UK (28). It can be seen that the contribution from Denmark was the second highest after the one from the UK. The Danish ports that contributed to the review are: Associated Danish Ports, Copenhagen/Malmoe, Hvide Sande, Kolding, Korsoer, Nakskov, Aalborg, Aarhus, Grenaa, Hirtshals, Koege, Odense, Rønne, Skagen, Randers Havn, and Thyboron.

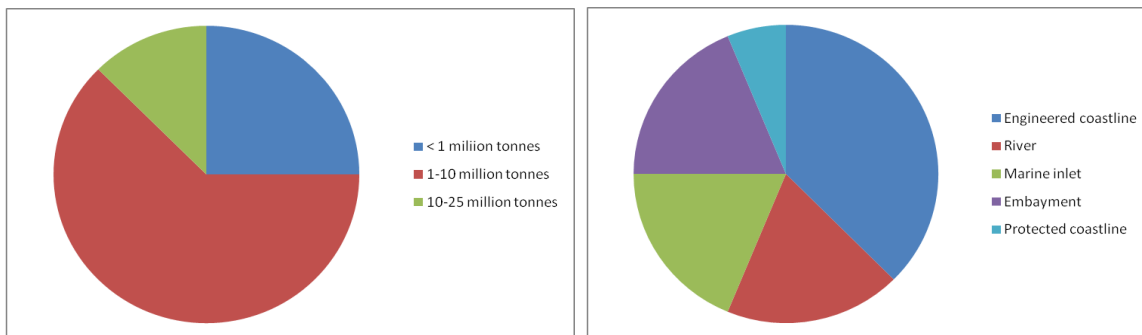


Figure 1: Size and geographical characteristics of the 16 Danish ports

Regarding the size of the respondent ports from Denmark, it can be seen that most of them handle 1-10 million tonnes of cargo annually. Overall it can be observed that the majority (75%) of respondent ports are of medium and large size handling more than 1 million tonnes of cargo on an annual basis. Regarding the geography, it can be noticed that more than one out of three of the respondent ports are located on engineered coastlines. A balance can be observed in the number of ports located on rivers, marine inlets and embayment.

3. The Top-10 environmental priorities of Danish Ports

The major outcome of the review is arguably the re-definition of the top environmental priorities of the port sector and the changes over time. Within the review ports were asked to define their top-10 environmental priorities. The following table demonstrates in parallel the top priorities of the European and the Danish ports. Common environmental priorities are mapped with the same colour.

Table 1: Top environmental priorities in European and Danish ports in 2009

¹ The number in brackets indicates the number of ports from the specific country that participated in the review

2009	Europe (122 ports)	Denmark (16 ports)
1	Noise	Energy Consumption
2	Air quality	Dredging: disposal
3	Garbage / Port waste	Noise
4	Dredging: operations	Dredging: operations
5	Dredging: disposal	Dust
6	Relationship with local community	Garbage/ Port waste
7	Energy consumption	Port development (water related)
8	Dust	Relationship with local community
9	Port development (water related)	Climate change
10	Port development (land related)	Sediment contamination (marine)

It can be noticed that there is a very significant overlap between the environmental priorities in Denmark in comparison with the overall European ones. In fact, 8 priority issues are both in the Danish and the European top-10. There are of course some variations on the rankings with the most significant one being energy consumption leading the Danish environmental priorities. It is also interesting to note that air quality is not regarded as a top-10 priority in Denmark. In addition, two issues that do not appear within the European top-10 are entering the Danish one; climate change and sediment contamination (marine).

The following table projects the 2009 Danish top-10 against the one from the similar exercise (ESPO Environmental Survey 2004) in 2004 and demonstrates the change of priorities over those 5 years. Common priority environmental issues are mapped with the same colour.

Table 2: Top environmental priorities in Danish ports in 2004 and 2009

	Denmark 2004 (16 ports ²)	Denmark 2009 (16 ports)
1	Garbage/ Port waste	Energy Consumption
2	Dredging: disposal	Dredging: disposal
3	Dust	Noise
4	Sediment contamination (marine)	Dredging: operations
5	Noise	Dust
6	Dredging: operations	Garbage/ Port waste
7	Ship discharge (bilge)	Port development (water related)

² Danish results from the ESPO Survey of 2004. Back in 2004 again 16 ports from Denmark had contributed to the similar survey but the sample of ports was significantly different. In fact, only 7 out of the 16 ports are the same between the two surveys.



8	Antifouling paints	Relationship with local community
9	Port development (land related)	Climate change
10	Ship discharge (sewage)	Sediment contamination (marine)

4. Selected benchmark of performance for Danish ports in 2009

This section highlights some of the key outcomes of the review in selected areas of interest. The selected figures provide an indication of the environmental performance of the Danish port sector in the fields of environmental policy, environmental management and communication. For the first time, the ESPO / EcoPorts Port Environmental Review 2009 examines the response of the port sector to climate change and energy efficiency; issues that are high on the European and global political agenda. The responses provide the baseline for future performance.

Environmental Policy:

- 56% of respondent ports have an environmental policy
- 31% make it available to the public
- 44% of ports aim through their policy to improve environmental standards beyond those required under legislation

Environmental communication:

- 25% of respondent ports provide environmental information through their website
- 47% of the ports are aware of the services provided by the EcoPorts Foundation
- 25% of respondent ports produce a publicly available Annual Environmental Review or Report

Environmental management:

- 25% of ports have their own environmental specialist(s)
- 25% of respondent ports have a form of Environmental Management System
- 50% carry out monitoring within the port area
- 19% have identified environmental indicators
- 19% publish factual data by which the public can assess the trend of its environmental performance
- No ports have completed an EcoPorts Self Diagnosis Methodology (SDM) environmental review from Eco Ports, but most are interested in receiving details of this practical checklist (75%)

Climate change and energy efficiency:

- 13% of ports measure or estimate their carbon footprint
- 51% of ports take measures to reduce their carbon footprint
- 44% of ports have a programme to increase energy efficiency
- 19% of ports produce some form of renewable energy

5. Selected changes in environmental performance of the Danish port sector

Overall trends may arguably be more significant than specific percentage responses. The table below illustrates the trends over time on selected indicators. The figures and trends on the table should be interpreted with caution due to the following reasons:

- The sample of ports was significantly different in 2004. The number of respondent was the same (16ports) but only 7 out of the 16 ports are the same between the two surveys.
- Some of the questions were asked in a slightly different way in 2004 and 2009. For example back in 2004 the question regarding the environmental policy was formulated in a more open way since “policy or plan” was then mentioned.

Table 3: Changes over time in selected environmental performance indicators

Environmental Management component	2004 ³ %	2009 %
Does the port authority have an environmental policy?	69	56
Is the policy made available to the public?	69	31
Does the policy aim to improve environmental standards beyond those required under legislation?	25	44
Does the port publish an annual environmental review or report?	19	25
Does the port have an environmental management system?	13	25
Has your port identified environmental indicators to Monitor trends in environmental performance?	19	19

As successive surveys represent different identities of respondent ports, the results should be interpreted with caution.

As a general observation both positive and negative trends can be observed. The positive trends concern the percentage of ports that aim to improve environmental standards beyond those required by legislation, publish an annual environmental report and have an environmental management system. On the negative side it seems that ports get more cautious in making their environmental policies publicly available.

6. Perceived challenges for port environmental management

The 81 % of the respondent ports in Denmark still experience some difficulties in implementing environmental management, due to both internal and external factors. Main challenges (in descending order) are:

- Number of authorities/stakeholders involved
- Information and guidance related to legislation
- Identification of responsible authority
- Expense

³ Danish results from the ESPO Survey of 2004. Back in 2004 again 16 ports from Denmark had contributed to the similar survey but the sample of ports was significantly different. In fact, only 7 out of the 16 ports are the same between the two surveys.



75% of respondent ports in Denmark experience or anticipate restrictions on developments due to environmental planning controls. Main pieces of EU legislation which raise concerns to ports are: the Environmental Liability, Water Framework and Habitats Directives, because they impose constraints on their development. In fact, 1 out of 4 of the respondent ports are located within or contain a Natura 2000 designated site. Air and noise regulations also lead to restrictions on both existing and planned activities.

For more information on the EcoPorts Foundation and the EcoPorts tools please visit www.ecoports.com or contact the EcoPorts secretariat. For more information on ESPO, ongoing initiatives and publications please visit www.espo.be. If you have any questions or remarks on the outcomes of the Review 2009 please contact Mr. Antonis Michail, Policy Advisor at ESPO and Coordinator of EcoPorts (antonis.michail@espo.be).