Management of Environmental Issues in Port Activities: The Hellenic Caste Study

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ABSTRACT

It is internationally observed that the environmental questions concerning ports gain continuously the attention of their administrations. This comes as a result of pressures that are mainly exercised from the legislation, the market and the society itself that, as a whole, show continuously higher interest for the environmental issues. It is also a result from factors such as gain of comparative advantages, reduction of operational cost, improvement of port profile, environmental sensitization of leadership. As the various port operations can lead to a variety of environmental and human effects, the need for a firm coexistence of financial development and environmental protection urges ports to the application of sustainable systems, plans and policies. The aim of this paper is to point out the need for an integrated environmental management of ports, to highlight the preconditions for the management of port environmental consequences through the development of appropriate Environmental Management Systems, to summarize and discuss the Hellenic reality concerning this issue and present a set of appropriate procedures and measures which could lead the Hellenic ports to the total environmental management in a cost-effective way.

Keywords: Environmental Issues, Environmental Management, Greece, Pollution, Port Activities

INTRODUCTION

Ports constitute the most important trade gateways for many European countries, including Greece. They represent a vital element of the socio-economic fabric of many coastal communities.

Ports have become a complex set of production processes and an integral part of the service system in the area of worldwide transport operations. Furthermore, the number of activities and services that ports integrate affects both natural (water, air, land) and man-made (social, cultural, etc.) environment. They are an essential element of the global supply chain, they are the home of business activities and they include, in many cases, residential areas and tourist facilities. While in the past ports were dedicated largely
to one activity, they have nowadays become multi-functional facilities.

According to the European Sea Ports Organization (ESPO) (ESPO, 2003), the Green Paper on European Maritime Policy (Commission, 2006), the European Ports Policy (Commission, 2007), the Green Paper on Sea Ports and Maritime Infrastructure (Commission, 1997) and the White Paper on European Transport (Commission, 2001) sustainable development and port management constitute interrelated issues for various reasons. Sustainable port development and management have become an imperative on several grounds. Society, stakeholders and clients see sustainable development as a necessity for the acceptance of a port in the local economy. More and more, environmental legislation requires from the port management to act in a sustainable way (ESPO, 2003). Moreover, ports themselves understand that an environmental friendly attitude can also be a strong commercial argument. Environmental challenges vary from port to port, in terms of geography and accessibility of the area, cargo handling, local urban and industrial development and many other factors.

The integrated environmental management of ports is of major importance for Greece, given its insular character on one hand, and its direct relation to the key areas of shipping, transport and tourism on the other. This priority was officially recognized for Greece in 2002, under the National Strategy for Sustainable Development (HMEPPW, 2002), which highlights the need for environmental improvement of ports. In addition, the National Port Policy announced by the Ministry of Mercantile Marine (HMMM, 2006) and the General Framework for Spatial Planning and Sustainable Development published by the Ministry Environment and Public Works in 2008 (HMEPPW, 2008), recommended the implementation of Environmental Management Systems (EMS) in ports.

According to the European and international practice so far, there are still difficulties in the integrated environmental management of ports. Furthermore, in the business frame, ports appear to be quite cautious in adopting “tight” practices which may directly increase their operating cost, mainly expressed by the adoption of an EMS (e.g. ISO 14001, EMAS). On the contrary, as it is described in the followings, they favor the selection of systems and methodologies tailored to fit their specific needs and characteristics.

The Hellenic ports are of considerable interest towards this perspective. This is mainly expressed by the certification of the ports of Thessaloniki and Piraeus, the two major Hellenic ports, according to the Port Environmental Review System (PERS).

This paper aims at highlighting the need for integrated environmental management in ports, emphasizing on the Hellenic ones. The regulatory framework and policies that affect the operation of the ports are noted. The environmental issues and the main effects which may result from port activities are discussed, while the trends and prospects of implementing EMSs are examined, taking into account, inter alia, the results obtained so far from the application of PERS standard in the ports of Thessaloniki and Piraeus. The paper, incorporating data from past studies of the Greek ports, shows the impact of the relevant actions taken and presents a critical discussion of the outcomes.

**REGULATORY FRAMEWORK AND POLICIES**

Environmental constraints on port activities are components of potential nuisance to the near manmade and natural environment, and may concerns mainly:

- Noise coming from machinery and vehicles
- Dust mainly produced by bulk handling equipment
- Exhaust-gases from vehicles, machinery, ships
- Degradation of the marine environment
- Traffic congestion caused by the vehicles served in and around the port
- Ship-generated waste and cargo residues which may come from ships calling the port
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