Green Inland Ports

Good Practices

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Differentiated management of green spaces in and around the port area

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1.1 Description

This good practice focus on the management of green spaces in and directly around the port area. Differentiated management of green spaces differs from traditional management in that it favours methods that are closer to nature, show more respect for the (specific) environment, and applies a management approach that is better adapted to the purpose of green spaces (GEVES, 2022). Green spaces may be maintained green spaces for pleasure/use, such as squares, parks, gardens, flowerbeds and allotments, but also 'natural' green spaces, such as meadows, marshland or woodland, or 'controlled' green spaces, such as green belts and nature reserves (Urban Rambles, 2016). Green spaces can restore the ecological and biodiversity situation where necessary. Not all green spaces are the same, so a one-size-fits-all approach might not be effective. Areas where biodiversity is encouraged can be left almost untouched or even protected, but areas where water infiltration is important or serve recreational purposes, for example, should be mowed regularly. More diverse green spaces have a positive impact on flora and fauna (different types of green spaces attracts different types of organisms), as well as on employees (from aesthetic point of view to a recreational point of view).

The port of Rotterdam applies nature-friendly management within the port area, with the aim of achieving a healthy balance between plants, humans and animals (Port of Rotterdam, n.d.). At undeveloped sites and other locations such as pipeline strips, nature can take its course. In addition, high biodiversity is supported by mowing less, using a phased approach and removing grass clippings. An active approach is used to tackle invasive species within the port area. Because flora and fauna are monitored extensively, the right options can be chosen to support the environment and biodiversity (Port of Rotterdam, 2023).

North Sea Port has implemented the environmental management system called Port Environmental Review System developed by EcoPorts. This includes nature development, for which the port authority is working with various partners to develop buffer zones. The buffer zones help to minimise the nuisance experienced by nearby residential areas as a result of port activities and create new green zones and recreational areas (North Sea Port, 2022).

1.2 Specific aim of the measure

The aim of this good practice can differ per port, depending on the way it is measured. An increase in the amount of flora and fauna can be measured, but also the amount of hectares of green spaces. The good practice also has a major impact on the well-being of employees and visitors, so ports can focus on increasing the aesthetic value and recreational opportunities within the port area. In general, the aim is to increase the amount of green

spaces in and directly around the port area, and thus the flora and fauna, which also has a positive impact on employees.

1.3 Ports applying differentiated management of green spaces

- HAROPA port
- Niedersachsen ports
- Port of Rotterdam
- North Sea Port
- Port of Mulhouse Rhine
- Port of Brussels
- Port of Switzerland (Basel)
- Compagnie Nationale du Rhône (Port of Lyon)
- DeltaPort (Wessel)
- Bayernhafen
- Port of Aalborg
- Port of Mannheim
- Port of Seville

1.4 Stakeholders within differentiated management of green spaces in/around the port areas

- Port authority: In many port areas, the port authority acts as a landlord, meaning that they play a key-role in the design of the port area and the industrial estates. If more green spaces need to be developed in and around the port area, the port authority often the stakeholder that needs to initiate this. Employees of the port authority and terminals/companies will also benefit from more green spaces.
- Companies within the port area: A greater number of green spaces leads to greater well-being of employees and more aesthetic values for visitors. On the other hand, space is often scarce within port areas, so green spaces have to compete with other purposes, such as expansion of industrial estates or port infrastructure.
- Landscape architects: Combining new industrial estate projects with more green spaces cab be a difficult task. Landscape architects can be hired to ensure a good result.

1.5 Voluntary or mandatory

Many countries have strict rules for natural conservation. The rules can differ per region (for example because of a protected area nearby) within a country. However, if there is no visible decline in nature (for example to realize more economic activity), then it is not mandatory to realize more green spaces elsewhere. In a situation where nature may not be under pressure, it is voluntary to increase the number and quality of green spaces within/around the port area.

1.6 Realised/potential impact

The port of Rotterdam has published results of the areas of nature within the port area. The Port of Rotterdam, (n.d.) claims that a total of 9,900,000 m2 of grassy vegetation has been realised/maintained within the port area on cable and pipe strips, roadsides and other areas with grasses, herbs and wildflowers. 780,000 m2 of naturally managed areas have been realized, including a bird valley and afforestation. More specifically:

- 40,000 m2 of ecological stepping stones have been created. Such areas in the port promote the connection with nature;
- 11,036 trees have been realized or preserved, including various tree species, in which the port of Rotterdam's own tree nursery plays a significant role;
- 598,000 m2 of open watercourses, which includes ditches and water bodies (Port of Rotterdam, n.d.).

At North Sea Port, sixteen buffers are being planned to be set up. Between 2012 and 2021, 9 have already been realized. It is difficult to give exact figures in hectares as the buffer zones are not always fully designed, as parts of the buffers remain in agricultural use (North Sea Port, 2022).

1.7 Possible obstacles when implementing good practice

- Many ports struggle with a lack of space. This can be an obstacle, as green spaces have to compete with other used that can generate more economic benefits, such as the expansion of industrial estates and port infrastructure.
- Green space management requires financial resources for the initial planning and implementation but can also be quite costly in terms of landscaping, cleaning-up and further development.
- A goal of green spaces management is to increase employee job satisfaction. However, if employees are able to use the green spaces, there should be a penalty system to prevent people from polluting or damaging the green spaces.
- Many inland ports have indicated that they are putting effort in realizing green spaces. However, they also attributed a 6.5 out of 10 for difficulty (1 means very easy, 10 means very difficult) (Ecorys et al., 2024).

1.8 Key learnings

- There is a need for awareness of the effects and importance of green spaces within a port area. When the port authority realises the importance of green spaces, it can have a better competitive position compared to other purposes of open spaces.

1.9 Sources

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