



Information Package

A cross-sectoral collaboration for
a well-protected Wadden Sea



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This information package was developed within the framework of the Trilateral Partnership in support of the Wadden Sea World Heritage

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The opinions expressed in this document are those of the authors and do not necessarily reflect the official position of the Trilateral Wadden Sea Cooperation

The results presented in this document only represent the positions of the partner(s) responsible for the activity and do not necessarily reflect the position of all partners

Cover photo: Stefan Menzel

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The need of protection

The Wadden Sea is the largest tidal flat system in the world, a unique area along the coast of Denmark, Germany and the Netherlands. The value of the area is also formally well-known, as it was designated as a UNESCO World Heritage Site due to its Outstanding Universal Value (OUV).

The Wadden Sea was also recognized by the International Maritime Organization (IMO) as a Particularly Sensitive Sea Area (PSSA), indicating the importance of limiting environmental impact from ship traffic. Although its value is well-known, the area is under growing pressure because of increasing shipping and port activities in and around this area. Alien species transported by ships, atmospheric pollution, underwater noise, dredging and dumping in port areas and fairways, the increasing size of container ships and rising maritime traffic due to developing offshore activities in the North Sea can endanger the protection of habitats and species of the Wadden Sea. Furthermore, recurrent accidents threaten the integrity of the Wadden Sea World Heritage.

The long lasting Trilateral Wadden Sea Cooperation proved that safeguarding the OUV of the Wadden Sea could be best achieved if Dutch, German and Danish stakeholders worked together, beyond national circumstances (e.g. differences in the environmental protection systems and roles of administrative bodies) and differences in the regulations.

In order to limit the negative impacts of shipping and ports on the Wadden Sea World Heritage there is a need for long-term thinking and active cross-sectoral dialogue, as stakeholders tend to discuss measures of protection within their sector, country and local region. To facilitate knowledge transfer and exchange of best practices on the link between the need for protection of the Wadden Sea and increasing port and shipping activities at a cross-border and cross-sectoral level, the project “Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage” was developed.



Photo by Georg Wietschorke

The Project “Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage”

The Wadden Sea Team, consisting of some environmental NGOs (eNGOs), in cooperation with the [Wadden Sea Forum](#), initiated this project within the framework of the Partnership Hub. The goal is to be a catalyst for making progress towards environmentally sound shipping in and around the Wadden Sea World Heritage site and work towards a comprehensive knowledge base on specific topics on ship operation, ports and knowledge dissemination. This project is financed by the Wadden Sea Board (WSB). The project began on August 1st 2021, and entered its second phase on April 1st 2022. The project will end on December 31st 2022.

The project has three overall goals:

1. Raise the awareness on the interaction between shipping and port activities and the OUV of the Wadden Sea World Heritage
2. Enhance the knowledge about the interactions between shipping and ports activities and the marine environment of the Wadden Sea
3. Contribute to the development of a cross-sectoral dialogue at the trilateral level

The project is carried out by representatives from Bund für Umwelt und Naturschutz Deutschland e.V. Landesverband Niedersachsen (**BUND**), Danmarks Naturfredningsforening (the Danish Society for Nature Conservation, **DN**), Stichting De Noordzee (The North Sea Foundation, **NSF**), Wadden Sea Forum e.V (**WSF**), **Waddenvereniging**, Naturschutzbund Deutschland e.V. (**NABU**), and WWF Germany (**WWF**), within the framework of the Partnership Hub.



Overview on the information package

This information package presents the results of the project and can be used by stakeholders of the Wadden Sea to find information on the specific topics the project addressed over its 14 months course. It aims at raising awareness on the interactions between shipping and port activities and the OUV of the Wadden Sea World Heritage.

The information package then shows the results achieved regarding the enhancement of knowledge about the impacts of shipping and ports activities on the marine environment of the Wadden Sea. The project compiled a database for EcoPorts and green ports best practices in the trilateral Wadden Sea. It presents how various initiatives were implemented in the Wadden Sea Region by ports and harbours. The project further aimed at safeguarding the lessons learned from the MSC Zoe accident to avoid similar accidents in the future and also focussed on evalu-

ating the Wadden Sea PSSA status and reflecting on scenarios regarding Associated Protective Measures (APMs).

In the last part of the information package, the results on the contribution to the development of a cross-sectoral dialogue at the trilateral level is presented. The project initiated close dialogue with ferry operators in the Wadden Sea to assess options for zero emissions and nature-friendly site-specific connections to the islands. Further the project contributed to develop a long-term trilateral cooperation between shipping-, port- and nature protection stakeholders based on dialogue and mutual trust. On this, ports and eNGOs from the three countries have shown their interest and shared their insights about opportunities, challenges and priorities related to a future trilateral work.

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Photo by Georg Wietschorke

Goal 1: Raise the awareness on the interaction between shipping and port activities and the OUV of the Wadden Sea World Heritage

In the Wadden Sea area, ports cohabit with a unique ecosystem stretching from the Netherlands to Denmark. Recognised by the UNESCO as a World Heritage site in 2009 and 2014, the OUV of the Wadden Sea remains a concept difficult to grasp for many stakeholders of the region and they can sometimes struggle to perceive to which extent their activities may have an impact on the integrity of the Wadden Sea World Heritage.

In order to tackle this issue, explanatory texts were written as part of this project. These aim to provide clear information on the OUV of the Wadden Sea,

show how ports interact with the marine environment along the coasts and give indications about actions that can be implemented by ports to contribute to the conservation of the Wadden Sea.

The explanatory texts are mainly intended for the port authorities in the Netherlands, Germany and Denmark but also for people in the field who are in direct contact with the habitats and species of the Wadden Sea located in and around ports.

The texts can be found in the Annex.

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These texts were developed by the Wadden Sea Forum e.V with the support of WWF Deutschland.



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Goal 2: Enhance the knowledge about the interactions between shipping and ports activities and the marine environment of the Wadden Sea

Activity:

Compilation of EcoPorts and green ports best practices put in place in the Wadden Sea Region

The Wadden Sea Region is home for ports which are of major importance for the area in terms of employment and economic wealth. Despite ports complying with the numerous regulations applicable to them, their activities disturb the natural environment and are a source of pollution (e.g. waste, noise or light). In order to reduce the impact of these activities, best practices have been developed in the three countries that go beyond legal requirements.

Over the years, the ports of the Wadden Sea, individually or in cooperation with others, developed experimental projects to limit the repercussions of one or several of their activities on the environment, the Wadden Sea World Heritage and its OUV. To support ports in this process, several international organisations were created such as the European Sea Ports Organisation ([ESPO](#)) and the International Association of Ports and Harbors ([IAPH](#)). More recently, initiatives were also developed at regional level like the [Wadden Seaports](#).

Through programmes, awards and certifications, ports are constantly encouraged to shift their activities towards more sustainability. For instance, several ports of the Wadden Sea are members of

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This database was developed by the Wadden Sea Forum e.V with the support of the Bund für Umwelt und Naturschutz Deutschland, Danmarks Naturfredningsforening, Stichting De Noordzee, WWF Deutschland

[EcoPorts](#) which enables cooperation and exchange of knowledge on environmental aspects. Thanks to the Port Environmental Review System ([PERS](#)), its environmental management certification, EcoPorts supports the greening of its members' activities.

However, as all ports of the Wadden Sea are not part of the same programmes and networks, the best practices put in place remain sometimes unknown by other stakeholders. Therefore, the project "Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage" aimed to gather at one place all initiatives and enable the dissemination of knowledge on best environmental practices. Based on a [completion](#) already achieved by the Wadden Seaports, the partners created a database which gives access to specific information on the environmental initiatives put in place by ports along the Wadden Sea. Concretely, the database lists the green ports activities of the Wadden Sea ports and their certifications, and centralises information on the various programmes and networks they take part in.

The database is available via [this link](#).



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Bund für
Umwelt und
Naturschutz
Deutschland



Danmarks
Naturfredningsforening



Activity:

Safeguard the lessons learned from the MSC Zoe accident and cooperate between the partners in the transport sector, the maritime research institutes and the nature organizations when implementing recommendations from the investigation reports

On the 1st of January 2019 the cargo ship MSC Zoe lost 342 containers in the Wadden Sea, and more than three million kilos of cargo ended up in the vulnerable reserve. More than two years later a lot of the waste remained on the bottom and in the seabed along with additional waste from other incidents. This was shown by the mapping of 3000 km² of seabed of the North- and Wadden Sea with a sonar. Shipping accidents such as the MSC Zoe's highlight the vulnerability of the UNESCO Wadden Sea World Heritage and it is therefore essential to learn lessons from these incidents to reduce the risks of recurrence and possible damage to the Wadden- and North Sea.

Since the MSC Zoe accident, incidents have still been occurring and containers continue to be lost in the shipping lanes in and around the Wadden Sea. Besides this, the Ultra Large Container Ships (ULCS) are getting bigger which increases the importance of dialogue about the lessons learned from the MSC Zoe accident.

To that end, a close collaboration between the project "Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage" and the [CleanUpXL](#) project was established. This three-year project was developed to clean up the seabed in a sustainable

way. The Waddenvereniging, as partner in both projects, launched lobbying actions to uniform the coastguard in the Netherlands and in Germany when warning containerships and raised media attention in the Netherlands about the problems caused by accidents such as the MSC Zoe's.

However, only a cooperation between all parties involved on these issues (e.g. shipowners, shipping authorities, insurers, ports, governments, eNGOs and research institutions) can help identifying measures or solutions to avoid, as much as possible, these accidents to happen again. The [Top Tier project](#), led by MARIN in the Netherlands, is an example of this. To support this process at trilateral level, the organisation of dialogue platforms such as workshops is indispensable. Therefore, besides raising awareness regarding container losses in the Wadden Sea, the project "Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage" aimed to organise such trilateral cooperation in order to discuss lessons learned and to determine whether actions can be taken towards the IMO to prevent future accidents like the MSC Zoe. Based on the results of this collaboration, the next steps will be determined on whether and what actions can be taken e.g. towards the IMO to prevent future container loss.

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The activities put in place within this project to safeguard the lessons learned from the MSC Zoe accident result from the work of the Waddenvereniging.

Activity:

Developing scenarios for evaluating existing and recommending new APMs for the Wadden Sea PSSA

In 2002 the IMO designated the Wadden Sea as a PSSA following a joint application of Denmark, Germany and the Netherlands. Thereby, the Wadden Sea was acknowledged as an area with special needs for protection due to its significant value (ecologically, socio-economically, and scientifically) and its vulnerability to damage which may be caused by the intense shipping traffic within and outside the Wadden Sea. The PSSA designation implies that the value of the area is acknowledged at international level by the maritime industry and authorities.

Twenty years after the recognition of the Wadden Sea as a PSSA, the area still suffers from regular shipping incidents (e.g. loss of containers) and faces more challenges such as the increasing size of cargo ships, changes in environmental conditions or spatial restrictions caused by offshore wind parks. Therefore, it is necessary to examine whether the protec-

tion ensured by the PSSA status is still adequate and if APMs should be adopted to reinforce it.

Therefore, this project aimed to reflect on scenarios and potential APMs for the Wadden Sea PSSA. In December 2021 an extensive report was submitted to the Wadden Sea Board as one of the first results of the project. Beyond presenting the Wadden Sea PSSA status and current level of protection, this report explores scenarios for new APMs, which would address the most pending risks the area faces. The aim of the report is to bring the question of the efficiency of the PSSA status at the trilateral table and lay the ground for further reflection. The information contained in the report can be used by all stakeholders to protect the Wadden Sea.

The report is available via [this link](#).

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The report on the “Scenarios and potential Associated Protective Measures for the Wadden Sea Particularly Sensitive Sea Area” was developed by Stichting De Noordzee with the support of an external consultant and WWF Deutschland.



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Goal 3: Contribute to the development of a cross-sectoral dialogue at the trilateral level

Activity:

Initiate a close dialogue with ferry operators in the Wadden Sea and assess options for operations towards zero emissions and nature-friendly site-specific connections to the islands

Across Europe the transition towards climate- and nature-friendly maritime mobility is in full swing. Coastal and urban ferries have a particularly high potential for electrification, for example given their short distance and fixed routes. From ferries across the fjords of Norway to inner city ferries and police boats in Amsterdam there is a growing pool of best practice [examples](#), notably with a focus on electrification and related potential reduction in emissions and underwater noise. This development is leveraged through technological innovation, regulation, financial incentives and societal interest to move towards sustainable operation. More recently, the political situation and urgent need to find alternative energy sources to fossil fuels have further accelerated this trend.

However, despite this momentum the trilateral Wadden Sea region is lagging behind. This is particularly surprising given its outstanding value as UNESCO World Heritage and the region's strong technical, financial and regulatory capacity to switch towards more sustainable technologies. Outdated diesel engines are still the standard across ferries in the Wadden Sea and little progress has been made to reduce the environmental impact of ferry operation – from minimizing waste, to reducing underwater noise and dredging the shipping lanes.

It is particularly concerning that in parts of the Wadden Sea, such as Lower Saxony, there is a new trend emerging, which has the capacity of increasing the carbon footprint per passenger about twelve times. Shipping merchants are increasingly investing in small and fast “[water taxis](#)”, which can operate independently of the tides because of their shallow draft. Their speed, noise and above all extremely high CO₂ emissions per passenger make these the least sustainable option for travelling to the Wadden Sea islands. Nevertheless, the economically lucrative water taxis are starting to replace traditional ferries, which are already far from environmentally friendly given their diesel engines.

How can this profit-based trend towards “water taxis” in the sensitive Wadden Sea be stopped? Why is climate- and nature-friendly maritime transport

for tourists not a priority in the region? What will it take to establish electrified and nature-friendly ferries to the Wadden Sea islands?

The achievements

This project component focussed on these questions and more, starting with the establishment of a baseline and an overview of the situation. A database of individual ferries and their routes across the Danish, Dutch and German Wadden Sea was produced and includes aspects such as engine type, passenger size, speed, shipping merchant and tidal dependency. This was complemented by a technical analysis of options for improving the ecological footprint of ferries in the Wadden Sea, including an assessment of engines, fuel types and other technical aspects to move towards climate- and nature-friendly operation. This foundation allowed us to understand the trilateral situation, which was verified and cross-checked through expert interviews.

To visualize the above-mentioned problems of “water taxis” and other aspects, an interactive infographic of the ferries operating in the Wadden Sea is being produced in cooperation with [MARIKO](#) and their “[H2Watt](#) / [GreenShipping Niedersachsen](#)” projects. Helgoland was included for completeness. This infographic can be run on a mobile module (owned by MARIKO), which allows one to click through the various ferry connections and discover the local situation using a touch screen. It can be used at conferences, workshops or similar in-person meetings. Furthermore, all maps produced as part of the interactive infographic can be used online, in print media and PowerPoint presentations to highlight the critical aspects of today's ferry sector in the Wadden Sea. A link to the infographic will be included in the digital version of this document as soon as it is available.

Based on this assessment, the project “Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage” aimed to contribute to improve the performance of ferries towards climate- and nature-friendly operations, through direct discussion and workshops with ferry operators connecting the

Wadden Sea islands. Exchange between ferry and water taxi operators, eNGOs, scientists, the private sector and municipalities regarding the environmental impacts of this particular touristic sector, indeed contributes to shape a common vision for sustainable ferries in the Wadden Sea and putting this into action. An expert workshop was organized in Germany including different stakeholders from academia, National Park Authority, law enforcement, tourism, nature NGOs, island communities and the private sector to jointly discuss the situation, notably water taxis, and potential routes towards sustainable mobility. A further online workshop in English with a trilateral focus further complemented this work. The challenge now remains in putting the many ideas and recommendations into action and to convince the critical stakeholders such as shipping merchants, ports and communities that change is both necessary and feasible.

More ambition for the Wadden Sea

It is evident that sustainable maritime mobility needs to become a much higher priority across

the Wadden Sea. A mix of measures is likely to be necessary to bring about the required change – from increased awareness in the tourism sector and amongst tourists of the climate-implications of ferry transport to the Wadden Sea islands to incentives for electrification and regulatory change to update port infrastructure. Much remains to be done in order to reduce negative impacts on the fragile Wadden ecosystem. The larger suite of environmentally friendly ferry operation includes reduction in ship-based pollution (e.g. antifouling paint, management of rubbish), emission reduction, underwater noise (e.g. ship speed, propeller design), awareness raising, associated port measures on land and a whole suite of measures to reduce the risk of accidents, including negative impacts on the environment. The management of maintenance of shipping lanes used by ferries connecting the islands is a further matter that requires urgent attention in the Wadden Sea, especially in the western parts. Strong partnerships across the relevant stakeholders and sectors are likely to be of critical importance for bringing about positive change in the near future.

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The activities under this project part on sustainable ferry operation in the Wadden Sea were developed and led by NABU.

Activity:

Development and signature of a joint declaration between shipping and port stakeholders and environmental organisations of the Wadden Sea

There is a multitude of stakeholders working in the sectors of shipping, port and environmental protection in the Wadden Sea Region. Many of them are involved in programmes, networks and projects to develop or exchange best practices. However, these initiatives are often limited to one sector or one country and stakeholders thus remain unaware of the technological, ecological and political momentum regarding sustainable shipping and ports in the Wadden Sea.

The achievements

Conscious of the need for more exchange and cross-sectoral collaboration, the Wadden Sea Team, when initiating this project in cooperation with the [Wadden Sea Forum](#), set the goal to develop a cooperation with the [Wadden Seaports](#) and work jointly towards making port management environmentally sound. To support the identification of a common ground and objectives between the different stakeholders, project partners met on a regular basis and opened the exchange to other stakeholders on different occasions such as a [workshop](#) which gathered ports and eNGOs of the Wadden Sea. Together, they reflected on previous initiatives such as the [Pact of Marrum](#) (signed between Dutch ports and eNGOs - 2018) and the [Letter of Intent](#) on a trilateral maritime cooperation to promote environmental efforts between the Dutch, German and Danish Wadden Sea Ports (2018); and tried to identify opportunities for further collaboration.

Over 2022, synergies were identified between the project “Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage” and the project Sustainable Shipping and Ports at the Wadden Sea funded by the Deutsche Bundesstiftung Umwelt. Together the partners of both projects developed a joint declaration which was signed at the 14th Trilateral Governmental Conference on the Protection of the Wadden Sea (28 November – 1 December 2022) in Wilhelmshaven.

This declaration, the [Sustainable Shipping and Ports Initiative for a well-protected Wadden Sea](#) (SustSPI), is the first formal step in the new trilateral collaboration opened to shipping and port stakeholders as well as environmental organisations. This joint declaration is expected to become the umbrella for closer cooperation between stakeholders. By collaborating with stakeholders of the three countries, this initiative aims to tackle transboundary environmental threats. The joint declaration sets common ground and objectives for an enhanced protection of the Wadden Sea where sustainable shipping and ports activities flourish. The cornerstone of this initiative is the cross-sectoral dialogue the signatories commit to contribute to in the long run.

Within the trilateral collaboration, the comparison of perspectives and goals, the knowledge transfer through the sharing of best practices and the reflection on opportunities for common initiatives will concretely be enabled through workshops, topic-specific meetings and excursions. Mutual trust, flexibility, common goals and active participation are key to its success, and this will support the future development of initiatives or cross-sectoral projects.

Join the initiative

Each port, shipping stakeholder and eNGO involved with the Wadden Sea Region is invited to join this long-term trilateral collaboration and network in order to contribute to the protection of the OUV of the Wadden Sea World Heritage while working for increased sustainability in the shipping and port sectors.

As a first step, interested stakeholders can join the initiative by supporting or signing the joint declaration. To that end, the project partners are available to discuss a potential participation in the collaboration in bilateral meetings.

If a non-formal involvement is preferred, the trilateral collaboration would be grateful to receive any recommendation or support related to its intended activities to safeguard the uniqueness of the Wadden Sea.

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The Sustainable Shipping and Port Initiative for a well-protected Wadden Sea was developed by all partners of the project “Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage” together with the partners of the project [“Sustainable Shipping and Ports at the Wadden Sea”](#), funded by the Deutsche Bundesstiftung Umwelt. The project “Sustainable Shipping and Ports at the Wadden Sea” of partners from different sectors among which ports and eNGOs.



Photo by Nadja Ziebarth

Project results: “Sharing and developing knowledge to strengthen the contribution of shipping to a well-protected Wadden Sea World Heritage”

Goal 1: Raise the awareness on the interaction between shipping and port activities and the Outstanding Universal Value of the Wadden Sea World Heritage

Creation of explanatory texts on the Outstanding Universal Value of the Wadden Sea World Heritage for representatives of the maritime and port sector

Results

- Provide clear information on the OUV of the Wadden Sea to the port stakeholders
 - Show how ports interact with the Wadden Sea World Heritage
 - Give keys about actions that can be implemented by port to contribute to the conservation of the Wadden Sea
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Goal 2: Enhance the knowledge about the interactions between shipping and ports activities and the marine environment of the Wadden Sea

Compilation of EcoPorts and green ports best practices put in place in the Wadden Sea Region

Results

- Creation of a database on green ports activities and certifications of the Wadden Sea ports and centralisation of information on the various programmes and networks that Wadden Sea Ports take part in.

Safeguarding lessons learned from MSC Zoe accident

Results

- Raising attention to the extent of and impact of container losses in the Wadden Sea

Developing scenarios for evaluating existing and recommending new Associated Protective Measures for the Wadden Sea PSSA

Results

- Developing a report on “Scenarios and potential Associated Protective Measures for the Wadden Sea Particularly Sensitive Sea Area”

Goal 3: Contribute to the development of a cross-sectoral dialogue at the trilateral level

Initiate a close dialogue with ferry operators in the Wadden Sea and assess options for operations towards zero emissions and nature-friendly site-specific connections to the islands

Results

- Discussions with ferry operators through workshops
- Creation of a database on individual ferries in the Danish, Dutch and German Wadden Sea
- Developing a technical analysis of options for improving the ecological footprint of ferries in the Wadden Sea

Development and signature of a joint declaration between shipping and port stakeholders and environmental organisations of the Wadden Sea

Results

- Discussions on making port management environmentally sound through workshops with different stakeholders
- Development of the joint declaration *Sustainable Shipping and Ports Initiative for a well-protected Wadden Sea*



Photo by Georg Wietschorke

Annex: Why do port activities matter for nature? The „Outstanding Universal Value“ of the Wadden Sea World Heritage

What is the Wadden Sea?

The Wadden Sea is the world's largest tidal flat ecosystem, where natural processes proceed largely undisturbed. For its globally unique geological and ecological values the Wadden Sea is listed as UNESCO World Heritage.

Nowhere else in the world is there a similar dynamic coastal landscape with a multitude of habitats such as tidal flats, tidal creeks, sandbanks, dunes, and saltmarshes, shaped by wind and tides. Parts of the global biodiversity are reliant on the Wadden Sea. In particular, millions of migratory water birds that breed in the Arctic depend on the Wadden Sea as a prime habitat outside the breeding season. The Wadden Sea is also home for salt marsh species, fish and sea mammals.

The Wadden Sea extends along the North Sea coasts of Denmark, Germany, and the Netherlands. The area covers the Danish Wadden Sea maritime conservation area, the German Wadden Sea National Parks of Lower Saxony, Schleswig-Holstein and Hamburg, and the Dutch Wadden Sea Conservation Area. They jointly form the Wadden Sea World Heritage, inscribed in the UNESCO list in 2009 and 2014.

How is the Wadden Sea protected?

In the framework of the Trilateral Wadden Sea Cooperation (TWSC), Denmark, Germany and the Netherlands take on the responsibility of preserving this irreplaceable ecosystem for the benefit of present and future generations. The TWSC serves as



The natural and dynamic Wadden Sea (Japsand and Hooge, with tidal channels). Photo: Martin Stock.

a common ground for working towards harmonised protection, management and policy that ensures the integrity of the Wadden Sea World Heritage. This also requires creating a common understanding between the business and nature conservation sectors about if or how certain activities are possible or need to be adapted towards sustainability and compliance with nature protection. An important example is the strategy on “Sustainable Tourism in the Wadden Sea World Heritage Destination” from 2014. Very important milestones in Wadden Sea protection have been reached over more than 40 years of cooperation and partnership:

- The designation of almost the entire Wadden Sea as protected areas in all three countries. Although there are some differences among the national regulations, the Wadden Sea is protected as Natura 2000 area according to the Birds and Habitat directives of the EU in all three countries. In Germany and Denmark almost the entire Wadden Sea is also designated as National Parks.
- In 1991 the three member countries adopted the Guiding Principle for the Wadden Sea, which „is to achieve, as far as possible, a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way“.
- The UNESCO's decision to inscribe the Wadden Sea as a World Heritage Site for its Outstanding Universal Value (OUV). While this is a recognition of the Wadden Sea's nature values and the protection efforts, it also represents an explicit commitment and responsibility of the three member countries to safeguard the OUV by joint efforts in protecting the Wadden Sea.
- In 2002 the Wadden Sea was designated by the International Maritime Organisation (IMO) as “Particularly Sensitive Sea Area” (PSSA) in 2002, which is of specific relevance for shipping and ports in and around the Wadden Sea. A PSSA is acknowledged as being vulnerable to impacts from international shipping activities and needs special protection through action by the IMO because of its significance for recognized ecological or socio-economic or scientific reasons.

What is meant by the „Outstanding Universal Value“ (OUV)?

The OUV in principle describes why a World Heritage site is among the most remarkable places on Earth, and why its conservation is of importance for present and future generations of all humanity.

The UNESCO World Heritage Committee decides on the inscription of a World Heritage site and adopts the respective [OUV-statement](#). It considers a site as having an Outstanding Universal Value if the site (1) meets at least one of the selection criteria, (2) meets the requirement of integrity, and (3) is well protected and managed.

The Wadden Sea World Heritage was inscribed as a natural site in the World Heritage list in 2009 (Germany, Netherlands) and 2014 (Denmark), and meets three out of the four selection criteria for natural sites:

- „Outstanding geological processes“, with regard to the Wadden Sea being an unbroken tidal flat and barrier system with typical geomorphological diversity and with ongoing natural geomorphological processes.
- „Ongoing ecological and biological processes“, with regard to the Wadden Sea being an intact natural intertidal ecosystem, where geomorphological, biophysical and biological processes are linked, having a high biomass production typical for the Wadden Sea, and acting as a key site for sustaining abundant wildlife also beyond its borders.
- „Vital habitats for in-situ biodiversity conservation“, with regard to the Wadden Sea having a high typical biodiversity, acting as staging, moulting and wintering area for migratory water birds and as an essential stopover for such birds along the East Atlantic Flyway.

„Integrity“ is a measure of the wholeness and intactness of the natural heritage and its attributes. As for the Wadden Sea World Heritage, this ranges from Denmark through Germany to the Netherlands and includes all ecosystem components and features (species, habitats, processes) that constitute a natural and dynamic Wadden Sea. The extension of the area is large enough to ensure that these exceptional aspects are met. However, the OUV-statement also lists key threats to the integrity of the area.

As for „protection and management“, it is the Trilateral Wadden Sea Cooperation that provides the overall framework and structure for the entire

Wadden Sea. It provides coordination on protection and management between the member countries at the national and partly also the regional and local levels. The Wadden Sea's present conservation status is the result of four decades of joint nature protection efforts, with the Wadden Sea being designated as national parks, nature reserves and Natura 2000 sites.

All in all, the Wadden Sea is protected almost in its entirety. However, even with this extensive protection and coordination the Wadden Sea is still vulnerable to human activity.

Why should a port be concerned about the Wadden Sea?

The development and maintenance of ports are listed as a potential key threat to the integrity of the Wadden Sea in the OUV-statement. Therefore, the ports should be concerned with the Wadden Sea.

There is a broad range from small to large ports within the Wadden Sea Region, which includes the Wadden Sea and the adjacent areas where people settle and work. The ports range from small ports on the islands, which usually serve for ferry connections and smaller leisure boats, to large commercial ports of higher economic importance. They are situated at the mainland coast, often in estuaries, as it is the case mainly in Esbjerg, Dagebüll, Husum, BÜsum, Brunsbüttel, Hamburg, Cuxhaven, Bremerhaven, Wilhelmshaven, Emden, Delfzijl, Eemshaven, Harlingen and Den Helder.



Sandbank with small dunes and a flock of Dunlin and Knots. These waders breed in the Arctic and depend on the Wadden Sea outside the breeding season.

Photo: Hans-Ulrich Rösner, WWF

Unfortunately, all these ports have an impact on the Wadden Sea. For example, habitats have been transformed into port infrastructure, which were

formerly a part of the Wadden Sea. For the fairways and harbours, dredging is often necessary to maintain the accessibility for vessels, especially as vessels increase in size. Dredging has serious impacts, as the sediments often are contaminated with toxic substances, the material must be dumped somewhere. Through deeper channels in the estuaries river water flows faster into the sea and the tidal current increases, resulting in an increased erosion on the shores, higher sediment loads, an increase in the tidal range and a massive loss of habitat in the sensitive estuaries. Ship traffic is an important cause for the introduction of marine alien species into the natural environment of the Wadden Sea. Further indirect impacts on the Wadden Sea can be listed, such as increasing underwater noise stress by ships approaching and leaving the ports, or high-speed vessels with a higher effect on nature than slower vessels. Of particular relevance is that ship traffic is still carrying the risk of accidents with the associated release of toxic substances like crude oil or other fuels, or waste originating in lost containers into the Wadden Sea.

Is there a common ground between nature conservation and ports?

Yes! For this reason, it is necessary to improve the dialogue and build mutual trust. It is however important that some prerequisites are mutually acknowledged:

- The Outstanding Universal Value of the Wadden Sea World Heritage and the critical importance of safeguarding the marine environment and the natural values of this region for present and future generations,
- Shipping and ports have an important role in and beyond the Wadden Sea Region as a significant source of employment and economic wealth,
- Shipping and ports in the Wadden Sea Region need to become nature and environmentally friendly, climate neutral and sustainable.

How can a port contribute to the protection of the Wadden Sea and the preservation of its OUV?

As a general rule, the ecological footprint of a port both on nature and on climate should be kept as low as possible. This means, that the OUV of the Wadden Sea must not be impacted, and climate neutrality of ports activities should be strived for with high ambition.

More specifically this can be done by:

- Limiting dredging to what is really necessary – and accept, that there are natural and ecological limits for the sustainable manipulation of rivers, estuaries and access channels. Ships should adapt much more to the natural limits of the ports and the access channels, not vice versa.
- Cooperating with other ports, to mutually learn from, exchange best practices and share knowledge on progress in/of sustainability.
- Providing port reception facilities in a way that ships are encouraged to leave garbage, toxic substances, and other waste at the port.
- If the expansion of a port area is unavoidable, this should take place as much as possible inland and not on parts of the Wadden Sea or other natural habitats.
- Helping coastal birds such as terns and gulls if they choose some port structures as place for a breeding colony, by restricting human disturbances and access for predators.
- Supporting climate neutrality by the instalment and support of the adequate facilities and energy infrastructure within the ports, including support for the green electrification of the local and regional transportation sector and think about providing economic incentives to climate neutral and nature-friendly ships using the port facilities.
- Developing and improving strategies for the efficient use of existing capacities and places of refuge through an enhanced port cooperation.
- Developing port lighting strategies which, while respecting the safety standards, meet the highest ecological standards to minimise disturbances on the different species affected (birds, insects, fish).

Through dialogue and exchange of knowledge, environmental NGOs and the Wadden Sea Forum are willing to support the efforts initiated by ports to minimise their impact on the Wadden Sea and to aim for more sustainability of their activities, within the framework of the “Sustainable Shipping and Ports initiative for a well-protected Wadden Sea.”

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The North Sea Foundation / Stichting De Noordzee is an environmental non-governmental organization advocating the protection and sustainable use of the North Sea marine ecosystem. The goal is a clean, healthy sea and a well-functioning ecosystem. Its activities are focused on clean seas and beaches, clean shipping, sustainable food harvest, eco-friendly energy production and protected nature.



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