MEETING DOCUMENT

**Task Group Management (TG-M 21-4)**

14 October 2021

Online meeting

**Agenda Item: 5. Shipping**

**Subject: Shipping safety**

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**Submitted by: CWSS**

The topic of shipping safety is manifested in the Leeuwarden Declaration (LD) 2018, signed at the 13th Trilateral Governmental Conference on the Protection of the Wadden Sea.

This document contains a quick overview on the background, responsibilities and (open) tasks, as well as problematization (re. below) and proposals to be discussed by the Task Group Management (TG-M) with the intention of outlining a specific way forward concerning the safety issues of the shipping complex in connection with the Ministerial Conference-14.

It further contains relevant paragraphs of the Leeuwarden Declaration (2018) and Tønder Declaration (2014) in Annex 1, as well as on the MSC Zoe container accident (Annex 2).

**Proposal:** The group is invited to review the document, and to discuss the problematization and the proposed scenarios concluding the document, with the aim to submit recommendations to WSB 35, in time for the Ministerial Conference Declaration 2022.

* Take up the topic of shipping safety separately from the round table approach, which may support and not interfere/limit the round table;
* Further the PSSA assessment (Operational Plans) and Dutch paper (involving a few close colleagues from nature and shipping sectors);
* Respond to concerns of advisory board Lower Saxony;
* Support in the definition of ambitious policy priorities regarding shipping and ports for the Ministerial Declaration.

Wadden Sea shipping safety

## Background

The Leeuwarden Declaration (LD) 2018, signed at the 13th Trilateral Governmental Conference on the Protection of the Wadden Sea contains paragraphs 30 – 34 which are related to shipping and ports. These include the topic of shipping safety. In addition, paragraphs of the Tønder Declaration (TD), including the Particularly Sensitive Sea Area (PSSA) Operational Plans annexed to the TD are of relevance for this topic (for respective paragraphs of LD and TD see Annex 1).

The topic of shipping safety gained strong momentum after the MSC Zoe container accident in the night of 1-2 January 2019 north of the Dutch Wadden islands, which resulted in investigations and recommendations (see Annex 2).

During its 28th meeting (WSB 28), the Wadden Sea Board (WSB) concluded that the Netherlands would review the recommendations from former approaches on shipping safety, with the aim to evaluate the potential for a common position of the TWSC on the further process.” At WSB 29 on 19 June 2019, the WSB endorsed a Dutch proposal on how to proceed ([WSB 29/5.5/1](https://www.waddensea-worldheritage.org/system/files/wsb-29-5-5-1_shipping_safety.pdf)). TG-M resp0nded to this proposal at WSB 30 held on 21 November 2019 in Wilhelmshaven, Germany ([WSB 30/5.5](https://www.waddensea-worldheritage.org/system/files/WSB30%205.5_tg-m_on_dutch_proposal.pdf)) and proposed to instruct TG-M to further develop the Dutch proposal on the implementation of the Operational Plan Awareness and Education.

At WSB 30, the WSB approved the establishment of a round table shipping led by the Wadden Sea Forum (WSF) with the support of the CWSS and in collaboration to TG-M.

In its progress report to WSB 31 ([WSB 31/5.2/1](https://waddensea-worldheritage.org/system/files/WSB-31-5-2-1-tg%20m%20progress%20report.pdf)), *TG-M welcomed WSF to taking up two additional items in the round table approach:*

*1) A proposal from the Dutch delegation regarding the implementation of the “Operational Plan” (Annex 5, Tønder Declaration)(*[WSB 30/5.5 TG-M on Dutch proposal](https://www.waddensea-worldheritage.org/system/files/WSB30%205.5_tg-m_on_dutch_proposal.pdf)*)*

*2) Concerns of the Advisory Board of the National Park Lower Saxony as addressed to the Ministry of Environment, Energy, Construction and Climate Protection Lower Saxony, and the corresponding letter of the Ministry to Prof Dr Karin Lochte, chair of the TWSC. The Ministry of Environment, Energy, Construction and Climate Protection Lower Saxony has been informed* [on next steps] *accordingly by means of a letter by Prof. Lochte with support from CWSS.*

After delays due to the COVID-19 pandemic, the round table was planned by WSF as online meeting for April 2021 based on an inventory and assessment study on potential participants conducted by the WSF and financed by the Wadden Sea National Park Authority Lower Saxony, but had to be postponed due to an unexpected low number of participants. The WSF informed the WSB on a new process in order to realise a WSF “Green Coastal Deal” for the Wadden Sea Region by means of Regional Round Tables (RRT) (WSB 33/7/1), which would also be instrumental with respect to a new approach for a Round Table Shipping

As key topic, shipping is also tackled within the development of the single integrated management plan for the World Heritage property (SIMP) (Figures 1,2). On-going work on this topic is supported by a consultant, including PSSA Operational Plans implementation assessment, potential conflicts of shipping with the 10 OUV key values and potential next activities. These efforts are conducted in line with the development of the QSR thematic report shipping.



Figure 1: Schematic overview on recent shipping activities related to the single integrated management plan (SIMP) in the Trilateral Wadden Sea Cooperation.



Figure 2: Schematic overview on recent shipping activities related to the single integrated management plan (SIMP) in the Trilateral Wadden Sea Cooperation.

## Responsibilities and tasks

The Task Group Management (TG-M) agreed to generally deal with articles 30 – 34 of the LD (Annex 1), with the recognition that this item will need further allocation with the Trilateral Wadden Sea Cooperation (TWSC), e.g., with the development of the Partnership Hub.

In particular, TG-M

* supported a round table shipping approach by the WSF;
* took responsibility to further develop the Dutch proposal on the implementation of the “Operational Plan” Awareness and Education (to be taken up in the round table approach);
* planned to submit a short statement to WSB 33, to sustain the action taken up by the German and Dutch Governments regarding the MSC Zoe accident and to bring possible actions towards IMO;
* supported formation of an ad-hoc SIMP drafting-sub-group Shipping (upon agreement by TG-M on 28 January 2021) to review the preliminary expert assessment of (potential) conflicts of shipping and ports on the Outstanding Universal Value (OUV) and opportunities.

With recent developments and delay with the round table shipping, several items originally planned to be tackled in this approach are pending.

The ad-hoc SIMP drafting-sub-group shipping was formed and supports SIMP development. This sub-group had a first discussion on the preliminary assessment of (potential) conflicts of shipping and ports on the OUV. For the review and enrichment of the PSSA Operational Plans Implementation Assessment, the members of the sub-group could involve a few close colleagues from nature and shipping sectors (Figures 1, 2).

Results of the discussions, together with the site managers input, will support the definition of activities for shipping and ports seeking ambition and articulating policy and site management in the SIMP. Ambitious policy priorities should be taken up in the Ministerial Declaration (WSB 33 Draft Summary Record).

## Proposal

The delay of the round table shipping implies that the topic of shipping safety will not be brought forward in time for the next Ministerial Conference, planned for 2022 in Wilhelmshaven, Germany. To mitigate this risk and with the aim of submitting recommendations to WSB 35 to be discussed in time for the draft MCD Wilhelmshaven, there are possible scenarios with involvement of TG-M.

* Take up the topic of shipping safety separately from the round table approach, which may support and not interfere/limit the round table;
* Further the PSSA assessment (Operational Plans) and Dutch paper (involving a few close colleagues from nature and shipping sectors);
* Respond to concerns of advisory board Lower Saxony;
* Support in the definition of ambitious policy priorities regarding shipping and ports for the Ministerial Declaration.

Annex 1: Articles of the Leeuwarden and Tønder Declarations related to shipping

The Leeuwarden Declaration 2018, which was signed at the 13th Trilateral Governmental Conference on the Protection of the Wadden Sea, contains paragraphs 30 – 34 on shipping, including raising the general awareness and information level.

The Ministers

*30. Encourage ports and ferry companies working in the Wadden Sea Area to develop codes of conduct to further demonstrate their willingness to work towards environmentally sound standards in accordance with best available technology;*

*31. Request the Wadden Sea Board to consider the different approaches of the three countries in order to identify the most sustainable modes of transport for ensuring nature-friendly site-specific connections to the islands in the future;*

*32. Encourage the competent national shipping and nature conservation authorities to continue their dialogue in order to achieve an even higher level of safety and cooperation, inter alia by raising the general awareness and information level;*

*33. Encourage the further development and application of environmentally friendly port concepts through the joint organizations of ports, for example by exchange of best practices;*

*34. Note the ongoing discussions in the framework of the International Maritime Organization (IMO) on a possible mandatory prewash of cargo tanks having contained paraffins, whereby the prewash residue shall be discharged into a port reception facility;*

In addition, related articles of the Tønder Declaration, including the Particularly Sensitive Sea Area (PSSA) Operational Plans annexed to the 2014 Tønder Declaration are of relevance for this topic:

*55. Emphasize the importance of the maritime activities and safety of the Wadden Sea Particularly Sensitive Sea Area (PSSA) and welcome the engagement of the stakeholders in implementing the agreements of the Sylt Declaration and recognise the developed operational plans relevant for the Wadden Sea PSSA.*

*56. Encourage the national competent authorities to use the operational plans as in Annex 5 as the basis for reviewing and accordingly implementing the measures of the operational plans, e.g. stimulate where reasonable and feasible, the accelerated implementation of (bio)-LNG as transition fuel, in order to achieve its objectives.*

*57. Continue the dialogue between the competent shipping and nature conservation authorities and stakeholders in order to achieve an even higher level of safety and cooperation.*

*58. Welcome and stimulate the further development and application of the Green Port concept*

Annex 2: Investigation publication: Safe container transport north of the Wadden Islands. Lessons learned following the loss of containers from MSC ZOE

In June 2020, The Dutch Safety Board has published an investigation report on the loss of containers from the MSC Zoe in 2019: Dutch-Safety-Board-Safe-container-transport-north-of-the-Wadden-Islands-Lessons-learned-following-the-loss-of-containers-from-MSC-ZOE. In December 2020, the respective response from the Dutch Minister of Infrastructure and Waterstate was published. The minister announced the following measures focused on risk management in regard to losing containers (this letter has been submitted to TG-M in December 2020 as document TG-M 21-1/5/1).

* The Netherlands will lobby within IMO for a broader analysis of the extent to which international rules are not in line with the increase of scale for containerships and lobby for obliging new guidelines;
* Since October 31st, the coastguard advises big containerships to avoid the southern route with certain weather(circumstances). Due to results of additional research, the coastal guard is also advising this for smaller containerships;
* Germany will give the same advice for ships sailing into western direction;
* The Netherlands will also focus its efforts on creating a better information position for the crew on ships. For example, in regards to using a machine measuring swing angle and trace containers.

The following is a citation of: <https://www.onderzoeksraad.nl/en/page/13223/safe-container-transport-north-of-the-wadden-islands.-lessons-learned>

## “*The Wadden area must be better protected against the loss of containers on the shipping routes that pass the islands to the north. Research by the Dutch Safety Board has revealed that the shipping routes above the Wadden Islands during northwestern storm form a risk for large, wide container ships. The Dutch Safety Board concludes that due to the value of the Wadden area, it is undesirable that these container ships choose the southern shipping route past the Wadden coast during a northwestern storm.*

## *MSC ZOE*

## *In the night of 1 to 2 January 2019, the MSC ZOE with more than 8,000 containers on board was travelling from Sines in Portugal to Bremerhaven in Germany. North of the Dutch Wadden Islands, the MSC ZOE found itself in severe weather. The ship lost 342 containers and three million kilograms of cargo fell into the sea. The cargo comprised a wide range of items and packaging materials that on the subsequent days washed ashore on the coastline of the Wadden Islands. This occurrence caused the Dutch Safety Board to initiate two investigations: a combined international investigation with Panama and Germany into the course of events of the accident and an investigation by the Dutch Safety Board itself into the risks on the shipping routes north of the Wadden area.*

## *The investigation into the course of events has revealed that the MSC ZOE lost cargo at six locations. The extreme forces acting on the ship, the containers and the lashing systems as a result of specific conditions on this shipping route were the primary cause of the loss of containers.*

## *Shipping route*

## *Above the Wadden Islands there are two internationally designated shipping routes, a northern and a southern route. The investigation by the Dutch Safety Board has revealed that a combination of a number of phenomena means that on both the southern and northern shipping routes, there is a risk of loss of containers.*

## *In storm-force northwesterly wind, vessels are confronted with high athwartships waves. As a consequence, large, wide container ships make extreme rolling movements. On the relatively shallow southern shipping route, there is also a risk of seabed contact (grounding) due to the combination of vertical and horizontal ship movements. Moreover, waves can slam against the ship, and seawater travelling at high speed along the side of the ship can be forced upwards against the containers. These phenomena, individually and in combination, cause extreme forces to act on the ship, the containers and the lashing systems used to retain the containers. As a consequence, containers can break free and be washed overboard.*

## *The complete investigation report about shipping routes, the accompanying animation and the international report into the course of events are available.*

***Recommendations***

***Minimizing the risks of container loss on the two shipping routes north of the Wadden Islands requires an integrated approach by the parties involved: the container shipping sector, the IMO and the Dutch government. In the international investigation into the course of events of the accident with the MSC ZOE and this investigation into the risks on the shipping routes north of the Wadden Islands, recommendations are made to prevent container loss near the Wadden area. The recommendations of both studies must be considered in conjunction.***

***Recommendations shipping route report***

*To the Minister of Infrastructure and Water Management*

*1. In collaboration with the Wadden states Germany and Denmark, take the initiative for a specific proposal to the IMO with measures for international container shipping to prevent the loss of containers on both shipping routes north of the Wadden Islands. This can for example take the form of a review of technical standards, the introduction of restrictions, recommended routes, precautionary areas, traffic control and/or information provision. Make particular use of the status of the Wadden Sea as a Particularly Sensitive Sea Area (PSSA) and the possibilities within the IMO standards for taking measures to protect a PSSA. Make use of the outcomes of this investigation and other investigations into route-specific risks (also see recommendation 5).*

*To the Minister of Infrastructure and Water Management*

*2. Inform shipping companies and masters of large container ships in a structural manner about the four hydrodynamic phenomena that emerged from this investigation, which can occur in the event of high beam seas on both shipping routes north of the Wadden Islands. In providing this information, also make it clear that these phenomena and combinations of these phenomena can generate forces on large, wide and stable container ships which can result in the loss of containers. If further route-specific risks emerge from other investigations, shipping companies and masters should also be immediately informed of those outcomes.*

*3. Grant the Netherlands Coastguard the tasks, authorities and resources it needs to monitor container ships so that ships can sail safely past the Wadden Islands in all wave and weather conditions. With this in mind, investigate the possibilities for traffic control of container ships, such as establishing a VTS area, actively disseminating warnings to shipping about prevailing weather and wave conditions in the Dutch part of the North Sea and innovating the way such information is provided. Involve the Netherlands Coastguard and Rijkswaterstaat in defining this role and responsibility. Also seek cooperation and/or harmonization with Germany on the intended tasks.*

*To the Maritime by Holland and the Royal Association of Netherlands Ship Owners (KVNR)*

*4. Actively communicate the lessons learned from this investigation and the international investigation into the course of events and in your national and international networks, take up a pioneering role in reaching agreement on and disseminating the principles and industry standards that promote the safety of container transport close to the Wadden area.*

*To the Minister of Infrastructure and Water Management*

*5. Investigate the extent to which the route-specific risks of loss of containers on the shipping routes near the Wadden Islands as referred to in this report can occur on different types of container ships and in different meteorological and maritime conditions. In this investigation, include all incidents and other signals which could suggest other as yet unrecognized risks of loss of containers on the specific shipping routes.*

*6. Make a periodic risk analysis of the route-specific risks that can lead to container loss on the shipping routes close to the Wadden Islands, with a view to the safety of shipping and protection of the North Sea and the Wadden area, and include this analysis as a fixed element of North Sea policy. Under all circumstances, make use of a system of monitoring and analysis of shipping incidents and near misses on these shipping routes. Also include developments in shipping such as economies of scale, changes in the picture of shipping traffic and (future) changes to infrastructure and area activities on the North Sea.*

***Recommendations from the international investigation***

*The international report makes recommendations to the Panamanian, German and Dutch governments to review the technical requirements imposed on container ships in an IMO context. More specifically, this concerns:*

1. *the design requirements for lashing systems and containers,*
2. *the requirements for loading and stability of container ships,*
3. *obligations with regard to instruments providing insight into roll motions and accelerations, and*
4. *the technical possibilities for detecting container loss.*

*Recommendations are also made to the German and Dutch governments to investigate, in cooperation with Denmark, the need for additional measures on these shipping routes or adjustments to the routes and to submit a proposal to the IMO on the basis thereof. In addition, the shipping company of the MSC ZOE is instructed to explicitly draw the attention of crews sailing in this area to the route-specific risks, and to equip and load their ships in such a way that the loss of containers is prevented. Finally, through the World Shipping Council and the International Chamber of Shipping, the international maritime sector is called upon to actively communicate the safety lessons from the investigation and to take the lead in drafting safety requirements and in the innovation of ship design and container transport in order to minimize the risk of container loss, also in conditions such as near the Wadden area.”*