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30 March 2022

**Culture Sector  
World Heritage Centre**

Ref: CLT/WHC/EUR/22/13753

**Subject: Transboundary World Heritage property 'Wadden Sea'**

Dear Ambassador,

I gratefully acknowledge receipt of your letter dated 20 January last, providing information concerning the state of conservation of the transboundary World Heritage property 'Wadden Sea'.

I appreciate the information and updates shared, as requested by UNESCO's letter dated 30 November last. Please kindly find enclosed to this letter IUCN's Technical Review for your kind consideration, in particular regarding the proposed Ternaard gas project in the vicinity of the property.

After careful examination, I would like to inform you that UNESCO and IUCN consider it necessary that the World Heritage Committee, at its upcoming 45th session in 2022, reviews the issue related to extractive activities under the property as well as the cumulative impacts of the different developments, which represent a potential threat to the state of conservation of the transboundary World Heritage property 'Wadden Sea'.

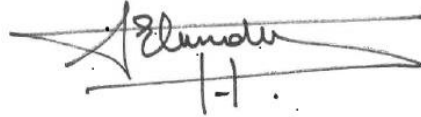
The state of conservation report to be reviewed by the World Heritage Committee will be informed by the information provided in your letter dated 20 January last as well as the analysis of the above-mentioned issue included in IUCN's Technical Review.

I would like to invite your relevant authorities to provide to UNESCO any further information or updates that they may consider necessary to complete the state of conservation report.

.../...

I thank you for your continuous collaboration and support in the implementation of the *World Heritage Convention*, and I remain,

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Lazare Eloundou Assomo', is written over a horizontal line. Below the signature, there is a small vertical mark resembling a minus sign and a period.

Lazare Eloundou Assomo  
Director

Enc.

cc: Permanent Delegate of Germany to UNESCO  
Permanent Delegation of the Kingdom of Denmark to UNESCO  
Netherlands National Commission for UNESCO  
Danish National Commission for UNESCO  
German Commission for UNESCO  
National Focal Points for World Heritage  
IUCN

**IUCN Technical comments to the information provided by the State Party of the Netherlands of 20 January 2022 on the transboundary World Heritage property 'Wadden Sea', received by UNESCO on 18 March 2022.**

## IUCN response to the proposed Ternaard gas project in the vicinity of the Wadden Sea World Heritage property (Denmark, Germany, Netherlands)

March 2022

The Wadden Sea World Heritage property (the property) was inscribed on the World Heritage List in 2009 (Germany and the Netherlands) for its natural values under criteria (viii), (ix) and (x), with a minor boundary modification in 2011, and extension in 2014 (to include Denmark).

On 30 November 2021, the UNESCO World Heritage Centre sent a letter to the State Party of the Netherlands following various third party concerns over potential impacts of activities in the Dutch component on the Outstanding Universal Value (OUV) of the property, as follows:

1. Salt and gas mining, including draft permits issued by the State Party of the Netherlands for the proposed Ternaard gas development that would be located within the vicinity of the property and would extend extractive activities below the property, which UNESCO advised it was not informed of, and for which no Environmental Impact Assessment (EIA) was submitted for review by IUCN. The potential approval of this project is currently under consideration by the Dutch authorities.
2. The planned development of digging and dredging operations to connect an offshore wind farm through a cable project to electricity infrastructure on land.

On 21 January, the State Party provided a response letter which included a 4-page memorandum of the potential impacts of the Ternaard gas mining proposal on the OUV of the property based on the previously completed EIA, commissioned by the State Party from the proponent Nederlandse Aardoliemaatschappij (NAM) in response to the concerns raised in the UNESCO letter.

### IUCN response

#### **Gas extraction activities in the Wadden Sea**

IUCN notes that, at the time of inscription of the Wadden Sea on the World Heritage List in 2009, the exploitation of existing oil and gas deposits in the Wadden Sea outside the boundaries of the World Heritage property was not considered to adversely impact on the property's OUV at that time. The IUCN Evaluation of the 2009 nomination noted that, specifically relating to the Dutch component, the main impact resulting from gas exploitation is subsidence of the sea bed. However, long term monitoring of potential impacts due to subsidence found no significant losses of natural values and that subsidence of tidal flats was fully compensated by natural sedimentation.<sup>1</sup> At that time, the nominating States Parties (Germany and the Netherlands) also made a "clear commitment at the highest political level to not allow exploration or exploitation of oil and gas within the boundaries of the nominated property".<sup>2</sup>

It is also important to note that the Statement of Outstanding Universal Value adopted in 2014 identified "industrial facilities surrounding the property including oil and gas rigs" as one of the key threats requiring ongoing attention,<sup>3</sup> and the 2016 State Party report to the World Heritage Committee noted there are growing public concerns with regard to gas exploration plans in the Netherlands outside the World Heritage property.<sup>4</sup>

IUCN notes the confirmation provided by the State Party in its letter that it is "fully committed to protecting and preserving the authenticity and integrity of the Wadden Sea UNESCO World Heritage property. This means that activities in the Wadden Sea and below the seabed are permitted only if there is sufficient certainty that no irreversible damage will be done to the unique and fragile natural environment." Regarding potential future gas extraction activities, IUCN welcomes the State Party's confirmation that a new 'Coalition Agreement' by the government that took office in the Netherlands on 10 January 2022, states that no new permits for gas extraction in the Wadden Sea will be issued. IUCN considers that this decision represents a clear commitment towards the conservation of the OUV of the property that takes into account the increasing pressures on the property as a result of the

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<sup>1</sup> Extract from 2009 IUCN Evaluation <https://whc.unesco.org/en/list/1314/documents/>: "In the Dutch Wadden Sea, new exploration and exploitation of gas is only permitted from sites on land and from existing platforms in the North Sea coastal zone, outside the nominated property, and in accordance with the Wadden Sea Plan. The main impact, resulting from the exploitation of gas resources adjacent to the Dutch part of the nominated property is subsidence of the sea bed. The potential impact due to subsidence has been monitored by an Independent Scientific Panel since 1963 when the production commenced. No significant losses of natural values have been found and subsidence of tidal flats was fully compensated by natural sedimentation. Salt marshes are still increasing in height due to sedimentation."

<sup>2</sup> 2009 IUCN Evaluation of the nomination. <https://whc.unesco.org/en/list/1314/documents/>

<sup>3</sup> Statement of Outstanding Universal Value: <https://whc.unesco.org/en/list/1314>. Extract: "Key threats requiring ongoing attention include fisheries activities, developing and maintaining harbours, industrial facilities surrounding the property including oil and gas rigs and wind farms, maritime traffic, residential and tourism development and impacts from climate change."

<sup>4</sup> 2016 State of Conservation report by the States Parties. <https://whc.unesco.org/en/list/1314/documents/>

potential cumulative impacts of different development activities further exacerbated by the impacts of climate change and sea level rise.

Given this clear and positive commitment by the government, the potential approval of mining permits for the proposed Ternaard gas project would appear to be at odds with this broader policy level commitment. Notwithstanding this, and noting that the project will continue to be assessed under the existing policy and legislation, IUCN stresses that any potential impact of the proposed project on the OUV of the property should be fully assessed in line with the principles of the IUCN World Heritage Advice Note on Environmental Assessment (IUCN Advice Note), prior to any decision being taken to approve the project. The State Party should ensure that the project would cause no negative impact on the OUV, which includes the criteria under which the property was inscribed, its integrity, and protection and management. IUCN also recalls the policy position of the World Heritage Committee that extractive activities like mining and oil and gas development are considered incompatible with the World Heritage status. IUCN also stresses the importance of the precautionary principle as the basis for decision making where there remains scientific uncertainty on impacts.

### **EIAs relating to the OUV of natural World Heritage**

It is important to highlight that, irrespective of extractive activities that exist at the time of inscription, States Parties to the World Heritage Convention have the responsibility to ensure that any newly proposed project that could potentially impact the OUV of the property, whether located within or outside its boundaries, is appropriately assessed and impacts are avoided.

The assessment of potential impacts of the proposed Ternaard project on the OUV is of particular importance in the Wadden Sea context, given the close proximity of the proposed project to (and particularly extraction below) the property; the dynamic aquatic ecosystem that constitutes a key attribute of OUV under criteria (viii), (ix) and (x); the increasing pressures of climate change and sea level rise on the property as a whole; and the potential cumulative impacts that a new gas extraction project could pose in the context of existing extractive and development activities within the wider Wadden Sea ecosystem.

### **The Ternaard gas project EIA and memorandum on potential impacts on OUV**

Regarding the potential approval process for the Ternaard project, the State Party outlines in its letter that the proponent applied for permits in 2019, the EIA was completed and underwent public consultation, and the draft permits were issued in 2021 following the conclusion that the process is in line with national legislation and the proponent satisfactorily demonstrated that the proposed activities will not harm the natural environment. The government is now reviewing the submissions provided by various stakeholders including the Dutch National Commission for Environmental Impact Assessment (National EIA Commission; Commissie voor de milieueffectrapportage) to determine whether there are any insights that give reason to amend the draft decisions, and will take a final decision in March 2022.

The State Party notes that UNESCO was informed of the proposed project during the initial phase of the permit procedure in 2019, however no further information was provided regarding the EIA. In response to the letter from UNESCO in November, the State Party has now provided the brief 4-page memorandum, dated January 2022, which seeks to specifically address the OUV of the property based on the completed EIA. In summary, the memorandum concludes that there will be no impact on the OUV since the level of subsidence that is expected from gas extraction during the operational period will be fully compensated by projected sea level rise, and therefore there will be “*no impact on the characteristic morphological elements and processes in the Wadden Sea*”, and “*no structural impact on the sediment supply and the morphology of the Wadden Sea*” because of soil subsidence due to gas extraction. IUCN also notes the reported conclusion of the government’s Independent Scientific Advisory Body<sup>5</sup>, that the existing monitoring and response system (including the ‘hand on tap’ approach) has “proved satisfactory thus far”, and that on the basis of current practices, the Wadden Sea is being adequately protected while gas and salt extraction take place. Also, that sufficient account has been taken of uncertainties with respect to subsidence due to mineral extraction, and that any subsidence of the seabed resulting from gas extraction, within the operational timeframe, will be fully compensated by natural sediment accretion and will not pose an additional risk in combination with sea level rise. It is also reported that monitoring reports are prepared, published and evaluated on an annual basis by an independent audit committee, at the request of the government.

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<sup>5</sup> The Independent Scientific Advisory Body referred to in the State Party letter is an entity made up of Dutch scientists from Deltares, TNO, NIOZ, Delft University of Technology and Utrecht University that is separate from the role of IUCN as the Advisory Body on nature to the World Heritage Convention.

With respect to the above, IUCN provides the following comments based on the memorandum and State Party letter:

- Although the four-page memorandum concludes that there would be no impacts on the OUV based on the three inscription criteria and integrity (and authenticity<sup>6</sup>) of the property, it is unclear from the brief document on what scientific data and basis this conclusion was reached, and whether the original EIA was completed fully in line with all principles of the IUCN Advice Note. For example, the EIA should address the impacts on OUV holistically, noting this comprises the three pillars of OUV being the individual three criteria for which the property was inscribed, the integrity, and protection and management. It should also include evaluating a “no project” option, and addressing direct, indirect and cumulative impacts.
- IUCN recalls the 2003 [No-Go Commitment](#), and the 2013 World Heritage Committee [Decision 37 COM 7 \(Part III\)](#) which urged “all States Parties to the World Heritage Convention and leading industry stakeholders, to respect the ICMM “No-go” commitment by not permitting extractives activities within World Heritage properties, and by making every effort to ensure that extractives companies located in their territory cause no damage to World Heritage properties, in line with Article 6 of the Convention”. This policy position on the fundamental incompatibility of extractive activities and World Heritage should be borne in mind in assessing the impacts and merits of this project. This is especially pertinent since, whilst the project would be located outside the boundaries of the World Heritage property, the extractive activities would extend to the gas field that is located directly below the property. Any potential impacts on OUV therefore need to be particularly carefully assessed and avoided. Although the procedure for land-based oblique drilling was discussed during the evaluation of the nomination and deemed acceptable for the extractions already in place at that time, this position does not automatically apply to any new extractive activities. Ultimately, any new project must be specifically assessed for its potential impacts on OUV.
- In relation to biodiversity values under criteria (ix) and (x), IUCN takes note of the conclusion that there will be no impact on biodiversity since there is no measurable impact or observable effects on sediment composition and the area of channels, tidal flats or salt marshes and on the types of habitat, the EU Habitats Directive species and the species of breeding and non-breeding birds. However, no details or specific analysis of the attributes of OUV under these criteria was provided to substantiate this conclusion.
- In relation to criteria (viii) and (ix), IUCN takes note of the conclusion that there will be no impact on the OUV since any subsidence caused by gas extraction will be compensated by sea level rise. IUCN considers that this assessment of potential impacts of subsidence should go beyond a somewhat simplistic geomorphological conclusion of ensuring a balance of overall water levels and that the site is not submerged, to also include an analysis of the potential ecological implications of extraction on the dynamics of the wider and interconnected aquatic ecosystem, linking also to criterion (x). It is unclear whether such an analysis was undertaken in the original EIA. It is therefore recommended that the State Party ensure that any potential ecological implications of subsidence be fully clarified prior to any approvals.
- In this regard, IUCN also notes the additional recommendation of the government’s Independent Scientific Advisory Body to conduct a more thorough analysis of longer-term uncertainties in light of expected sea level rise and the rate of natural sediment accretion. IUCN supports this and recommends the States Parties take a precautionary and strategic approach to the management of the property by clarifying longer-term projections based on the latest scientific climate change data for the Wadden Sea, before permitting further extraction activities. In this regard, IUCN also highlights the review of the Dutch National EIA Commission (see further points below), which concluded that further information is needed on the effects of deep subsidence, as well as on the small salt marsh areas ‘t Skoar and the salt marsh near Wierum, nature and breeding birds. A clear and full scientific understanding of the implications of gas extraction on the ecosystem, specifically on the attributes of OUV, should be ensured prior to any approvals.
- IUCN further considers it important to consider the longer-term projections of sea level rise in decision-making given that the property was inscribed under criteria (viii) and (ix) for its “*highly dynamic natural processes*” which are “*uninterrupted across the vast majority of the property*” and “*where natural processes continue to function largely undisturbed*”<sup>7</sup>. Activities which actively influence the dynamic natural processes of this system – such as gas

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<sup>6</sup> *Authenticity* relates only to cultural World Heritage and therefore does not apply to the Wadden Sea.

<sup>7</sup> Statement of Outstanding Universal Value: <https://whc.unesco.org/en/list/1314>

extraction – should be weighed in the context of this approach that aims to maintain natural processes. Furthermore, the dependence on sea level rise to balance out the effects of subsidence resulting from gas extraction does not appear to be a proactive management approach and depends on somewhat unpredictable climate change driven processes. Noting that the inscription under criterion (ix) is based on the fact that the property includes some of the last remaining natural large-scale intertidal ecosystems where natural processes continue to function largely undisturbed, the sedimentation resulting from sea floor subsidence due to gas extraction cannot be considered natural, in particular as it will require artificial replenishment of sand. A more elaborated analysis of the impact of sand supplementation on criterion (ix) is required.

- The memorandum refers to the ‘hand on tap’ monitoring mechanism as a sufficient guarantee that the gas extraction will not result in changes to the system in the Wadden Sea. In the letter, reference is also made to the scientific evaluation of this monitoring and response system. IUCN notes that, while the evaluation concluded that it had proved satisfactory so far, it is important to determine whether this methodology would be appropriate in light of long term uncertainties, including sea level rise and the rate of natural sediment accretion, and to ensure any necessary adaptation to the monitoring mechanism to account for such uncertainties, prior to the approval of new permits.

### **Review by Dutch Independent EIA Commission**

IUCN also highlights that on 6 December 2021, the Dutch National EIA Commission published an analysis of the EIA report requested by the Minister of Economic Affairs and Climate Change<sup>8</sup>. The Commission concluded that the EIA is lacking essential information on several points, as follows (extract translated from original Dutch text), which IUCN considers relate to the OUV:

- More information is needed about the effects on deep subsidence, the small salt marsh areas 't Skoar and the salt marsh near Wierum, nature and breeding birds.
- Nitrogen deposition (...) are also insufficiently described, as are the effects on the soil when the transport pipeline is laid.
- It has not been sufficiently demonstrated that monitoring results from larger gas production areas can be translated one-to-one for the smaller gas field near Ternaard.
- The report must describe the adjustments to the existing monitoring program and how it will be monitored.

### **Cumulative impacts on the Wadden Sea**

IUCN notes the pressures on the property and its OUV arising from the various development proposals and/or existing projects in and around the World Heritage property that have been brought to the attention of UNESCO and IUCN in recent years (e.g. gas and salt mining, pipelines, wind farm, channel dredging, etc.). It is important that the States Parties take a strategic, proactive and forward looking management approach to assess, report on and manage the potential cumulative impacts of these developments in order to safeguard the property and its globally exceptional values. IUCN recommends that such a process of assessing cumulative impacts of multiple pressures on the property and its OUV be carried out prior to continuing to permit individual projects on a case by case basis.

### **Hand on tap monitoring and salt extraction**

Specific to salt mining, the scientific assessment of ‘hand on tap’ methodology referred to in the letter concludes that there is doubt regarding the effectiveness of the methodology to protect the natural values of the Wadden Sea. In particular, the assessment concludes that there is a reasonable chance that in the long term, sediment accretion will be insufficient to offset sea level rise. The assessment also points to the potential of prolonged subsidence of the ocean floor once the mining operation is stopped. These conclusions are of significant concern and IUCN considers the State Party should take appropriate measures to address this issue, including not approving further salt extraction projects in line with the precautionary principle and considering limiting or halting existing salt extraction activities, as required to effectively maintain and protect the OUV.

### **New Wadden Sea World Heritage integrated management plan**

IUCN also takes the opportunity to recognise the proactive collaborative process currently underway by the three States Parties to finalise a single integrated management plan for the property, in response to the 2014 World Heritage Committee request. Given that the new plan is expected to be released for public consultation in 2022, and noting its core focus on the integrated management of the property - including to address potential threats to the OUV - the States Parties are strongly

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<sup>8</sup> 3152. Gaswinning bij Ternaard. <https://www.commissiemer.nl/adviezen/3152>

encouraged to take a proactive and holistic overall management approach to safeguard the OUV into the future, including to assess and manage cumulative pressures on the property.

### **Conclusion**

On the basis of the information provided in the letter and memorandum, it is not possible for IUCN to support the conclusion that the Ternaard gas extraction project would have no impact on the OUV. To ensure an adequate assessment in relation to the OUV, a more detailed assessment would be needed which fully considers the attributes of the different criteria, the site's integrity and protection and management, and which takes into account the precautionary principle, cumulative impacts, and other aforementioned points. The potential impacts of salt extraction activities on the OUV are also of concern, in particular the reliance on the 'hand on tap' methodology given the scientific doubts raised on the effectiveness of this strategy to protect the natural values of the property.