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# Sustainable tourism development and the world heritage status of the Wadden Sea: The case of Terschelling

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National governments and regions make great efforts to obtain international recognition for their natural heritage, for instance through UNESCO's World Heritage Sites list. Since June 2009, the Dutch Wadden Sea has been on the World Heritage List. Our study investigates to what extent the World Heritage status of the Wadden Sea matters to tourists visiting the Wadden island of Terschelling, in the off season. Results showed that for most respondents (93.5%) the World Heritage Status was not a reason to visit Terschelling, while almost a quarter (23.7%) did not know about the World Heritage Status. However, the Wadden Sea was regarded as one of the most attractive elements of the area, together with the North Sea beach, dunes and forests of the Wadden island of Terschelling. For 58% of the respondents, the Wadden Sea was the reason to visit. To conclude, the Wadden Sea is highly appreciated, but for domestic tourists, the designation as World Heritage Site is not a reason for visiting. First-time or international tourists, who are more likely to be attracted by the World Heritage status, were not found during the off season. More efforts could be made to promote the Wadden Sea area as an attractive natural area among these groups of tourists, in order to gain more support for nature protection and preservation of this unique natural heritage region.

Keywords: tourist motivations, valuation, natural landscapes, coastal tourism, long-term nature protection

### Introduction

The World Heritage Status contributes to sustainable development of the Wadden Sea area by raising support for nature protection and by raising opportunities to stimulate economic development by attracting new tourism markets. World Heritage Sites are often a reason for tourists to visit a tourist destination (Shackley, 1998; Ryan & Silvanto, 2009). However, previous research has shown that, although awareness on the World Heritage Status is increasing among visitors, it is still not a main reason for visiting the region (Revier, Postma, & Folmer, 2012). Second, research by Sijtsma et al. (2012) has demonstrated that the Wadden islands are valued more than the Wadden Sea, which may make it more difficult to attract new visitors. This raises the question to what extent the Wadden Sea is actually valued among visitors. Furthermore, it is not clear whether the World Heritage Status attracts new tourists to the area. The aim of our research was to find out how the Wadden Sea is valued among visitors, compared to the Wadden island of Terschelling, and to what extent the World Heritage Status of the Wadden Sea matters to visitors to Terschelling.

The international Wadden Sea is an estuarine tidal area along the North Sea coasts of the Netherlands, Germany and Denmark (Figure 1). It is characteristic for regions with sandy coasts and a medium tidal range. Fifty barrier islands separate the Wadden Sea from the North Sea, and an offshore transition zone from to the North Sea. The tidal flats of the Wadden Sea form the largest unbroken stretch of mudflats worldwide. The present form of the Wadden Sea is still mainly the result of natural forces, although since the Middle Ages

man has changed the Wadden Sea landscape by building dykes and reclaiming land. The Wadden Sea is an important nursery area for fish, a foraging and resting habitat for seals, and a foraging habitat for migrating waders. The Wadden Sea, including large parts of the islands, is a fully nature protected area and was designated as a natural World Heritage site in 2009 (Wolff, 2013).

The Dutch Frisian islands have developed into very popular holiday destinations. Traditional economic activities such as agriculture and fisheries have been replaced by tourism-related activities (Fischer & Waterbolk, 2005). In 2010, 1.2 million visitors spent 5.1 million nights on the Wadden islands (Huig & de Haas, 2010). Tourists in the Dutch Wadden area arrive mainly from the Netherlands (83% visitors; 76% nights), Germany (14%; 22%) and Belgium (1.5%; 1.2%). The number of nights spent on the islands by Dutch tourists during the period 1998–2009 was approximately four million each year, varying between 3.7 million and 4.2 million (Sijtsma et al., 2012). The existing dominant pattern of visitation is a short stay (weekend to full week) at a rented cottage, hotel or campsite. Most of the money spent during visits appears to be on lodging, board and transport, both on the way to the islands as well as on the islands (Stichting Recreatie, 2003).

The landscapes of the adjacent coastal areas of Noord-Holland, Friesland and Groningen are a result of a long and intense interaction between its inhabitants and the sea. In this peripheral rural area agricultural activities dominate, although some industry is developed near the ports of the cities of Den Helder, Harlingen and Delfzijl (Schroor, 2008). The area has a rich cultural inheritance, reflecting the struggle of mankind against the forces of nature. The recent economic

46 Folmer, Revier and Cupido

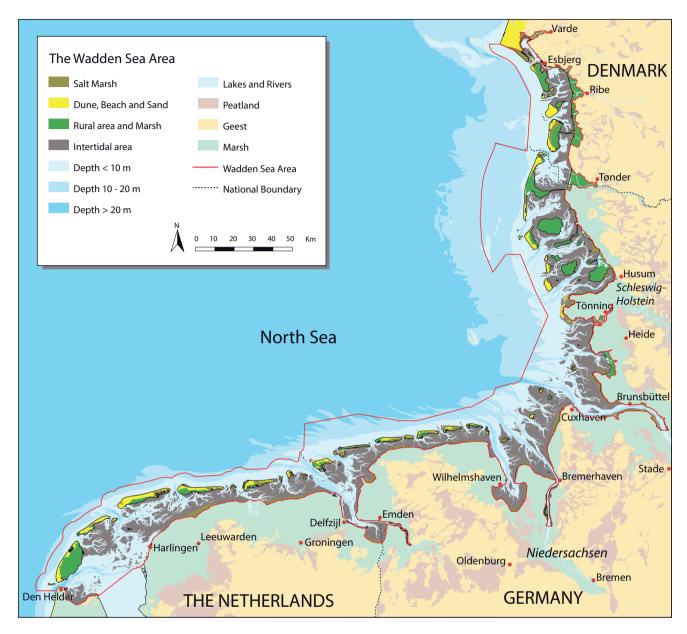


Figure 1: The international Wadden Sea, a natural World Heritage site. Source: Common Wadden Sea Secretariat, 2002

decline of this mainland coastal area, which is already relatively underdeveloped compared to the Dutch average (Daams & Sijtsma, 2013), has resulted in regional and local policies to stimulate tourism development in these areas.

# **World Heritage Status**

It took more than 10 years to reach the necessary consensus to nominate the Wadden Sea as a natural World Heritage site. Especially local communities and economic interest groups feared a loss of autonomy and legal constraints for their activities (van der Aa, Groote, & Huigen, 2004). Also the great societal changes during the last 50 years in this region should be mentioned in this context. Traditional employment, which was found in the agriculture and fisheries, was replaced by employment in the tourism and recreation sector (Sijtsma, et

al., 2012). The Wadden Sea, which provided income (fishing, seal hunting) but which also threatened local communities (floods), became an icon of nature protection. The need to protect the unique natural values of the Wadden Sea area as such is not subject to debate. But at the same time it raised the question to what extent the values of nature and landscape can contribute to the socio-economic development of the area (Revier, 2013). The World Heritage Status of the Wadden Sea, as decided upon by the World Heritage Committee of UNESCO on 26 June 2009 in Sevilla, was in the end supported by most stakeholders in the Dutch and German Wadden Sea region. Two main causes can be determined for this change in opinion. First the formal agreement between the different governmental bodies responsible for the protection of the Wadden Sea was not to derive any new formal regulation from the World Heritage status. And secondly a study from

the Dutch UNESCO Centre predicted an increase in tourism and therefore economic benefits in the area (UNESCO Centre Nederland, 2005). The nomination of the Wadden Sea as natural world heritage was regarded as an important factor especially for the development of tourism in the coastal area.

The World Heritage status of natural areas such as the Wadden Sea contributes to sustainable development in many ways. World Heritage Sites can be important for economic development, by attracting new investments and generating locally-based, environmentally-friendly employment (Boccardi & Duvelle, 2013). The status can generate jobs in outdoor recreation and tourism, but also in the preservation of natural heritage. In addition, the preservation of World Heritage sites facilitates the spiritual well-being of local people and visitors, through the strong symbolic and aesthetic dimensions of the natural landscape. The possibility to access and enjoy one's own heritage is therefore an important issue, enabling feelings of attachment and belonging to the place (Boccardi & Duvelle, 2013). These insights are currently being integrated into the processes of the World Heritage Convention.

#### Sustainable tourism in the Wadden Sea area

The research group Marine Wetlands Studies at Stenden University is focusing on the sustainable development of tourism in the area. Current research has the purpose to get insight into the effects of the World Heritage Status, in particular the natural values of the area, on future tourism development. The concept of sustainable development entered Wadden Sea policy in the early nineties. At first it was understood as environmental protection, taking into account the interests of the local population (Lambers et al., 2003). Revier (2013) analysed policy development with regard to the sustainable development of tourism of the Wadden Sea area. In 1997, the eighth Trilateral Ministerial Conference on the Protection of the Wadden Sea in Stade decided to initiate interregional cooperation to develop and implement policies on sustainable tourism, together with relevant stakeholders, including local and other relevant authorities. In the so-called Netforum Final Report (Cooperation, Inter-regional Wadden Sea, 2000), the main guiding principles with regard to recreational use and tourism development in the international Wadden Sea are formulated. NetForum proposed the following vision for tourism development in the Wadden Sea Region: "To enhance the reputation of the Wadden Sea Region as a high quality tourist destination, by building on its internationally important coastal environment, history, culture and the hospitality of its people" (Cooperation, Inter-regional Wadden Sea, 2000, p. 7). Sustainable tourism is defined as ecologically preservable, economically viable and socially acceptable.

The ninth trilateral conference in 2001 in Esbjerg, Denmark, welcomed the Netforum report and invited the regional authorities to work out concrete projects, but the ministers did not take any initiative to incorporate the recommendations in trilateral policy. After the enlisting of the international Wadden Sea as a natural world heritage site in 2009, trilateral policy once again focused on the sustainable development of tourism in the area, following the request of the UNESCO World Heritage Committee. During the 14th Governmental Conference in 2014 on the protection of the Wadden Sea in Tønder, Denmark, the responsible Ministers adopted a strategy

for the sustainable development of tourism. In the Sustainable Tourism Strategy for the international Wadden Sea the following vision statement is formulated:

Nature conservation and sustainable tourism development go hand in hand across the Wadden Sea World Heritage Destination. This relationship is characterized by appreciation, understanding, experience and active participation of all committed partners. People who visit, live or work in any part of the Wadden Sea World Heritage Destination are aware of and appreciate the "Outstanding Universal Value" and the unique landscape. They are committed to preserving these assets for the benefit of present and future generations. Local businesses and communities benefit both economically and socially from the high quality offers that support the integrity of the Wadden Sea and the ecological requirements of its World Heritage status (Task Group Sustainable Tourism Strategy, 2013, p. 5).

Although the potential conflicts between tourism and nature conservation are acknowledged in this strategy, emphasis is put on their coexistence in the Wadden Sea region. This corresponds with the policies of the different nature conservation organisations involved in the protection of the Wadden Sea. They allow recreational activities in the nature reserves they have responsibility for. And recently the Wadden Society developed a close cooperation with local entrepreneurs in organising guided field trips in the Wadden Sea area. During qualitative research among representatives of the tourism industry (Waddenvereniging, 2012) it became apparent that most local entrepreneurs believe that high natural values are important requirements for tourism development in the Wadden Sea region. They also assume that the nature and landscape of the Wadden Sea can be the main pull factor for the tourism development in the coastal regions of Friesland and Groningen.

These unique natural values of the Wadden Sea formed the basis for the global recognition of the Wadden Sea as a natural World Heritage site (Common Wadden Sea Secretariat, 2008). It can therefore be expected that the World Heritage status could give a boost to tourism development in the area. To get more insight into these effects, quantitative and qualitative research was carried out among stakeholders and visitors of the Wadden Sea in the fall of 2008, the spring of 2009 and at the end of the summer of 2013. Visitors to the harbour city Harlingen in the Netherlands were asked about their knowledge and expectations of the World Heritage nomination of the Wadden Sea. Also stakeholders in the Dutch and German Wadden Sea (representatives of the municipalities, restaurant owners, entrepreneurs) were questioned. The main results of these studies indicate that awareness about the World Heritage status has grown (30% in 2008, 74% in 2009 and 75% in 2014). Due to the nomination, stakeholders in the tourism industry expected an increase of tourism and a positive added value to the image of the Wadden Sea. On the other hand, they are waiting for initiatives by the (local) government, and possible marketing opportunities have not been taken into consideration by most of the tourist facilities and municipalities (Revier, 2013).

48 Folmer, Revier and Cupido

# The Terschelling case

In general, World Heritage Sites are often a reason for tourists to visit a tourist destination. In the case of the Wadden Sea, visitor awareness on the World Heritage status has increased over the last years, but it is still not the main reason to visit the area. Previous research also found that the Wadden islands are valued more highly than the Wadden Sea (Sijtsma et al., 2012), which could be a problem to attract new visitors. Our research compared the valuation of the Wadden Sea with the Wadden island of Terschelling among visitors to this island. Furthermore, we investigated whether the World Heritage Status was a reason for visiting the Wadden Sea area in the off season and whether it attracted first-time visitors. Our research was led by the following research questions:

- How do visitors value the Wadden Sea, compared to natural landscape elements of the Wadden island of Terschelling?
- 2. To what extent was the World Heritage Status of the Wadden Sea a reason for visiting the Wadden island of Terschelling?
- 3. Does the World Heritage Status of the Wadden Sea attract new visitors to the Wadden island of Terschelling?

In October 2014 an "en route" survey (Veal, 2011) was held on the ferry to and from the Wadden island Terschelling in the Dutch autumn school holidays. Questionnaires were handed out on the ferry to and from Terschelling. A respondent-completion format was used since the respondents filled in the questionnaires themselves and no interviewer was involved (Veal, 2011). In case of any questions concerning the questionnaires, the researcher was there to answer them.

Table 1: Respondents' profile and valuation of the Wadden Sea

	Category	% (N = 434)	Valuation Wadden Sea		
Variable			Mean	Standard deviation	
Nationality	Dutch	98.6	4.06	1.08	
Age*	16–24	14.7	3.84	0.98	
	25-36	10.6	4.41	0.88	
	37–48	27.9	3.90	1.20	
	49-64	29.7	4.19	0.97	
	65+	17.1	4.12	1.17	
Gender	Male	42.2	4.01	1.08	
	Female	57.8	4.11	1.07	
Group	Alone	1.8	4.63	0.52	
	Family	60.8	4.06	1.08	
	Friends	13.8	4.00	1.13	
	Partner	21.9	4.09	1.09	
	Colleagues	1.6	4.00	0.82	
Repeat visits	First visit	9.4	3.95	1.15	
	1–5	32.3	4.15	1.02	
	6–20	25.3	4.14	1.02	
	21 or more	32.9	4.03	1.17	
Repeat visitor	Yes	90.6	4.07	1.07	
	No	9.4	4.10	1.13	

Note. Independent sample *t*-tests were done to compare means between two groups (gender, repeat visitor), and one-way ANOVA tests were done to compare means between more than two groups (age, group, repeat visits)

**Table 2:** Valuation of Wadden Sea compared to other visible landscape elements of Terschelling and surroundings

Valuation	Mean	Standard Deviation	Ν
North Sea beach	4.18	1.15	430
Dunes and forests	4.16	1.10	430
Wadden Sea	4.07	1.08	433
North Sea	4.03	1.24	433
Nature areas	3.93	1.13	430
Villages	3.63	1.26	430
Seals	3.49	1.27	433
Birds	3.33	1.28	433
Sea animals	3.15	1.38	433
Polders	3.10	1.40	430

Note: 1 = very unattractive, 5 = very attractive

In 2013, 444 338 tourists visited Terschelling (Veerbootinfo. nl, 2014). The number of tourists visiting Terschelling in the autumn school holidays is far lower, yet the aim was to collect 500 guestionnaires: 250 guestionnaires in each direction, to and from Terschelling. Each way, there were approximately 400 passengers on board. Of the 250 questionnaires handed out, 237 completed guestionnaires were collected on the ferry to Harlingen, and 197 on the ferry to Terschelling, a response rate of respectively 95% and 79%. The lower response on the way to Terschelling can be explained by the fact that passengers had just started their holidays. Reasons passengers gave for their unwillingness were: "I am on holiday now" and: "No, not interested". A total number of 434 questionnaires were filled in. The statistical program IBM SPPS statistics 22 was used to analyse the data. Most respondents were Dutch, middle-aged, visiting with family and were repeat visitors. Fewer than 10% had never visited Terschelling before (Table 1). Due to the relatively high response, this is likely to correspond with the general profile of visitors to Terschelling in the autumn school holidays.

## Results

Respondents valued the Wadden Sea relatively highly, as it was ranked on third place after the North Sea beach and dunes and forest, and just before the North Sea (Table 2). The valuation of the Wadden Sea differed significantly between different age groups. Respondents between 25 and 36 years, and middle aged to older (49+), valued the Wadden Sea significantly more highly than young (16–24) and young middle aged (37–48) respondents.

For the majority of respondents, the Wadden Sea was an important motivation to visit Terschelling (Table 3). Most of the respondents knew that the Wadden Sea is a UNESCO World Heritage Site. However, only 6.5% regarded the World Heritage status as a motivation to visit Terschelling. Most respondents experienced the Wadden Sea from the island, by cycling along the dike, while about a fifth participated in a Wad excursion during their stay. Most respondents had participated in a Wad excursion during one or more previous stays. Respondents who regarded the Wadden Sea as a motivation to visit Terschelling valued the Wadden Sea more highly than respondents who did not. It was also noted that the few respondents who watched birds (8.9%, see Table 3)

<sup>\*</sup>p < 0.05

Table 3: The role of the Wadden Sea in respondents' recreational behaviour on Terschelling and motivation to visit Terschelling

Variable	Category	% (N = 434) -	Valuation Wadden Sea	
Variable			Mean	SD
Wadden Sea as motivation to visit Terschelling*	yes	57.8	4.20	1.07
	no	42.2	3.89	1.06
Knowledge on World Heritage Site	yes	76.3	4.11	1.06
	no	23.7	3.93	1.12
World Heritage Site as motivation to visit Terschelling	yes	6.5	4.00	1.19
	no	93.5	4.07	1.07
Wadden Sea recreation $(n = 371)$	Cycling along the Wadden Sea dike	60.4	4.01	1.07
	Wad excursion	21.3	4.07	1.10
	Seal excursion	8.9	3.97	1.21
	Bird watching	8.9	4.52	0.67
	Other	0.5	4.50	0.71
Visit to the Wadden mudflats during this holiday or before	yes	63.8	4.11	1.09
	no	36.2	4.01	1.07

Note. Independent sample *t*-tests were done to compare means between two groups, and one-way ANOVA tests were done to compare means between more than two groups.

valued the Wadden Sea most highly compared to others. Due to their low numbers, the difference in valuation was not significant.

#### Discussion

It can be concluded that visitors value the Wadden Sea almost as highly as the North Sea beach, dunes and forest on the Wadden island of Terschelling. Our results confirm the findings, that the natural landscapes on the Wadden islands beaches and dune areas are valued most (Sijtsma et al., 2012). However, the concern that the Wadden Sea may be of lesser importance is not supported. Our results show that for the majority of visitors to Terschelling in the off season, the Wadden Sea is valued highly and is an important motivation to visit the island. Most visitors have experienced the Wadden Sea first-hand, by cycling along the Wadden Sea dike or participating in Wad excursions. Due to their past experiences, they value the Wadden Sea highly, which is in line with previous research which demonstrates that nature excursions can foster and increase visitor attachment to protected areas (Folmer, Haartsen, & Huigen, 2013).

Our research shows that in the off season the World Heritage status does not attract visitors. Although the majority of visitors know that the Wadden Sea is a UNESCO World Heritage site, only a few regard the status as reason to visit the Wadden Sea area. Besides the nomination as World Heritage site, visitors have more important reasons for visiting (Poria, Reichel, & Cohen, 2011). As most are repeat visitors, it is likely that they have known the Wadden Sea for much longer than the World Heritage Status. In addition, we did not find evidence that the Wadden Sea as World Heritage Site is a "must see" for tourists (Shackley, 1998; Ryan & Silvanto, 2009), as we found hardly any first-time visitors. It is clear that the UNESCO status of the Wadden Sea is not a label that will automatically attract more tourists.

To attract new visitors from beyond the traditional Dutch, German and Belgian markets who come specifically for the World Heritage brand, much more effort should be put into raising awareness about the values that classify the Wadden Sea as a natural World Heritage site. In this respect coastal tourism development in Lower Saxony (Germany) can serve as an example. Here the World Heritage status is actively used to attract more and different tourist groups (Revier, et al., 2012, Prowad, 2012). A logo has been developed, which can be found on all brochures, the homepages and everything else connected with the German side of the Wadden Sea. Moreover, signs are installed on the German motorways heading towards the coast, which raise awareness of the special site. Furthermore package tours themed around the topic of the Wadden Sea are offered (Nordsee GMBH, 2011). The marketing of the region mainly uses the World Heritage title, and programmes are developed to raise awareness and educate visitors. Representatives of the tourism industry are convinced that the World Heritage status creates benefits for tourism and hence the region is present at fairs and has started a marketing campaign. Also they believe it has led to raised awareness for the preservation the natural values of the Wadden Sea. Moreover, a stronger focus on natureorientated target groups is developed. Also cooperation between the tourism industry and nature conservation organisations has benefitted from the World Heritage status (Revier, 2013).

## **Concluding remarks**

The UNESCO status of the Wadden area is not a label that will automatically attract more tourists and generate sustainable tourism development. It can have all kinds of benefits for the region in question, such as conservation, cooperation, local pride, social capital, learning and education, and sponsoring and investments, but the economic effects and tourism impacts usually remain poor (Rebanks, 2009). However, to give a sustainable boost to the Wadden area as a tourism destination, the UNESCO status should be regarded as an interesting and challenging opportunity for the region but not as a panacea. It requires a clear and focused vision and strategy, with raising awareness of the values that qualify

<sup>\*</sup>p < 0.005

50 Folmer, Revier and Cupido

the international Wadden Sea as a natural World Heritage as a first step. Nevertheless, tourism development and nature conservation and can mutually benefit. Raising awareness about the natural values of the Wadden Sea will result in more visitors to the region and contribute to an emotional attachment to the protected area and public support for the conservation programmes. Further research should aim at explaining differences in the perceptions of the Wadden Sea by different target groups and exploring ways to attract new visitor groups to the area.

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