

# Shifting land use in German coastal mainland destinations: historical development of tourism in Norden-Norddeich

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## Abstract

**Purpose** – The purpose of this paper is to present the way in which the mainland of the German Wadden Sea area transitioned from traditional sectors into an almost entirely tourism destination, and which factors contributed to and/or necessitated such a development.

**Design/methodology/approach** – The overall approach in this paper has adopted a focus on an extensive case study of the German mainland of the Wadden Sea area. Scientific articles have been used to, first, structuring the theoretical framework and then to gain a general understanding on what a transition exactly entails. As a result, the theoretical framework has been written in an examination of existing literature on transitions and functioned as the theoretical support and foundation for the case study analysis. The analysis has been shaped by means of a number of scientific articles, branch reports, books and websites that, in most instances, specifically focused on the chosen case. Since the area of study is located in Germany, specific literature on this area was mostly limited to the German language, a language of which the author has a basic, yet not thorough, understanding. However, the overall scope of the developments in the case in regard to the transition from agricultural and fishing communities to communities in which tourism plays a substantial role has been understandable.

**Findings** – One of the most important sectors that economically benefit the Wadden Sea region, especially on the Dutch and German Wadden islands, is tourism. While tourism development on the Dutch mainland is minimal, the sector considerably developed in the past few decades on the German mainland, generally as a result of declining yields through multifarious unfavorable developments in traditional sectors such as agriculture and fishing, amongst others. Throughout previous centuries, Norden-Norddeich possessed some small-scale tourism facilities; however, negative developments in those traditional sectors required the municipality to prevent an impasse situation, resulting in altering business models and upscaling tourism facilities. Initiatives in different layers (micro, meso and macro) were initiated and gradually intensified in order to develop Norden-Norddeich as a counter destination for the expensive German islands. Following the phases of transition, Norden-Norddeich gradually developed and can now be regarded as a stable and dynamic holiday destination as well as a system that nowadays almost completely adheres to tourism. It took Norden-Norddeich ten years to transition toward tourism. Presently, Norden-Norddeich is the most visited mainland destination at the German Wadden Sea coast. In contrast, small-scale activities are set up in the mainland part of the Wadden Sea area in the Netherlands, but miss out on effective collaboration between different stakeholders that are involved in both planning and management (such as policy makers) and executive roles (such as the people who organize activities and/or facilities). Furthermore, the area is managed in such a way that does not contribute yet to upscaling economic development, mostly as a result of regulatory issues that hinder such developments. However, increasing efforts by several stakeholders are being taken that should ultimately lead to a sustainable socio-economic development of the Dutch mainland part of the Wadden Sea area.

**Originality/value** – Analyzing the stages of transition on the German mainland of the Wadden area might function as an example for stakeholders in villages or cities located on the mainland of the Dutch Wadden to become aware of how processes of tourism transitions occur, what factors are needed to start off such a transition and what effects a transition might have on the revitalization of a certain area. Moreover, the case of Norden-Norddeich could stand out as an example for Dutch stakeholders in the Wadden region to perceive in what way a locked-in situation could be prevented or solved by shifting from one system to another by taking on a wide range of initiatives that might be led and stimulated by different actors.

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**Paper type** *Research paper*

## 1. Introduction

The Wadden Sea area is the largest contiguous intertidal ecosystem in the world (Christianen *et al.*, 2017; Baptist *et al.*, 2017) that is scattered among the Netherlands, Germany and Denmark and encompasses islands, the Wadden Sea and the most northern located parts of the mainland. The 500 km coastline, stretching from Den Helder in the Netherlands to Blåvandshuk in Denmark, consists of 25 inhabited and multiple uninhabited islands, sandbars (Kabat *et al.*, 2012), mud flats, salt marshes, beaches and dunes (UNESCO, 2018). Because of its geomorphological character combined with a rich biodiversity as well as physical factors (Wang *et al.*, 2012), the Wadden Sea area became enlisted as a site of outstanding universal value on the UNESCO World Heritage List in 2009.

Besides the influence of external forces such as climate change and the rising sea level (Wang *et al.*, 2012) that are hardly uncontrollable, within the Wadden Sea area a wide range of controllable activities take place varying from nature conservation, leisure and tourism (van der Aa *et al.*, 2004), agriculture, fishing, gas and salt mining, dredging and sand nourishment as well as inspirational functions that for instance relate to cultural, intellectual and spiritual activities (Folmer *et al.*, 2010). All those activities impact, yet should coincide with each other, stimulating economic development on the one hand and preserving nature on the other hand. Tourism and leisure is one of the activities that are increasingly growing (PROWAD, 2012). Although the greater part of this activity takes place on the Wadden Sea islands, especially the mainland in Germany faced some considerable changes in the past as a result of developing tourism (Folmer *et al.*, 2016). In contrast with the German mainland, tourism development on the Dutch mainland of the Wadden region stayed, and still stays, behind (Revier *et al.*, 2012). One of the villages along the German Wadden Sea coast where tourism nowadays functions as a primary source of income is Norden-Norddeich. However, the city has not always been familiar with tourism in previous years. Traditionally, sectors such as agriculture and fishing prevailed.

Therefore, as a guiding question throughout this paper, the following problem statement has been formulated: in what way did Norden-Norddeich transform to a tourism destination, what were the reasons for this transition and what might be the future potential of the Dutch Wadden Sea area in view of tourism development? As a result, this paper will mostly look at what triggered tourism development on the mainland as well as the historical changes in land use in the German part of the Wadden Sea area within the past few centuries. In particular, Norden-Norddeich, which is located in the most northern part of Lower Saxony, along the Wadden Sea, will be scrutinized on the underlying reasons that played a significant role for the transformation from one system to another. Hereby, the phases in the transition process developed by Rotmans *et al.* (2001) have been applied.

Analyzing the stages of transition on the German mainland of the Wadden area might function as an example for stakeholders in villages or cities located on the mainland of the Dutch Wadden to become aware of how processes of tourism transitions occur, what factors are needed to start off such a transition and what effects a transition might have on the revitalization of a certain area. Moreover, the case of Norden-Norddeich could stand out as an example for Dutch stakeholders in the Wadden region to perceive in what way a locked-in situation could be prevented or solved by shifting from one system to another by taking on a wide range of initiatives that might be led and stimulated by different actors. As a result, this paper dedicates a section to the future perspective of tourism development in the Dutch Wadden Sea area by describing how tourism development in the Dutch Wadden area might be stimulated, in what way this might be done and what this could mean for a region.

First, the concept of transition will be shortly outlined in the theoretical framework, followed by the research approach that entails a description of the utilized method for obtaining the data as well as a motivation for the chosen method. Furthermore, case study as a research methodology as

well as its advantages and disadvantages will be briefly described. In the analysis, the case study of Norden-Norddeich will be first presented on the basis of the phases of transition. The final part of the analysis is dedicated to the future potential of tourism development in the Dutch Wadden Sea area. The conclusion and discussion section outlines the main findings and proposes a future-orientated answer to the problem statement.

## 2. Theoretical framework

### 2.1 Transitions in process

Transitions can be described as the way in which the structural character of a system gradually transforms from its current state to a new one (Rotmans *et al.*, 2001) and because of multifarious situations, such as from a necessary point of action perspective[1], from a relatively stable, but controversial state, to a required future state[2], or from a state of depletion to a new state in case shortages of energy occur and societies become dependent on replacing resources (Solomon and Krishna, 2011). Other factors that might stimulate and/or accelerate transitions are, for example, increasing energy prices due to depletion of a specific energy resource, pollution and health effects as a result of the use of specific resources, technological and innovative developments as well as climate change and striving for sustainability, since the contemporary use of fossil fuels affects global warming (Vidadili *et al.*, 2017) and stimulates the Greenhouse effect.

Whereas Rotmans *et al.* (2001) mention transitions as being a continuous process, Rauws and De Roo (2011) rather state that transitions are sometimes disrupted, in which unexpected alterations might occur and where developments are, at times, far from happening smoothly or desirable. Moreover, transitions are not the result of developments occurring in one specific sector or domain, instead they often take place in multifarious areas that seek to strengthen each other and aim for a dynamic, yet stable, equilibrium in the end stage of transitions. Consequently, a wide range of actors with different backgrounds might be involved in transition processes. Those actors can be specified in three levels: micro (such as stand-alone companies, lowest level), meso (such as networks and communities, intermediate level) and macro (such as clusters of political institutions, highest level). Rotmans *et al.* (2001) argue that transitions might be initiated on all three levels.

Possibly the most well-known and researched area dedicated to transitions lies in the transition from fossil fuels to renewable or sustainable energy; however, being most often large-scale transitions that are frequently lasting for a century or longer to be adopted (Solomon and Krishna, 2011). Furthermore, those transitions might bring along sensitivities in the course of the process in which, for instance, populations relying on a relatively and predictable energy source are obliged to switch to alternative and unpredictable energy resources such as from natural gas or coal to solar energy or hydrogen. Sensitivities in this case play a substantial role among companies that are responsible for generating and/or transporting energy. They fear that with transferring from one stable and reliable energy resource to another a so-called lock-in situation might occur (Rotmans *et al.* 2001). To be specific, a situation where significant time efforts and financial investments are invested, but where the outcome is expected, or turns out, to be a failure and where returning to the old situation becomes unrealistic. In addition, shifting toward new energy suppliers might entail increasing energy prices for households in first instance (Franco *et al.*, 2017). However, as soon as those renewable and replacing energies are accepted, further developed and proved to work effectively, other actors might consider the same approach, which may lead to decreasing prices (Chu and Majumdar, 2012). Here, the different stages within the transition management process come in.

Developed by Rotmans *et al.* (2001) and described in Loorbach (2010), the phases of transition involve several stages in which a development (growth) in a specific system occurs due to the result of trends and developments, opportunities and threats (known as push and pull factors) that are taking place in different domains and/or layers in society (Rotmans *et al.*, 2001). Moreover, the stages within the transition process might be compared with the product life cycle and involve the predevelopment, take-off, acceleration (Loorbach and Rotmans, 2010) and stabilization phases (Rotmans *et al.* (2001). The predevelopment phase is considered to be a

system that is still in balance, albeit a dynamic one wherein only small changes in, for example, a socio-spatial system occur[3]. Furthermore, within the take-off phase, developments in systems may still be regarded as being invisible, but interests are gradually shifting from one system to another, with actors still being slightly hesitating toward completely transforming to a new system by rejecting the old one[4]. Within the acceleration phase, collective changes in both systems become visible and structural, which might likewise result in changes into socio-cultural, economic, ecological and institutional contexts, amongst others. Entrepreneurs, governmental institutions and other actors embrace the idea to changing business models and they are confident that a new system might work out, since predecessors turned out to be successful. However, this penultimate phase constitutes a process of doing, failing, learning and restarting. During the stabilization phase, the speed of change decreases and a new, but dynamic and balanced, system has been achieved (Rotmans *et al.*, 2001). This phase might last for a certain period of time until the necessity to change to a newer system might start all over again.

In tourism, examples of transitions are widespread. An example of transitions that regularly take place are transitions from places of atrocity and/or suffering to dark tourism places, or from dark places to dark tourism places as stated by Strange and Kempa (2003). Tucker *et al.* (2017, p. 306) describe that narratives in disaster tourism “can transition from narratives of destruction and loss to narratives of renewal and hope” by developing tourism in a specific site. As a result, tourism can function as a means for telling the stories of people who lost their lives in the course of a tragic event, and that might have happened in a site that was initially used for different purposes than tourism. Another example might be visible in Alcatraz and Robben prisoner islands that have been transformed into tourism products. Herein, the nature of such places of atrocity and suffering are transformed into sensitive, and open for the public, places of remembrance, honor and curiosity.

### 3. Research approach

Creswell (2014, p. 3) argues that a research approach consists of “plans and procedures for research that span the steps from broad assumptions to detailed methods of data collection, analysis and interpretation.” The overall approach in this paper has adopted a focus on an extensive case study of the German mainland of the Wadden Sea area. Scientific articles have been used to, first, structuring the theoretical framework and then to gain a general understanding on what a transition exactly entails. As a result, the theoretical framework has been written in an examination of existing literature on transitions and functioned as the theoretical support and foundation for the case study analysis. The analysis has been shaped by means of a number of scientific articles, branch reports, books and websites that, in most instances, specifically focused on the chosen case. Since the area of study is located in Germany, specific literature on this area was mostly limited to the German language, a language of which the author has a basic, yet not thorough, understanding. However, the overall scope of the developments in the case in regard to the transition from agricultural and fishing communities to communities in which tourism plays a substantial role has been understandable.

#### 3.1 Case study as a methodology

Case study as a methodology brings along a variety of implications in the research process. Hay (2016, p. 130) defines case studies as “the study of a single instance or small number of instances of a phenomenon in order to explore in-depth nuances of this phenomenon and the contextual influences on and explanations of that phenomenon.” Almeida *et al.* (2017) add that in case studies single events are being studied with multifarious variables influencing that specific case. Moreover, case studies are meant to strengthening a field’s knowledge base. As a methodology, case studies are common research approaches in areas that are covered among applied sciences such as in social sciences, education and health. Studying a single phenomenon (case study) is often referred to as studying  $N = 1$ , where “ $N$ ” stands for the population on which conclusions are being taken and “1” for the specific sample, or subset, of that population. That does not specifically implicate that in one single case study there is being looked at one specific manifestation and the corresponding impact(s) that particular event has on the studied case.

However, multiple sub-units of manifestations are studied in order to unravel how those sub-units interact with each other and how they influence a single case.

Specific phenomena in a particular case may be of a different nature, comprising a variety of fields such as, an event (a.o. a natural disaster), a process (a.o. immigration, deforestation) or a specific place (a.o. a particular location that shifted toward a different use of land, a neighborhood that is suffering from criminal activities). Moreover, case studies might strengthen and/or validate existing theoretical concepts by giving practical examples, enhancing existing concepts by implementing insights from practical examples as well as developing new concepts as a result of practical examples from the field. As a result, case studies might be regarded more as a methodology rather than a method, since a method is meant to collect data, while a methodology entails the total accumulation of a research design that is reflected in a theory of what might be researched, the way in which a theory is being researched and to what advantage this concerned theory is being researched. Hay (2016) furthermore describes that a profound understanding of one manifestation in a specific case is worthwhile on its own, while it does not specifically outline how the same manifestation relates to other cases in different contexts that are not being studied. To be more specific, a similar manifestation that occurs within a different case could result in unique and totally different outcomes. While the methodology that has been applied in a specific case might be generalizable and repeated in other cases, the outcomes, however, may be different. Therefore, multiple cases might be difficult to compare. However, Freese and Peterson (2017) argue that the standardization of certain measures or applying the same research design would facilitate comparison between different cases. Hay (2016), nevertheless, describes that the aim of studying multiple cases at the same time is not to ascertain generalizability, but to deepen, strengthen and explore theoretical concepts.

Using case study as a method brings along advantages as well as disadvantages in the process. Almeida *et al.* (2017) gives a few overarching advantages as well as disadvantages of case studies. Generally, it has been argued that case studies are meant to give a profound and detailed insight about individual events specifically. However, case studies make it difficult in identifying direct cause-effect relations in order to reach conclusions. In addition, what happens in a certain way within a specific case and the outcomes those events instigate on that specific case could have totally different context and/or outcomes in other cases. As a result, generalizability is hard, if not impossible, to create. Moreover, in performing case studies, it might be difficult to establish a study that suits all subjects.

## 4. Analysis

### 4.1 Background of the case study area

Nordseeheilbad (North Sea spa destination) Norden-Norddeich is one of the oldest municipalities that are situated in Ostfriesland, at the northern coast of the German Wadden Sea, in the federal state of Lower Saxony. The municipality counts approximately 25,200 inhabitants, of which 1,433 inhabitants are residing in one of Norden's districts, that is Norddeich (Stadt Norden, 2018). Of all the municipalities' districts, Norddeich is located closest at the Wadden Sea and next to the heritage sights and attractions Norden-Norddeich possesses such as old churches, merchant houses as well as museums that are for the most part situated in Norden; especially Norddeich has a wide range of facilities that are created for tourism purposes such as holiday homes, hotels, apartments and camp sites. Moreover, this district offers tourists multifarious activities such as swimming pools, mud flat hiking, a golf course, a wide range of restaurants, sport facilities, a marina, different beaches, a cinema and other leisure activities. In addition, Norden-Norddeich possesses a harbor that is being used as a transit port for tourists visiting the Wadden islands of Juist and Norderney, and the municipality is accessible via different roads and has an extended rail connection network with the hinterland (Stadt Norden, 2015), which facilitates Norden-Norddeich in being the most visited village at the German mainland Wadden Sea coast. Yearly, the municipality accommodates about 1.7m tourists (Industrie- und Handelskammer für Ostfriesland und Papenburg, 2015). Nevertheless, in earlier times Norden-Norddeich possessed a different function. As a result, a further elaboration on how Norden-Norddeich developed as a tourism destination will be explained in the following sections.

#### 4.2 Socio-economic development in the Wadden Sea area

Tourism on the mainland of the German Wadden Sea area is considerably more developed in comparison with the mainland in the Netherlands, as has been pointed out by Revier *et al.* (2012). There are developments that go centuries back in time and that show how the use of land could easily transform from one state to another, and why tourism had a chance to develop toward its current state on the German mainland and why the mainland coast in the Netherlands became so difficult to manage. Subsequent paragraph will briefly state the origins of the Wadden Sea area in the Netherlands and Germany. On the whole, historical developments in both countries are broadly comparable until a certain period of time. As of Section 4.2, the analysis focuses solely on the transition toward tourism in Norden-Norddeich.

Seen from a socio-economic perspective, the Wadden Sea area in the Netherlands and Germany was known for its fertile, yet hazardous, environment that attracted people centuries ago in order to prepare the land for cultivating crops. While some parts of the trilateral Wadden Sea area are now facing declining numbers of inhabitants, in the time of first millennium AD the entire area was one of the most densely populated as well as the most important trading spot of Western Europe (Wadden Academy and Common Wadden Sea Secretariat, n.d.). Comparative with the Dutch Wadden, Germany generally underwent similar development (Scherf, n.d.). Due to the absence of dikes, the Wadden area became regularly overflowed during storms and high tides, which made that farmers to protect themselves by creating embankments, better known as mounds (“terpen” in the Netherlands, “warfs” in Germany). In the course of centuries, a considerable part of farmhouses that were built on mounds gradually transformed into villages and small cities, and became surrounded by several acres of farmland. Farming became commercially successful which instigated the demand of land reclamations further north<sup>[5]</sup> and/or inland, the heightening and lengthening of dikes as well as growing land ownership among farmers (Noordhoff, 2018). Especially the latter development led to a greater demand for agricultural laborers that were needed for harvesting. As the years progressed, incidental flooding and land reclamations necessitate to repeatedly improve and reconstruct the dikes. Because those dikes increasingly ensured protection for humans as well as a flourishing economy, the area became densely populated as well as agriculturally expanding and successful for centuries. Moreover, other traditionally important sectors for the Wadden Sea area in general became fishing and overseas trading (Scherf, n.d.).

Due to continuous, often interrelated, historical developments, of which some are applicable to the Netherlands, others to Germany and others to both countries, traditional sectors increasingly arrived in a difficult situation. Starting with single-crop farming or monocultures, mechanization (Groot, n.d.), ongoing land reclamations in the Netherlands (Noordhoff, 2018) as a measure for scaling-up processes that benefitted agriculture as well as cattle breeding (CBS, 2015; van Ooijen, 2010) instigated not only increasing competition among farmers and resulting drop-outs, but also ensured that villages especially in the Netherlands became further inland located, and through which the connection with the Wadden Sea became lost (Noordhoff, 2018). Moreover, the redistribution of land not only resulted in increasing efficiency and more products, but also led to a survival of the fittest situation. Overfishing, the set-up of rules and regulations for the use of land (van Ooijen, 2010), such as price agreements for farmers, regulations for fishing, one-sided orientation on specific sectors<sup>[6]</sup> as well as the decreasing importance of agriculture (Noordhoff, 2018), amongst others, resulted in the fact that some parts of the mainland in the Netherlands became a failure of its own success and now face several negative socio-economic effects<sup>[7]</sup>. In respect of the German mainland, those negative developments have been an important incentive for change or transition. Apart from some of the earlier mentioned negative effects they are also facing up to this moment, several villages are flourishing (again) as a result of developing tourism as an antidote for the declining traditional sectors. One of these villages is Norden-Norddeich, a place where tourism has expanded for years, and which is now the most visited destination along the German mainland coast, with about 1.7m overnight stays (Industrie- und Handelskammer für Ostfriesland und Papenburg, 2015), and 299,000 tourist visits per year (BTE Tourismus- und Regionalberatung, 2013; Industrie und Handelskammer für Ostfriesland und Papenburg, 2017).

The mainland coast of the German Wadden Sea is better accessible, as Noordhoff (2018) points out. One of the reasons for this is that comprehensive land reclamations in Germany played a subordinate role compared to the Dutch mainland coast, since, in contrast to the Dutch State, the German State would otherwise claim the new land. Taking this into consideration, the social position of farmers was maintained in a modest way and they accepted that their cattle had to graze on salt marshes. As a result of the absence of large-scale land reclamations in Germany, villages remained oriented on, and closely located near, sea, instead of becoming further inland located, and surrounded by kilometers of farmland, such as certain villages in the Netherlands, but especially villages in the province of Groningen, are. While formerly important economic sectors on the mainland coast of the German Wadden Sea area[8] are still present, but increasingly disappearing, (Scherf, n.d.), tourism, more specifically summer tourism, has been developed to preventing the area for an impasse situation.

#### 4.3 Predevelopment phase of tourism in (Norden)-Norddeich

In the eighteenth century, the island of Norderney, situated in front of mainland located Norden-Norddeich, first developed small-scale tourism facilities as a result of initiatives taken by representatives of nobles, cities and farmers (might be seen as the meso level, as those people were in control at that time and formed a bond comparable with a network nowadays). A spa was constructed, including four baths and together with three carriages that functioned as a pick-up service for visitors. These visitors were accommodated by island people. At that time, settlements located at sea were widely perceived as ideal locations to enjoy the healthy sea climates. During the first years (1798–1804), between 50 and 500 tourists visited the island and after the years progressed, tourism to the island increased, now and then interrupted by battles. In the nineteenth century, the island located on the west side of Norderney, Juist, established a spa. To both islands, connections with Norden-Norddeich were maintained, which made that few hotels, boarding houses and other small-scale facilities were founded in this mainland village in order to accommodate and entertain travelers who were willing to repose before their travels to both islands continued, since for most travelers the journey to Norddeich was long and uncomfortable, taking into consideration the absence of efficient public transportation networks and good roads. Instead, horses were used as a means of transportation (Haddinga, 2010). In view of contemporary tourism to Juist and Norderney, in 2014 both islands received, respectively, 129,681 and 512,971 tourists (Industrie- und Handelskammer für Ostfriesland und Papenburg, 2015), which makes that especially Norderney is the most visited German Wadden Sea island.

Focusing on Norden-Norddeich, it can be seen that next to the small-scale facilities mentioned in the previous paragraph, and that initially functioned as a stop-over for tourists visiting the islands, a bathing culture developed in Norddeich in the nineteenth century as well[9], together with accompanying small-scale facilities such as a dress-up room and a tavern (Haddinga, 2010). Subsequently, a local entrepreneur (on a micro level (Rotmans *et al.*, 2001)) developed indoor warm and cold water baths and offered these for a modest fee to the public. The entrepreneur furthermore provided guests the opportunity to travel with a small carriage to the waterside for 15 pennies and they were also given the opportunity to travel from their boarding house (i.e. boarding house Voß in Norddeich) to Norden, from which they could travel further back inland. Other developments that took place in that time period were the construction of an anchorage for boats, a stairs on the landside part of the dike, the construction of bathing tents, boat trips to Juist and Norderney as well as horse races (Haddinga, 2010). Although a growing amount of entrepreneurs became engaged in tourism, an entire shift toward a new system was not apparent yet.

Notwithstanding the aforementioned small-scale developments in tourism, agriculture and fishing remained the most important source of income for the region, and sectors in which a considerable part of the community worked in (Scherf, n.d.). Tourism mainly functioned as a small addition to these most important sectors. However, taking the prospective developments into consideration from this point, here small, but unanticipated and unpremeditated, changes from one system to another may yet be discovered that are correlating with the predevelopment phase by Rotmans *et al.* (2001), describing that in this phase sectors are in a dynamic situation, waiting

to be thrown overboard (old system) or to be exploited (new system), but where change is not visible yet and society, and other actors as well, provisionally hesitate to transform from current systems that proved to work best and where still effort is invested in, to new ones, that are uncertain and unpredictable. This specific situation could last for decades, and wherein now and then small or larger changes and developments take place, but where major alterations are still being omitted. This was also the issue in Norden-Norddeich. The take-off and acceleration phases started in the shape of large-scale developments in the tourism sector in the 60s and 70s of the twentieth century, though, being preceded, and elicited, by unfavorable developments in other sectors.

#### **4.4 Take-off, acceleration and stabilization phase of tourism in Norden-Norddeich**

Rotmans *et al.* (2001) describe that in the take-off phase, the shift from one system to another gradually develops as a result of changes or developments in old and new systems, whereas in the acceleration phase, the shift from an old system toward a new system becomes widely embraced and in which structural and observable changes in both systems occur as a result of a collection, as well as interaction, of different factors in, for example, socio-cultural systems, local economies and institutions, amongst others that necessitate to undertake a shift. In the end stage of transitions, that is the stabilization phase, the speed of change slows down and the new system reaches a stable, but dynamic, balance.

In regard to Norden-Norddeich, a considerable part of the instigators for change that, in the twentieth century, already paved the way for developments taking on in later times might have been the steamship as a substitute for sailing boats, the extension of the railroad to Norden, and later on Norddeich, the construction of a fixed road (Haddinga, 2010) as well as the basic tourism facilities that were already available. The former three drivers for change initially made it possible to reduce travel times from the hinterland to the islands on the one hand, but made it relatively unnecessary for travelers to stay overnight in Norddeich. Although the construction of the railroad to Norddeich initially appeared to be a stimulus for the fishing sector in particular, since goods could be transported in a faster time-frame (Vollmer *et al.*, 2001), stopovers of travelers in Norden-Norddeich gradually decreased. The municipality nevertheless accomplished to retain its appeal as being a low-priced health destination in comparison with the islands, which were, and still are, known as expensive destinations. Yet, until a few decades ago the tourism sector in Norden-Norddeich remained relatively modest and small, until the necessity to change traditional systems was somewhat discovered and subsequently strengthened by gradual developments occurring in these systems.

Despite the region continued being a traditional agricultural area, however, in a more modest way than previously, starting off in the 1960s both arable farming and the use of land for pasture decreased as a result of land protections, restrictions (Scherf, n.d.), modernization (Federal Ministry of Food and Agriculture, 2016), declining profits, which instigated vacant farmhouses, a decrease in workforce and remaining farmhouses (Scherf, n.d.) that expanded and became more efficient. The number of farms in Germany decreased from approximately 1.2m farms in 1970 to 285,000 farms in 2013, while the amount of hectares expanded from 11.1 hectare per farm in 1970 to 58.6 hectare per farm in 2013 (Federal Ministry of Food and Agriculture, 2016). Those scaling-up of business processes led to a considerable part of (small) farmers who were forced to go along with the developments or choose another direction and change to other business types. The German Federal Agency for Nature Conservation (2015) furthermore indicates that the loss of grassland in the region in which Norden-Norddeich is located (federal state of Lower Saxony in northwest Germany) fundamentally decreased between 1999 and 2013. Lower Saxony was even one of the four federal states that faced the highest decrease in grasslands in Germany. Moreover, along the Wadden Sea coast in general, and in Norden-Norddeich specifically, the fishing sector declined as a result of the large-scale and long-lasting exploitation of fish, which made it necessary for fishers to constantly focus on replacing species in order to ensure a reason for existence. Nevertheless, those species were valued less and ultimately jeopardized fisheries in view of yields (Lotze, 2007). Presently, the fishing sector in Norden-Norddeich is small and principally used for tourism purposes in order to show the identity of the fishing community and the practices that were used in former years to tourists (Scherf, n.d.).



It was actually those developments in agriculture and fishing, as well as a growing need for a relatively cheap seaside destination opposed to the expensive island destinations (Goodall and Ashworth, 2013), that contributed to the shift from one sector to another; in this case from agriculture and fishing toward tourism and leisure. The wide range of aforementioned historical developments functioned as a catalyst for the expansion of tourism even further and the slight attention with regard to tourism in earlier years now became a serious area for attention for the present and the future. Several stakeholders in different fields had the feeling that there should be done something to overcome undesirable effects as a result of the traditionally declining sectors, and that Norden-Norddeich should revitalize by taking on a new direction. As a result, the take-off phase started.

Weiss (2003) describes that the shift toward an inclusionary tourism sector, that involved several local stakeholders with different backgrounds, expanded in the 1960s and 1970s. In addition thereupon, Goodall and Ashworth (2013) point out that developments in tourism were increasing as a result of multifarious initiatives taken by residents, who noticed the negative developments in the traditional sectors they were working in as well as continuously perceived the many holidaymakers traveling to the islands and whereby they were passing through Norden-Norddeich without spending any time or money there. As a result, the acceleration phase started with the appointment of a tourism development manager, who, assisted by the local government, wrote a development plan that aimed at increasing tourism in Norddeich. The question what have we got and how can we further expand it so that Norden-Norddeich develops as a tourist destination served as the red wire throughout the plan. Collaborations on different levels started and the managers, together with local residents (whether they were a grocer, hotelier, doctor, farmer or fisher) and the local government, were encouraged to develop several accommodation possibilities, such as camp sites, bungalow parks, bed and breakfasts, and other facilities such as the construction of a beach in 1969 (Stadt Norden, WWF Deutschland, 2003), catering facilities, an in- and outdoor swimming pool, a leisure center and sports facilities, amongst others. Moreover, a small percentage of what the stakeholders earned from tourism was put in a fund that was meant for the newly set-up tourism organization, who, on its term, had the chance to market Norden-Norddeich among a wider public.

The entire operation ensured that Norden-Norddeich is now a popular summer destination for many German working class holidaymakers. The gradually undertaken investments resulted in increasing tourism numbers in the municipality, from approximately 30,000 tourists in 1970 to 85,000 in 1989 (Weiss, 2003), to 151,000 in 2002 (Stadt Norden, WWF Deutschland, 2003) and to almost 299,000 tourists in 2016, which makes that Norden-Norddeich is not only the most visited mainland location along the German Wadden Sea coast (BTE Tourismus- und Regionalberatung, 2013; Industrie und Handelskammer für Ostfriesland und Papenburg, 2017), but also that tourism has become a successful replacement system for the agricultural and fishing systems, as well as the most important source of income for the municipality (Stadt Norden, WWF Deutschland, 2003). In order to remain a preferred destination for holidaymakers, Norden-Norddeich is constantly looking for finding and exploiting its potential and expanding its tourism sector even further by developing new activities and facilities as well as focusing on new target groups, which are stated in the municipalities' tourism strategy for the upcoming years (BTE, Tourismus- und Regionalberatung, 2013). Taking the aforementioned developments in mind, it is acceptable to state that Norden-Norddeich has ended up in the stabilization phase. Rotmans *et al.* (2001) point out that during this phase the speed in view of change is decreasing, a balance, albeit a dynamic, has been reached and a new system attained. The numerous efforts taken by different actors on a micro, meso and macro level were required, but once these different actors agreed on allocating and developing Norden-Norddeich as a tourism destination, the entire shift from one system to another lasted for ten years (Goodall and Ashworth, 2013), which is, in view of comparable transitions, rapid.

#### **4.5 The possible role of sense of place in tourism development in the German Wadden Sea area**

The initiatives that have successively been taken in Norden-Norddeich in order to shift the area from traditional sectors to a tourism sector, a sector with which inhabitants and their ancestors

were already familiar with for years, but where major developments in tourism initially were not dared to be taken yet by several stakeholders, have been strengthened by the multifarious underlying reasons that have been discussed in previous sections. However, another aspect that might have played a substantial role in the context of tourism development in the German mainland part of the Wadden area in general, and Norden-Norddeich in particular, is the influence, and the level, of sense of place among its local inhabitants, who started businesses aiming for preventing a locked-in situation due to negative developments in traditional sectors, and therefore organized tourism-directed development.

Sense of place is the overarching concept of place identity, place attachment and place dependence (Trentelman, 2009; Amsden *et al.*, 2010) defining the human relation with specific environmental characteristics of a place and entailing subjective personal experiences such as memories, feelings, traditions, history, culture and society (Ghoomi *et al.*, 2015). Sense of place might be stimulated and strengthened by objective characteristics of a place such as, for example, visible within design, landscape, smell and sound (Ghoomi *et al.*, 2015) and amplifies due to the time individuals spend in the area (Jorgensen, and Stedman, 2006), birthplace and neighborhood cohesion (Liu, and Cheung, 2016). According to Amsden *et al.* (2010), sense of place may be created or maintained for the purpose of tourism development and may stimulate place attachment and place-related behavior among locals. In view of place-related behavior, locals may be intrinsically and/or extrinsically stimulated to organize activities that directly contribute to the area they are living in.

Traditionally, the mainland part of the Wadden Sea area is known for its high resident turnover, which is mainly visible in the fact that young people tend to leave the area as soon as they finish a higher level in secondary school. On the other hand, older people and less educated, amongst others, remain residing in the area. This means that a considerable part of the mainland population has been born in this region and/or that those people stay for years without (having the possibility of) moving to other places outside the region (Arndt *et al.*, 2004). A research performed by Liu and Cheung (2016) about the level of sense of place among inhabitants of fishing village Tai O in Hong Kong, and its connection with starting up businesses in the field of tourism, revealed the following findings that might be applicable to the Wadden Sea area as well. Initially, they discovered that inhabitants who were born in Tai O displayed a higher level of sense of place than inhabitants who were born in other places outside the fishing village. Furthermore, older inhabitants had a stronger sense of place feeling than younger, and the longer inhabitants lived in Tai O, the higher their feeling of sense of place was. To be specific, the longer people reside in a specific place as well as the older they get, the level of sense of place increases according to this study. Especially when it comes to length of residency, other studies carried out by Brown *et al.* (2003), Jorgensen and Stedman (2006) as well as Nielsen-Pincus *et al.* (2010) disseminated corresponding findings. Furthermore, the level of education played an important role among Tai O's inhabitants in relation to the level of sense of place: the higher educated inhabitants were, the less willing they were to remain living in the area.

In view of starting tourism businesses in Tai O, the people who have been living since birth in the fishing village, and therefore displayed higher levels of sense of place, showed higher neighborhood cohesion, place attachment and a greater understanding of selling products that contributed directly to the area they are living in, instead of selling products of which a portion of the yields needed to be paid to stakeholders outside Tai O. Furthermore, those inhabitants were functionally attached to the place, which means that before they started tourism businesses, they were involved in livelihood activities such as fishing, processing seafood and/or supplying fisheries with the necessary equipment and edibles. In addition, this group of residential indigenous was at retirement age and showed a low level of education. Especially the level of education hindered them in leaving the area. When the fishing industry declined, however, they were in need of other means of livelihoods in order to retain a certain standard of living. Therefore, this group of people chooses to shift business models from fishery toward tourism and opted for carrying out activities that were closely related to their former jobs.

Where research about the level of sense of place among inhabitants of the mainland part of the German Wadden Sea area is missing, it might be assumed that the level of sense of place described in previous paragraphs also played a substantial role among inhabitants of

Norden-Norddeich in stimulating the formation of tourism facilities. As previous sections outlined the transition from traditional systems to a tourism system, in Norden-Norddeich inhabitants were also formerly involved in other businesses than they are running at the moment, but which are, more or less, closely connected to their previous jobs.

#### **4.6 Future perspectives on the development of tourism in the Dutch Wadden Sea area**

In the Dutch mainland part of the Wadden area, the historical changes, and specific characteristics, of the landscape (years of land reclamations for the carrying out of agriculture and/or cattle breeding) and the highly fragmented, administrative and organizational area in terms of direction and implementation of policies (Camps *et al.*, 2010), amongst others, make it difficult to entirely shift from an agricultural system toward a tourism system. Numerous parties ranging from state services, provinces, municipalities, national parks and site administrators (Noordhoff, 2016), amongst others, are involved in policy- and decision-making processes, but without finding a coordinated, structured, integrative and uniform approach to determine the sustainable future of the Dutch Wadden Sea area. As a result of this fragmented situation, no clear direction is given about which path the Wadden Sea area should follow in order to revitalize the area in terms of regional development. Van Dijk (2015) claims that especially the mainland part of the Wadden Sea area faces high unemployment rates, an increasingly elderly population, low incomes, many social security payments and migration of higher educated individuals to more developed areas. To overcome those negative socio-cultural and economic developments, it is argued to stimulate innovation and entrepreneurship among local people, and set up a uniform and integrative approach that should lead to an unambiguous and overarching development of the Dutch Wadden Sea area.

In the Dutch Wadden Sea area, sense of place is mainly reflected in the landscapes' natural attributes, cultural and heritage values and history the area is in possession of. Due to those unique features, sense of place might form the basis for awareness and understanding among, and enhancing intrinsic values of, local people and converted into specific area-related actions in terms of stimulating preservation, pursuing economic development and sustainable usage (Common Wadden Sea Secretariat, 2007). Projects such as Sense of Place and Leeuwarden Cultural Capital 2018 (whose themes and projects clearly focus on "mienksip," which stands for community involvement) could evoke local awareness, contribute to locals' sense of pride and increase place attachment. Those factors might increase local motivation to start place-related activities or facilities. However, guidance by local, regional governments or role models by means of educational and training programs is advisable in order to manage, intensify and enhance local efforts. Furthermore, setting-up a range of coordinated tourism activities might ultimately function as a catalyst for other area-related developments and incentives in different fields such as in, demographics and employment, amongst others.

The issues the Wadden Sea area is coping with, as previously mentioned by Van Dijk (2015), sometimes contribute to sense of place, which is, for example, the case in the elderly population and residency factor: according to Liu, and Cheung (2016) the length of residency influences the level of sense of place an individual is perceiving. While a considerable part of local people are yet proud on their area and have a certain feeling of sense of place, this has not been much converted into direct community involvement and actions on, primarily, the mainland of the Dutch Wadden Sea area. On the other hand, the migration of higher educated individuals to more developed areas (external exposure) leads, in first instance, to a brain drain, but could nevertheless lead to future homecoming, stimulate innovation and the implementation of new insights as soon as these individuals see the area's potential. Projects such as Sense of Place and Leeuwarden Cultural Capital 2018 could evoke awareness, contribute to a sense of pride and increase indigenous people's motivation to return to their native soil to implement their learned ideas and insights into practice.

Whereas policy documents and research concerning the utilization and implementation of sense of place in the Wadden Sea area is hardly available, except for the large projects being organized in 2018 and after, there are a few examples of parties operating on the executive rather than the planning and controlling side that definitely include sense of place in small-scale and nature-based activities. Sense of place, place-related behavior and community involvement is reflected in a wide range of different nature activities that are being offered in the area. Het Wadvissersgilde is a

collaborative association of different skippers who provide several nature- and education-based excursions within the western part of the Dutch Wadden Sea area. These skippers have been living their whole life in the area, were formerly involved in fishery, but stopped when regulations intensified and yields decreased (Het Wadvissersgilde, n.d.). Due to their extensive experience within and with the area, they became aware of its unique and vulnerable character and created a profound feeling of sense of place and place attachment which they would like to convey to the society by means of creating activities such as mud flat hiking, sailing and watching seals. Naturally, this is one example that shows in which way sense of place, place attachment, community involvement and place-related behavior have been implemented into activities that contribute to a sustainable development of the Wadden Sea area.

Another activity that is mainly being performed in the eastern part of the Dutch Wadden Sea area is mud flat hiking. This activity is popular among a wide range of people and also has a close linkage with sense of place, place attachment, community involvement and place-related behavior. This nature-based activity is mainly set up and guided by local people whose sense of place is principally strengthened as a result of their length of residence in the Wadden Sea area, and/or highly relies on the unique natural and cultural attributes of the area. Especially these unique attributes are clearly disseminated during the activity through education as well as transmitted due to the surrounding area itself. As a consequence, mud flat hiking is aiming for strengthening participants' sense of place. Furthermore, the offering of excursions and experience activities is gradually growing in the Dutch Wadden area, albeit mainly small-scale activities that are being run by small entrepreneurs. Nevertheless, future cooperation and integrative stimulation should be the main aim of those entrepreneurs who are involved in Wadden activities, as this might stimulate new insights and strengthen the tourism product the Dutch Wadden Sea area could offer. Future local initiatives might also focus on other activities and/or facilities such as unique accommodations located outside the Wadden dike, sport events that, for example, focus on organizing a hiking tour that follows the Dutch Wadden dike. Another important point to take into consideration for the future development of the mainland part of the Dutch Wadden area could be stimulating the exploitation of the UNESCO World Heritage label, which should ultimately result in increasing tourism to the Wadden Sea area.

## 5. Conclusion and discussion

The German mainland, and especially the municipality of Norden-Norddeich, evolved within ten years from a traditional agriculture and fishing system toward a flourishing system in which tourism gradually became the primary source of income for a wide range of stakeholders. They shifted their businesses from farming and/or fishing toward businesses aiming at developing tourism in the area, mainly as a result of multifarious adverse developments in traditional sectors (such as overfishing and scaling up of business processes in farming). In contrast, it is striking to perceive that the Dutch mainland is so minimally developed in terms of tourism. One of the reasons for this is the cautious and small developments in land reclamations that have been taken centuries ago on the German mainland, opposed to the large-scale developments in the Netherlands that had to stimulate agriculture and cattle breeding to its fullest potential. This made villages and small cities in the Netherlands become further inland located and, therefore, lost the connection with the Wadden Sea. On the other hand, the small-scale landscape developments in Germany made that tourism had a chance to develop toward its current state. That does not imply that it is impossible to create increasing tourism facilities on the Dutch Wadden mainland in order to stimulate the mainland for tourism purposes. The projects that have been organized as a result of Leeuwarden Cultural Capital 2018 may stimulate increasing place-related behavior of locals, which might potentially result in undertaking efforts in stimulating the area in terms of tourism. Furthermore, local stakeholders could focus on setting up small-scale activities and seek for collaboration with other entrepreneurs. In addition, a uniform and integrative management system should be set up in which needs and wants of all stakeholders are met in order to striving for a common direction that strictly focuses on tourism development on the Dutch mainland part of the Wadden Sea area, but without harming the sustainable future. Since the Dutch Wadden Sea area is assigned the UNESCO World Heritage label in 2009, it is also strongly recommended that future efforts should focus on marketing the area among the wider public by using the UNESCO label.

## Notes

1. In the case of changes in land use due to decreasing yields in farming toward developing small-scale tourism opportunities as an extra or replacing source of income.
2. From the gas extraction industry in the northern part of the Netherlands to newer, safer and cleaner sources of energy.
3. For example, one entrepreneur or company on a local level that is looking for new business models, since the usual source of income gradually becomes increasingly insufficient.
4. For example, a small number of entrepreneurs notice the necessity to try new business models as a result of the benefits the frontrunner or initiator experienced in the predevelopment phase: a best practice example.
5. Mainly in the Netherlands.
6. For example, when current activities are steady and going well, it is generally held that there is no need to change these, or to focus on other areas to invest in as a precautionary measure.
7. Such as vacant buildings (Noordhoff, 2018), a decreasing population as well as facilities, discouragement among societies and a so-called locked-in system.
8. Such as agriculture and fishing.
9. That is, spending free time on the dike that protected the hinterland for flooding and high tides.

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