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Un-locking unsustainable tourism destination paths: the role of voluntary compliance of tourism businesses with sustainability certification on the island of Rügen

Zur Neujustierung nicht-nachhaltiger Entwicklungspfade von Tourismusdestinationen: die Rolle freiwilliger Nachhaltigkeitszertifizierungen von Tourismusunternehmen auf der Insel Rügen

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Abstract: During the last 150 years the island of Rügen has developed into a mass tourism destination resulting in a continuing pressure on the island's environment and cultural heritage. Highlighting the need for a stronger consideration of ecological and social-cultural aspects of development in economic geography research, this paper uses an evolutionary approach to identify lock-ins in the Rügen tourism industry that hamper a sustainability transition and analyzes the role voluntary compliance of tourism businesses with sustainability certification can play to break away from these development paths. Focusing on the concepts of green growth and degrowth the paper provides indications that particularly in protected areas that are confronted with acceptance problems, an efficiency-driven green growth approach guided by a spirit of sustainability can be the basis for moving towards more sustainable modes of development. However, the study raises the question of time frames for regional sustainability transitions and the parameters these depend on.

Keywords: degrowth; evolutionary approach; green economy; lock-in; sustainability certification; sustainable tourism.

Zusammenfassung: In den letzten 150 Jahre entwickelte sich die Insel Rügen zu einer Destination des Massentourismus, wobei sich der Druck auf die Umwelt und das kulturelle Erbe der Insel zunehmend verschärft hat. Diese Studie plädiert für eine stärkere Berücksichtigung ökologischer und sozio-kultureller Aspekte von Entwicklung in der wirtschaftsgeographischen Forschung. Sie nutzt einen evolutionären Ansatz, um Lock-ins der Rügenschon Tourismusindustrie aufzudecken, die eine Nachhaltigkeitstransformation behindern und analysiert die Rolle, welche freiwillige Nachhaltigkeitszertifizierungen von Tourismusunternehmen spielen, um diese zu überwinden. Aufbauend auf den Konzepten von green growth und degrowth zeigt die Studie, dass insbesondere in Schutzgebieten, die mit Akzeptanzproblemen zu kämpfen haben, ein effizienzorientierter green growth-Ansatz die Basis für die Etablierung nachhaltigerer Entwicklungspfade bilden kann. Allerdings wirft die Studie auch die Frage nach der Dauer regionaler Nachhaltigkeitstransformationen und entsprechenden Einflussmöglichkeiten auf.

Schlüsselwörter: Degrowth; evolutionärer Ansatz; Green Economy; Lock-in; nachhaltiger Tourismus; Nachhaltigkeitszertifizierung.

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1 Introduction

While most research in the field of economic geography continues to deal exclusively with the influence of space

and place on the economic performance of enterprises and the economic growth of regions, during the last few years an increasing number of scholars have started to consider ecological and social-cultural aspects, too, and have thus addressed issues of sustainability (Braun et al. 2003; Pröbstl-Haider/Haider 2014; Schulz/Bailey 2014; Klagge/Reimer 2016). Sustainability as a concept, however, is characterized by a huge diversity of approaches (Robinson 2004; Faber et al. 2005). Nevertheless, in the literature, including that of economic geography, the main perspectives have shifted from a static to a dynamic as well as from an absolute to a relative concept (Faber et al. 2005). Yet, with regard to the limited results achieved so far, Robinson (2004: 370) has raised the question of whether “trying to achieve sustainable development amounts to trying to square the circle, in the sense of trying to achieve the impossible”.

The discussion concerning strategies on how to realize more sustainable modes of development focuses on green growth and degrowth debates. On the one hand the concept of green growth expresses the need to delink economic growth and environmental degradation. It identifies technological innovations as an option to utilize natural resources more efficiently and substitute natural capital for other forms of capital (Stiglitz 1997; Pepper 1998; von Weizsäcker et al. 2009). On the other hand, degrowth approaches argue that there is an insuperable conflict between economic growth and environmental protection. Thus, sufficiency-driven strategies based on avoidance and abstinence of consumption are recognized as the only possible way to implement sustainable development (Jackson 2009; Latouche 2010; Paech 2012).

Economic geographers who have turned their research interests to issues of sustainability mostly deal with the influence of political regulations on a certain business sector in a spatial context. While losing sight of businesses’ voluntary compliance with sustainability criteria, their preferred fields of study continue to be industrial sectors such as the energy industry (Klagge/Reimer 2016). Sustainable tourism as a service sector, however, is a rather neglected field of research. With the exception of a study conducted by Strambach/Surmeier (2016) discussing the evolutionary trajectories of tourism standards, theoretically based economic geographical perspectives on sustainable tourism are hardly existent.

Therefore, applying an evolutionary approach, this paper seeks to analyze what role tourism companies voluntarily complying with sustainability certification schemes can play in the process of un-locking unsustainable development paths in order to green the tourism industry. The paper focuses on the concepts of green growth

and degrowth and evaluates promising strategies in order to establish more sustainable modes of tourism. Thereby the paper’s rationale is based on a case study realized on the island of Rügen, which is one of the most popular tourist destinations in Germany.

The paper is structured in the following way: In Section 2, the evolutionary approach in geographical research is discussed against the background of green growth and degrowth strategies as well as sustainability certification to un-lock unsustainable tourism paths. The methodology of the study is then presented in Section 3. Section 4 re-constructs the development of the tourism industry on Rügen and identifies lock-ins with regard to the promotion of sustainability. It also discusses emerging sustainability efforts that go beyond political regulation by quantifying certified tourism businesses voluntarily engaging in sustainable tourism. In Section 5, the partner initiative of the Biosphere Reserve Southeast Rügen, which is the most significant certification scheme on the island in terms of membership, is investigated by looking closely at its evolutionary context, and by unraveling the partner businesses’ sustainability motivations and the initiative’s potential to contribute to a transformation of the Rügen tourism industry towards more sustainability. Section 6 draws a final conclusion.

2 Strategies to un-lock unsustainable tourism destination paths

2.1 The evolutionary approach in geographical research

Much of the literature has acknowledged that sustainability must be interpreted as a process in which a permanent adaption to changing environmental, economic and social-cultural frame conditions is crucial (Faber et al. 2005). Hence, sustainability cannot be regarded as a final status that, once achieved, symbolizes an end of a need for human concern and effort. Nevertheless, in order to be able to measure the sustainability performance of an entity, numerous studies have emerged during the last two decades identifying sustainability indicators for impact measurement (Gallego-Álvarez et al. 2015). This has also been the case in sustainable tourism research (Torres-Delgado/Saarinen 2014; Marzo-Navarro et al. 2015). However, there is a lack of studies adopting an evolutionary perspective in order to investigate how tourism destinations’ pathways have developed in a sustainably unfavorable

way, if sustainability certification schemes might be able to open up new trajectories for more sustainable modes of development, and how these schemes develop in terms of membership, certification criteria and consumer acceptance. This paper's intent is to make a contribution to this underexplored field of research by focusing on the voluntary compliance with sustainability certification of tourism businesses on the island of Rügen and its influence on the development path of the island's tourism industry.

In economic geography research, approaches of path dependency have gained much attention since the 1990s (Cooke 1995; Maskell/Malmberg 1999; Martin/Sunley 2006). Based on core arguments from the field of evolutionary economics these studies point out that economic systems on all spatial levels have a tendency to change slowly over time whereby "the direction of this change is strongly shaped by past experiences, decisions, practices, relationships and accidents of history" (Gertler 2005: 24). While knowledge-based regional innovation systems are seen as engines for regional economic growth, the decline of old industrial areas is explained by institutional and cultural lock-ins (Grabher 1993; Hassink 2005). Concepts like the learning region that involve knowledge transfers from more successful regions were developed in order to assist firms and policy makers to un-lock unfavorable path dependencies (Gertler 2005). In this context, Maskell/Malmberg (1999) refer to a region's ability to 'un-learn' in order to eliminate practices and institutions that hamper further development.

Brouder (2014) as well as Sanz-Ibáñez/Clavé (2015) call for evolutionary approaches in tourism studies. While the intention of early evolutionary models in geographical tourism research (Butler 1980) was to generalize the dynamics of tourism destinations, contemporary scholars point to the need to analyze stakeholder interactions and destination organization (Sanz-Ibáñez/Clavé 2015). And indeed, in this young field of research a few papers have emerged in recent years dealing with the path dependencies of destinations and options on how to break away from unfavorable development trajectories (Halkier/Therkelsen 2013; Gill/Williams 2014). This paper seeks to contribute to this body of evolutionary literature, explicitly focusing on possibilities to un-lock the unsustainable development paths of tourism destinations.

2.2 Sustainable tourism and sustainability certification

The tourism industry is regarded as one of the world's leading 21st century industries, with annual growth rates

of 4% or more since 2010 concerning international tourist arrivals (UNWTO 2016). It comprises numerous sub-sectors such as gastronomy and food production, accommodation, activities and transport, and provides more than 220 million jobs worldwide (Saarinen et al. 2011). While its economic relevance is enormous, its ecological and social impacts have often been dramatically negative and cumulative during the last decades. At the same time the industry's economic well-being strongly depends on environmental intactness and a varied social-cultural heritage (Holden 2008²; Nicholls/Kang 2012). For this reason, sustainable tourism has become a major paradigm, both in tourism research and in tourism development practices since the late 1980s (Bramwell/Lane 1993; Hardy et al. 2002; Font/Harris 2004; Saarinen et al. 2011), whereat the discourse was catalyzed by the release of the Brundtland Report in 1987 and unfolded alongside, albeit separately, to the general debate about sustainable development (Ruhanen et al. 2015).

During the last 30 years of academic research in the field of sustainable tourism a huge body of literature of about 5,000 published works has emerged with an exponential growth in numbers. With regard to content the literature has shifted from definitional and conceptual works to empirically based studies, which shows the maturation of this field of research (Ruhanen et al. 2015). During the 1990s the focus of the academic research was strongly directed towards eco-nature-based tourism. This body of literature intensely criticized the phenomenon of mass tourism and advocated small-scale tourism instead. However, eco-nature-based tourism is not clearly in line with the concept of sustainable tourism as it reduces challenges in tourism to an ecological problem (Collins 1999).

With the start of the new millennium research was increasingly characterized by more holistic perspectives on sustainable tourism that included all three dimensions of the concept of sustainability and also considered mass tourism as a legitimate form of tourism (Weaver 2012; Ruhanen et al. 2015). Nevertheless, environmentally oriented investigations including papers that focus on ecotourism or protected areas have received far more attention than social-cultural studies (Bodanowicz 2005; Pröbstl-Haidler/Haidler 2014). Also, during the last few years climate change has conquered the agenda of sustainable tourism research and thus has created a tie back to the environmentally-driven approach of the 1990s (Hanna et al. 2016; Scott et al. 2016). Overall, it is widely criticized that academic concepts have mostly failed to be transferred to applied tourism practices (Sharpley 2000; Hall 2011).

Research on sustainable tourism has not created direct links to the discourse about efficiency-driven versus

sufficiency-driven sustainability approaches. However, the eco-nature-based tourism research of the 1990s that expressed harsh criticism of the phenomenon of mass tourism and questioned the necessity for everyone to travel can be characterized as sufficiency-driven. In contrast, the body of literature that has emerged since the turn of the century has not seriously questioned growth in the tourism industry and thus orientates towards the efficiency-driven idea. Additionally, the 2017 International Year of Sustainable Tourism for Development declared by the United Nations promotes sustainable tourism as a catalyst for development and positive change and thus supports the efficiency-driven perspective for tourism practices (UN General Assembly 2015).

Since the early 1990s formalized certification schemes have been established in the tourism industry in order to reduce the negative ecological and social-cultural externalities often produced by tourism and to enable tourism businesses to show their environmental and social-cultural commitment to customers. However, while more than 100 certification schemes now exist within the tourism sector worldwide, most of them focus exclusively on ecological criteria (Esparon et al. 2014; Ayuso 2007). Thus, such voluntary tools for the private sector are synonymously referred to by many scholars as eco-certifications, eco-labels or more generally Environmental Management Systems (EMS).

Sustainability certification schemes can be characterized as either more achievement-oriented or more process-oriented. While achievement-oriented certification schemes request compliance to specific criteria, process-oriented certification schemes emphasize the improvement an organization shows over a certain period of time. Thus, process-oriented certifications can also be granted to tourism companies that do not meet certain criteria, which increases the risk of greenwashing. The most popular sustainability certification schemes in the German tourism sector are Viabono with around 300 issued certificates, DEHOGA Umweltcheck with nearly 100 issued certificates, and TourCert with approximately 200 issued certificates, mostly in Germany and Latin America (Viabono 2016; DEHOGA 2016; TourCert 2016). Moreover, Eco-Camping, a certification scheme specialized on camping sites, has 220 certified entities in several European countries including Germany (Ecocamping 2016), and the EU Ecolabel has registered 11 German accommodation facilities and camping sites in its database (RAL 2016). Furthermore, EMAS as a Europe-wide and ISO 14001 as an internationally recognized general certification for environmental management are also suitable for application to the tourism sector. While Viabono, DEHOGA Umwelt-

check, EU Ecolabel and EMAS are achievement-oriented, Eco-Camping and ISO 14001 are process-oriented. When considering the numbers of certified businesses and comparing them to the total number of 226,196 tourism businesses of the accommodation and gastronomy sectors in Germany alone (Destatis 2016a), it becomes apparent that sustainability certification in the tourism sector is not well-established at all but is rather acutely exceptional.

In the literature a growing number of studies dealing with eco-certification in the tourism sector can be identified. Thereby, various papers address the consumer perceptions of certification by exploring travelers' green attitudes and behaviors (Fairweather et al. 2005; Susskind/Verma 2011; Karlsson/Dolnicar 2016). Most scholars agree that the proliferation of eco-certification schemes has resulted in a great deal of intransparency, confusing customers and impeding them from making well-informed environmentally ethical decisions (Medina 2005; Esparon et al. 2014). Against this background it is not surprising that there has been but little progress regarding the enhancement of "green consumerism" despite the fact that environmental awareness in tourism has generally increased (Leslie 2012; Miao/Wei 2013; McKercher et al. 2010). As sustainability certification schemes typically focus on the tourism providers and fail to regard the tourists' particular travel behavior Job (1996) developed the travel star (Reisestern) as an analytical tool based on five sets of indicators which reflect the three dimensions of sustainability. It aims at enabling tourists to evaluate to what extent a planned journey can be considered sustainable (Job 1996; Becker et al. 1996). However, since it is difficult to access reliable data the practical usability of this theoretical model for travelers is still limited.

Another important subject of analysis is whether certification schemes have a positive impact on the ecological performance of tourism enterprises. While a number of papers agree on a positive connection between eco-certification and environmental benefits (Black/Cabtree 2007; Font/Bukley 2001) and thus articulate a need for more certification, other scholars question this argument (Zielinski/Botero 2015; Pizam 2009; Chen et al. 2005). For example, Chen et al. (2005: 67) show in a study of German hoteliers' efforts to prevent environmental degradation "that accredited and non-accredited hotel properties show only a few differences in environmentally sound practices". Instead, Chen et al. (2005: 67) argue that "for many hotels promoting a greening image is undoubtedly seen as a means of increasing market segment". Other identified incentives to adopt formalized eco-certification by providers of tourism products are an altruistic or personal concern for the environment or the tourism businesses'

response to customer demands (Bodanowicz 2005; Ayuso 2007). While these studies' focal point is the ecological performance of specific tourism businesses in the global north, Strambach/Surmeier (2016) assess the spatial diffusion of sustainability standards between the global north and the global south. However, none of the papers analyze whether sustainability certification schemes have the potential to initiate wider processes of greening a whole region's tourism industry. This paper seeks to explore this question.

3 Methodology

As to the best of the author's knowledge no study yet exists that broaches the issue of the potential of sustainability certification on the island of Rügen, an explorative evolutionary research design was applied, whereby the methodological design of the study was threefold.

First, the evolution of Rügen's tourism industry was re-constructed by means of desk and documentary research as well as an analysis of statistical data. This included literature about the development of the historical seaside resorts on Rügen as well as the evaluation of tourism data provided by the statistical office of Mecklenburg-Western Pomerania. Thus, different stages of growth-induced path dependency and, as far as re-constructible, relevant negative ecological and social-cultural effects concerning unfavorable developments in terms of sustainability were identified.

Second, the tourism businesses on Rügen that voluntarily comply with sustainability certification schemes were quantified, again with the help of desk and documentary research. Hence, the websites and other documents of the operators of the most important certification schemes identified in Section 2 were analyzed to pinpoint members located on the island of Rügen as of October 2016. This included investigation of all businesses of the core tourism value chain including gastronomy, accommodation, transport and activities.

Third, the island's most significant sustainability certification scheme in terms of membership, the partner initiative of the Biosphere Reserve Southeast Rügen, was analyzed by re-constructing its formation process and evaluating its characteristics and hitherto performance. Official documents provided by the biosphere reserve's administration were thus investigated and 25 semi-structured interviews with partner businesses and the coordinator of the initiative conducted during September and November 2016 were analyzed. The interviews lasted

between 11 and 58 minutes. For the partner businesses they mainly included questions about their motivation to join the initiative, the individual criteria for certification and the certification process as experienced from the businesses' point of view, the partners' engagement in any of the initiative's committees or events and activities, and the partners' opinion about the prospects of the initiative in the coming years. The interview with the initiative's coordinator focused on the administrative side of the partner initiative. The interviews were audio-recorded, transcribed and evaluated by means of Mayring's (2015¹²) qualitative content analysis.

4 The development of the tourism industry on Rügen and the emergence of sustainability efforts beyond political regulation

4.1 From the origins of tourism to the establishment of mass tourism in the Socialist era

Following the example of English seaside resorts of the 18th century, which ascribed a curative effect to stays at the sea and bathing in ocean water, the first seaside resort on Rügen was established in 1816 in Putbus and nearby Lauterbach in the southeast of the island. In the following years it became a place of noble tourism, which was visited by German aristocrats and the upper classes (Zschauer 2004; Hüls 1999²; Theel 2002). However, in the middle of the 19th century, the medical motive for coming to Rügen was replaced by the travelers' desire for recreation and experiences of nature. Thus, beach holidays became more important and, consequently, places in the northern part of the island of Rügen located at the open sea and offering beautiful beaches attracted tourist development initiatives, while Putbus-Lauterbach's relevance decreased due to its rather disadvantageous bay location (Zschauer 2004; Theel 2002).

The first tourist boom on the island of Rügen can be dated to between 1870 and 1914. The seaside resorts of Sassnitz and later especially Binz, Sellin and to a smaller extent Göhren benefitted strongly from this development in an economic sense. Often on behalf of external investors, particularly in Binz and Sellin, hotels, private villas and societal buildings were constructed in an architectural

style known as Bäderarchitektur. They massively changed the former fishing villages (Zschau 2004). In Binz, the first maximum of guest arrivals was reached in 1911 when 25,678 holiday makers were registered (Gehrke 1993).

After World War I, tourism recovered only slowly in the 1920s, but experienced a second maximum just before the world economic crisis (Hüls 1999²). In the 1930s, the National Socialist Regime planned five ‘Kraft durch Freude’ (KdF) seaside resorts at the German North Sea and Baltic Sea, one of them near Prora in the northwest of Binz. An accommodation complex built parallel to the beach with a length of 7 km for a total of 20,000 guests was envisaged (Rostock/Zadniček 2012⁹). Although only 4.5 km of the Prora resort were completed before the beginning of World War II, this project must be regarded as a strategic orientation towards mass tourism on Rügen. It also resulted in an immense intervention in the island’s landscape (Helfer 1993; Spittler 1996; Theel 2002).

Although Prora was turned into a military zone in the GDR, Rügen’s tourism industry was further developed towards mass tourism in the Socialist era, primarily by the federation of trade unions FDGB. Subsequently, the island became the GDR’s most important holiday destination (Rostock/Zadniček 2012⁹; Gehrke 1993). In the 1960s and 1970s accommodation capacities were highly expanded by setting up a number of camping grounds and erecting a holiday complex with a total of 3,800 beds in Binz. Thus, the annual number of tourists increased from 150,000 in 1957 to 915,000 in 1989, each generally staying for an FDGB organized holiday of 14 days (Gehrke 1993; Helfer 1993; Spittler 1996). Thus, from the 1950s Rügen had an image of being hopelessly overcrowded by tourists (Spittler 1996). Consequently, the island turned from a rather elitist to a mass tourism destination, which resulted in environmental destruction such as air and water pollution, litter pollution, splinter development and coastal erosion. Yet, in contrast to many West-German coastal regions, environmental disturbance was relatively small due to a lack of capital in the GDR which limited the realization of bigger tourism projects (Helfer 1993).

4.2 Tourism development since German reunification

In the course of German reunification and the opening of the Rügen tourism sector to the market economy, there was a great risk that the uniqueness of Rügen’s nature and landscapes would suffer from short-term economic and political interests going hand-in-hand with large-scale projects to create bed capacities, thus enforcing splinter

development and landscape destruction. At the same time many external investors showed great interest in the island (Helfer 1993). Against this background, in 1990, in the course of German reunification, a historical decision was made to set up two national parks and one biosphere reserve on Rügen as part of the so-called National Park Program, these areas were then approved by West-German legislation and created the basis for environmental conservation on the island (Knapp 2013²). This resulted in the creation of the National Park Vorpommersche Boddenlandschaft with a total size of 786 sq. (although only a small part belongs to Rügen), Jasmund National Park (30.7 sq.) and the Biosphere Reserve Southeast Rügen with a size of 228 sq. (BfN 2016; BfN 2017). While in national parks nature is supposed to be left to its own natural dynamics and human influence is to be minimized as much as possible, biosphere reserves aim at harmonizing environmental conservation and human economic and social activities. Thus, they are model regions for sustainable development.

In addition to the designation of these nature reserves, a 1993 tourism concept suggested the island’s tourism sector should focus on quality rather than quantity by reducing capacities instead of extending them and upgrading tourism infrastructure (Freyer 1993). Nevertheless, the years after German reunification were characterized by a “second Wilhelminian time”¹ (Jung 1998: 53) with a number of large-scale projects being realized such as the holiday resort ‘Dünenpark’ in Binz, and the big Bäderarchitektur holiday village and the indoor adventure pool in Sellin. Many non-locals participated in re-shaping the island (Zschau 2004; Rostock/Zadniček 2012⁹). Thus, strong tensions developed between big parts of the business sector willing to expand tourism activities on the one hand and nature conservation authorities which tried to enforce their particular restrictions and were supported by environmental protection groups on the other hand. This resulted in an atmosphere of confrontation and mistrust (Theel 2002; Knapp 2013²). Pro-tourism growth actors argued that nature conservation would hinder economic development, which was considered unacceptable, especially against the background of high unemployment rates on the island of Rügen. As many of these actors were active in local politics, planning permits were often issued, even when, due to the size or the character of a project, a higher state-level mandate was compulsory (Bramwell/Meyer 2007). Although the federal level protected-area organizations, the Nationalparkamt and Biosphärenreservatsamt, are regarded as influential players on the island, they

1 Original quotation: „zweite Gründerzeit“ (Jung 1998: 53).

Figure 1: Guest beds and tourist arrivals on Rügen between 1989 and 2014.

have continuously faced acceptance problems. One result of this conflict of antagonistic interests is the inability to establish a long-proposed and politically agreed-upon nature park, a less strict category of protected areas, that would cover the whole island of Rügen (Lichtenberg 2003; Bramwell/Meyer 2007).

Nevertheless, in total the number of guest beds on Rügen has fallen from approximately 107,500 in the 1980s to about 58,000 in 2014. But at the same time the number of tourist arrivals increased from 915,000 in 1989 to more than 1.3 million in 2014 (see Figure 1), while the average duration of stay significantly fell from 14 days in 1989 to 4.6 days in 2014. Since the early 1990s, the number of guest nights steadily increased from 3.5 million in 1994 up to 6.58 million in 2000, and then fell slightly to 6.02 million guest nights in 2014 (Helfer 1993; Theel 2002; Statistik-MV 2016). Most guest nights were registered in the northern parts of the island, in the northwest including Hiddensee and especially in the southeast of Rügen including the historic seaside resorts Binz, Sellin and Göhren (see Figure 2).

According to surveys realized by Job et al. (2013, 2016) approximately 5,288,000 tourists visited the Biosphere Reserve Southeast Rügen within a 12 months period in 2011/2012, while Jasmund National Park was frequented by around 679,000 visitors within a 12 months period in 2013/2014. On the basis of the money spent by these tour-

ists during their stays in the two protected areas Job et al. (2013, 2016) account for 14,281 and 1,583 income equivalents related to the Biosphere Reserve Southeast Rügen and Jasmund National Park respectively.

The high number of short stays on Rügen implies an immense turnover of tourists, especially during the summer season. While in the 1970s about 50% of the tourists travelled by train, after German reunification the railway system degenerated to play a supplementary role. Instead, traffic became strongly oriented towards individual modes with around 90% of all visitors using their car or caravan to travel to and around Rügen. This results in a highly tense traffic situation which the island's infrastructure can hardly cater for. This is not only a burden for locals and holiday-makers alike, but also leads to further land consumption caused by road development and creates emissions that contribute to environmental pollution (Spittler 1996; Landkreis Rügen 2002; Job et al. 2016). Hence, Ziener (2002) proposed a model for a tourist-orientated public transport system for the island of Rügen at the beginning of the 21st century which concentrates on the directions tourists take. It identifies major tourist attractions as well as the transport corridors tourists usually move along and derives bus lines, ship lines and transport frequencies. During the last few years, a concept of modular mobility has been established on Rügen which focuses

Figure 2: Guest nights in Rügen's communities (2014) (communities with more than 100,000 guest nights are labelled).

on tourists' needs. Yet, as car drivers are commonly not well-informed about public transport options it remains a great challenge to re-direct them to alternative modes of transport.

Also, tourism intensity on the island of Rügen, reflecting the number of guest nights per 1,000 inhabitants, increased rapidly in the 1990s and early 2000s. It more than doubled between 1994 and 2009 from 43,497 to 91,316. Since 2009, the tourism industry has been consolidating on a high level, which is reflected by a stabilized tourism

intensity of 94,099 in 2014 (Statistik-MV 2016). Compared to other German coastal regions at the North Sea and the Baltic Sea this value is enormous and is only clearly topped by the East Frisian Islands. Also, it is much higher than the Balearic Islands' tourism intensity of 59,082 (LSN 2014). In contrast, Germany as a whole has an average tourism intensity value of 5,250 (see Table 1). This shows the immense pressure Rügen is exposed to by the tourism industry.

Table 1: Tourism intensities for destinations at the German Baltic Sea and the North Sea, for entire Germany and for the Balearic Islands (Spain).

Destination	Tourism intensity 2014 (guest nights*/1,000 inhabitants)
Rügen/Hiddensee (MWP)	94,099
Western Pomerania (MWP)	22,240
Mecklenburg Baltic Sea (MWP)	16,283
East Frisian Islands (LS)	371,397
North Sea Coast (LS)	14,379
North Sea (SH)	55,805
Baltic Sea (SH)	16,425
Germany	5,250
Balearic Islands (Spain)	59,082 (2012)

MWP, Mecklenburg-West Pomerania; LS=Lower Saxony; SH=Schleswig-Holstein. *Official statistics of guest nights only capture accommodations with more than ten beds. Sources: data provided by LSN 2014; LSN 2016; Destatis 2016b; Statistik-MV 2016; Statistikamt Nord 2016.

In summary, regarding the greening of the Rügen tourism industry, three institutional and cultural lock-ins can be identified. First, for the last 150 years the island's tourism sector was considerably shaped by external actors, including both economic investors (especially during the Wilhelminian era and the post-Socialist era) and political actors (particularly the National Socialist regime and the Socialist GDR regime) who favored large-scale projects in order to create bed capacities and thus developed Rügen to a mass tourism destination. Second, conflicts between state authorities trying to enforce conservation regulations and the business sector aiming to expand tourism activities since German reunification have created an atmosphere of confrontation and mistrust. Third, changes in tourists' mobility behavior since the early 1990s have resulted in an immense volume of traffic that has increased parallel to the rising numbers of tourist arrivals.

4.3 Certified businesses voluntarily engaging in sustainable tourism

While enforcing political conservation regulations has caused manifold conflicts on the island of Rügen in the last 25 years, the voluntary compliance of tourism businesses with sustainability certification might help ease tensions. In the Rügen tourism industry sustainability certification is, as in Germany in general, an acutely exceptional case (see Table 2). Concerning the certification schemes mentioned in Section 2, only two Viabono-certified tourism companies and one Eco-camping certified camping site

Table 2: Sustainability certifications in the Rügen tourism sector by certification scheme (10/2016).

Certification scheme	Certified entities
Viabono	2
DEHOGA-Umweltcheck	0
Eco-Camping	1
TourCert	0
EU Ecolabel	0
ISO 14001	n/a
EMAS	0
Partner initiative Biosphere Reserve Southeast Rügen	28 (1 also Viabono-certified)
Partner initiative National Park Jasmund	1
Partner initiative National Park Vorpommersche Boddenlandschaft	1 (in the Rügen part of the national park, 13 in total)

Source: calculated on the basis of data provided by Viabono 2016, DEHOGA 2016, Eco-Camping 2016, TourCert 2016, RAL 2016, DIHK 2016, Biosphere Reserve Southeast Rügen 2016, Nationalpark Jasmund 2016, National Park Vorpommersche Boddenlandschaft 2016.

were identified on the whole island in October 2016. With regard to the other sustainability certification schemes no tourism company on Rügen was certified. Taking into account that there were 662 registered accommodation facilities alone in 2014 (Statistik-MV 2016), which only represent one of the tourism industry's sub-sectors, this reveals that sustainability certification is not at all well-established on the island².

However, Table 2 also shows that there are three regional sustainability initiatives on Rügen which are closely linked to protected areas. All of them are related to the European Charter for Sustainable Tourism in Protected Areas of the EUROPARC Federation, the European umbrella organization for protected areas. Its ecologically focused partner initiative project was founded in 2001. In 2013, 107 partner initiatives existed with more than 390 certified members in total (EUROPARC Federation Deutschland 2013). While the partner initiative of Jasmund National Park on Rügen and the partner initiative of Vorpommersche Boddenlandschaft National Park only have one member each – at least within the Rügen part – the initiative of the Biosphere Reserve Southeast Rügen had 28 partners in October 2016. As it is the only noteworthy sustainability

² For ISO 14001 certification no information about certified entities is available.

certification scheme used by the tourism sector on Rügen it will be analyzed in the following section with regard to its potentials for greening the tourism industry on the island.

5 Potentials for greening the tourism industry: the partner initiative of the Biosphere Reserve Southeast Rügen

5.1 Evolutionary context

In 2008 the Interreg project ‘Parks&Benefits’ was launched with the main objective of establishing modes of sustainable tourism in protected areas in different countries of the Baltic Sea region. Thus, in a number of national parks, biosphere reserves and nature parks in Germany, Denmark, Latvia, Estonia, Lithuania and Norway the European Charter for Sustainable Tourism in Protected Areas by the EUROPARC Federation was to be implemented until 2012. The Biosphere Reserve Southeast Rügen was one of the protected areas that strived towards certification as a sustainable tourism destination (AfBR 2011).

The Biosphere Reserve Southeast Rügen, acknowledged by the UNESCO program ‘Man and the Biosphere’ in 1991, is a model region for sustainable development. With a territory of 228 sq., only about half of which is land area, it comprises the peninsula Mönchgut, the seaside resorts Sellin, Baabe and Göhren as well as parts of Binz, and territories around Putbus including the Isle of Vilm. While its core zone only covers 1.5% of the total area, the transition zone represents 82%. Thus, the biosphere reserve does not comply with the UNESCO minimum standards regarding area and zoning which has been an ongoing issue and puts pressure on the reserve’s administration (Knapp 2013²; MAB-Nationalkomitee Deutschland 2013). At the same time it has faced serious problems gaining acceptance from economic actors and the general public (Theel 2002; aixplan 2012). Hence, the voluntary compliance of tourism companies with sustainability certification could raise acceptance and facilitate political regulation as expected by the UNESCO.

Certification as a charter park of the EUROPARC Federation requires the development of a five-year strategy and action plan for sustainable tourism on a participative basis, including all relevant tourism actors in and around a protected area. Following an external evaluation, a char-

ter committee decides on awarding the charter certificate. Awarded protected areas must re-certify every five years (EUROPARC Federation 2016).

According to these requirements a participative process was launched in the Biosphere Reserve Southeast Rügen by founding a public forum in December 2009, which was attended by approximately 40 regional stakeholders of the tourism sector such as municipalities, federations, and local tourism companies. In 2010 a steering committee as well as three working groups discussed issues of tourism, traffic and culture, aiming to prepare a common regional concept. In late 2010, a second forum meeting took place, in which the sustainable tourism concept was advanced and subsequently adopted officially. On the basis of this concept and further discussion a strategy and action plan could be concluded in 2011 (dwif 2011; AfBR 2011). The following third-party assessment finally led to the biosphere reserve’s approval as a charter park in 2012. In the course of this participative process the acceptance of the biosphere reserve by the local public could be raised significantly (aixplan 2012).

While the adoption of a strategy and action plan is referred to as part I of the charter by the EUROPARC Federation (2016), it also comprises two further parts. Part II, the partner initiative program, envisages that regional businesses, especially businesses of the tourism sector, are certified as partners of the protected area in order to act as accredits for sustainable development and sustainable tourism. A certified charter park is authorized to agree on criteria for certification with the EUROPARC Federation in order to self-dependently conduct certifications of regional businesses (EUROPARC Federation 2016). In Germany, minimum standards were developed by a working group of the EUROPARC Federation’s German section (partner initiative coordinator 2016).

In 2011, a partner initiative was launched in the Biosphere Reserve Southeast Rügen accrediting five partners in the first year with the label ‘Partner of the Biosphere Reserve Southeast Rügen’. By October 2016, the number of partners had risen to 28 (aixplan 2012; AfBR 2016).

They covered a wide spectrum of different sizes, organizational forms and fields of activity ranging from an organization dependent on sponsoring to a company with more than 200 employees. Table 3 systemizes the partners with regard to the tourism sub-sectors making clear that many of the members orientated their activities to classical sectors of the tourism industry such as gastronomy, accommodation and tourist activities, but ten of the 28 partners were fully or at least partly engaged in the sector of food production or food retail, one partner acted as a tourism agent, and another one worked in the publishing

Table 3: Business activities of the 28 initiative partners regarding tourism sub-sectors (multiple nominations possible).

Gastronomy	Accommodation	Tourist activities	Transport	Intermediation	Food	Publishing
10	8	10	3	1	10	1

sector. This illustrates that not all of the initiative's partners were related to the tourism industry in a narrower sense, but rather engaged in the tourism fringe market, whereas the relevance of close relationships between tourism and food processing for the success of regional brands promoting sustainable development in biosphere reserves was already pointed out by Kraus et al. (2014) for the German Rhön Biosphere Reserve.

An agreement between the biosphere reserve's administration and particular partner businesses serves as the basis for cooperation. The biosphere reserve's administration offers marketing for the whole group, and the possibility for partners to use the common logo and to take part in events and trainings. On the other hand, the partner businesses commit themselves to the principles of a biosphere reserve, to provide information about sustainable tourism to their guests and clients, and to cooperate with the biosphere reserve's administration and the initiative's other partners. In order to get certified as a partner, sound practices concerning environmental orientation, regional identification, quality, information and cooperation are considered, taking into account the disparities between different sectors of the tourism industry (AfBR 2016). However, there are neither fixed criteria which have to be fulfilled nor written target agreements for future developments concerning sustainability standards. Thus, the partner initiative must be regarded as an utterly low-threshold certification scheme that is neither achievement-oriented nor progress-oriented. The fact that only 0.5 job equivalents and an annual budget of 18,000 EUR are available for the partner initiative and all tourism related activities (coordinator 2016, Merlin 2017) shows how limited the biosphere reserve's administration's capacities are.

Part III of the EUROPARC Federation's program for sustainable tourism in protected areas aims at including sustainable tour operators. Accordingly, since 2014 the French section of the EUROPARC Federation has offered certification to tour operators undertaking journeys to protected areas. By 2016, 15 tour operators had been certified. However, part III of the EUROPARC Federation program only exists in France so far. Furthermore, cooperation between the administrations of protected areas and tour operators is not envisaged (EUROPARC Federation

2016). Hence, the administration of the Biosphere Reserve Southeast Rügen has not dealt with this subject yet.

5.2 The partners' motivation for joining the initiative

With regard to the partners' motivation to become members of the partner initiative two main fractions can be identified. On the one hand there were a number of businesses that consider the Biosphere Reserve Southeast Rügen's administration as a nature conservancy authority that has the task to keep down uncontrolled growth within the biosphere reserve's territory by means of political regulation. These companies can be regarded as the conservative fraction. They were either strictly conservative or – if not quite as resolute – semi-conservative and became members of the initiative in order to express their sympathy with the regulative idea of a biosphere reserve and to show support for the biosphere reserve's administration. They were rather small in size, did not intend to grow economically and tended to be early members of the initiative. Their main interest was to preserve the nature and culture of the region by means of avoidance. For instance, one strictly conservative partner business, that has been trying to impede investors from gaining permission to build three-storey holiday apartment complexes in its street in the future, explained that in the 1990s “[...] we applied for a three-storey construction of [our] building, got the [expected] denial from the building authority, and now have tied that down [...] for the whole street. And don't dare that someone gets a building permit. Then I will start proceedings!” (partner business_10 2016)³. Consequently, these members can be characterized as sufficiency-oriented. In the interview transcripts conservatives were identified by searching for statements such as ‘fight for the Biosphere Reserve’, ‘live in harmony with nature’, ‘no more uncontrolled growth’, ‘stand up for the uniqueness of the island’, ‘have a responsibility as ances-

³ Original quotation: “[...] haben wir [einen dreistöckigen Ausbau] beantragt, haben die [erwartete] Ablehnung vom Bauamt gekriegt und haben damit [...] für die ganze Straße alles festgezurr. Und wehe, es kriegt einer eine Baugenehmigung. Dann klage ich dagegen!” (partner business_10 2016).

Table 4: Ideological orientation of interviewed initiative partners.

	Strict conservatives	Semi-conservatives	Semi-modernists	Strict modernists
Number of initiative partners	8	5	3	8
Year of acceptance in partner initiative	2011: 3x 2012: 3x 2013: 2x	2011: 1x 2012: 2x 2013: 1x 2014: 1x	2011: 1x 2012: 1x 2015: 2x	2012: 2x 2013: 1x 2014: 1x 2015: 2x 2016: 2x
Average number of full-time equivalent, paid staff	3.1	2.2	74.5	35.8
Number of intellectual property rights	1	0	2	2

tors have lived on the island for several hundred years'. On the other hand, there were numerous partners that interpreted the biosphere reserve's partner initiative as a marketing tool that enables them to foster a green image in order to increase sales. These businesses represented the idea of a harmonization of economic growth and environmental conservation. These ecological modernists – either strict or semi – were rather new members, bigger in size and regarded the partner initiative much more as a chance for networking and creating market opportunities than the businesses of the conservative fraction. They also tended to be more innovative with three of the modernist businesses holding a total of four registered intellectual property rights versus one registered intellectual property right on the conservative side. Moreover, many of them were led by non-local managers. The modernists were identified by searching the interview transcripts for statements like 'being a partner is an image thing', 'sustainability is a unique selling proposition for the island', 'sustainability as a topic is en vogue regarding customer preferences', 'networking with business partners', 'make a difference by getting engaged'.

In October 2016, both fractions were similar in size (see Table 4), however, the modernist fraction had been growing lately, and tensions had started to surface: "There are a lot of partners who foster the 'Higher! Further!' by expanding [...]. But that is trying to square the circle" (partner business_7 2016)⁴. Thus, this partner business argues similarly to Robinson (2004).

5.3 Un-locking unfavorable tourism development paths by means of green growth or degrowth?

The majority of the initiative's members, regardless of their ideological orientation, appreciated the fact that the partner initiative did not force strict sustainability criteria. In effect, the initiative was seen as a group of businesses that embody a spirit of sustainability, following the idea of a biosphere reserve, although the meaning of sustainability was interpreted and lived out differently. Considering the enormous acceptance problems the Biosphere Reserve Southeast Rügen had faced since the 1990s, the decision of the biosphere reserve's administration to opt for a 'sustainability light' approach seems reasonable in order to build up trust and to win tourism businesses over to its side. A slow rise of acceptance is especially symbolized by the increasing number of modernist members intending to combine economic growth and environmental conservation, this could be a basis for further steps towards more sustainable modes of development. In the following, the internal structure of the partner initiative is analyzed in order to identify potential for un-locking unfavorable tourism development paths.

The internal structure of the partner initiative is simple. The forum which was formed in 2009 in the context of the 'Parks&Benefits' project still serves as the main body. The biosphere reserve's administration invites the partner businesses to different kinds of events on a regular basis and the forum is supposed to stimulate cooperation between the initiative's partners. Thus, trips to the Isle of Vilm and the Isle of Oie were undertaken, or lectures and workshops regarding specific environmental topics were conducted. Also, numerous partners presented themselves in two 'Sustainability Weeks' organized by a

⁴ Original quotation: "Bei den Partnern [...] sind ja auch viele dabei, die dieses 'Höher! Weiter!' noch mehr fördern, indem sie expandieren [...]. Aber das ist eben die Quadratur des Kreises" (partner business_7 2016).

wide range of Rügen tourism actors in the autumns of 2015 and 2016. However, not all partners use the chance for exchange with their co-partners regularly: “I try to get [the partners] together three to four times a year, and just under half of them do participate. [...] But sadly, it’s not where it should be, I honestly admit. [...] I wish there was more commitment on the other side. It is a partner initiative, but only one side initiates things” (partner initiative coordinator 2016)⁵. Moreover, the partner initiative’s coordinator is also engaged in working groups of the EUROPARC Federation’s German section in order to learn from the experiences of other protected areas. In this context, opportunities are created for the partner businesses to exchange with other partner initiatives’ members, however, participation is modest: “Get to know others? Rather no. I don’t actually know why it is like that” (partner business_16 2016)⁶. Many of the partners explain their restrained engagement by the large workloads their businesses entail, especially during the summer season.

In addition to the forum the biosphere reserve’s administration coined a council that evaluates potential new candidates and re-certifies established candidates, despite being authorized to decide on the acceptance of initiative partners solely by the EUROPARC Federation. The council consists of seven members including, for instance, the Rügen district administrator, the chamber of commerce, but also a member of the biosphere reserve’s administration and a representative of the partner businesses. Nevertheless, the biosphere reserve’s administration as the initiative’s coordinator and first contact partner pre-selects potential candidates and therefore still has a great influence on the acceptance of initiative partners. Hence, the reserve’s administration continues to function as a gatekeeper and regulator and thus preserves its image as a restrictor.

So far the partner initiative of the Biosphere Reserve Southeast Rügen has focused on raising the number of members and on undertaking representative functions. However, the internal structure does not allow content-oriented engagement to establish sustainable development paths, i.e. there are no working groups that could bring urgent sustainability issues of the tourism sector in the Biosphere Reserve Southeast Rügen to the agenda and

discuss them in order to find solutions and eventually unlock unsustainable trajectories.

Hence, the three main sustainability lock-ins that were identified earlier in this study and that have developed over varying amounts of time in the Rügen tourism industry can only be tackled to a limited extent by the Biosphere Reserve Southeast Rügen’s partner initiative. First, the fact that many external actors, both political and economic stakeholders, have shaped the island’s tourism sector which led to the creation of a mass tourism destination, cannot be reversed by the partner initiative. However, the initiative has started to build up and strengthen the partners’ identification with the island’s unique landscapes, environment and culture. As they function as multipliers there is an increased chance that the need to preserve the island’s fragility will be authentically communicated to a wider audience. Thus, for the partner initiative, as an identity-generating regional sustainability certification scheme, it is much easier to support a transition towards sustainability than for national or international certification schemes.

Second, the partner initiative serves as a tool to de-escalate the conflict that had built up between the state-led biosphere reserve administration and many economic actors in the southeastern part of Rügen since the 1990s. Voluntary compliance with a ‘sustainability light’ certification scheme might be the foundation for further steps towards stronger modes of sustainability. Thus, more co-operation between the state authority and economic actors could result in more support for expanding the biosphere reserve’s territory and core zone in order to comply with the UNESCO minimum standards and ensure the UNESCO biosphere reserve status in the long-term. Nevertheless, cooperation instead of confrontation implies shared responsibilities. By transferring more responsibility to the partners the biosphere reserve’s administration could foster relations on an equal footing and further acceptance. Surely this requires partners willing to become actively involved and to ‘un-learn’ unfavorable practices regarding sustainability issues from other regions.

The traffic issue as the third identified lock-in has not seriously been dealt with by the biosphere reserve’s partner initiative so far and thus remains a great challenge in the future. The partner initiative alone cannot un-lock this problem, however, in cooperation with other actors on the island, concepts of modular mobility are to be advanced and tourists need to be encouraged not to solely focus on car mobility during their holidays.

In summary, the partner initiative of the Biosphere Reserve Southeast Rügen represents a new form of cooperation between the state and economic actors aiming at greening

⁵ Original quotation: “Ich versuche, [die Partner] drei- bis viermal im Jahr zusammen zu holen und es kommt die knappe Hälfte. [...]. Aber es ist leider nicht da, wo es eigentlich sein sollte, gebe ich ehrlich zu. [...] Ich wünsche mir, dass da auch mal ein bisschen von der anderen Seite kommt. Es ist eine Partnerinitiative. Und wenn immer nur einer schubst...” (coordinator 2016).

⁶ Original quotation: “Uns etwas anderes anschauen? Eher nein. Ich weiß gar nicht, warum das so ist” (partner business_16 2016).

the island's tourism industry. As a hybrid organization, characterized by mutual dependencies, it follows a 'sustainability light' approach. However, this raises the question of time frames for regional sustainability transitions and the parameters these depend on, as well as the issue of time limits in order to prevent environmental disaster.

6 Conclusion

The evolutionary analysis of tourism development on the island of Rügen revealed three main lock-ins that have hampered a sustainability transition. First, for the last 150 years the island's tourism sector was considerably shaped by external actors, including both economic investors and political stakeholders who favored large-scale projects that led to mass tourism and were accompanied by considerable environmental problems. Second, conflicts between state authorities trying to enforce conservation regulations and the business sector willing to expand tourism activities since German reunification have created an atmosphere of confrontation and mistrust. Third, changes in the tourists' mobility behavior since the early 1990s have resulted in a highly intense traffic situation with negative ecological externalities. This paper analyzed the role that the voluntary compliance of tourism businesses with sustainability certification can play in order to un-lock these unfavorable development paths.

The study showed that – as in Germany in general – in the Rügen tourism industry sustainability certification is the absolute exception with only three identified tourism companies holding a national or international sustainability certification. Nevertheless, the Biosphere Reserve Southeast Rügen's partner initiative, founded in 2011 as a regional sustainability certification scheme based on the principles of the European Charter of Sustainable Tourism in Protected Areas by the EUROPARC Federation, had certified 28 member businesses by October 2016. Yet, the partner initiative must be regarded as an utterly low-threshold sustainability certification scheme that neither enforces the meeting of fixed criteria for membership nor negotiates written target agreements concerning sustainability standards with candidates. Instead, a spirit of sustainability is expected.

Within the group of partner businesses, a conservative and a modernist fraction can be identified. While the conservatives are sufficiency-driven, for a growing number of modernist partners the green economy in the Rügen tourism industry is the leading strategy for future development. The internal structure shows that the biosphere

reserve's administration continues to function both as a restrictor and an initiator, controlling the partner initiative's activities. However, at the same time the partner businesses' engagement is considered to be low, i.e. there are no working groups that could foster the discussion of specific sustainability issues.

Despite representing a 'sustainability light' approach, the partner initiative has some potential to support a breakaway from unfavorable trajectories concerning sustainability on Rügen. As a regional identity-generating initiative it has already contributed to building up and strengthening the partners' identification with the island. Since the partners function as multipliers there is an increased chance that the need to preserve the island's fragility will be authentically communicated to a wider audience. At the same time, the biosphere reserve's administration has been able to win businesses over to the nature conservation authority's side and has thus eased existing tensions. These new forms of cooperation between the state and economic actors could result in more support for expanding the biosphere reserve's territory and core zone in order to comply with the UNESCO minimum standards and ensure the UNESCO biosphere reserve status in the long-term.

In general, this study provides indications that the efficiency-driven approach, especially in the form of a 'sustainability light' approach, qualifies to initiate processes of sustainability transitions in the tourism sector. Particularly in protected areas that are confronted with acceptance problems, an efficiency-driven 'sustainability light' approach can be the basis for moving towards more sustainable modes of development. Thus, this study has wider applicability for research concerned with un-locking unsustainable tourism development paths. However, in order to seriously break away from unsustainable development paths, such initiatives then need to be upgraded in both quantity and quality including the expansion of efforts in order to 'un-learn' unsustainable practices. In summary, the 'sustainability light' approach raises the question of time frames for regional sustainability transitions and the parameters these depend on as well as the issue of time limits in order to prevent severe environmental disturbance. Hence, further studies in this field of research, especially regarding the dynamics within the actors' network and their influence on the development of more sustainable modes of tourism are to be encouraged.

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