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Sustainability in tourism: developments, approaches and clarification of terms

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Sustainability in tourism: developments, approaches and clarification of terms

Paper

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Abstract: Sustainability in tourism: developments, approaches and clarification of terms.

Sustainability is understood as an ethically motivated guiding principle for future-oriented social development, which is constantly subject to trade-offs between different interests. In this process, tourism is seen both as an ally of sustainable development and as a cause of undesired ecological and socio-cultural effects. First applied to tourism in connection with a number of alternative niche markets, an integrated view of sustainability relating to the entire tourism industry has since emerged. Nevertheless, the multi-faceted interactions with a range of social and economic processes has precluded the formulation of a tourism-specific definition of sustainability. For this reason, the authors advocate the term "sustainability in tourism", which describes tourism as a component of a wider sustainable development. This interpretation permits a systemic approach within which different, mutually influencing economic sectors and levels of action interact and under which all principles of sustainability can be classified.

Table of content

List of figures

List of tables

1 Introduction

Over the last decades, tourism has evolved into a major economic sector worldwide. In 2017, there were more than 1.2 billion international tourist arrivals and foreign exchange revenues reached 1.2 trillion dollars. (UNWTO, 2018). Domestic tourism is even more extensive, although more difficult to quantify. Factoring in indirect and induced effects, domestic and international tourism activities account for 10% of global GDP and around 1 in 10 jobs (ibid). Tourism plays a key economic role in Germany as well, employing nearly 3 million people and generating 3.9% of German GDP (DIW Econ, 2017). Thus it is comparable to sectors such as retail and engineering. All in all, people in Germany now take holiday travel for granted, and attach considerable importance to it (STIFTUNG FÜR ZUKUNFTSFRAGEN, 2017). In 2016, Germans spent over 88 billion euros on holidays and short getaways (FUR, 2017); Germans also take around 2.4 billion leisure-related day trips each year (dwif-Consulting, 2014).

Steady growth in global tourism figures and associated economic effects are forecast for the future too. UNWTO, for instance, anticipates a rise in international arrivals of 3.3% per year, reaching more than 1.8 billion by 2030. In particular, the tourism share of developing countries is expected to increase, both as destinations and source markets.

In light of these trends in tourism, the UNWTO Secretary-General Dr. Taleb Rifai announced the economic era of travel (BTW, 2017). Noting that the latest tourism figures could represent either 1.2 billion realised opportunities or 1.2 billion disasters for the global community, Rifai thus illustrated the ecological and socio-cultural impacts connected with the tourism industry.

It has been extensively proven over the last decades that tourism is not a purely "white industry" (Opaschowski, 1991), in other words, it has not only beneficial effects, but also adverse impacts (Strasdas, 2017, p.15ff.). The critical study of tourism as a mass phenomenon led to various alternative concepts which ultimately cumulated in the comprehensive guiding principle of sustainable tourism (UNEP/UNWTO, 2005, p.11). This report summarises the general tenets underpinning sustainable tourism, highlights the relevant substantive aspects and social developments in the sustainability debate and explains how these can be used to define sustainability in tourism. The study aims to contribute to the clarification of the term "sustainability in tourism" in the German-speaking world, in order to foster consensus regarding tourism policy.

2 Concept and historical context of the term sustainability and the German term Nachhaltigkeit

The German term for sustainability, *Nachhaltigkeit*, has been moulded by cultural and historical influences (Grober, 2013). Over the years it has acquired a great many interpretations and connotations, leading to its current complex breadth of meaning which is constantly evolving. There is no universally valid, comprehensive definition of *Nachhaltigkeit*, and one writer has described it as a variously interpreted guiding principle, still being shaped, which brings together different world views as well as the concerns, needs and models of a "good society" (cf. Pufé, 2012, p.17)].

While the multi-faceted nature of the term gives rise to a seemingly infinite number of possible interpretations, in fact the core principles and basic methods of the concept are essentially agreed. In his 2013 book "*Die Entdeckung der Nachhaltigkeit*" (The Discovery of Sustainability), Ulrich Grober defines the scope of the term and provides an extensive cultural and historical analysis. He notes that *nachhaltig* has led what he calls a **"linguistic double-life"** over the past 300 years. The general meaning evokes the idea of something permanent, forceful and intense, but without any focus on social or political development. Grober (ibid.) tells us that this meaning has existed in German since the Middle Ages and was originally commonly expressed as *nachhaltend*.

Another layer of meaning was added at the beginning of the 18th century, when Hans Carl von Carlowitz coined the expression *nachhaltende Nutzung* (sustainable use) in 1713 for his series of writings entitled "Silvicultura oeconomica". He used it in the context of reserving a stock of timber for the future. The term became a central tenet of forestry, referring to the conservation of the raw material wood as an essential asset for future generations. Many authors consider Carlowitz's writings as the genesis of sustainable development (e.g. Peters, 1984; Schanz, 1996; Di Giulio, 2003, Ekardt, 2014), not least because they illustrate the principle of sustainability very clearly: Trees that are felled must be replaced by new trees in a way that preserves the resource base - and hence ensures lasting economic viability. Moreover, the slow growth of trees calls for a certain patience which precludes overcharged development. In this sense, the term is used to describe a **resource-efficient model** in the context of a **precautionary approach** which stipulates that the use of resources must yield long-term returns (Pufé, 2012, p.30).

- In its original meaning, the term **sustainability** describes the use of a renewable natural system which preserves the essential characteristics of this system and enables it to replenish its stocks naturally. (Pufé, 2012, p.28).

As environmental problems and pressures on humans grew more and more apparent in the second half of the 20th century, environmental protection and nature conservation became topics of debate. From the 1960s, for instance, the issue of resources was discussed intensively in publications, books and conferences. The 1972 Club of Rome report **The Limits to Growth** (Meadows et al., 1972) is considered to have had the greatest public impact at that time. Using computer simulations the study calculated different scenarios for the future of the Earth, forecasting that the planet cannot indefinitely support a policy of growth rooted in the intensive use of resources. The report triggered a scientific and political discussion on the links between lifestyles, economic growth and the availability of resources that is still ongoing within the sustainability debate (cf. Jackson, 2016). Further key impetus came from the **United Nations Conference on the Human Environment**, which took place in Stockholm in 1972 and discussed the relationships between environmental protection and the development goals of

human civilisation. The conference, which had the theme "Only one earth", concluded that major environmental problems could not be solved without also taking into account the social and economic challenges facing humankind.

It was increasingly recognised that the production methods and lifestyles practiced in the **countries of the global North** could not be transferred to the rest of the world for the long-term. In 1987, the report "Our Common Future" was published (WCED, 1987), the result of work by the World Commission for Environment and Development (WCED), which was established in 1983 and chaired by Norwegian Prime Minister Gro Brundtland. The report is considered the "deed of formation" (John, 2013) for the global discourse on sustainability. The Brundtland Report asserted that the **environmental stress and poverty being experienced throughout the world represent a crisis of modernity**, that they are causally linked and must be combatted. Two planes of action were put forward as the main strategy for tackling them: An inter-generational level, to be understood as taking responsibility towards future generations, and an intra-generational level which recognises our responsibility for people alive today, especially those in poor countries, and for ensuring equilibrium within countries (Michelsen and Adomßent, 2014, p.13 f).

- Humanity has the ability to **make development sustainable** to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987, p.16).

The needs referred to here are first and foremost basic needs. Sustainable development is not about the demand in the market-related sense, but about the foundations of life necessary for human existence (cf Grober, 2013). In this context, development is understood to be a process of satisfying material needs through economic growth and satisfying the desire for a better life (Di Giulio, 2003, p.47; Grober, 2013, p.266). The report emphasises that **global environmental and social problems are primarily the result of unsustainable consumption and production patterns in the North and severe poverty in the South**, both of which must be eliminated. According to the WCED, sustainable development can only be achieved through three basic, ethically motivated approaches: conserving the environment, establishing social justice and ensuring participation in political processes. This attributes once and for all a justice-oriented, social dimension to sustainable development which it has retained ever since.

In order to anchor the need for action as described by a number of reports in concrete agreements, the **United Nations Conference on Environment and Development** (UNCED) was held in Rio de Janeiro in 1992. Also known as the Earth Summit, its aim was to develop global politically and legally binding actions for achieving sustainable development. The objective was to combine the all the reports published to date in an overarching declaration and use it to derive strategies for action. The conference agreed on a **common understanding of sustainable development as a guiding principle of international policy** (UN, 1992). For the first time, the idea of sustainable development was anchored internationally in the Rio Declaration, which acknowledged the right of human beings to a healthy and productive life in harmony with nature.

In light of ongoing ecological destruction and the continuing rise, despite global economic growth, in poverty and inequality in many developing countries (Pufé, 2012, p.150; Michelsen and Adomßent, 2014, p.22), the United Nations laid down eight **Millennium Development Goals** (MDGs) setting out aims for the desired development in the countries of the South. The MDGs were to be achieved by 2015. The Millennium Development Goals Report noted that the MDGs had "helped to lift more than one billion people out of extreme poverty, to make inroads

against hunger, to enable more girls to attend school than ever before and to protect our planet" (UN, 2015). However, it also acknowledged that "inequalities persist and that progress has been uneven" (ibid)

Following on from the results of the MDG process, in 2015 a further milestone in the global sustainability debate was reached with the **2030 Agenda for Sustainable Development**, adopted in a resolution by the UN General Assembly. The 2030 Agenda placed the earlier international processes in a new context of global responsibilities and requirements for action. At the heart of the 2030 Agenda are the **17 sustainable development goals (SDGs)** and the **five core messages People, Planet, Prosperity, Peace and Partnership** (UN, 2015), which highlight the connections between the goals. The 2030 Agenda for Sustainable Development united the Rio process and the MDG process under the heading **"Transforming our world"**. In contrast to the heavy focus on development of the MDGs, the SDGs take a more comprehensive approach. The goals apply to all countries, whether industrialised, newly emerging or developing countries. They are intentionally conceived as cutting across different policy areas.

- **The sustainable development goals of the 2030 Agenda for Sustainable Development** present, in parallel and giving equal weight to each of them, the relationships between economic, environmental and social aspects required for achieving a future-proof global development. In this way the SDGs provide an up-to-date, holistic and integrated perspective for sustainability areas of action.

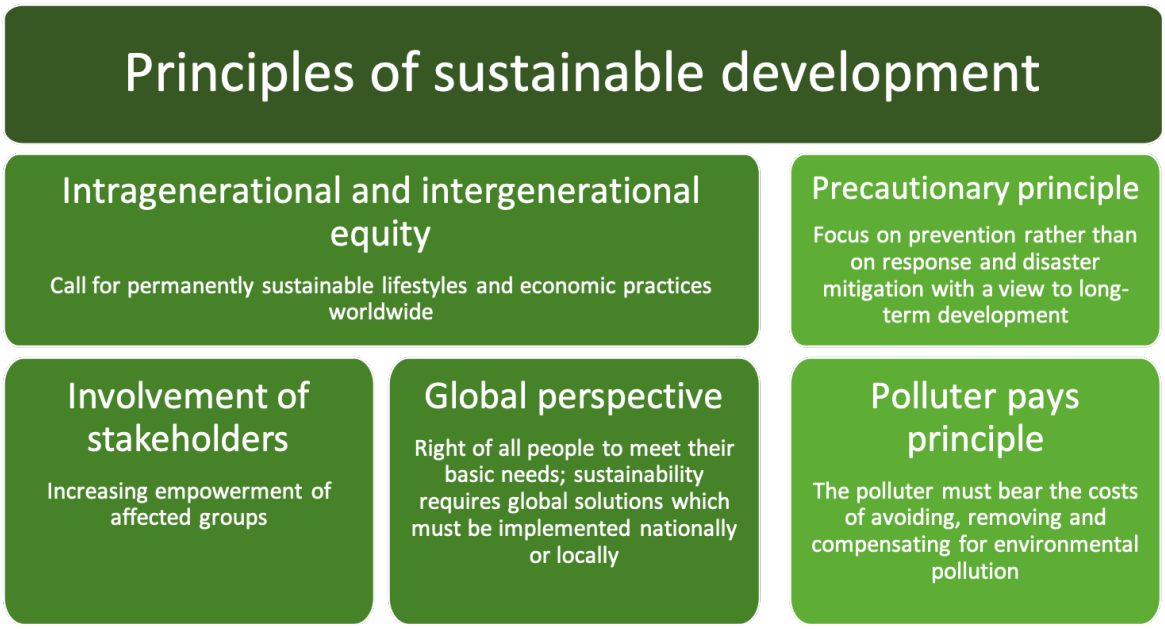
3 Classifying the sustainability concept

One of the main problems with the term sustainability is that it can be overused, and sometimes its use is driven by special interests. This has led to a **lack of uniformity in the content and definition** of the term (SRU, 2002). As early as 1998, the Study Commission on the Protection of Humanity and the Environment, set up by the Bundestag, found in its final report that *"There [appears] to be no prospect of successfully finding a binding definition for all societies"*. (Deutscher Bundestag, 1998, p.16). The Study Commission consequently concluded that sustainable, future-proof development remains an open issue in the sense that no one can derive a generally binding target situation for society from the term. Rather, sustainability is understood as a **guiding principle which sets out guidelines and specific targets agreed on by a society. Ignoring these will lead to developments which are clearly perceived as not viable for the future.** However, these guidelines are not static, but based on an evolving approach. This dynamic character is also due to the understanding of sustainable development as an ethical concept which, as such, is subject to certain social trends and changes (cf. Michelsen and Adomßent, 2014). The term sustainability conveys an idea of how the world should be, how present and future generations should live and what sort of future is desirable (UBA, 2002; Coenen and Grunwald, 2003). The German Advisory Council on the Environment (SRU) looks at this in greater depth in its environmental report, singling out **three ethical dimensions** of sustainable development: **the responsibility of human beings for their natural environment, for their social environment and for themselves** (SRU, 1994).

- "Sustainability must be understood as a guiding principle – globally, nationally and locally. The goal is a world in which economic prosperity for all goes hand in hand with social cohesion and the protection of natural resources [...]. Living at the future's expense not only runs up debt for oneself but also mortgages for future generations. [...] Both nationally and internationally, a good future can be achieved only if everyone works on it together." (German Federal Government, 2016)

The sustainability concept is based on the following central principles:

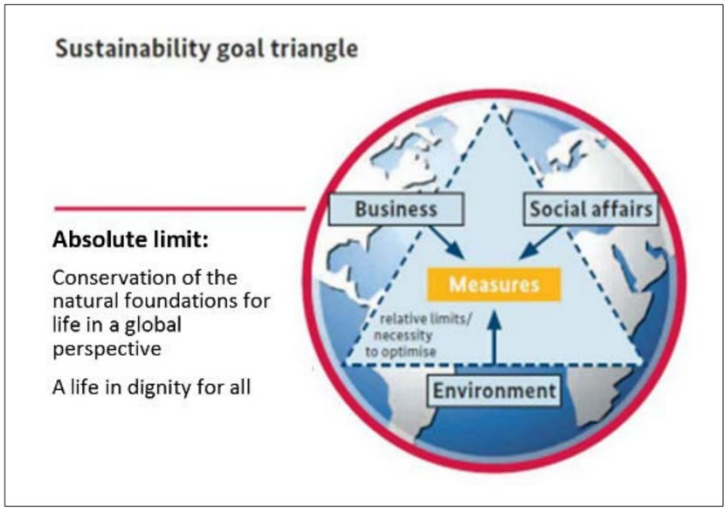
Figure 1: Principles of sustainable development



Source: Authors

There is broad agreement that sustainability can only be achieved by **integrating the different dimensions of social development**. This is usually illustrated with the triangle of sustainability incorporating the environmental, economic and social aspects described in the Brundtland Report (Michelsen and Adomßent, 2014, p.28ff.)

Figure 2: Triangle of sustainability



Source: Federal Government, 2016, p.24

The triangle, which builds on the intersection and pillar model, shows that all three aspects have equal importance. At the centre of the triangle they blend together, while towards the edges one or another may become more pronounced (cf. Jörissen et al., 1999; Kleine, 2009; Pufé, 2012; Strasdas, 2017). In current illustrations of the triangle of sustainability, for instance in the latest German National Sustainability Strategy (Figure 2), a circle surrounds the triangle to represent the absolute limits of the Earth's carrying capacity with regard to securing a life in dignity for all (German Federal Government, 2016). The German Federal Environment Agency (UBA) also stressed this aspect in its reports on sustainable development (UBA, 1997; 2002), affirming that "the carrying capacity of ecosystems …must therefore be accepted as the ultimate, immovable limit to all human activities" (Michelsen and Adomßent, 2014, p.28).

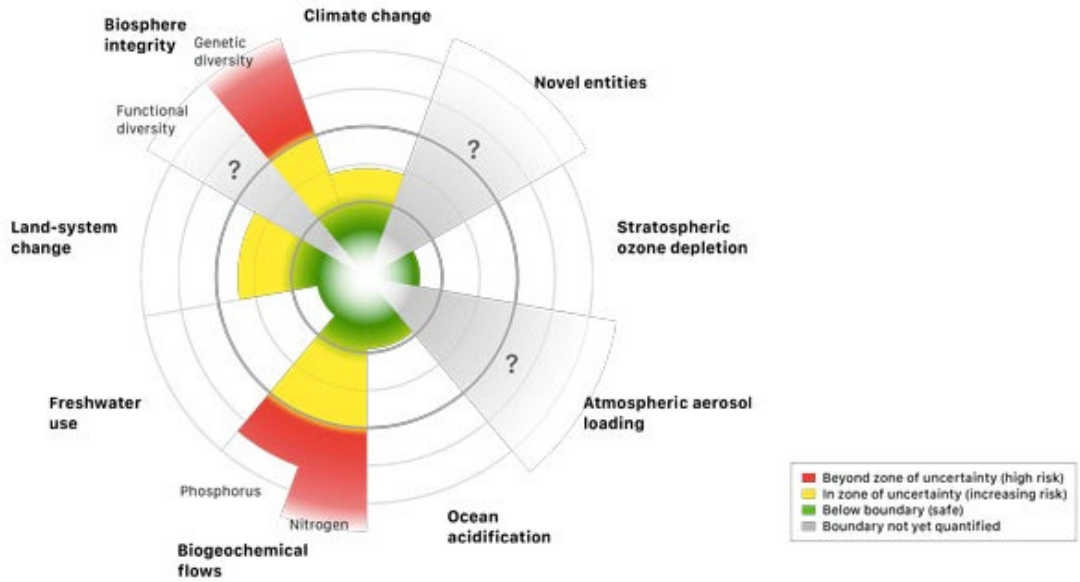
However, specifying absolute ecological limits is controversial, especially where technological measures can reduce or compensate for environmental pressures through efficiency improvements (geo-engineering). In this context, a distinction is often drawn between strong and weak sustainability. Supporters of weak sustainability claim that by and large existing resources and capital can – at least in principle – be substituted limitlessly. The theory postulates that it does not matter in what physical state capital is passed on to future generations, and that technical advances in conjunction with economic growth will lead to increased efficiency and ultimately to a market-based transformation (Michelsen and Adomßent, 2014, p.32f.). Advocates of strong sustainability, on the other hand, assume that humans are dependent on nature's basic ecological functions and that these functions cannot be substituted (cf. SRU, 2002). This is known as the sufficiency approach, and requires an absolute reduction in demand for capital, which ideally nevertheless still achieves an economically acceptable output. Proponents of this approach specifically point out that it is not uncommon for efficiency gains achieved through technical advances to be negated by increases in demand. These are known as rebound effects and are viewed as one of the main arguments in favour of holistic approaches

aimed at optimising various benefits – in other words, approaches which equally strive to prevent an absolute decline in resources and to achieve positive economic effects (referred to as absolute decoupling). Up to now, however, the suggestion that these two aspects can actually be reconciled has not been broadly accepted, especially since consumption patterns are often about optimising the benefit to the individual, something that is contrary to the concept of sufficiency.

It must also be borne in mind that ecological goals are difficult to implement if there are urgent social or economic problems, whether at societal or individual level. The Study Commission noted that a sustainability policy focusing on ecological issues will always take second place in the social decision-making process whenever other critical situations prove more immediate, more tangible or more virulent, and are hence perceived as more pressing and more attractive targets for political action. In the Commission's view, even if such a sustainability policy were established, it would be ineffectual, as in all likelihood only an integrative policy including all three dimensions would be able to overcome the weakness of an environmental debate which is cut off from economic and social issues (cf. German Bundestag, 1998, p.31f). In short: **The goal of sustainable development is to avoid irreversible damage in all three dimensions.**

Planetary boundaries are increasingly referenced in connection with an **Earth system research approach** presented in 2009 by a group of international scientists led by Johan Rockström. This approach identifies nine processes of particular relevance for the stability of the planet, and illustrates and quantifies risks to these processes. These risks include **climate change, global loss of biodiversity, global land system change and changes in biogeochemical flows** (the nitrogen and phosphorous cycles). If the nine boundaries are crossed due to anthropogenic pressures, it increases the risk of an abrupt and irreversible change in the Earth system – to the point of creating conditions that pose a risk to humanity. The concept clearly illustrates the "safe operating space" for sustainable development and presents the risks of crossing key thresholds. The planetary boundaries concept was updated and revised in 2015 and now informs political processes such as the 7th Environmental Action Programme (EAP) of the European Union and Germany's Integrated Environmental Programme 2030. However, gaps in knowledge and uncertainties regarding identifiable boundaries mean that there are deficiencies in the approach, especially as so far it has proved impossible to scale down the areas addressed by the concept to the national or regional level.

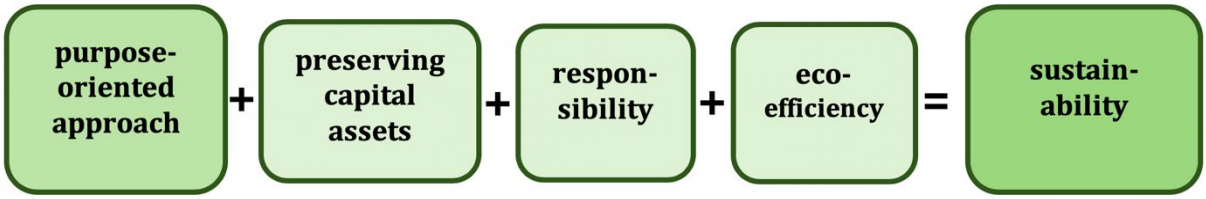
Figure 3: Planetary boundaries according to Rockström



Source: BMU, based on Steffen et al. 2015

In order to gain an **integrative perspective of sustainability** – analogous to the goals of the 2030 Agenda – a number of sustainability theories are increasingly taking a point of view geared to capital and resources (e.g. Pufé, 2012; Ekardt, 2014; Michelsen and Admoßent, 2014). This approach sees sustainable development as a concept for drawing up action guidelines which aim firstly to reduce the side effects of our own actions (with a focus on eco-efficiency and social responsibility) and secondly to safeguard resource availability for the long-term. Such an interpretation requires that all capital assets be maintained, i.e. not only the natural capital which has dominated sustainability considerations, but social capital, human capital and knowledge capital as well (cf. Michelsen and Adomßent, 2014, p.32). This is because raw materials, energy, education, trust, legal certainty, legitimation and other resources are all equally relevant for ensuring future-proof co-existence. In this respect, sustainability can be seen as **enhancing eco-efficiency, preserving the (natural and human) resource base or substance, and behaving responsibly with a view to reducing side effects**. The following diagram can be used to illustrate a simplified formula for sustainability:

Figure 4: From a purpose-oriented approach to sustainability



Source: Ekardt, 2014, p. 43, slightly adapted

The 2002 report by the Helmholtz Association of German Research Centers (HGF) formulated general goals based on the principles and concepts of sustainable development, and drew up sustainability rules (Michelsen et al., n.d.) which summarise all the aspects described here. The current German Sustainable Development Strategy took these further to create **management rules for sustainability** (cf. Federal Government 2016, p.34 for details).

The rules represent a normative basis and are seen as a means of achieving the goals of sustainable development in Germany. There are currently 63 goals with associated indicators which act as a guiding instrument and record the progress of development. They are key indicators which cover the respective thematic areas and show their relevance for the ongoing formulation of German policies. The indicators apply to the period up to 2030 and are also based on the individual SDGs. The current status of target achievement is illustrated in symbols which highlight relevant need for action. However, there are no indicators relating specifically to tourism.

4 Tourism and sustainability

4.1 Progress of sustainability in tourism

Tourism in its current form of journeys made by choice and for recreation has existed since around the mid-nineteenth century. Prior to that, for hundreds of years, voluntary travel without immediate need remained a privilege of the upper classes. After the "democratisation of travel" (Steinecke, 2010) following World War II, tourism developed into a new industry, becoming an important economic factor in many countries from the mid-twentieth century. The first modern criticism of tourism also began around this time, propelled by Hans-Magnus Enzensberger's 1958 essay "*A theory of Tourism*", which condemned the consumption-oriented distortions caused by travel and viewed tourism as part of a manipulative world of commoditites. This fundamental socio-political criticism of tourism is considered the cornerstone of a more comprehensive critique of the travel industry in the German-speaking world. The environmental movement and the more critical attitude to growth began looking at tourism from the 1970s, when its serious adverse effects started manifesting in the Alps and the north-western Mediterranean. It became apparent that tourism was by no means a "white industry" (Fuchs et al., 2008), but in fact could have major ecological and social impacts. Works by Jost Krippendorf (*The Landscape Devourers*, 1975 and *The Holiday Makers*, 1984) and Robert Jungk (*How many tourists per hectare of beach? Plea for soft tourism.*, 1980) flagged the key issues of tourism analysis in the German-speaking world, on the one hand putting forward trenchant assessments of the impacts of travel while on the other suggesting steering approaches and some quite radical alternatives. The concept of **soft tourism** was born (Strasdas, 1987).

Originally, gentle tourism was seen more as an **alternative to conventional holidays**, with a focus on participation and self-determination, preservation of vulnerable traditional cultures, personal development and new experiences. Like nearly all alternative ideas for tourism, the **concept of soft tourism** was not developed within the industry itself but **brought in from outside. It was generally only applied in niche markets**, despite the fact that some proponents of gentle tourism already held the view that conventional tourism also needed to fundamentally change. The debate on gentle tourism was almost completely restricted to the German-speaking world, the exception being criticism of the sector in developing countries, which primarily centred around socio-cultural and economic abuses.

From the 1990s, ideas on extensive alternative tourism models evolved into **corporate strategies for implementing voluntary environmental protection measures**. It was recognised that environmental quality often equates to product quality and that natural tourist attractions are directly linked to a form of tourism that is responsible and aware. All in all, a **rather pragmatic approach** was pursued in relation to environmentally sound tourism, which ultimately led to some improvements in tourism's environmental record (Strasdas, 2017 p.29), although at that point there was no indication of any strict inclusion of environmental issues, or of the social and cultural aspects of sustainability.

Internationally, the debates triggered by the Earth Summit also included tourism, generating new momentum around the tourism-related points raised in the Rio Declaration. This led to the World Conference on Sustainable Tourism, the adoption of the Lanzarote Charter for Sustainable Tourism (UNWTO, 1995) and the first international tourism certification scheme, Green Globe. Another milestone was marked in 1996 with the adoption of the Agenda 21 for the Travel and Tourism Industry (UNWTO, WTTC, Earth Council, 1996). The European Council

Working Group on Environment and Tourism addressed the issue in 1994 with a recommendation that all member states develop sustainable, environmentally friendly tourism (Bundestag, 1995).

Another approach dating from this period is **eco-tourism**, one of the fastest-growing segments of the tourism industry in the 1990s (cf. Björk 2007, p.24). Eco-tourism became particularly well-established in developing countries (Strasdas, 2008). This form of tourism puts emphasis on experiencing nature while highlighting nature conservation and the benefits of tourism for local communities. The focus is on development issues specific to those countries, and on the implementation of practical approaches for creating alternative sources of income and options for financing in and around protected areas.

Alongside gentle tourism and eco-tourism, the sustainable tourism discussion gave rise to a range of other models which endeavoured to position themselves as **alternatives to mass tourism**. Associated slogans included "*anders reisen*" (travel differently) and "*Tourismus mit Einsicht*" (discerning tourism) (Freyer, 2011, p.529, 533). All these approaches attempted, each with a different focus, to respond to the criticisms levelled at mass tourism. However, they were unable to establish themselves on the market. Other more recent forms do exist, such as community-based tourism, pro-poor tourism, fair tourism and slow travel (cf. Strasdas 2008, p.19ff).

With the new millennium, **social and economic issues** gained importance, somewhat displacing environmental matters in politics and in the minds of the public (cf. the BMU environmental awareness survey of Germans). This change was also noticeable in the tourism industry, which to some extent again shifted away from environmentally aware/sustainable tourism (cf. Strasdas, 2017, p.30), as **globalisation** and the worldwide growth in international tourism brought the focus of sustainable tourism strategies back to the socio-cultural and economic impacts of tourism. Concepts such as corporate social responsibility and quality management attracted more attention, initially gaining a foothold in larger tourism enterprises in particular. This trend led to an increase in tourism certification schemes, although to this day these still struggle to cover more than a small share of the market (cf. Strasdas et al., 2016).

The first decade of the new millennium was characterised by **global debates on defining sustainable tourism**. International guidelines, codes and recommendations for sustainable tourism planning were drawn up, and the adaptation of CSR concepts in tourism enterprises was examined in detail. Ultimately, the **term sustainable tourism** became established and was underpinned with measures such as the international minimum standards drawn up by the Global Sustainable Tourism Council (GSTC). **The reports of the Intergovernmental Panel on Climate Change (IPCC) in 2007 led to a more critical view of the ecological and climate impacts of tourism, since it was evident that international tourism, especially air travel, played a role in climate change**. This raised the profile of initiatives such as the *forum anders reisen* and the carbon offsetting services Atmosfair and Myclimate, leading to the concept of climate-friendly travel which also informs the tourism planning of the German regions Uckermark, Eifel and the island of Juist.

Over the past years, sustainability in tourism has experienced an upswing, both internationally and within Germany. In 2012, UNWTO set up the Sustainable Tourism Programme, aimed at establishing sustainable consumption and production practices in global tourism (UNEP, 2015), in which the German government is also an active member (BMWi, 2017). On the consumer side, concepts such as fair trade, slow food and organic products are increasingly influencing tourism. These initiatives are generally implemented at regional and company level through certification schemes tailored to tourism. Market research studies deal with the perception and

communication of sustainability in tourism, and how businesses can market sustainability aspects. For a number of years, the German National Tourist Board (GNTB) has prioritised sustainability and accessibility in its marketing of Germany as a destination, and taken a position on these issues. In 2012, the **German Tourism Association** published a paper on tourism and sustainable development in which it formulated principles for shaping sustainable tourism in Germany (DTV, 2012). Two **awards for sustainable destinations in Germany** recently raised awareness at national level, and a new **guideline** provides advice to destinations wishing to market themselves as sustainable (DTV, 2015). At **province** level, Lower Saxony, Schleswig-Holstein, Mecklenburg-Western Pomerania, Baden-Württemberg, Saarland, Berlin and Hamburg have incorporated sustainability issues into their tourism strategies and support destinations designing sustainable tourism activities.

The global Sustainable Development Goals of the **2030 Agenda** also influence tourism. Currently, international forums are examining how tourism can contribute to achieving the SDGs (UNWTO, 2015). NGOs are also calling for tourism to move towards integrated sustainable processes, often combining this with demands for an end to the growth paradigm. (Tourism Watch, 2017). However, it is not yet clear how this will advance sustainable tourism in practice.

4.2 The relationship between tourism and sustainability

As a cross-cutting industry, tourism is generally considered to have **particular relevance for sustainable development** (cf. Engels and Job-Hoben 2009, p.14). The impacts of tourism activities make this relevance especially clear. For instance, tourism has substantial employment effects and offers numerous earning opportunities which interact with many other economic sectors, thus facilitating diversification of the economy, especially in rural areas. Tourism also holds potential for the valorisation of nature and landscape , preservation of traditional cultures, expansion of personal horizons and, not least, for recreation, which is a primary motivation for most holidays. However, all these positive effects of tourism are countered by the many negative impacts it entails. These include environmental pressures such as increased energy consumption, greenhouse gas emissions, especially from air travel, land use by tourism infrastructures, damage to biodiversity through tourism activities and higher levels of waste, water consumption, water body contamination and noise pollution (cf. Schmied et al. 2002, p.23ff) in tourist areas. From the socio-economic point of view, it must be highlighted that jobs in the tourism industry typically entail unstable conditions of employment, low wages and poor social security. They are also often deficient in terms of equal opportunities (cf. LaCombe and Monshausen 2011, p.14). Tourism can also have adverse socio-cultural impacts through commercialisation and artificial attractions. Equally, a high volume of visitors can lead to dissatisfaction among locals and cause the destabilisation and acculturation of the resident population (cf. Strasdas, 2017, p.19ff.). Referred to as "overtourism", the widespread excessive development of tourism was one of the most discussed topics at the travel trade show ITB Berlin in 2018.

Thus, the relationship between sustainable development and tourism is ambivalent (cf. UNEP/UNWTO, 2005, p.9). This is further reinforced by the basic character of tourism as a package of services which the consumer purchases directly from the producer (tourist destination, accommodation providers etc.) and for which local **natural and cultural resources** such as climate, water, landscapes, intact nature, architectural monuments, traditional cultures and a welcoming population, are **key reasons for choosing a particular destination** (cf. Freyer, 2009, p.65ff). In this regard tourism activities rely, sometimes for their very continuance, on the destination being fully functional, both ecologically and socially. Conversely, this also implies a **vulnerability to environmental damage**, built-up landscapes, climate change, and

security and health threats. Intact resources are thus vital for the quality of the tourism product, as has been demonstrated by a number of surveys and studies (e.g. FUR, 2017; DZT, 2013; STE, 2005; ISOE, 2004).

Butler's **tourism-destination-cycle of evolution** (1980) illustrates this clearly: when attractive destinations experience a real tourism boom but have no strategy for tourism management, the ecological and social impacts can become so serious as to cause the quality of the attractions to decline; the only way an area can then continue as a tourist destination is through a complete reorientation and new strategy. A tourism industry based on the principles of sustainable development will have a positive effect even before the onset of destructive trends, by safeguarding tourism resources and paving the way for beneficial conditions. It could be inferred from this that tourism stakeholders should, in principle, have an **inherent interest in managing destinations and tourism activities sustainably**, and that they could even be suitable allies on environmental protection, nature conservation, human rights, etc. This is also reflected in the many guidelines issued by global tourism organisations such as UNWTO, WTTC, PATA and industry associations like the German Tourism Association and the German Travel Industry Association DRV.

Even so, establishing a general understanding of sustainable tourism has been the subject of ongoing debate since the term was first coined (Sharpley, 2000, p.1; Bramwell et al., 2017, p.1). In the 1990s, for instance, sustainable tourism was taken to be the opposite of mass tourism, with a clear dividing line between the two. This gave it a certain niche character and brought about the range of alternative forms of tourism outlined above (Clarke, 1997). This viewpoint has long been considered obsolete and has been superseded by an **integrative interpretation**, which holds that sustainable tourism should be the standard approach for the entire industry – irrespective of type or form – and must be based on the principles of sustainable development (Bramwell et al., 2017). Therefore, **any serious attempt at an environmentally friendly, socially sound reform of tourism must not be reduced to an approach relating solely to niche markets** (cf. Becker et al., 2017).

4.3 Clarifying the term sustainable tourism

As the term sustainability became established, definitions of sustainable tourism began to be developed, especially from the 1990s onwards. However, the range of scientific works, planning guidelines and publications describing the features of sustainable tourism is so broad that even today a clear consensus on a uniform definition of sustainable tourism is yet to be reached (Mundt, 2011). Garrod und Fyall (1998, p.199) even say that "defining sustainable development in the context of tourism has become something of a cottage industry in the academic literature of late." The prevalent international definition is that of UNWTO, which draws almost word-for-word on the formulation in the Brundtland Report:

- **Sustainable tourism** meets the needs of tourists and host regions while protecting and enhancing opportunities for the future. Resources are used in a way that fulfils economic, social and aesthetic needs while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems. (UNWTO, 2005, cited in Strasdas, 2011)

Most efforts to specify the definition of sustainable tourism are based on the three dimensions familiar from the sustainability concept, the **ecological aspect, the economic aspect and the social aspect**. Some authors also include the institutional or management-related dimension (e.g. Baumgartner 2008, p.30 and DTV, 2016, p.5). There is a noticeable focus on cultural

concerns, either in connection with the social aspect or as a category in its own right. This is due to the basic motivation for tourism, namely to experience new places and cultures, thus making the cultural diversity of destinations one of the main aspects of sustainable tourism. In Müller's "magic five-sided pyramid" (2007), the sustainability dimensions are referred to in slightly modified form as "cultural diversity" (social), "economic prosperity" (economic) and "nature and resource conservation" (environmental). The pyramid model further supplements these with "visitor satisfaction" and "subjective well-being", which Müller also sees as an integral part of a desirable system of sustainable tourism. These aspects form the basis of Müller's sustainability pyramid and are characterised by their long-term perspective, which includes "the right of future generations to shape their world" (ibid). **To sum up, adapting sustainability aspects to tourism is nevertheless based on the general sustainability models**, in particular the sustainability triangle and in some cases the intersection model.

The UNWTO and UNEP report (2005, p.11) incorporates sustainability aspects into tourism activities using the following three **basic requirements**:

- Use **environmental resources** in a way that maintains ecological processes and conserves biodiversity.
- Respect the **socio-cultural authenticity of host communities** so that their living traditions and cultural heritage are conserved, and contribute to intercultural understanding and tolerance.
- Ensure **viable, long-term economic operations**, providing socio-economic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities.

McCool and Moisey (2008) distinguish between three different definitions of sustainable tourism. The first **economy-centred approach** (or weak sustainability) places a strong focus on tourism as an industry and aims to secure tourism for the long-term in the destination. Environmental and social aspects are relevant in this context in that they provide the quality characteristics which ensure the continuation of existing tourism products and the development of new ones. Any negative effects on these aspects could put the economic success of tourism activities at risk. For that reason, the economy-centred approach advocates protecting the environmental and social features of the destination. The second interpretation sees **sustainable tourism as a responsible, small-scale form of tourism** which respects cultural and ecological conditions and involves local communities in decisions. This interpretation often presents mass tourism and sustainable tourism as opposites, and highlights alternative forms of tourism. The third, and currently widely accepted understanding of sustainable tourism describes it **as a component of an overarching and holistic system of sustainable development**. This sees modern tourism as bearing a responsibility and acting as a vehicle for sustainable social transformation processes: The cross-cutting nature of the tourism industry and its many interlinked economic and social aspects enable it, at the very least, to enhance positive impacts on the environment and society and minimise the negative ones. As a globally networked industry, and one of the "*driving forces of global employment, economic security and social well-being of the 21st century*" (Rifai 2012, p.201), tourism holds both the inherent potential to play an instrumental role in positive development in line with the three pillars of sustainability, and the risk of causing serious adverse effects (cf. Kalisch, 2002, pp.8, 15). Bramwell et al. (1996) describe this in terms of trade-offs within areas of tourism-related value creation and in interactions with other economic sectors. They conclude that the consideration

of sustainability should not focus on the different tourism sectors themselves, as the activities of one tourism segment would always have impacts on others, and that consequently there would always be trade-offs between the resulting economic and social effects.

The complex web of services which tourism activities entail gives rise to interactions with other branches and sub-sectors. This is to some extent unique to tourism and makes it difficult to strictly classify sustainability practices as specific to tourism, and hence difficult to develop criteria by which to assess sustainability. For example, decisions regarding the purchase and sale of food in the hospitality sector or hiring the services of craftspeople in buildings used by the tourism industry can also affect sustainability within these respective economic areas. However, it is not easy either to assign these impacts to any specific tourism activity or to measure them, as they in turn generate other impacts (e.g. changes in supply structures in a region) and another chain of cause and effect ensues.

This holistic view of sustainability in tourism engenders **internal contradictions** (Freyer, 2006, p.383f), and according to Bieger (2010, p.247) is a complex, even "magical" proposition. This is explained by the fact that tourism depends on sustainability issues that lie outside the immediate influence of tourism stakeholders, or for which there is little leeway for action. Examples include agricultural practices and developments in transport policy: while these affect tourism and its sustainable development, the tourism industry has no hand in shaping them directly. More comprehensive concepts therefore see sustainability in tourism primarily as a desirable goal in the interplay with different fields of influence rather than as a state that can actually be reached (cf Middleton and Hawkins, 1998, p.247). For ease of understanding, they recommend referring to "more sustainable tourism" (NFI, 2011, p.4) or to the "*sustainable development of tourism*" (UNEP/UNWTO, 2005, p.12). UNWTO itself warns: "*Sustainable tourism should not be taken to imply a finite state of tourism. In fact, it is often argued that tourism may never be totally sustainable – sustainable development of tourism is a continuous process of improvement*" (ibid.).

In practice, considering sustainable tourism as an open-ended system of development and evolving goals brings its own challenges. In their thought-provoking and notewothy article "There Is No Such Thing As Sustainable Tourism", Moscardo and Murphy (2014) describe the difficulties encountered by previous attempts to implement the principles of modern sustainability in tourism planning. They find that tourism studies have primarily analysed sustainability aspects and delivered limited results on individual social, cultural and ecological impacts; the authors conclude that such studies do not lend themselves to producing comprehensive evidence of sustainability measures in the different tourism destinations or communities. In the authors' view, although tourism academics have focussed on the management of tourism impacts and on the relationship between tourism and sustainability, to date there are virtually no assessment methods in place and very little evidence of significant changes in tourism areas – i.e. in the actual destinations. Moscardo and Murphy therefore call for greater focus on **improving quality of life in destinations and recommend systematically examining tourism activities in a number of contexts**, from the business and local point of view to the global perspective, analysing their impacts at all relevant levels.

In their sustainability guidelines for destinations, the German Tourism Association (DTV), tourism consultants BTE (2016) and Weber and Taufer (2015) of Lucerne University also recommend considering a number of possible levels in order to allocate responsibilities and competences. The DTV (2016) proposes looking at three levels of action – destination management organisation (DMO), cooperation (tourism enterprises and service providers) and the destination level. The DTV stresses in this context that if approaches to developing

sustainable tourism are to succeed in the long term, close cooperation among all the different stakeholder groups is vital (ibid.).

To mitigate the risk of the principle of sustainable tourism being misused UNEP/UNWTO (2005) advise the following aspects be taken into account:

- **Consider all types of tourism** from niche products to mass tourism.
- Use a **network outlook** embracing all relevant tourism stakeholders, to allow indirect impacts to be considered as well.
- Establish **a political and institutional consensus** within which favourable conditions and strategies for long-term development can be created.
- **Apply process-related procedures and steering mechanisms** which facilitate continuous assessment of the local situation and strive to optimise local conditions.
- **Create positive tourism experiences** which raise awareness of sustainability among visitors and promote sustainable behaviour among them.

The requirements and development goals of sustainable tourism are generally related to the basic guidelines for action and management rules of the German Sustainability Strategy (see Chapter 3). The following **goals for action to achieve sustainable development in tourism** can be derived on that basis:

Table 1: Sustainable tourism – requirements and goals of action

Requirement	Goals of action
Conserving resources and preserving ecological processes	▪ Growth ▪ Consumption of resources in line with their ability to regenerate ▪ Continual replacement of non-renewable energies ▪ Reducing emissions to maintain the natural cycle and comply with limit values ▪ Designing activities and land use in a way that conserves or improves biodiversity and complies with limit values
Respecting socio-cultural structures of the destination communities	▪ Observing capacity limits ▪ Maintaining and strengthening local decision-making and taking public interests into consideration ▪ Strengthening cultural heritage and identity ▪ Acceptance of visitors in harmony with inter-cultural understanding in the destination
Ensuring viable long-term economic activities	▪ Ensuring satisfaction of local communities with (tourism) development ▪ Creating regional economic cycles (distribution of spending) ▪ Creating year-round employment/reduction of seasonal jobs ▪ Raising wages/gender equality ▪ Creating diverse employment opportunities

Source: Authors, based on UNEP/UNWTO, 2005, p.11; Federal Government, 2017 and Ekardt, 2014, p.43

Currently, tourism research is focusing on demand-side studies which examine factors **relevant for tourist behaviour** and analyse the relationships between attitudes, behaviour and decisions, often with the aim of determining how sustainability principles like substance conservation and corporate responsibility (see Chapter 2) can become a business model that

resonates with tourism consumers (Bramwell et al., 2017, p.3). In addition, research into ways governments can guide consumers towards sustainable tourism is gaining in importance, combining such steering instruments with complex systemic approaches (ibid, p.3 f). Overall, calls are growing louder for tourism studies to pay greater attention to the requirements of the 2030 Agenda and the interactions between sustainable production and consumption in the tourism industry, especially by researching tourism-specific catalysts which could accelerate a transformation to sustainability across the whole of society (ibid, p.4f).

The Sustainable Development Goals explicitly refer to tourism in three places:

- Preservation and promotion of local culture,
- Monitoring the impacts of tourism in the context of sustainable production and consumption patterns,
- Sustainable use and valorisation of marine resources.

Currently, approaches are being developed at global and national level (e.g. in Austria) to **determine to what extent tourism can contribute to achieving all the SDGs** (UNWTO, 2015; BMWFW, 2017). For some NGOs , the SDGs are a call for a threefold tourism transition: essential aspects of tourism policy, corporate practice and consumption all have to be changed (Brot für die Welt et al., 2016). To date, no national consensus has been reached on a strategy or on concrete implementation methods.

4.4 Assessing and defining sustainable tourism

The term "sustainable tourism" implies a possible dichotomy between sustainable and unsustainable tourism activities. This can be traced back to the original definition of sustainability as a resource-efficient model for forestry, which permits a clear distinction to be made based on capacity to regenerate (cf Chapter 2, p. 4). In the context of today's understanding of sustainability as an ethical concept of global development which is intragenerationally and intergenerationally equitable, drawing such a distinction is far less straightforward, as sustainability leaves considerable leeway for shaping social decision-making processes. A precise definition would therefore require a binding sustainability principle setting out the specific standards, guidelines and rules to which sustainable tourism should adhere. This, in turn, would need binding criteria and targets which must be determined in a discourse embracing all social actors. The problem here is that there is no actual agency with the moral authority or requisite expertise to prescribe such a uniformly binding principle. On the contrary, value judgements and trade-offs must constantly be made between heterogeneous and often conflicting interests. Moreover, the target values necessary for such a definition are extremely complex in terms of their content and social aspects, a characteristic further exacerbated by the multifaceted and interwoven nature of tourism. Thus, establishing target values would demand extensive and varied knowledge in a range of contexts. Such knowledge is rarely fully available, especially in consolidated form, and is furthermore constantly undergoing dynamic development.

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A few publications have already looked into possible ways of drawing a quantitative distinction between sustainable and unsustainable business practices within economic sectors. The ECOLOG Institute, for example, presented a study in 2013 which tested criteria and indicators for assessing the sustainability of land uses. The authors had to confirm that they were unable to make a

recommendation on core sustainability assessment indicators due to the "different specialist requirements and to the dynamics and interests of the participating research partners". (ECOLOG, 2013, p.1). However, in a multi-step, participative and cross-disciplinary procedure, different land use development scenarios were assessed for a selected region based on a survey of experts. For this assessment, 68 development goals were defined and supported with weighting factors and assessment points. These were further underpinned with sustainability indicators intended primarily for information and as development parameters. In this way, at least the "most sustainable" land use form could be identified and alternatives assessed for their sustainability.

A dissertation developed an operationalisation approach based on social sustainability strategies, for application in the production process of bio-fuel refineries (Meier, 2014). In light of the dynamic nature of the sustainability definition, the author opted for a context-based procedure which first determined the limits to be observed in the system, using these as a basis to adapt the criteria to the subject of analysis. Sustainability indicators were then developed using experts' input and aggregated in a mathematical assessment procedure (multi-criteria analysis). This study also drew up an alternative scenario and correlated the results of the two options for action, allowing a final ex-post assessment. The study focused on a single production process and did not cover the sustainability of an entire sector.

A 2001 baseline study commissioned by the state of Baden-Württemberg analysed which assessment methods seemed most suited to determine regional sustainability (Diefenbacher et al., 2001). The authors considered different options for assessing sustainability indicators, such as traffic light systems, graphic methods and mathematical-statistical processes of varying complexity. Their study did not, however, present any comprehensive system allowing a quantitative distinction between sustainable and unsustainable practices. Due to the considerable lack of data, it was felt that mathematical approaches would provide too little information and were not sufficiently application-oriented. Equally, the authors did not recommend a simplified approach as this would distort the findings. Consequently, the main recommendation was to develop qualitative assessment instruments, such as networking diagrams to present interactions, or discursive, participative methods – i.e. qualitative expert analyses. Thus, this project was also unable to offer any concrete strategies for a quantitative definition of sustainability for individual economic sectors.

Although sustainability processes are in principle flexible and participative, this should not lead to any arbitrariness in their assessment. To avoid that, guidelines at least are necessary, such as those formulated in Germany based on the management rules for sustainability (cf Chapter 3, p.10f.), which can be applied to tourism (cf Figure 3). Assessing these objectives requires indicators which represent the corresponding level of compliance and which follow developments over time. Ultimately, in order to appraise sustainability, defining characteristics must be known or laid down. Diverse possibilities using different benchmarks are conceivable for achieving this. Possible methods for a quantitative definition of sustainability include:

1. Laying down exclusion criteria as minimum values.
2. Comparison with standard benchmarks as the "ideal" value.
3. Using certification schemes as potential standards for sustainable practices.
4. Comparison with political and scientific targets.
5. Mapping development trends using time series.

(cf Diefenbacher et.al., 2001; Meier, 2014; ECOLOG, 2013).

The following section briefly discusses these methods.

1. Laying down exclusion criteria as minimum values

Basic guidelines can be determined using legal regulations, clearly specified, state-recognised guidelines and sound scientific findings. Failure to observe these would then automatically be deemed unsustainable. Under this approach, infringements of environmental laws such as exceeding limit values for vehicle emissions, or violations of human rights, as set out in, for instance, the United Nations Declaration on Human Rights, would have to be judged unsustainable. Thus, negative criteria would be the defining factor. The problem with this approach is that legal regulations only lay down minimum limits, and complying with these is not equivalent to good practice and hence not in line with the sustainability principle per se. This is also made clear in the definition of corporate social responsibility (CSR) which states: "*Corporate social responsibility concerns actions by companies over and above their legal obligations towards society and the environment*." (cf. European Commission, 2011, p.4). Furthermore, there are no tourism-specific legal limit values which would enable a corresponding distinction to be drawn.

2. Comparison with standard benchmarks

Another means of clearly distinguishing between sustainable and unsustainable tourism entails the assessment of specified benchmarks acting as a dividing line. An assessment could be undertaken using intercompany comparisons (internal benchmarks). To some extent, such practices are already being implemented through certification schemes like the DEHOGA environmental check and EMAS, which lay down maximum consumption limits – based on average values – or through the front-runner approach. The front runner approach is aimed at the market penetration of the most environmentally sound, resource-efficient and/or energy-efficient product. The best product on the market is held up as the standard of comparison for all other products of the same kind. In this way, the best practice examples on the market are set as the benchmark. Comparisons with other sectors would also be feasible (external benchmarks), e.g. by calculating the eco-efficiency (resource consumption in relation to value creation) or by direct comparisons such as pay levels. Resource consumption in tourism could also be compared to private households, for instance water consumption per overnight stay.

Nevertheless, conducting such an assessment nationwide would require extensive company data which, in the case of tourism, are not currently available. Moreover, benchmarks are always relative values, subject to certain processes of change and in particular as guideline values generally requiring some arbitrary specifications. In order to take account of the variety of tourism activities, different benchmarks would be needed for the different tourism sub-sectors. At present only very few benchmarks are available, mainly for hospitality establishments (e.g. Hamele and Eckardt, 2006; DEHOGA, Energieinstitut der Wirtschaft GmbH, 2012), but data on these are not collected regularly or using a uniform system.

As sustainability is to be understood as an interplay among a range of aspects across all dimensions, different benchmarks would have to be laid down for the respective individual sustainability issues, which would then have to be consolidated using a composite indicator or an index value. Assessing the overall sustainability would require weighting the different sub-aspects and drawing up corresponding assessment factors. This complexity makes defining sustainability through benchmarks extremely difficult if not downright impossible. While it might be conceivable to formulate assessment standards for individual aspects of sustainability in selected tourism sub-sectors, determining these standards would require comprehensive company data. Ultimately, however, agreeing on and laying down benchmarks would have to be undertaken in discussions among the relevant social actors.

3. Certification schemes as potential standards for sustainable practices

Certification schemes for sustainable tourism set standards for assessing the sustainability of tourism services, thus providing proof of a tourism operator's commitment to sustainability. It could thus be argued that certification is a suitable instrument for drawing a clear distinction between sustainability and unsustainability. One example is certification of organic produce, which allows organic foods to be distinguished from food that is conventionally produced. Minimum standards have been developed for labelling in this area at both national and EU level. It should, however, be borne in mind that this only covers a partial aspect of sustainability, namely the production and processing of foods, not however their transport or the working conditions connected with their production.

One obstacle in relation to tourism is that there is currently no national quality standard for sustainability certification which lays down minimum requirements for the sustainability of tourism services. There is a range of certification schemes with some widely diverging requirements and a frequent focus on process (i.e. assessment of in-company processes rather than compliance with specified performance indicators). This lessens the suitability of such schemes for distinguishing sustainable from unsustainable practices, as certifications in themselves cannot guarantee sustainable services in practice. While there are studies on the quality assessment of sustainability certifications (cf ZENAT, 2016 and VerbraucherInitiative and ZENAT, 2017), a selection of certification schemes would have to be made building on those studies, which could then be adopted as a litmus test. No such selection has been made to date and would only be constructive if made in a broad consensus of different tourism actors. A further problem is the voluntary nature of certification schemes, which allows tourism operators to decide whether they wish to have their sustainability performance verified. Certification schemes thus do not include all companies committed to sustainability, and in this respect defining sustainability using certification schemes would not furnish an accurate overall picture of the tourism industry.

4. Comparison with political and scientific targets

Another conceivable approach is to assess the overall sustainability of tourism by presenting the impacts of tourism in the context of politically and scientifically formulated targets such as the national and international climate action and emission reduction targets, the Sustainable Development Goals and the targets of Germany's National Sustainability Strategy. However, a comparison of this kind requires tourism-specific indicators which would first have to be determined. Since tourism is a cross-cutting industry which uses the products and services of various other sectors, this raises the problem of how exactly to distinguish the activities and aspects that can be classified as belonging to tourism. Thus, it would not always be clear whether certain indicator changes should be attributed to tourism, or whether they were the result of changes in other sectors.

In addition, there is always the possibility of redistributions and trade-offs, and these can make the results less robust. As an example, changes in tourism activities could lead to a decline in tourism-specific consumption while consumption overall remains constant – for instance, if consumption had simply been transferred from tourism to leisure-related activities. This would be the case, e.g. if more people decided to visit a restaurant more often in the place where they live rather than when on holiday. A decline in tourism-related hospitality services would then be recorded, but leisure-related hospitality spending would rise, meaning that activities had simply been transferred. In summary, the context-dependency of the definition of tourism, and consequently of tourism activities themselves, weakens the validity of a target value and means that it is not possible to pinpoint exactly which impacts are in fact attributable to tourism.

A comparison of tourism-specific indicators with general targets and limit values is therefore to be seen more as a relative benchmark which shows deviations or undesirable trends in relation to the overall objective, in other words illustrating the extent to which tourism is moving in the "desired" direction. The cross-cutting nature of tourism prevents any precise quantification of tourism's contribution to achieving the respective targets, thus also ruling out a binary distinction between sustainable and unsustainable tourism activities.

5. Mapping development trends using time series

The use of time series to map trends in development is already a recognised and accepted practice for assessing sustainability as a process of transformation. In Germany it is used to evaluate the national sustainability indicators. This involves collecting data at regular intervals and under identical conditions, using target values to assess developments and trends. Time series thus permit statements to be made on sustainability indicator trends within tourism sectors, as well as a longitudinal comparison to other sectors. Moreover, it is possible to assess the strength of the changes in effect, especially in terms of how far desired targets have been achieved. Ensuring robust time series requires indicators which can be updated at very short intervals and which provide consistent quantification of a political or scientific target. At present, however, there is a general lack of such reference values for tourism-related aspects of sustainability (see point 4) and these would first have to be determined.

Overall, it can be concluded that a data-based quantification and definition of sustainability in tourism in Germany is not possible at present. The problem here is not so much selecting suitable indicators but the difficulty of laying down a generally valid frame of assessment and reference for evaluating the sustainability of tourism. Defining this framework must be undertaken in a process of negotiation and discussion, on the basis of long-term, regular and consistent data collection and bearing in mind the cost of obtaining that data.

5 Guiding instruments for sustainability in tourism

A range of political instruments and measures are available to help achieve general targets of sustainable tourism development. These include both "hard" measures which are legally binding for all actors and have an immediate impact, and a number of "soft" instruments which are not legally binding and often only influence developments in tourism indirectly or over the long-term. The most commonly used steering instruments are summarised in Table 2 below.

Table 2: Instruments and measures for sustainable tourism development

Instrument	Areas of application for measure
Steering and control instruments	▪ Growth ▪ Legal acts and ordinances, licences ▪ Planning instruments, controls on development, budgeting, quotas ▪ Regional, landscape and urban planning ▪ Environmental impact assessment
Economic and fiscal instruments	▪ Taxes and charges, e.g. tourist tax, spa tax, tourism levy ▪ Tax rebates, e.g. VAT for tourist accommodation providers ▪ Financial incentives, e.g. funding and low-interest loans
Measuring instruments	▪ Sustainability indicators and monitoring ▪ Limitations on tourism development (carrying capacity, limits of acceptable change)
Voluntary instruments	▪ Guidelines and codes of conduct ▪ Guides, competitions and awards ▪ Voluntary reporting, voluntary commitments, audits and certification schemes ▪ Voluntary actions (honorary, positions, sponsorships, corporate citizenship)
Flanking instruments	▪ Infrastructure provision and maintenance ▪ Development of transport infrastructure ▪ Public facilities and services ▪ Security and emergency facilities ▪ Training, further training, self-help assistance ▪ Marketing and information services

Source: Authors' own table, based on Rein and Balas, in Rein and Strasdas, 2017, p.306

To date, activities for supporting sustainable tourism practices have **focused on voluntary instruments**. At first these generally took the form of guidelines and codes of conduct such as the Global Code of Ethics for Tourism (1999), the United Nations' cross-sectoral Global Compact and the child protection protocol for tourism "The Code". Since the turn of the millennium there have been new instruments, especially reporting guidelines such as the Global Reporting Initiative, the German sustainability code and branch-specific reporting models for tour operators and other tourism businesses. Over the past 20 years voluntary environmental and sustainability certification schemes have become more widespread in tourism. These are very diverse, with 46 certificates in Germany alone, but cover only a very small share of around 2-5 percent of the market (Strasdas et al., 2016). There is a similar dynamic in competitions and sustainability awards in tourism. The European Commission presents the EDEN award each year, and prizes such as the EcoTrophea of the German Travel Industry Association (DRV) and the To Do Award organised by the Institute for Tourism and Development are widely established in the industry. There is no overview of all the voluntary sustainability activities or

CSR management systems in tourism within Germany, and it is therefore not possible to assess the effects of these instruments. Nevertheless, an increasing number of demand-side studies attest to the growing customer interest in sustainability (FUR, 2014; TUI, 2016; Tripadvisor, 2015; Booking.com, 2016). This makes voluntary commitments to sustainability attractive to tourism businesses as a means of positioning themselves on the market, even if there is a wide discrepancy between the imagined ideal and actual practices (cf. esp. FUR, 2014). Moreover, potential cost savings from greater eco-efficiency act as a driver for introducing in-company environmental management processes, although these should not be equated with a comprehensive commitment to sustainability (Balas, 2017, p.280).

In recent years, international institutions and associations such as the Global Sustainable Tourism Council (GSTC), UNWTO and the European Commission have been increasingly active in making **recommendations for measuring and monitoring systems**, especially at the destination level. Since 2009, UNWTO has helped regions to establish themselves as "tourism observatories" and set up an indicator-based destination management. The European Tourism Indicator System (ITIS) offers a set of core indicators which destinations can use to measure and assess the impacts of tourism. The GSTC criteria are considered the international minimum requirements for sustainable tourism. They are sector-specific and underpinned with a range of measureable indicators. UNWTO is currently working on a Statistical Framework for Measuring the Sustainability of Tourism, which aims to produce an integrated information base. Despite these initiatives, however, up to now, sustainability data has rarely actually been gathered in Germany's tourism industry. **A recent survey by the German Tourism Association (2017) found that nearly 30% of the responding destination management organisations (DMOs) in Germany would like better guidance on collecting data on sustainability indicators for tourism.** Indicators on **carrying capacity** (overtourism) play an increasingly significant role.

As well as being an object of so-called "soft" instruments, sustainability is now also directly incorporated into legal frameworks. The legal minimum wage, the act implementing the CSR Directive and the Renewable Energy Sources Act are some examples, although the latter two have little relevance for tourism in Germany since the industry is largely made up of SMEs. At regional level, especially in sensitive areas, instruments such as regional and landscape planning, zoning and environmental impact assessments are used to anchor nature conservation and biodiversity aspects in tourism strategies. Similar use is made of fiscal and flanking instruments, which are also applied to tourism, particularly at regional level, although for the most part their influence on sustainability in tourism is indirect.

6 Summary: Requirements for sustainability in tourism in Germany

Over the past decades, the definition of sustainability has evolved from a model relating purely to resource efficiency to an ethical guiding principle for co-existence that is viable for the future. It can only be achieved if the different dimensions of social development are taken into account, and it is constantly subject to trade-offs between different interests. In this regard, **tourism – as the entirety of all activities undertaken by visitors** – walks a fine line. **On the one hand, it owes its existence to intact natural and cultural resources**, making it a valid potential ally of sustainable development. On the other hand, however, as one of the **causes of undesirable ecological and socio-cultural impacts**, tourism is duty-bound to adhere to responsible, future-proof practices. It must also be borne in mind that tourism is not an industrial sector in the conventional sense, but rather involves a range of service providers from different sectors, all contributing to the overall tourism product. As all tourism activities should aspire to sustainable development, this complex cross-sectoral network makes an integrative approach all the more important. However, to enable the **tourism industry to acknowledge its obligation to contribute to sustainable development** overall, a **clear allocation of responsibilities is needed embracing all actors on the different levels.** This must be flanked with framework conditions which reward actions to make the desired changes. (cf. Moscardo and Murphy, 2014; DTV, 2016; Weber and Taufer, 2015).

For the reasons presented in this paper, the term "sustainable tourism" cannot be defined with sufficient accuracy, especially when it comes to assigning sustainability activities to particular stakeholders or to clarifying areas of competence and scope for action (cf. UNEP/UNWTO, 2005, p.12; NFI, 2011, p.4; Middleton and Hawkins, 1998, p.247). It would therefore be more correct to refer to **sustainability in tourism**, to encompass the idea of applying the principles of sustainability to all tourism activities on all levels of action, and communicate the evolving character of the concept. Tourism-specific definitions of sustainability can only be seen as a general tenet for action for the entire cross-cutting sector (cf. UNEP/UNWTO, 2005, p.11f), and are not suitable for distinguishing the industry from other sectors. This is simply because most tourism services are used both by tourists and locals, and thus a clear distinction cannot usefully be drawn between what is and what is not tourism. Consequently, an allocation according to economic sector is manifestly more constructive (e.g. the use of local public transport by tourists and by locals are both part of environmentally sound mobility).

This interpretation of sustainability in tourism lends itself to a systematic approach which sees tourism as an interplay between different economic areas and stakeholder levels which influence each other and to which the principles of sustainability must be applied throughout (cf. McCool and Moisey, 2008). According to this understanding, **three fundamental perspectives** are needed for the sustainable development of tourism: first and foremost, the expectations, needs and ideas of individuals must be considered, especially those of the **communities** in the destinations and the tourists who visit them. Secondly, a **corporate-centred** outlook is needed, focusing on the actual value created by tourism businesses and based on sustainability management or CSR geared to eco-efficiency, substance conservation and the responsibility to minimise trade-offs. Thirdly, a **spatial aspect** must be established to assess what the destination has to offer (original and derived attractions), examine the social and political influencing factors and planning instruments in the destination and determine how activities outside the destination (e.g. transit, preparation of and follow-up to journeys etc.) are managed. For tourism, the three guidelines for action set out by UNEP/UNWTO (2005) apply as the cornerstones of the sustainability triangle. As a general rule, framework conditions must be laid down for all levels

using instruments which encourage the respective stakeholders to design their activities sustainably. To this end, active political and social institutions are needed on all levels (corporate, regional, national and international). The different stakeholder levels are also anchored in the global strategy of the 2030 Agenda and its 17 sustainable development goals, which provide an overarching frame of reference and specify the absolute limits of the sustainability triangle. Figure 5 below illustrates the system of sustainability in tourism.

Figure 5: System of sustainability in tourism

Source: Authors, based on the sustainability triangle and the 2030 Agenda

In summary, the following key requirements can be derived, according to which sustainability in tourism should

- contribute to the guiding principle of global sustainable development,
- be the basic tenet for all tourism activities,
- take a holistic viewpoint embracing all tourism stakeholders and considering both corporate and spatial structures,

- strengthen the positive and reduce the negative impacts of tourism activities on environment and society, in line with the three pillars of sustainability,
- formulate specific responsibilities for all levels of the tourism industry, based on the general principles of sustainability and sustainability management rules, and
- benefit from policy frameworks and participative structures.

A Appendix

Balas, M. (2017). Corporate Social Responsibility und Nachhaltiges Unternehmensmanagement im Tourismus. In H. Rein, and W. Strasdas, Nachhaltiger Tourismus (pp.241-286). Stuttgart: UTB-Verlag.

Baumgartner, C. (2002). Bewertungsmöglichkeiten von Nachhaltigkeit im Tourismus. Institut für Integrativen Tourismus und Freizeitforschung, Vienna.

Baumgartner, C., Baumhackl, H., Birkmayer, F. H., Marktl, W., Smeral, E., and Wöber, K. (2002). Tourismus und Nachhaltigkeit. Arbeitsgemeinschaft Wirtschaft und Schule (AWS): Medienmappe Tourismus in Österreich, Vienna.

Becker, C., Job, H., and Witzel, A. (1996). Tourismus und nachhaltige Entwicklung. Grundlagen und praktische Ansätze für den mitteleuropäischen Raum. Darmstadt: Wissenschaftliche Buchgesellschaft.

Bieger, T., and Beritelli, P. (2013). Management von Destinationen. Munich: Oldenbourg Verlag.

BMU. (2018). Nachhaltige Entwicklung als Handlungsauftrag. Online at https://www.bmub.bund.de/themen/nachhaltigkeit-internationales/nachhaltige-entwicklung/strategie-und-umsetzung/nachhaltigkeit-als-handlungsauftrag/, accessed 24.01.18

BMWFW. (2017). Tourismus und die SDGs. Die nachhaltigen Entwicklungsziele (SDGs) im Rahmen der UN-Agenda 2030 - wie kann Tourismus beitragen? Vienna.

BMWi. (2017). Federal Government Report on Tourism Policy 18th Legislative Term. Federal Ministry for Enconomic Affairs and Energy (BMWi), Berlin.

Booking.com. (19. 4 2017). Booking.com's 2017 Sustainable Travel Report. Online at https://news.booking.com/bookingcoms-2017-sustainable-travel-report/, accessed 15. 03. 2018

Bramwell, B., and Lane, B. (2012). Critical research on the governance of tourism and sustainability. In B. BRAMWELL, and B. LANE (ed.), Tourism Governance - Critical Perspectives on Governance and Sustainability (pp.1-11). London, New York.

Bramwell, B., Highman, J., Lane, B., and Miller, G. (2017). Twenty-five years of sustainable tourism and the Journal of Sustainable Tourism: looking back and moving forward. Journal of Sustainable Tourism, 25(1), 1-9.

Bramwell, W., Henry, I., Jackson, G., Prat, A., Richards, G., and van der Straaten, J. (1996). Sustainable Tourism Management: Principles and Practice. Tilburg: Tilburg University Press.

Brot für die Welt, Arbeitskreis Tourismus und Entwicklung, TourCert. (2016). Tourismuswende - Agenda 2030 für nachhaltige Entwicklung. Die Transformation im Tourismus gestalten. Berlin.

BTW (Federal Association of the German Tourism Industry) (2017). Inhalte und Impressionen des 20. Tourismusgipfels. Online at http://www.btw.de/veranstaltungen-termine/tourismusgipfel/20-tourismusgipfel-2016/inhalte-und-impressionen.html, accessed 09. 01. 2018

Bundestag. (1995). Bericht der Bundesregierung über die Tätigkeit des Europarats für die Zeit vom 1. Juli 1994 bis 31. Dezember 1994.

Butler, R. (1980). The concept of a tourist area cycle of evolution: Implications for management of resource. Canadian Geographer (24), 5-12.

Butler, R. (1993). Tourism - An Evolutionary Perspective. In Nelson, Butler, and Wall (ed.).

Centre for Sustainable Tourism (ZENAT). (2016). Bestandsaufnahme und Bewertung von Zertifizierungssystemen für nachhaltigen Tourismus in Deutschland. Eberswalde.

Clarke, J. (1997). A Framework of Approaches to Sustainable Tourism. Journal of Sustainable Tourism, 5 (3), 224-233.

Coenen, R., and Grunwald, A. (2003). Nachhaltigkeitsprobleme in Deutschland. Berlin: edition sigma.

Diefenbacher, H. et. al. (2001). Die Analyse regionaler Nachhaltigkeit im Vergleich verschiedener Bewertungsmethoden. Forschungsstätte der Evangelischen Studiengemeinschaft Heidelberg.

Di Giulio, A. (2003). Die Idee der Nachhaltigkeit im Verständnis der Vereinten Nationen - Anspruch, Bedeutung und Schwierigkeiten. Münster.

DIW Econ. (2017). Wirtschaftsfaktor Tourismus in Deutschland. (Federal Ministry for Economic Affairs and Energy (BMWi), ed.)

DTV and BTE. (2017). Status-Quo NACHHALTIGKEIT IM DEUTSCHLANDTOURISMUS. Kurzbefragung von Destinationsmanagementorganisationen 2017. Berlin.

DTV. (2012). Tourismus und nachhaltige Entwicklung. Bonn.

DTV. (2015). DTV Best practice guide "Nachhaltigkeit im Deutschlandtourismus. Anforderungen, Empfehlungen, Umsetzungshilfen". Berlin.

DWIF. (2014). Tagesreisen der Deutschen. (Federal Ministry for Economic Affairs and Energy (BMWi), ed.)

DZT. (2013). Das Reiseverhalten der Deutschen im Inland. Frankfurt.

ECOLOG. (2013). Kriterien und Indikatoren zur Bewertung der Nachhaltigkeit von Landnutzungen. VIP - Vorpommern Initiative für Paludikultur. Hannover.

Ekardt, F. (2014). Theorie der Nachhaltigkeit. In M. M. Müller, and I. T. Hemmer (ed.), Nachhaltigkeit neu denken. Rio+X: Impulse für Bildung und Wissenschaft. Munich: oekom.

Energy Institute for Businesses (EIW GmbH) (2012). Energiekennzahlen in Dienstleistungsgebäuden. Kennzahlen zum Energieverbrauch, die relevantesten Einsparpotenziale und Hauptverbraucher in ausgewählten Branchen – Bürobetriebe • Einzelhandel Non Food • Lebensmitteleinzelhandel • Gastronomie • Hotellerie (3- und 4-Stern) – im Rahmen des Projektes EV-DLB – Energieverbrauch im Dienstleistungssektor. Wien

Engels, B. and Job-Hoben, B. (2009). Nachhaltiger Tourismus in Deutschland - Eine aktuelle Bestandsaufnahme. (Federal Agency for Nature Conservation (BfN), ed.) Naturschutz und Biologische Vielfalt (79), 7-25.

Study Commission on the Protection of Mankind and the Environment of the German Bundestag. (1998). Konzept Nachhaltigkeit. Vom Leitbild zur Umsetzung. Berlin.

Enzensberger, H. M. (1958). Vergebliche Brandung der Ferne. Eine Theorie des Tourismus (Bd. 12. Jg.). Mercur. English translation by Gerd Gemünden and Kenn Johnson (2001).

European Commission. (2011). Communication from the Commission to the European Parliament, the Council, The European Economic and Social Committee and the Committee of the Regions. A renewed EU strategy 2011-14 for Corporate Social Responsibility. Brussels.

Federal Government. (1979). Unterrichtung durch die Bundesregierung. Bericht der Bundesregierung über die Durchführung des tourismuspolitischen Programms von 1975. Berlin.

Federal Government. (2016). Deutsche Nachhaltigkeitsstrategie. Berlin.

Freyer, W. (2006). Tourismus: Einführung in die Fremdenverkehrsökonomie (8th edition.). Munich: Oldenbourg.

Fuchs, W., Mundt, J. W., and Zollondz, H.-D. (2008). Lexikon Tourismus: Destinationen, Gastronomie, Hotellerie, Reisemittler . Munich: Oldenbourg Verlag.

FUR. (2014). Abschlussbericht zu dem Forschungsvorhaben: Nachfrage für Nachhaltigen Tourismus im Rahmen der Reiseanalyse . Kiel.

FUR. (2017). Erste ausgewählte Ergebnisse der 47. Reiseanalyse zur ITB 2017. Kiel.

FUR. (2017). Reiseanalyse 2017. Kiel.

Garrod, B., and Fyall, A. (1998). Beyond the Rhetoric of Sustainable Tourism? Tourism Management, 19(3), 199-212.

Grober, U. (2013). Die Entdeckung der Nachhaltigkeit. Kulturgeschichte eines Begriffs. Munich: Antje Kunstmann.

GSTC. (no date). GSTC Council. Online at https://www.gstcouncil.org/about/about-us/, accessed 05. 01.18.

Hall, C. (2012). A typology of governance and its implication for tourism policy analysis. In B. BRAMWELL, and B. LANE (ed.). London, New York.

Hamele, H., Eckardt, S. (2006). Umweltleistungen europäischer Tourismusbetriebe. Instrumente, Kennzahlen und Praxisbeispiele. Ein Beitrag zur nachhaltigen Tourismusentwicklung in Europa.

Hunter, C. (2002). Sustainable Tourism and the Touristic Ecological Footprint. Environment, Development and Sustainability, 4 (1), 7-20.

ISOE. (2004). Reise- und Urlaubsziele - Zielgruppen für nachhaltigen Tourismus. Frankfurt am Main.

Jörissen, J., Kopfmüller, J., and Brandl, V. (1999). Ein integratives Konzept nachhaltiger Entwicklung. Karlsruhe.

Jackson, T. (2016). Wohlstand ohne Wachstum. Munich: oekom.

John, R. (2013). Alltägliche Nachhaltigkeit. Zur Innovativität von Praktiken. In J. Rückert-John (ed.), Soziale Innovation und Nachhaltigkeit. Perspektiven sozialen Wandels. Wiesbaden: Springer.

Kalisch, A. (2002). Corporate Futures: Consultation on good Practice. Social Responsibility in the Tourism Industry. Tourism Concern, London.

Kleine, A. (2009). Operationalisierung einer Nachhaltigkeitsstrategie - Ökologie, Ökonomie und Soziales integrieren. Wiesbaden: Gabler.

LaCombe, I., and Monshausen, A. (2011). Ich bin dann mal weg. CSR als Voraussetzung für einen nachhaltigen Tourismus. forum Nachhaltig Wirtschaften, 12-16.

McCool, S. and Moisey, R. (2008). Tourism, Recreation and Sustainability: Linking Culture and the Environment (2nd edition). Wallingford/Campbridge: CABI Publishing.

Meier, E. (2014). Nachhaltigkeitsbewertung - Logical Framework-Ansatz zur kontextbezogenen Operationalisierung von Nachhaltigkeit auf Basis gesellschaftlicher Nachhaltigkeitskonzepte. Dissertation zur Erlangung des Doktorgrades an der Fakultät für Ma-thematik, Informatik und Naturwissenschaften Fachbereich Biologie der Universität Hamburg. Hamburg

Michelsen et al., P. D. (n.d.). Grundlagen einer nachhaltigen Entwicklung. LEUPHANA University of Lüneburg, Lüneburg.

Michelsen, G., and Adomßent, M. (2014). Nachhaltige Entwicklung: Hintergründe und Zusammenhänge. In H. Heinrichs, and G. Michelsen (ed.), Nachhaltigkeitswissenschaften (pp.3-23). Berlin, Heidelberg: Springer Spektrum.

Middleton, V. T. and Hawkins, R. (1998). Sustainable Tourism: A Marketing Perspective. Oxford.

Moscardo, G., and Murphy, L. (2014). There Is No Such Thing as Sustainable Tourism: Re-Conceptualizing Tourism as a Tool for Sustainability. Sustainability (6).

Mundt, J. (2011). Sustainability, Development and Tourism: Untangling a Vague Concept. Erich Schmidt.

NFI, (2008). Was ist Nachhaltiger Tourismus? Ein Erklärungsansatz der Naturfreunde Internationale. In C. Baumgartner, Nachhaltigkeit im Tourismus: Von 10 Jahren Umsetzungsversuchen zu einem Bewertungssystem. Studienverlag Wien.

Peters, W. (1984). Die Nachhaltigkeit als Grundsatz der Forstwirtschaft, ihre Verankerung in der Gesetzgebung und ihre Bedeutung in der Praxis - die Verhältnisse der Bundesrepublik Deutschland im Vergleich mit einigen Industrie- und Entwicklungsländern. (University of Hamburg, ed.) Hamburg.

Pufé, I. (2012). Nachhaltigkeit. Munich: UVK.

Rifai, T. (2012). CSR and Sustainability in the Global Tourism Sector – Best Practice Initiatives from the Public and Private Sector. In R. Conrady, and M. Buck, Trends and Issues in Global Tourism 2012. Berlin/Heidelberg.

Schanz, H. (1996). Forstliche Nachhaltigkeit. Sozialwissenschaftliche Analyse der Begriffsinhalte und Funktionen. (University of Freiburg, ed.) Freiburg i. Br.

Schmied, M. (2002). Umwelt und Tourismus. Daten, Fakten, Perspektiven. Umweltforschungsplan des Bundesministeriums für Umwelt, Naturschutz und Reaktorsicherheit - Umweltwirkungen - Forschungsbericht 200 87 112 UBA-FB 000270 - im Auftrag des Umweltbundesamtes. Berlin: Erich Schmidt Verlag.

Sharpley, R. (2000). Tourism and Sustainable Development: Exploring the Theoretical Divide. Journal of Sustainable Tourism, 8(1).

SRU (German Advisory Council on the Environment) (1994). Umweltgutachten 1994. Für eine dauerhaft-umweltgerechte Entwicklung. Stuttgart: Metzler-Poeschel.

SRU (German Advisory Council on the Environment) (2002). Umweltgutachten 2002. Für eine neue Vorreiterrolle. Stuttgart: Metzler-Poeschel.

STE (Institute for Tourism and Development) (2005). Urlaubsreisen und Umwelt - Eine Untersuchung über die Ansprechbarkeit der Bundesbürger auf Umweltaspekte in Zusammenhang mit Urlaubsreisen. (Studienkreis für Tourismus und Entwicklung), Ammerland.

Steinecke, A. (2010). Populäre Irrtümer über Reisen und Tourismus. Munich: Oldenbourg Verlag.

Stiftung für Zukunftsfragen (Foundation for Future Studies). (2017). Tourismusanalyse.

Strasdas, W. (1987). Der Sanfte Tourismus - Theorie und Praxis. Arbeitsmaterialien 8. Institute for Landscape Managing and Nature Conservation, Leibnitz University Hannover, Hannover.

Strasdas, W. (2008). sanft - öko - fair. Zur Entwicklung des Nachhaltigen Tourismus, in Gesellschaft für Internationale Zusammenarbeit. Gesellschaft für internationale Zusammenarbeit.

Strasdas, W. (2011). "Nachhaltiger Tourismus" oder "Ökotourismus" - Licht im Begriffsdschungel. Natur und Landschaft(86).

Strasdas, W. (2017). Warum nachhaltiger Tourismus? In H. Rein, and W. Strasdas, Nachhaltiger Tourismus (S. 13-29). Konstanz: UVK Verlagsgesellschaft mbH.

Strasdas, W., Balas, M., and Zeppenfeld, R. (2016). Bestandsaufnahme und Bewertung von Zertifizierungssystemen für nachhaltigen Tourismus in Deutschland. Eberswalde University for Sustainable Development, Centre for Sustainable Tourism, Eberswalde.

Tourism Watch. (03 2017). Transforming Tourism. Online at http://www.transforming-tourism.org/, accessed 02. 03. 2018.

Tripadvisor. (2013. 4 2013). Forbes. Survey: Two-Thirds Of Travelers Want Green Hotels. Here's How To Book Online at https://www.forbes.com/sites/andrewbender/2013/04/22/survey-two-thirds-of-travelers-want-green-hotels-heres-how-to-book-them/#311998c2e2fa, accessed 15. 03. 2018.

TUI. (7. 3 2017). TUI-Studie: Nachhaltiger Tourismus am beliebtesten bei Deutschen und Franzosen. Online at https://www.tuigroup.com/de-de/medien/presseinformationen/ag-meldungen/2017/2017-03-07-tui-studie-nachhaltiger-tourismus, accessed 15. 03. 2018.

UBA (1997). Nachhaltiges Deutschland. Wege zu einer dauerhaft umweltgerechten Entwicklung. Berlin: Erich Schmidt.

UBA. (2002). Kommunale Agenda 21 - Ziele und Indikatoren einer nachhaltigen Mobilität. Berlin: Erich Schmidt.

UBA. (2002). Nachhaltige Entwicklung in Deutschland. Die Zukunft dauerhaft umweltgerecht gestalten. Berlin: Erich Schmidt.

UN. (1992). AGENDA 21. United Nations Conference on Environment and Development, Rio de Janeiro.

UN. (1992). Rio Declaration on Environment and Development. United Nations Conference on Environment and Development, Rio de Janeiro.

UN. (2015). Millennium Development Goals Report 2015. New York.

UN. (2015). General Assembly Resolution A/RES/70/1. New York.

UNEP. (2015). UNEP. (UNEP, ed.). Online at http://web.unep.org/10yfp/programmes/sustainable-tourism-programme, accessed 02. 03. 2018.

UNEP/UNWTO. (2005). Making Tourism More Sustainable. A Guide for Policy Makers.

UNWTO. (1995). Charter for Sustainable Tourism. World Conference on Sustainable Tourism. Lanzarote.

UWTO, WTTC, Earth Council. (1996). Agenda 21 for the Travel and Tourism Industry: Towards Environmentally Sustainable Development.

UNWTO. (2013). Domestic Tourism in Asia and the Pacific. Madrid.

UNWTO. (2015). Tourism and the Sustainable Development Goals. Madrid.

UNWTO. (2017). UNWTO Tourism Highlights. 2017 Edition. Madrid.

UNWTO. (2018). UNWTO Tourism Highlights. 2018 Edition. Madrid.

VerbraucherInitiative; Centre for Sustainable Development (ZENAT). (2017). Anforderungen an Unternehmenszertifizierungen für nachhaltigen Tourismus in Deutschland. Berlin.

WCED. (1987). Our common future. World Commission on Environment and Development. New York: Oxford University Press.

Weber, F., and Taufer, B. (2016). Nachhaltige Tourismusangebote. Leitfaden zur erfolgreichen Entwicklung und Vermarktung nachhaltiger Angebote in Tourismusdestinationen. Lucerne University of Applied Sciences and Arts. Institute of Tourism ITW, Luzern.

Wilderer, P. A., and von Hauff, M. (2014). Nachhaltige Entwicklung durch Resilienz-Steigerung. In M. von Hauff, Nachhaltige Entwicklung. Aus der Perspektive verschiedener Perspektiven. Baden-Baden: Nomos Verlagsgesellschaft.

Zahra, A. (2012). Rethinking regional tourism governance: the principal of subsidiarity. In B. Bramwell, and B. Lane (ed.), Tourism Governance - Critical Perspectives on Governance and Sustainability (pp.125-142).

Zukunftsinstitut. (09 2015). Authentisch und ästhetisch: Nachhaltigkeit 2.0. Abgerufen am 10. 01. 2018 von https://www.zukunftsinstitut.de/artikel/nachhaltigkeit-20/