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Promoting Sustainable Tourism in the Alps

*A Systematic Assessment of Major Certification
Schemes for Sustainable Tourism Destinations*

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Abstract

Tourism destinations increasingly turn to sustainability certification to strike a balance between safeguarding their natural and cultural resources and developing a long-term tourism strategy.

One prominent contemporary European tourist attraction that is particularly affected by growing visitor pressures and accelerated anthropogenic climate change are the Alps. While demand for certification is rising, the plethora of schemes, most characterised by a narrow understanding of sustainability, leaves practitioners clueless when choosing which one to adopt. Despite their growing relevance, systematic assessments of the potential effectiveness of sustainable tourism destination certification schemes are limited. Furthermore, most scientific studies show a minimal understanding of potential effectiveness, examining merely the certification standard with a lack of investigation of the certification body management or standard indicator quality. Hence, this research contributes to closing these knowledge gaps and provides recommendations for practitioners.

Firstly, a comprehensive, theory-based assessment framework was developed to define the international benchmark level for the potential effectiveness of such schemes. The framework is composed of three levels (certification body, certification standard & standard indicators) and four categories (certification management, impact, process & quality) and encompasses performance, management and quality criteria that capture the theoretical knowledge base regarding the potential effectiveness of sustainability certification. Drawing on theories of sustainability, governance, management and indicator development, this research identified relevant theoretical domains for each category and developed assessment criteria based on international standards and academic literature. Secondly, three major destination certification schemes were selected and assessed based on the assessment framework. The findings show that none of the schemes lives up to the international benchmark level of potential effectiveness. On average, the schemes demonstrate the highest degree of potential effectiveness in the process and quality categories. Impact categories are covered less comprehensively, with a particular underrepresentation of prosperity issues. Moreover, the findings suggest that global schemes tend to cover a wide breadth of criteria, while local, more context-specific schemes show a smaller breadth. Finally, the empirical cases indicate an apparent lack of theory-based mountain-specific criteria, emphasising a clear avenue for future research.

Hence, based on performance, management, and quality criteria, the potential effectiveness of certification schemes for sustainable tourism destinations does not meet the international benchmark level defined by leading international standards and academic literature. By extending the understanding of potential effectiveness in this context, this research enables maximising the contribution of destination certification for promoting sustainable tourism development in the Alps and beyond.

Key words: sustainability, governance, destination certification, effectiveness, mountain tourism

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List of Abbreviations

<i>DACH</i>	Germany, Austria, Switzerland
<i>DMO</i>	Destination management organisation
<i>ETC</i>	European Travel Commission
<i>ETIS</i>	European Tourism Indicators System
<i>GSTC</i>	Global Sustainable Tourism Council
<i>PDCA</i>	Plan-Do-Check-Act Cycle
<i>UNWTO</i>	World Tourism Organisation

1 Introduction

1.1. Background and relevance

Tourism is the world's largest industry (Mowforth & Munt, 2003), and as a 'silent destroyer' of the environment, it has severe environmental effects (Hutchinson, 1996). Moreover, the continued demand for tourism worldwide due to the "democratisation of travel" (Steinecke, 2010) only aggravates these negative impacts. Consequently, fragile ecosystems at tourist destinations are increasingly becoming degraded (Abel et al., 2017; LePree, 2009).

At the same time, natural and cultural resources are often the foundation of the success of a destination amongst consumers (Freyer, 2015). Hence, to facilitate a long-term strategy for the tourism industry, a framework for the sustainable development of destinations is crucial (Saarinen, 2013). Destinations are increasingly at the centre of tourism certification schemes due to rising awareness that negative impacts from tourism stem from all different parts along the tourism customer journey. Therefore, the destination is considered the package of relevant services to the tourist and an excellent point to leverage change (Howie, 2003). One instrument to determine the degree of sustainability of a destination are voluntary certification schemes. Such schemes aim to strengthen the supply side, thereby stimulating increased demand for more sustainable offers (Font, 2002). By setting minimum requirements for sustainability, certification schemes contribute to the preservation of ecological and cultural systems. At the same time, they can improve internal processes and the performance of tourism destinations, thereby improving the visitor experience (Alparc, 2019).

One of the most prominent contemporary tourist attractions in Europe are the Alps, characterised by their magnificent landscape, diverse ecosystems and biodiversity (Paunović & Jovanović, 2017). In the past decades, classical tourism approaches have negatively impacted the Alpine environment and showed distorting socio-economic effects on receiving destinations (Alparc, 2019). At the same time, tourism-generated revenues constitute a significant economic pillar for the majority of the Alpine states. Consequently, many destinations remain stuck in traditional approaches to tourism, relying mainly on colossal infrastructure and ski tourism. In times of accelerated anthropogenic climate change, such approaches are no longer viable (Paunović & Jovanović, 2017).

Strategies to tackle these challenges are often limited to individual services along the tourism customer journey, with a significant emphasis on accommodation (Fair unterwegs et al., 2016; Strasdas et al., 2016). However, a destination is a system of many different small businesses interacting with and dependent on one another (Schianetz & Kavanagh, 2008). Hence, certification schemes on the destination level can serve as instruments to connect the different stakeholders over a shared vision, thereby tackling the complex challenge of sustainable tourism destinations.

1.2. Problem definition and knowledge gap

So far, systematic assessments of the potential effectiveness of certification systems on the destination level are limited. A study of sustainable tourism certifications in Germany found that most schemes have a very narrow understanding of sustainability, leading to an underrepresented social component (Abel et al., 2017). Some scholars criticize that sustainability in tourism has

been adopted on a strategic level while being poorly implemented and operationalized (Paunović & Jovanović, 2017). Others denounce that the term ‘sustainable tourism’ has been applied to practices that do not adhere to the three dimensions of sustainable development. While the term is rhetorically based on its mother concept of sustainable development, Saarinen (2013) objects that it fails to deliver the same holistic perspective. In line with that, most sustainable tourism certification schemes focus merely on environmental impact criteria. Besides these limitations, there is a lack of a systematic assessment of the certification bodies’ effectiveness of such schemes. The majority of schemes has a transparent formalized management approach, but independent conditions for good governance in tourism are missing (Antonioli et al., 2016).

Moreover, systems targeting destinations are limited (Schianetz et al., 2007; Scott, 2021), let alone those including indicators for mountain regions (Adler et al., 2020). Hence, a more integrative approach to assessing the potential effectiveness of existing schemes applicable to mountain tourism destinations is needed. Therefore, a systematic framework of performance and management criteria (Torres-Delgado & Palomeque, 2014) is required, together with criteria assessing the quality of the indicators underlying the standard of each scheme (Vermeulen, 2018).

1.3. Scientific relevance

Most scientific studies on certification for sustainable tourism focus on individual parts of the tourism customer experience, such as accommodation (Merli et al., 2016) or mobility (Scuttari et al., 2018). In contrast, indicators measuring the sustainability of a whole destination are limited. First comprehensive approaches to provide destination indicators go back to the World Tourism Organization’s Guidebook for Tourist Destinations (World Tourism Organization, 2004) which provides a good starting point, but requires a review and additions to increase topicality. The most recent approach is the European Tourism Indicators System (ETIS) of the European Union, aiming to adopt a holistic approach to sustainable destination development, including environmental protection, economic prosperity, and social equity (European Commission, 2016). While this breadth is forward-thinking, the main drawback of such standardized systems relates to challenges regarding the adaptation to specific contexts. Difficulties in data availability and collection and stakeholder involvement constitute major impediments to its implementation, limiting its effectiveness (Modica et al., 2018). Some scholars propose to overcome the constraints of predetermined indicators by introducing additional proxy indicators adapted to the specifics of a particular destination (Tudorache et al., 2017). In that regard, international agreement on mountain-specific indicators lacks a basis for adaptation to the Alpine context (Adler et al., 2020).

Furthermore, most scientific studies have a minimal understanding of potential effectiveness, examining merely the certification standard, with a lack of investigation of the governance of the certifying organization itself (Klinge, 2018). While many studies assess good governance in different contexts (Aguilera & Cuervo-Cazurra, 2004), this discourse has been seldom applied to certification bodies (Castka & Corbett, 2016; Klinge, 2018). In addition, certification standards primarily focus on impact requirements, insufficiently emphasizing the processes to reach those impacts (Balas & Strasdas, 2019; Baumgartner, 2016). Moreover, despite numerous theoretical inquiries into the quality of sustainability indicators, there is limited scientific attention to the quality of certification scheme indicators (Meyer & Priess, 2014). This quality, however, is crucial to the potential effectiveness of such schemes (Vermeulen, 2018).

Hence, by providing a systematic assessment framework for the potential effectiveness of certification schemes for tourism destinations, covering three levels of potential effectiveness, this research deepens the understanding of how to reap the benefits of such schemes. The assessment includes both impact and process requirements for certification standards, and management requirements for the certification body itself. Being complimented by a quality assessment of the indicators employed in the standard, a contribution is made to increase the potential effectiveness of such schemes further.

1.4. Societal relevance

Certification schemes in tourism inform consumer choices and facilitate planning a vacation to a specific destination from a wide variety of possibilities. At the same time, destinations benefit from optimized processes and increased performance. Therefore, the integrative character of the assessment in this research will give destinations guidance on preserving the unique ecological system providing the basis for their socio-economic tourism system and making the transition to more sustainable practices. Furthermore, the inclusion of process requirements such as the involvement of stakeholders, such as residents, can further lead to an increase of the residents' perception regarding the tourism development at their destination (Gajdosik et al., 2018; Gretter et al., 2018). Moreover, the context-specificity and practical applicability of the schemes can thereby be improved. Lastly, the process and quality assessment of the certification schemes decreases the risk of accidentally certifying low-performing destinations and ensures that destinations strive for continuous improvement. Overall, by providing a systematic assessment of the potential effectiveness of existing systems, this research results in recommendations that can be employed in practice. Firstly, the results serve destinations to choose which certification might best increase their sustainability and customers' informed travel decisions. Secondly, it provides certification bodies with insights into possible shortcomings and points of improvements of their schemes, with the aim to increase their potential effectiveness.

Therefore, the findings from this research contribute to the promotion of sustainable Alpine tourism in three ways. Firstly, the systematic assessment of the potential effectiveness of existing certification schemes will provide an overview of where these need to be improved to guarantee a sustainable development of the tourism industry along all three issue dimensions of sustainability. Secondly, the process assessment will enable the collaboration of the various stakeholders at tourist destinations around a common goal, facilitating a context-specific and feasible strategy. Thirdly, the quality assessment will safeguard that shortcomings in data availability and methodological rigour do not hamper the potential effectiveness. Lastly, due to its systematic character, this research will enable recommendations for improving individual systems and how they could complement one another, thereby decreasing the unmanageable and complex collection of certification schemes in tourism.

1.5. Research objective and research questions

The main objective of this research is to provide a systematic assessment of the potential effectiveness of the significant certification schemes for sustainable Alpine tourism destinations, based on performance, management and quality criteria. For this purpose, the first objective is to establish a comprehensive, theory-based assessment framework. The purpose of this framework is to ensure that all angles affecting the potential effectiveness of such certification schemes are taken into account. Subsequently, the second objective is to apply this framework to three certification schemes for tourism destinations that can be applied to Alpine destinations to provide empirical findings on their potential effectiveness.

To reach this objective, the following central question was answered:

What is the potential effectiveness of certification schemes for sustainable tourism destinations in the Alps based on performance, management and quality criteria?

This main research question was further subdivided into the following sub-questions:

- 1) *a) How can the management and performance of certification schemes for sustainable tourism destinations be assessed?*
b) How can the quality of the indicators applied in the certification standards be assessed?
- 2) *a) Which are the major certification schemes targeting sustainable tourism destinations in the Alps?*
b) To what extent do these certification schemes cover the performance and management criteria defined in 1a?
c) To what extent do the indicators in these certification schemes fulfil the quality criteria defined in 1b?

2 Sustainability in Alpine tourism

2.1. Sustainable tourism in the Alps

There are different approaches on how to define and differentiate mountain regions from surrounding lowlands. Primarily, this is based on physical attributes, such as elevation and topography (Kapos et al., 2000). Moreover, mountain destinations can further be delineated regarding their social and cultural attributes (Price et al., 2018). Hence, they differ from other types of destinations in their economic, natural and cultural characteristics. The Alps are one of the largest connected natural areas in Europe, covering 190,717 sq. km. Starting at sea level, they range up to 4,809 meters, the highest mountain in the Alps, the Mont Blanc. Alpine destinations are culturally distinguished by their unique, small-village character, which is naturally delineated by its altitude and slope. As a unique nature area in the centre of Europe, the Alps are home to more than 14 million people and 30,000 animal and 13,000 plant species, making it a biodiversity hotspot in Europe. The mountain range stretches through eight Alpine states: Austria, Italy, France, Switzerland, Germany, Slovenia, Liechtenstein and Monaco (Figure 1).

For over a century, the Alps have been one of the most popular tourist destinations worldwide, attracting growing numbers of tourists from all over the world, which is why the Alps and tourism have been mutually dependent on each other for decades. On the one hand, mountain tourism relies on the environment providing its basis. On the other hand, tourism-related impacts contribute to the degradation of the fragile landscape and ecosystem in mountain regions. With tourism representing a significant income for many Alpine destinations, this balance needs to be struck (Butler, 1999; Gorcheva, 2011). Hence, mountain regions depend on the appropriate management of nature preservation and tourism development. Climate change threatens this balance even more (Marinelli, 2013). In the Alps, climate change effects are already noticeable, not only on the environment but also on tourism (CIPRA International, 2011). The well-established winter tourism, which provides the majority of income for many Alpine destinations, is increasingly threatened by retreating glaciers, requiring a substantial shift, such as a differentiation and de-seasonalization of tourism services to increase the sustainability of Alpine tourism (Zulberti, 2012). From a historical perspective, the first ambitions to further a more sustainable form of tourism already took place in 1985, with the Toblacher Gespräche (Toblacher Discussions), which resulted in 11 guidelines for sustainable tourism development in the Alps (Krippendorf, J., Zimmer, P., & Glauber, 1988). Since then, sustainable tourism has continuously progressed in Alpine countries. However, increasing tourism-related pressures on the Alpine ecological and socio-economic system and new challenges related to accelerated anthropogenic climate change highlight that more comprehensive solutions need to be sought Alpine wide (Paunović & Jovanović, 2017).



Figure 1: Map of the Alps (adopted from Alpine Convention, 2016)

An Alpine wide collaboration, however, is challenging. Despite the Alps’ ecological connectedness and many common traits between the tourism industry in the various Alpine states, each country has its tourism development history, path-dependency and tourism market and system. Moreover, tourism density differs from one municipality to another (Figure 2), with not all municipalities equally relying on tourism as a central economic pillar (Alpine Convention, 2007). Thus, while some political institutions argue in favour of the development of an Alpine-wide communication strategy or certification scheme (Alparc, 2019; Antonioli et al., 2016; Paunović & Jovanović, 2017), conversations with various experts in the field of sustainable Alpine tourism and certification have proven the difficulties of implementing such a system. Similarly, most research on sustainable tourism schemes has focussed on the local scale within administratively defined boundaries (Schianetz et al., 2007).

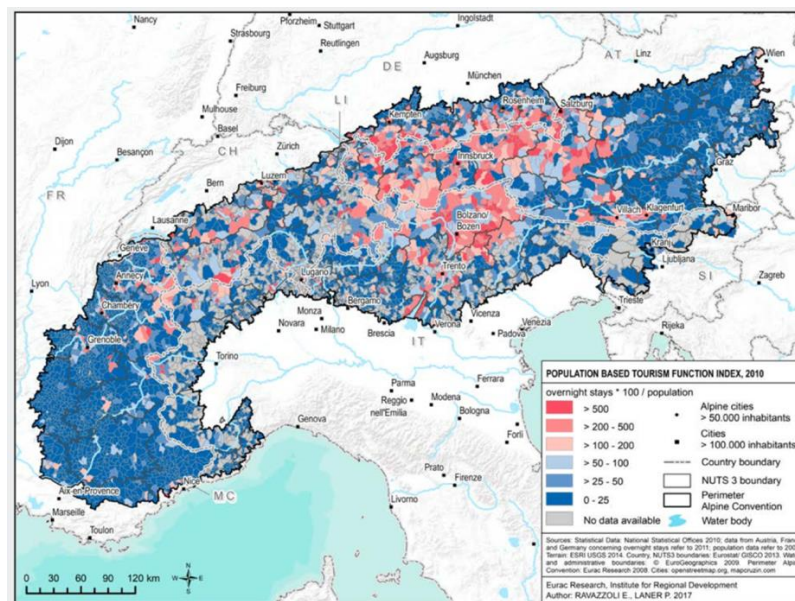


Figure 2: Tourism intensity in Alpine municipalities (Alpine Convention, 2018)

2.2. Instruments for Alpine destinations

Currently, only a few destinations in the Alps use indicators for monitoring their performance, despite their agreement on the importance of those (Paunović & Jovanović, 2017). This implementation gap might be due to a lack of clear, context-specific indicators for the Alpine region. The heterogeneity of the Alps as a socio-economic, political and cultural system aggravates this challenge. Indicators need to be general enough to suit the different contexts while remaining practical and concrete enough to be applied by the individual destinations. Existing schemes to certify the sustainability of a tourism destination range from having very generic applicability to being very specific to the Alpine context. Alpine institutions have made the first steps towards dedicated Alpine indicators (Alparc, 2019; Antonioli et al., 2016). The Alpine Convention, an international treaty signed by all eight Alpine countries, aiming at the protection and sustainable development of the Alps (Alpine Convention, 1991), has taken considerable action in this direction (Antonioli et al., 2016; Pfahl et al., 2018). In the final report of the working group of sustainable tourism of the Alpine Convention, primarily process-related factors were emphasized as necessary for furthering sustainable development, such as the community's involvement and the formulation of an implementation plan. Bausch & Morandini (2016) further generated 13 criteria for achieving good alpine tourism governance. Regarding impact indicators, the working group established ten quality standards for sustainable tourism, each with five criteria. These range from requirements on transport, accommodation, and catering to sensitization and nature-based marketing (Antonioli et al., 2016).

2.3. Actors at destination level

Sustainable tourism is characterised by a complex network of actors on different levels. In the Alps, these actors range from the European level to the destination level (Appendix 1). A conglomerate of independent service providers characterises the destination level, often operating in a decentralised way without a central structure or strategy. Co-operation, however, is crucial for the sustainable development of tourism destinations (Zehrer et al., 2014). In that light, destination management organisations (DMO's) are increasingly taking the role of an intermediary between all the different actors, responsible for the communication, coordination and linking between actors (Pechlaner et al., 2012). Like this, the DMO is the central contact partner for all actors and stakeholders (Balas & Rein, 2016), aiming at creating a competitive and coherent unit on the destination level (Balas, 2010). Furthermore, most requirements of destination certification schemes target the DMO directly. Therefore, the DMO is often also the organisation initiating the certification process.

3 Literature review: towards an assessment of sustainable tourism destinations

In the light of its objective, this research combines theory from three different perspectives. First of all, it builds primarily on sustainability theory and its application to the tourism industry. This body of literature particularly informed the impact requirements on the certification standard level. Secondly, literature on good governance was consulted to identify which elements are crucial for the effective management of a certification scheme. The third body of literature that this research is based on is corporate sustainability, emphasising the self-governance instrument of voluntary sustainability certification. Based on these three theories, an assessment framework of management and performance criteria was established, constituting the base for assessing the potential effectiveness of certification schemes for sustainable Alpine tourism destinations. Lastly, theory on indicator development was considered to establish criteria for assessing the quality of the indicators of certification standards. The following conceptual framework (Figure 4) summarises the theoretical perspectives combined to create a theory-based assessment framework assessing the potential effectiveness of destination certification schemes in the Alps. The top side represents the performance-focused theories and emphasising the three-issue dimensions of sustainable development. Moreover, it refers to corporate sustainability theory with voluntary sustainability certification as an instrument to improve the sustainability of the conglomerate of tourism businesses along the tourism customer journey. Finally, the bottom side depicts the management aspect, departing from good governance theory, to establish certification management criteria. Together, the three perspectives paved the way for performance, management and quality criteria to assess the potential effectiveness of certification schemes for sustainable Alpine tourism destinations. The three perspectives are influenced by the socio-economic and political setting and the ecological system of the Alps, both located outside of the system boundaries of this research.

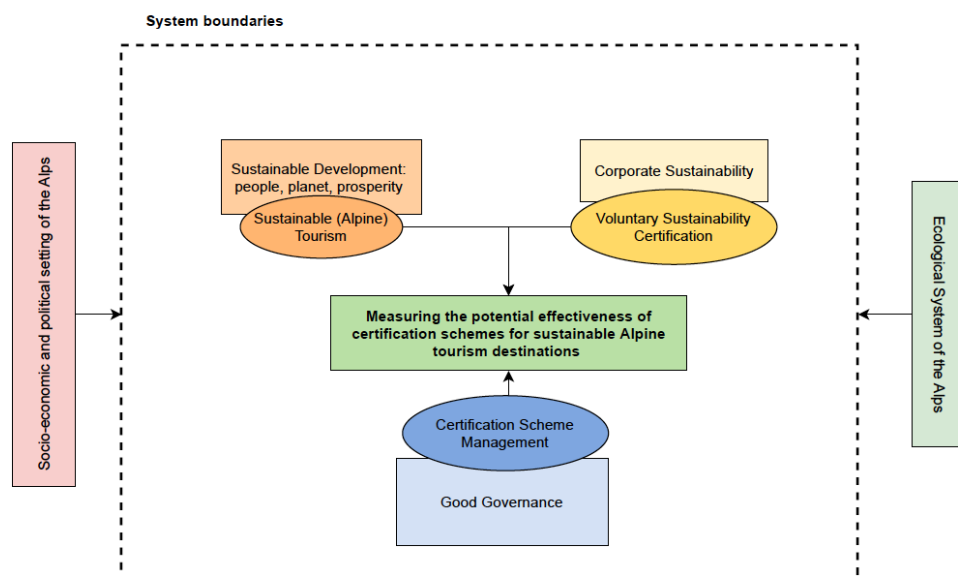


Figure 3: Conceptual framework

3.1. Theoretical foundation of sustainability in tourism

Most attempts to define sustainable tourism are based on the three dimensions of sustainability, as presented in detail by Vermeulen (2018). However, the three dimensions are not granted equal importance in tourism (Saarinen, 2013). Vermeulen argues that sustainable development is a clear understanding of the dual goal of ecological and societal fairness. This dual goal can further be subdivided into three issue dimensions: planet, people, prosperity, the triple P. Vermeulen shows this as a Rubik's cube, which further includes the 'time' and 'place' dimension (Figure 5).

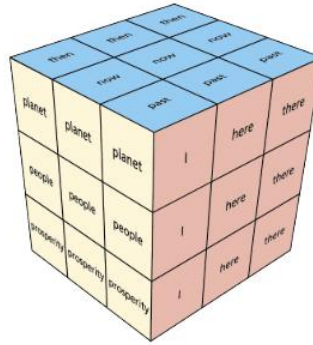


Figure 4: Three dimensions of sustainable development: issues (people, planet, prosperity), time and place (Vermeulen, 2018)

In line with that, the general international definition of sustainable tourism stems from the World Tourism Organisation (UNWTO) and builds on the definition of sustainable development in the Brundtland report:

“Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities” (United Nations Development Programme & World Tourism Organization, 2005, p.12)

From a conceptual perspective, sustainable tourism has further been categorised along three different views (Saarinen, 2013), which can be associated with Vermeulen's (2018) model. First, the resource-based view emphasises the measurable, undeniable environmental impacts of tourism, compared to the planetary dimension of the Rubik's cube. Here, Saarinen does not refer to the resource-based-view from management theory (Barney et al., 2001; Hart, 1995) but to a concept that has its origin in natural sciences and positivism, emphasising the existence of a measurable and objective ecological limit to growth in tourism (Buckley, 2003; Saarinen, 2013). Second, the activity-based view highlights a destination's cyclical development as a product, taking a socio-economic perspective, hence relating to the prosperity dimension. This view can easily conflict with the strict ecological boundaries of the resource-based view. Therefore, the community-based view tries to reconcile these two views by giving local communities a say on the use and benefit of tourism purposes. With its human-centred lens, this perspective relates to the people dimension of the cube.

These perspectives presented by Saarinen (2013) relate to Vermeulen's (2018) reasoning. Vermeulen argues that sustainability approaches need to be rooted in sustainability theory, covering all three issue dimensions with everything they include. He illustrates this with a clear midpoint-endpoint reasoning, subsuming 27 activity-related midpoints that can be summarised

into six clear sustainability endpoints (Figure 6). In this way, the complexity of the three sustainability dimensions is broken down and directly related to human activities, many of which are also relevant to tourism. The endpoints further represent the areas of protection that these activities fall into. With the help of this structured overview, measures dealing with the assessment of sustainability become more comprehensive while at the same time preventing getting lost in details and redundancies.

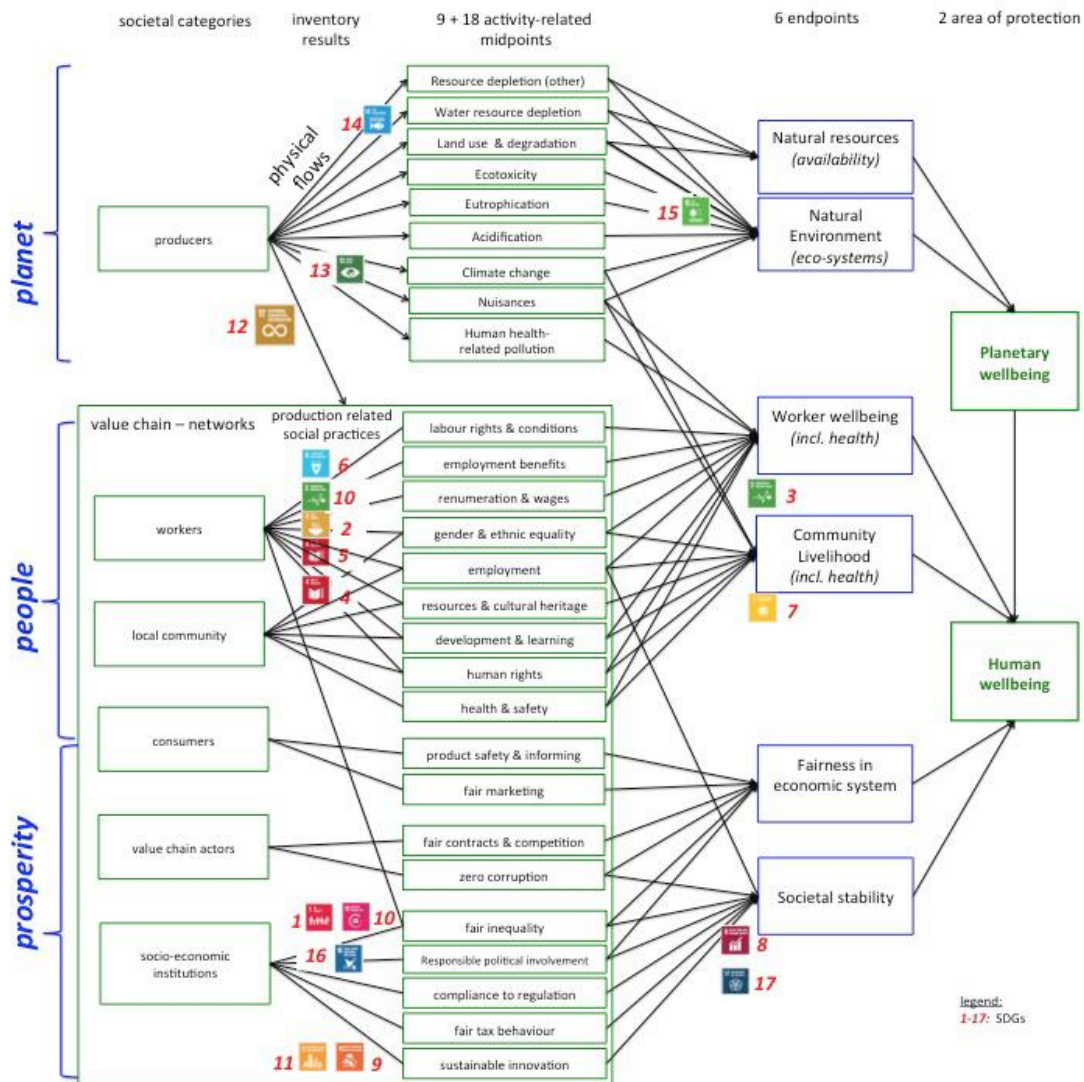


Figure 5: The three issue dimensions of sustainability including 27 midpoints and 6 endpoints (Vermeulen, 2018)

3.2. Good tourism governance

To cope with the complex challenges related to sustainability, actors depend on effective governance mechanisms (United Nations Development Programme, 2013). A United Nations Development Programme (UNDP) report states that “the quality of governance plays a defining role in supporting the [economic, social, and environmental] pillars” of sustainable development (UNDP, 2014, p.4). Similarly, Earth System Governance considers these complex challenges embedded in the broader environmental and socio-economic system (Burch et al., 2019). Hence, *governance* is defined as “purposeful and authoritative steering of social processes” (Biermann et al., 2014, p.2). This steering takes place at multiple levels and includes

governmental and non-governmental actors. Eight significant aspects characterise good governance. It is consensus-oriented, accountable, transparent, participatory, responsive, equitable and inclusive, effective and efficient, and follows the law. These eight aspects can be summarised in five main Good Governance principles, which cover the main requirements for sustainability governance (Graham et al., 2003). Achieving good governance along all these dimensions is very difficult to achieve. However, sustainable development requires that initiatives are taken towards this ideal (United Nations Economic and Social Commission for Asia and the Pacific, 2009). Hence, to facilitate its implementation, a more nuanced and systematic understanding of good governance is required (Kalfagianni & Pattberg, 2013).

The working group on sustainable tourism of the Alpine convention defines *Alpine tourism governance* as the steering of tourism systems in the Alpine area. Alpine tourism governance is mostly locally or destination-based and can be described as horizontal governance, involving several stakeholder and actor groups. Hence, the main challenge in Alpine tourism governance is the coordination of the multi-level and multi-stakeholder governance system that needs to be involved in increasing the share of sustainable tourism practices. Therefore, good governance principles such as participation, transparency, responsiveness and consensus orientation are of particular importance. Furthermore, due to the relatively large number of stakeholders in tourism, the participation process needs to be well organised. Furthermore, the strategic vision and action plan needs to be developed in consideration of all relevant stakeholders. Moreover, responsibilities need to be clearly defined and agreed upon. The aim is to appoint one central organisation or person in a tourism destination to be representing and guide the process, manage the responsibilities and act as an information interface amongst all internal and external stakeholders. The analysis of 23 Alpine destinations showed that this responsibility is taken by the DMO in most cases. In other cases, the administration of a protected area or a department of public administration takes over this role (Antonioli et al., 2016). These insights from the Alps are relevant to consider in the process requirements of the assessment framework for Alpine tourism destination standards.

3.3. Voluntary certification schemes

The third perspective feeding into this research is Corporate Sustainability. Building on the concept of corporate social responsibility (Bowen, 2013), Vermeulen & Witjes (2016) further developed the advanced concept of corporate sustainability, highlighting the dual and embedded nature of businesses. Firstly, this relates to the physical processes of creating the products and services a business offers to satisfy needs. At the same time, the second refers to the company's internal and external social dynamics in terms of the economic market processes and its social relations with stakeholders. The authors state that a business needs to form a positive symbiosis with its environment to maintain valuable. In line with the Corporate Social Responsibility understanding of Porter & Kramer (2012) focussing on creating shared value as a competitive advantage, corporate sustainability enables companies to integrate social and environmental value into their core strategy (Visser, 2013). The three Ps and the time and place dimensions of Vermeulen's (2018) model serve as a tool for businesses to determine where they stand within the social and physical dynamics (Vermeulen & Witjes, 2016).

Applying the mother concept of sustainable development and corporate sustainability to tourism brings about challenges due to the industry's system- and cross-sectional characteristics

(Tudorache et al., 2017; Twining-Ward & Butler, 2002). These challenges become apparent when looking at the tourism customer journey (Figure 7). While marketing literature in this context emphasises the customer's service satisfaction, customer response, channels and touchpoints (Tueanrat et al., 2021) its relevance for this research lies more in demonstrating the broad conglomerate of businesses along the tourism customer journey that needs to be involved in the transition towards sustainability.

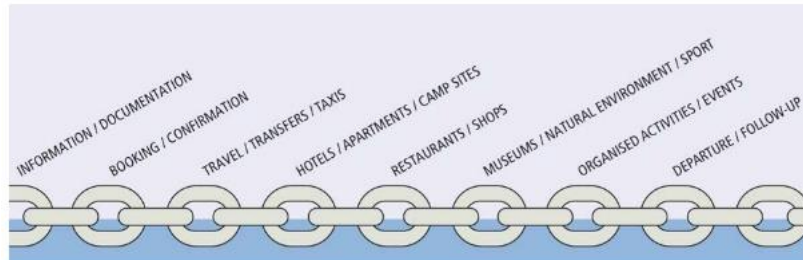


Figure 6: Principal elements of the tourism customer journey (Bausch & Morandini, 2016)

One strategy that non-governmental organisations and front runner companies employ to increase their corporate sustainability is voluntary certification schemes. Such schemes are constituted of a comprehensive set of indicators that serve as a standard for assessing business practices (Balas & Strasdas, 2019). Increasingly, such schemes are also developed for the destination level (Howie, 2003). Most certification schemes are constructed of impact and process requirements. Impact requirements measure to what extent a business or destination complies with a set of impact criteria, such as the management of natural resources. In this way, the performance of the certified entity can be measured and easily compared to others (Graci & Dodds, 2015). Impact requirements are essential to safeguard that tangible impact mitigation efforts are taken by the certification user. For sustainable tourism certification, such requirements should cover all three issue dimensions of sustainable development, i.e., planet, people and prosperity (Vermeulen, 2018). Process requirements, in contrast, certify the established management processes and systems that a business or destination has in place to assure improvements of its impacts. Like this, it is not bound to any specific results or values but rather certifies the certification user's commitment to continuous improvement compared to their prior impact performance (Graci & Dodds, 2015). Therefore, a comprehensive sustainability certification standard needs to include all three issue dimensions and process requirements to provide a complete picture of a certified entities performance.

One of the most popular tools for process management and continuous improvement is the Plan-Do-Check-Act (PDCA) cycle from quality management literature (Disterer, 2012; Manders, 2010). Since the late 1980s, PDCA approaches have been applied in environmental management systems (Curkovic & Sroufe, 2011; Delmas, 2002). The PDCA cycle consists of four stages that can be used to define, implement and monitor correcting actions to internal management processes:

Plan: Objectives are established, together with strategies and processes require to reach those objectives. In that context, responsibilities are defined.

Do: The strategy is implemented requiring monitoring and documentation.

Check: The internal processes and management are evaluated.

Act: Preventive and corrective actions are taken based on the results of the other three stages.

After one cycle is finished, the next cycle is entered. In that regard, it needs to be ensured that the level of improvement in each cycle does not decrease. In addition, continuous improvement requires regular self-assessment of the organisation's physical and social value creation practices (Vermeulen & Witjes, 2016). The four stages and the equivalent management system elements can provide the basis for process-related performance criteria for tourism certification schemes.

Furthermore, an effective certification scheme requires an independent audit. Hence, an independent third-party auditing firm needs to evaluate the certification schemes requirements, which another independent organisation accredits. This independence is crucial to safeguard the legitimacy of the scheme. Moreover, the effectiveness of such schemes depends on their uptake, which is the market share of certified entities (Kalfagianni & Pattberg, 2013). In addition, effectiveness is only given if the underlying indicators were developed considering quality criteria regarding data availability and methodological rigour (Mayer, 2008; Vermeulen, 2018). Therefore, this research understands the potential effectiveness (see Kalfagianni & Pattberg, 2013; Vermeulen & Metselaar, 2015) of certification schemes as the level to which those cover all aspects of the triple P (Vermeulen, 2018) and good governance (United Nations Economic and Social Commission for Asia and the Pacific, 2009). Furthermore, the extent to which the underlying certification standard indicators fulfil the quality criteria for indicator development (Böhringer & Jochem, 2007; Boulanger, 2008; Bradley Guy & Kibert, 1998; Pintér et al., 2012) is considered essential for potential effectiveness.

3.4. The quality of sustainability indicators

Therefore, the quality of the indicators needs to be examined. Indicators play a crucial role in guiding actors to develop sustainable strategies. Through providing a tool for self-evaluation, they guide the data generation process to provide a better understanding of impacts and opportunities regarding the three dimensions of sustainability and governance structures. The most common indicators for sustainability are indicator sets, which combine different single indicators into a coherent structure. Often, such sets, however, tend to be too long to handle in practice. Therefore, indices are used, summarising the complexity of indicator sets in a numerical value, making it easier to handle. On the other hand, however, indices often conceal the root cause, limiting the leverage for improvement. Hence, on the destination level, indicator sets are considered the most promising (Schianetz et al., 2007).

The potential effectiveness of indicators is directly dependent on their quality. Crucial is that indicators are not only science-based and accurately and transparently constructed (White et al., 2006) but also practically feasible, showing the right degree of context-specificity to be implemented (Tudorache et al., 2017). Some scholars argue that instead of comprehensive sets of indicators, one should focus on the most relevant, key indicators, simultaneously safeguarding their practicability (Sirakaya et al., 2001). Others suggest that the effectiveness of performance-based indicator systems at the destination level depends mainly on the existence and accessibility of data. Therefore, the indicator selection should consider stakeholder needs and context-specific

data availability (Tudorache et al., 2017). White et al. (2006) even state that indicators need to be applicable by practitioners and laypersons. At the destination level, data availability and subjectivity in interpretation are a big challenge for indicator development and application (Schianetz et al., 2007). Indicator selection will always be a value-driven process (Bradley Guy & Kibert, 1998). However, certain guiding principles can ensure the quality of sustainability indicators. Such quality principles range from stakeholder involvement, over data availability and weighing to the possibility to derive political objectives and actions from their analysis (Böhringer & Jochem, 2007; Bradley Guy & Kibert, 1998; Pintér et al., 2012).

While increasing the applicability of indicator sets, stakeholder involvement can also lead to a trade-off in methodological rigour and theoretical justification of indicators (Vermeulen, 2018) due to cognitive bias in decision making (Kahneman, 2011). Regarding certification schemes, this could lead to a trade-off between the theoretical justification of sustainability indicators needing to be taken into account and the involvement of stakeholders in the indicator development process. This possible trade-off needs to be considered when assessing the potential effectiveness of certification schemes. For that reason, this research follows a comprehensive assessment framework, including both the methodological elements and the application aspects of the indicators. Based on an extensive literature review of well-recognized academic articles (Böhringer & Jochem, 2007; Boulanger, 2008; Bradley Guy & Kibert, 1998; Mayer, 2008; Pintér et al., 2012), Vermeulen (2018) provides an overview of eight key principles for indicator construction, covering both methodological and application aspects. These principles deal with the scope and core concept of the indicators, the key elements, data specification and manipulation, a compilation of the final result, accountability, outreach and long-term impact. For each of these principles, criteria can be identified from the before mentioned academic articles. These criteria provide the basis for the quality assessment of the certification indicators and are depicted in section 4.4.

3.5. Linking theory to practice

Global and European approaches

Globally, there are different means for ensuring the effectiveness of sustainable tourism approaches, ranging from organisations ensuring the quality of international certification schemes, over environmental management and audit schemes, to specific indicators for sustainable tourism and destinations.

The ISEAL Alliance is a non-governmental organisation and global membership organisation for sustainability systems, intending to establish a global consensus on the quality of standard-setting processes. ISEAL community members need to comply with the ISEAL Codes of Good Practice (ISEAL, 2014) and commit to continuous learning and improvement. ISEAL membership is open to all compliant multi-stakeholder sustainability standards (Abel et al., 2017). Within its accreditation system, ISEAL bases some of its requirements on the ISO 17000 standard, which specifies the basis for conformity assessments, such as management systems and certification schemes (International Organization for Standardization/International Electrotechnical Commission, 2020). ISO standards are international standards, setting minimum requirements for, amongst others, quality management and environmental management standards. By providing a frame of reference for what they claim is the "best way of doing something" (International Organization for Standardization, n.d.) these standards enable the self-evaluation

and continuous improvement of business processes and operations. Although ISO is not tourism industry-specific, many tourism businesses use its standards (Hall & Scott, 2015). Besides ISO 17000, the three most relevant ISO standards for promoting sustainable tourism are ISO 14001, an environmental management system standard regarding the efficient use of resources and waste reduction, ISO 26000, targeting social responsibility issues, and ISO 17021, setting standards for general management systems. There are many more specific tourism-related ISO standards, however, mainly focussed on tourism accommodation, restaurants, or specific contexts, such as marinas and harbours.

While these three approaches are not industry-specific but targeting sustainability issues in general, the Global Sustainable Tourism Council (GSTC) is a global standard explicitly fostering sustainable travel and tourism. The GSTC criteria were developed in a stakeholder dialogue of the UNWTO, UNEP and Rainforest Alliance and are today represented by the GSTC. The GSTC has set each 43 benchmarking criteria and 105 indicators for destinations (GSTC-D) and tourism businesses (GSTC-I), covering four areas: sustainable management, socio-economic sustainability, cultural sustainability and environmental sustainability. Like this, the criteria aim to represent a worldwide shared understanding of sustainable tourism (Abel et al., 2017). The GSTC, however, does not directly certify destinations or tourism businesses. Instead, it provides international accreditation for sustainable tourism certification bodies. In this way, destinations receive the GSTC certification through becoming certified by a GSTC accredited certification scheme. The GSTC accreditation system consists of two levels:

GSTC-Recognised: GSTC recognition is the lower-level mark of the GSTC and is awarded to standards. Standards can become GSTC recognized if they include all GSTC criteria. For example, destination standards need to comply with the GSTC-D standard, while the GSTC-I standard targets tourism business' and tour operator' standards. GSTC-Recognition only investigates the words of the standard, not how the criteria are applied.

GSTC-Accredited: GSTC approval is the higher-level mark of the GSTC and is awarded to certification bodies. In addition to the criteria, GSTC accreditation requires that the certification body follows transparency, impartiality and technical competence in its processes. GSTC Accreditation is based on the Accreditation manual (GSTC-A) and managed by GSTC's partner Assurance Services International.

Overall, 12 destination standards are currently GSTC-Recognized, and three destination certification bodies are GSTC-Accredited. To ensure its credibility, the GSTC is seeking ISEAL alliance membership (Weston et al., 2018).

Besides these international standards, several initiatives are taken on the European level. One of the best-known measures to enable destinations to assess their performance is the European Tourism Indicator System (ETIS) for sustainable destination management, introduced by the European Commission. The toolkit, which was launched with two pilot phases in 2012, is a management and information tool and monitoring system that does not lead to certification. Instead, it provides destinations with a toolkit and supporting electronic documents and is available in English, French, Italian and Spanish. However, the toolkit is currently not yet in use, although the European Parliament calls for its implementation (European Parliament, 2021).

Another initiative by the European Commission needs to be mentioned in sustainable destinations in the European Destinations of Excellence (EDEN). EDEN is an initiative to promote sustainable tourism development in the EU and takes place as a yearly national competition awarding some "destinations of excellence". Moreover, the Eco-Management and Audit Scheme (EMAS) was developed by the European Commission in 1993 as a tool for companies and organisations to evaluate, report and improve their environmental performance. EMAS is open to any organisation in all sectors and applicable worldwide. Companies and organisations participate voluntary and become verified through a third-party registration process (Bilbao-Terol & Bilbao-Terol, 2020).

Besides these initiatives, two very recent EU reports have been published on the matter of sustainable tourism. One is the European Travel Commission (ETC) Handbook for Sustainable Tourism Implementation (European Travel Commission, 2021) and the other is a European Parliament report on establishing an EU strategy for sustainable tourism (European Parliament, 2021). The former emerged as a wake-up call from the Covid-19 pandemic that has shown that the industry does not only need to address viruses but also other global forces, such as sustainability-related challenges collectively. The ETC calls for a holistic, national approach for implementing sustainability in tourism. Sustainability certification is mentioned as one helpful tool whereby the use of GSTC-recognized standards is recommended. In line with that, the latest European Parliament report appeals to strengthening the transition to sustainable, responsible and intelligent tourism. The report calls the European Commission to develop a strategy for sustainable tourism that can then, in turn, be employed by the member states to develop national and regional approaches. In these approaches, the European Parliament emphasises that strategies should be developed to collaborate with civil society and local stakeholders. Further, the report calls to bring ETIS in use and encourages seeking synergies between existing initiatives (European Parliament, 2021). These recent EU reports align with the UNWTO Global Guidelines to Restart Tourism (World Tourism Organization, 2020) identifying seven priorities for the 'new normal' in tourism after the Covid-19 pandemic. These priorities are related to job security and safety, as well as innovation and sustainability.

National and regional approaches

On a national and regional level, the applicability scope of certification schemes varies greatly. While there are no national minimum requirements for sustainability certification in tourism, many schemes have different foci (Balas & Strasdas, 2019). In general, four applicability scopes can be identified. First of all, various certification schemes certify accommodations or businesses in the hospitality sector and tour operators or other tourism businesses. Furthermore, there are destination level certification schemes, including specialised schemes for nature park destinations. Lastly, specialised schemes certify public places such as marinas, leisure parks or bathing areas (Bilbao-Terol & Bilbao-Terol, 2020; Strasdas et al., 2016). By far, the majority of schemes certifies accommodations, while the uptake of destination certifications is deficient. Overall, the variety of schemes is relatively large compared to the meagre market share of certified organisations and destinations. In Germany alone, 46 different certification schemes cover only 2-5% of the market (Strasdas et al., 2016). Besides these applicability scopes, sectoral approaches target individual parts of the tourism experience, such as the Slow Food Travel standard or Alpine Pearls, focusing on mobility. Moreover, the scope of certification schemes varies regarding the different tourism environments. Many certification schemes have an global applicability, while

others are more specific to particular environments, such as the mountain environment (Graci & Dodds, 2015).

3.6. Theory-based assessment framework

Based on the preceding literature assessment, the assessment of the potential effectiveness of the three cases was conducted along three levels, which are depicted in Figure 8. The assessment criteria for all three levels were developed on a theoretical foundation and further based on international standards.

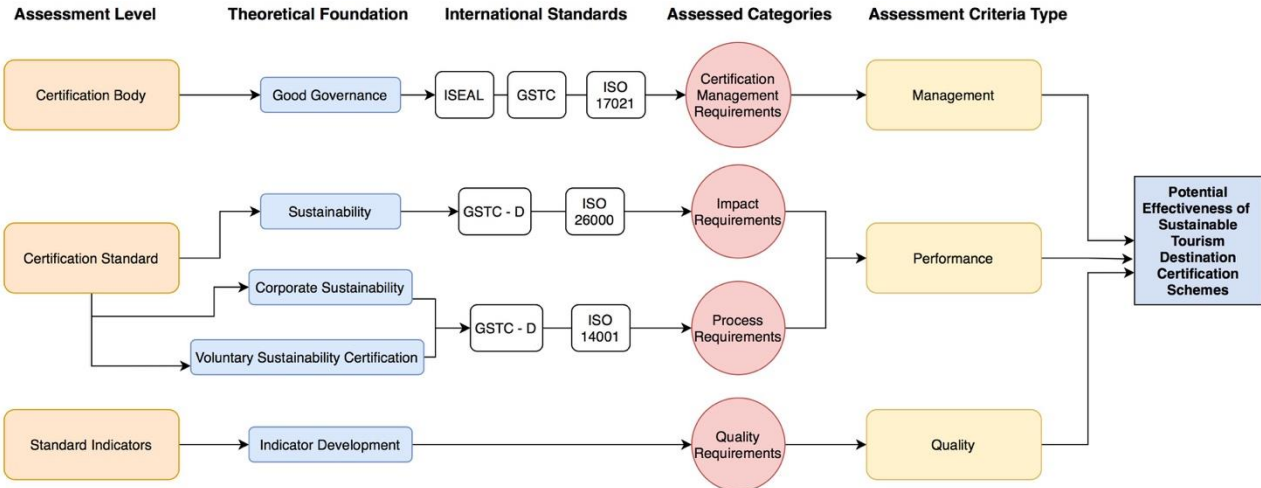


Figure 7: Assessment framework with three levels and four categories

In a first step, the certification body was assessed with the help of certification management requirements based on good governance theory (Graham et al., 2003; United Nations Economic and Social Commission for Asia and the Pacific, 2009). The five good governance principles, Legitimacy & Voice, Direction, Performance, Accountability and Fairness, provided the theoretical frame forming the basis for the assessment. Like this, it was ensured that all relevant aspects were covered in the assessment criteria.

In a second step, the performance criteria of the certification standard were assessed. This assessment was performed in two steps, including both impact and process requirements. The former was assessed based on the three issue dimensions of sustainability and the related endpoints as collated by Vermeulen (2018). Hence, the criteria were distributed over all six endpoints, with two endpoints covering one sustainability dimension. The latter have their theoretical foundation in corporate sustainability and certification theory, applying the PDCA cycle (Disterer, 2012; Manders, 2010) and relating each stage to the relevant management system elements.

Lastly, the certification standard indicators were assessed based on indicator quality requirements identified from indicator development theory (Böhringer & Jochem, 2007; Bradley Guy & Kibert, 1998; Mayer, 2008; Pintér et al., 2012). Together, this resulted in the overall score of the potential effectiveness of the certification scheme.

4 Methodology

4.1. Research strategy

The research strategy followed theoretical and empirical elements and can be divided into two parts and six stages.

In the first part, a theory-based assessment methodology was developed. For that purpose, literature research was conducted to identify and analyse existing theory around sustainable development, sustainable tourism, good governance, tourism governance, sustainability certification, tourism in the Alps and indicator development. Based on this literature review, an assessment framework was established, identifying performance, management and quality criteria required to assess the potential effectiveness of certification schemes for sustainable Alpine tourism destinations. This assessment framework provided the answer to sub-question one a) and b) and is presented in Chapter 4.4.

To apply the assessment framework, in the second part, a comparative case study design was employed. This approach was followed for two main reasons. Firstly, it enabled the testing of the assessment framework on real-life cases. Secondly, it facilitated assessing the potential effectiveness of three destination certification schemes and provided recommendations for their improvement. As a first step, an internet search was performed to select the most relevant certification schemes at the destination level. This internet search created the basis for an inventory of existing schemes. To complement the data collection, two experts from the field of sustainable destination development and certification and Alpine tourism were consulted. However, due to time constraints, it was impossible to assess the complete inventory of existing schemes. Hence, a selection was made to answer sub-question two. This selection followed a precise strategy which is presented in Chapter 4.3. The final selection of the three most relevant cases constitutes the answer to sub-question two a) and is presented in the first parts of the results in Chapter 5.1.

Based on the assessment framework, case data was collected based on publicly available documents of the three certification organisations. In addition, at least one interview was conducted for each case. The case interviews followed a clear topic list to ensure that the same topics were covered for each scheme. Based on this data and the assessment framework, the three cases were assessed on their potential effectiveness to answer sub-questions 2 b) and c). The assessment results constitute the second part of the results and are presented in Chapter 6. In a fifth step, cross-case comparisons were drawn to contrast the potential effectiveness of the three schemes, elaborating on similarities and differences. For that purpose, firstly, the average potential effectiveness per assessment category and assessment level was calculated. Secondly, a sensitivity analysis was conducted to compare the potential effectiveness of the three cases in four different weighing scenarios. This cross-case analysis can be found in Chapter 7. Finally, in Step 6, practice-oriented recommendations for improving the individual systems were provided, and a possible integration or complementation. Like this, the main research question was answered in Chapter 9. Figure 9 schematically presents the research framework that was followed.

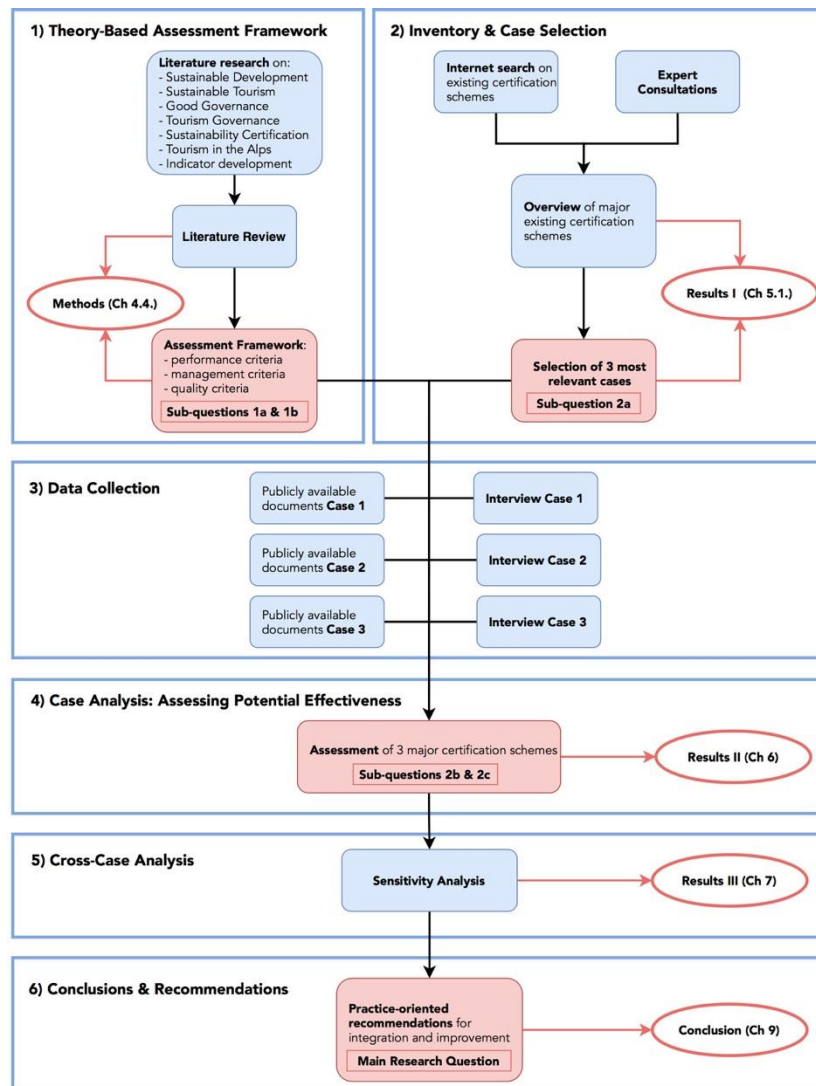


Figure 8: Research framework

4.2. Data collection & processing

Desk-based literature research

To understand the complexity of sustainable tourism certification at the destination level, a desk-based literature research was conducted on sustainable development, sustainable tourism and sustainable tourism certification. Furthermore, additional literature on Tourism in the Alps was consulted to understand the Alpine context better. To establish the theory-based assessment framework, literature on Good Governance was studied to establish assessment categories and criteria for the certification management requirements. Moreover, sustainability and sustainable tourism literature were consulted to inform the impact requirements for the certification standard level of the assessment. Furthermore, corporate sustainability literature was examined to identify relevant process criteria for the second part of the certification standard assessment. Lastly, articles on indicator development were investigated to establish quality requirements for the quality of indicators of the certification standards.

Desk-based internet research

To identify existing tourism certification schemes at the destination level, internet research was carried out. Standard platforms such as the Standard Map by the International Trade Centre

(International Trade Centre, 2021) and a label guide (fair unterwegs et al., 2016) provided a first overview of sustainability standards in tourism. Further research on the websites of the individual standards enabled a more detailed investigation to assess each standard's suitability for this research. All schemes targeting the business level were excluded. Followingly, the case selection was guided by nine selection criteria as presented in section 4.3.

Expert interviews

To acquire additional information and ensure the most relevant schemes were identified, semi-structured interviews were conducted with two experts in sustainable tourism certification and Alpine tourism. First, Martin Balas, Research Associate at the Biosphere Reserves Institute of the University for Sustainable Development in Eberswalde, was consulted on his many years of experience in sustainable destination development, sustainable tourism and certification. Additionally, Christian Baumgartner, Professor for Sustainable Tourism at the Institute for Tourism and Leisure at the University of Applied Sciences in Chur in Switzerland, was interviewed on his experience on sustainable Alpine tourism and the role of certification therein.

Before the interview, the interviewees were informed about the goal and process of the research and asked to sign an informed consent form agreeing on their interview data being processed. The interviews were conducted via zoom, audio-recorded and transcribed. The data collection was limited due to the expert's affiliation with a significant certification body, the German certification organisation TourCert. While Balas role as an external advisor at TourCert was known before the interview, Baumgartner's role as a member of the Certification Committee of TourCert was unfamiliar. To eliminate the bias best possible, the transcripts were scanned to identify any emotionally charged statements.

Desk-based document research

The relevant case data was collected from publicly available documents of the three selected certification bodies. The primary data sources were the criteria catalogue of each standard, certification guidelines and implementing provisions, as well as the webpage of the certification body.

Case interviews

The document data was complemented by case interviews with representatives from each scheme. Table 1 provides an overview of all interviewed representatives. For Green Destinations, two representatives were interviewed, one external partner and a representative from Switzerland and the Co-Founder and Certification Manager. For that purpose, two separate interviews were conducted. For the Mountaineering Villages, likewise, two representatives were interviewed, however in one shared interview. All interviews were semi-structured and divided into two parts. The first part was equal for each case covering general components following a clear topic list:

Topic List General Part

- Personal role of the interviewee in the certification organisation
- History of the standard
- Organisational structure of the organisation
- Certification Procedure
- Uptake of the standard

As with the expert interviews, the interviewees were informed about the goal and process of the research and asked to sign an informed consent form agreeing on their interview data being processed. The interviews were conducted via zoom, audio-recorded and transcribed.

The assessment framework guided the second part. First, tailored questions were posed to fill the gaps in the data collection necessary to conduct the assessment. For each criterion, the data quality was indicated and is portrayed in the full criteria overviews in Appendix 1. Followingly, the interviews were transcribed and analysed in the application of the assessment framework. Finally, after having transcribed and analysed the interview data, the interviewees were allowed to review the case descriptions to inform necessary revisions.

Table 1: List of interviewees and their role

Interview No.	Certification Organisation	Role
1	Green Destinations	Independent Representative Green Destinations DACH Region, Independent Advisor and Auditor
2	Green Destinations	Co-Founder & Certification Manager
3	TourCert	Head of Certification
4a	Mountaineering Villages	Co-Founder
4b		Project Team Member

In the case of the Mountaineering Villages, additional internal documents that are not publicly available were shared for research purposes. These documents were used to understand the certification procedure and organisational structure of the initiative.

4.3. Case selection

The case selection followed a precise strategy to avoid biases, complementing an extensive internet search with expert consultations. The internet search was guided by nine selection criteria that were identified to be important in the prior literature research:

- Applicability scope:* the certification scheme certifies destinations
- Planet dimension:* the relevant planet impact requirements are covered
- People dimension:* the relevant people impact requirements are covered
- Prosperity dimension:* the relevant prosperity impact requirements are covered
- Process requirements:* the certification scheme includes process requirements
- Transparency:* the requirements are publicly available online
- Independent audit:* an on-site third party performs the audit
- Uptake:* the number of certified destinations under the scheme
- Google Scholar results:* the number of Google search hits on the scheme name

All of these nine selection criteria were granted equal importance. For the first seven criteria, the scheme scored if it fulfilled the criteria. Certification schemes for destinations scored only if their

focus was not too narrow, since some schemes cover mainly food or mobility-related requirements or certify only nature park destinations. For the uptake and Google Scholar results, the schemes with the highest number scored. Accordingly, certification schemes with higher uptake and more comprehensive approach were favoured. The schemes with the overall highest score were pre-selected before the expert consultations. The interviews aimed to identify the certification schemes for destinations that were judged to have a high potential according to the consulted experts. In addition, the aim was to identify at least one relevant scheme with global applicability and one scheme more specific to the Alpine context. The purpose of this was to investigate the range of schemes and identify which specificity level is favourable from the perspective of potential effectiveness. In that manner, three certification schemes were selected as a basis for the evaluation.

4.4. Operationalisation of the assessment framework

Based on the theoretical foundation of the three assessment levels presented in Chapter 3.6., assessment criteria were developed for each theoretical domain to answer sub-question one a) and b). These criteria were developed based on international standards and academic literature (Abel et al., 2017; Kalfagianni & Pattberg, 2013). The following international standards were identified as relevant and used for the criteria development:

- ISEAL Standard Setting Code
- GSTC Accreditation Manual
- GSTC Destination Standard
- ISO 17021
- ISO 12600
- ISO 14001

Following the design of Abel et al. (2017)'s assessment framework, the requirements of international standards were analysed and categorised. Similar or equal requirements were grouped. While Abel et al. (2017) based their assessment categories on a thematic analysis and stakeholder workshops, this research was guided by theoretical domains. Therefore, the prior established theoretical domains were guiding the classification of criteria. The following chapters elaborate on the operationalisation of each assessment level, resulting in the final assessment framework.

4.4.1. Certification body: management criteria

In line with Abel et al. (2017), the assessment criteria were developed based on two relevant international standards, which were the ISEAL Alliance Codices, the GSTC Accreditation Standard for certification bodies and ISO 17021. These standards were chosen due to their diverse thematic focus, with ISEAL and ISO covering certification schemes in general and the GSTC focussing on tourism certification schemes. For that reason, the standards do not cover the same criteria. The different ISEAL codices were merged for reasons of clarity. Matching or similar criteria were grouped accordingly. While Abel et al. (2017) follow a different categorisation for their assessment, based on the content of the criteria, this assessment collected

all requirements of the respective systems are structured according to the five good governance criteria (United Nations Economic and Social Commission for Asia and the Pacific, 2009). Table 2 provides an overview of the total 26 criteria and an explanation of what they precisely entail.

Table 2: Certification body management criteria

Nr.	Good Governance Category [1]	Criterion [1;2]	Explanation [3]	Conformity with established standards		
				GSTC [4]	ISEAL [5]	ISO 17021 [6]
A.1.1	Legitimacy & Voice	Neutrality & impartiality	The certification body disposes over a guideline on its neutrality and impartiality. The certification body is legally and economically independent of potential certification users.	x	x	x
A.1.2		Standardised assessment methodology	The certification body disposes over a standardised and documented assessment methodology for the fulfilment of requirements. This methodology provides clear guidelines on minimum requirements and insights into correcting measures in case of non-conformity.	x	x	x
A.1.3		On-site third-party audit	The assessment of the fulfilment of the criteria takes place an independent on-site third-party audit.	x	x	x
A.1.4		Stakeholder involvement	There exist mechanisms for the involvement of stakeholders (e.g., in case of non-conformity with requirements or complex matters).	x	-	-
A.1.5		Standardised audit report	The certification body or audit body completes a standardised audit report with all information about fulfilled requirements and non-conformity. This report is accessible for the certification user.	x	x	x
A.1.6		Validation of audit	The certification body disposes over a system for the validation of the audit results and the final decision for certification. This occurs independent of the audit body and is documented in writing.	x	-	x
A.2.1	Direction	Consideration of current events	The certification considers recent scientific findings as well as relevant international standards.	x	x	-
A.2.2		Materiality analysis [3]	The criteria catalogue and weighting of requirements is based on results of a materiality analysis in the respective tourism sector.	-	-	-
A.2.3		Reference to other sustainability standards	The certification body refers to other, similar certification systems and disposes over mechanisms for mutual recognition.	x	x	-
A.3.1	Performance	Support in certification process	The certification body offers information and support in the certification process. This offer is open to all current and potential certification users.	x	x	-
A.3.2		Impact assessment	The certification body engages in continual monitoring of its impacts and documents this internally.	x	x	-
A.3.3		Consistent stakeholder dialogue	The certification body is in regular dialogue with stakeholders to measure inadvertent effects. This process is documented.	x	x	-
A.4.1	Accountability & Transparency	Legal status	The legal status of the certification body is easily recognizable on all its publicly available documents.	x	-	x
A.4.2		Organisational structure	The organisational structure of the certification body is publicly available.	x	-	x
A.4.3		Contractual arrangements	Between the certification body and certification user exist contractual arrangements.	x	x	x
A.4.4		Transparent use of certification	There exist free and publicly available information on the criteria for the fulfilment of performance-based requirements.	x	x	x
A.4.5		Transparent target group	There exist a publicly available overview of the relevant sectors and stakeholder and applicability scope of the certification.	x	x	x
A.4.6		Standardised & transparent certification process	There exists free and publicly available information on the criteria for the fulfilment of process-based requirements.	x	x	x
A.4.7		Transparent register of certified entities	There exists a publicly available register of certified entities.	x	x	x
A.4.8		Transparent requirements for multi-tiered certification	There exists free and publicly available information on the concrete minimum requirements for multi-tiered certification (e.g., Bronze, Silver, Gold).	x	x	-
A.4.9		Transparent cost structure	The costs of certification and possible additional costs are clear, transparent and publicly accessible.	x	x	x
A.4.10		Complaint management	The certification body disposes over a standardised and documented complaint mechanism that defines clear steps, time frame and responsibilities of a complaint procedure.	x	x	x
A.4.11	Regulation for recertification and termination of certification	The certification body disposes over a clear mechanism for recertification and termination of certification. The certification user is timely informed about necessary recertification.	x	x	x	
A.4.12	Measurability and benchmarking ¹	There exist comparable indicators for the measurability of the requirements and the benchmarking of certification users.	-	-	-	
A.5.1	Fairness	Reference to legal regulations	The certificate exceeds legal requirements and refers to existing national and international legislation and regulation.	-	x	-
A.5.2		Board Membership [7]	The certification body disposes over guidelines to ensure gender and racial equity in its board membership.	-	-	-

¹ - (Graham et al., 2003; United Nations Economic and Social Commission for Asia and the Pacific, 2009) ² - (Graham et al., 2003) ³ - based on (Abel et al., 2017) ⁴ - (Global Sustainable Tourism Council, 2021); ⁵ - (ISEAL, 2014, 2016) ⁶ - (Heras-Saizarbitoria et al., 2013; ISO Update, n.d.); ⁷ - (Kalfagianni & Pattberg, 2013)]

4.4.2. Certification standard: performance criteria

Following Abel et al. (2017), the performance criteria to assess the certification standard were developed based on the GSTC Destinations Standard and the two ISO standards, ISO 26000 and ISO 14001. While these scholars categorised the resulting criteria into three categories, covering the dimensions of environmental, socio-cultural and corporate governance aspects, this research followed a slightly different approach based on theoretical findings. First of all, the criteria were separated into impact and process requirements.

Impact requirements

Based on the three issue dimensions of sustainable development, the 14 impact requirements were pre-grouped. Subsequently, five relevant endpoints were identified from Vermeulen (2018) to ensure that the certification scheme covers all relevant aspects of sustainability. In the next step, the criteria of the two most relevant international standards, GSTC-D and ISO 26000, were categorised according to the five endpoints. Table 3 provides an overview of the final impact requirements for certification standards need to comply with.

Table 3: Impact requirements for certification standards

Nr.	Sustainability Issue Dimension [1]	Relevant Endpoint [1]	Criteria [1]	Explanation [3]	Conformity with established standards		
					GSTC-D [3]	ISO 26000 [4]	
B.1.1.1	Planet	Natural resources	Energy management	Criteria of the certification ensure the measurement of energy consumption and implementation of measures for energy conservation and -efficiency	x	x	
B.1.1.2			Water management	Criteria of the certification ensure the measurement of water consumption and implementation of measures for water conservation	x	x	
B.1.1.3			Waste management	Criteria of the certification ensure the measurement of waste management and the implementation of measures for waste reduction, -separation and recycling	x	x	
B.1.1.4		Natural environment	Air pollution	Air pollution	Criteria of the certification ensure the measurement and reduction of GHG emissions	x	x
B.1.1.5				Noise pollution	Criteria of the certification ensure the identification of noise pollution sources and the reduction thereof	x	-
B.1.1.6				Visual pollution	Criteria of the certification ensure the identification of visual pollution sources and reduction thereof	x	-
B.1.1.7				Biodiversity	Criteria of the certification ensure: <ul style="list-style-type: none"> - Identification of direct and indirect effects of tourism offers and activities on biodiversity - Measures for biodiversity protection - Responsible interaction with wildlife 	x	x
B.1.1.8				Tourism land use	Criteria of the certification ensure the consideration of environmental and socio-cultural limits of capacity in construction - and infrastructure planning	x	x
B.1.2.1	People	Worker well-being	Employment quality	Criteria of the certification ensure the establishment of best working conditions with special attention to over hours and family-friendliness	x	X	
B.1.2.2			Employment diversity	Criteria of the certification ensure equal opportunities of all employed persons, independent of gender, age, ethnicity, origin, religion or sexual identity	x	-	
B.1.2.3		Community livelihood	Regional cultural heritage & traditions	Criteria of the certification ensure respect and appreciation of cultural heritage and traditions and the implementation of measures for the conservation thereof	x	x	
B.1.2.4			Health & safety	Criteria of the certification ensure the promotion of health and prevention of accidents	-	x	
B.1.3.1	Prosperity	Societal stability	Seasonality & sustainable innovation	Criteria of the certification ensure the promotion of sustainable innovation to reduce seasonal dependency of tourism offers	x	-	
B.1.3.2			Local prosperity	Criteria of the certification ensure the priority of local producers and suppliers	x	-	
B.1.3.3			Anti-Corruption & Responsible Political Involvement	Criteria of the certification ensure the prevention of corruption, bribery, unfair competition and one-sided influencing	-	x	
B.1.3.4		Fairness in Economic System	Fair marketing	Criteria of the certification ensure fair, truthful and transparent communication strategies and materials.	x	x	
B.1.3.5			Fair contracts & competition	Criteria of the certification ensure fair contracts with suppliers and fair competition.	-	x	
B.1.3.6			Fair tax behaviour [1]	Criteria of the certification ensure fair tax behaviour	-	-	

[1] - (Vermeulen, 2018); [2] - based on (Abel et al., 2017); [3] - (Global Sustainable Tourism Council, 2019); [4] - (Hahn, 2013; International Organization for Standardization, 2010)]

Process requirements

The four stages of the PDCA cycle provided the groundwork for the process requirements for certification standards. In the next step, based on a literature review of sustainability management literature, eight common management system elements were identified, distributed over the four management cycle steps. These elements are analysis, policy, responsibility & authority, monitoring, documentation, internal audit, management review and continual improvement. Within this pre-established framework, the process-related criteria of the GSTC-D and ISO 14001 management standard were collected and grouped. ISO 14001 was found to cover all phases of the PDCA cycle, while the GSTC criteria for destinations only involve the plan and the do stage. Table 4 summarises the final nine process requirements that certification users need to cover to receive certification.

Table 4: Process requirements for certification standards

Nr.	Plan-Do-Check-Act Cycle Stage [1]	Management System Element [2]	Criteria [3]	Explanation [3]	Conformity with established standards	
					GSTC-D [4]	ISO 14001 [5]
B.2.1.1	Plan	Analysis	Intensive analysis of initial situation	Criteria of the certification ensure the identification of existing issues in collaboration with stakeholders	x	x
B.2.1.2		Policy	Implementation Plan	Criteria of the certification ensure the definition of action steps in collaboration with stakeholders	x	x
B.2.1.3			Political commitment	Criteria of the certification ensure the existence of a formal statement of commitment to meet the requirements and continually improve	-	x
B.2.1.4		Responsibility & authority	Organisational structure	Criteria of the certification ensure the definition of clear responsibilities	x	x
B.2.2.1	Do	Monitoring	Monitoring	Criteria of the certification ensure the regular comparison of policy and strategy with output	x	x
B.2.2.2		Documentation	Clear documentation	Criteria of the certification ensure the documentation of policies, manuals and procedures to establish that all employees have a clear understanding of the requirements	-	x
B.2.3.1	Check	Internal Audit	System evaluation	Criteria of the certification ensure the regular evaluation of system, processes and product of the organisation, performed by an independent organisational auditor	-	x
B.2.3.2		Management review	Management evaluation	Criteria of the certification ensure the regular evaluation of management system	-	x
B.2.4.1	Act	Continual Improvement	Preventive & corrective actions	Criteria of the certification ensure that action is taken based on the results of the management and system evaluation	-	x

[¹ - (Manders, 2010); ² - (Mustapha et al., 2017); ³ - based on Abel et al., 2017; ⁴ - (Global Sustainable Tourism Council, 2019); ⁵ - (International Organization for Standardization, 2015)]

4.4.3. Standard indicators: quality criteria

Based on Vermeulen (2018), two main elements of indicator construction need to be considered by certification bodies when developing performance criteria and indicators for their standards: firstly, methodological elements, and secondly, certain aspects ensuring the applicability of indicators. Within each of these two elements, various key principles were identified and directly adopted from Vermeulen (2018), who builds his overview on the findings of various authors (Böhringer & Jochem, 2007; Bradley Guy & Kibert, 1998; Mayer, 2008; Pintér et al., 2012). Based on these findings, the five key methodological elements are scope and core concept, essential elements, data specification, data manipulation, and the final result compilation. Regarding the application, accountability, outreach and the long-term impact were considered the most important principles by the various scholars. Table 5 provides an overview of the 11 quality criteria.

Table 5: Quality criteria for certification standard indicators

Nr.	Elements of indicator construction [1]	Key principles for indicator construction [1]	Criteria	Explanation	Conformity with established sources
C.1.1.	Methodological elements	Scope & core concept	Connection to sustainability issues dimensions	The indicators link to the three issue dimensions of sustainable development (planet, people, prosperity).	(Böhringer & Jochem, 2007; Boulanger, 2008; Pintér et al., 2012)
C.1.2.		Key elements	Representativeness	The indicators cover the important dimensions of sustainable tourism.	(Böhringer & Jochem, 2007; Boulanger, 2008; Guy & Kibert, 1998; Pintér et al., 2012)
C.1.3.1		Data specification	Adequate scope	The indicators have an appropriate time horizon to cover short- and long-term effects and an appropriate geographical scope.	(Böhringer & Jochem, 2007; Boulanger, 2008; Guy & Kibert, 1998; Mayer, 2008; Pintér et al., 2012)
C.1.3.2			Availability & measurability	The required data is available and easy to measure.	(Böhringer & Jochem, 2007; Guy & Kibert, 1998; Mayer, 2008; Pintér et al., 2012)
C.1.3.3			Reliability	The indicators are compiled using a systematic and fair method.	(Guy & Kibert, 1998)
C.1.4.		Data manipulation	Normalization & aggregation	The normalization and aggregation of indicator data occurs in a justified way.	(Böhringer & Jochem, 2007; Boulanger, 2008; Mayer, 2008)
C.1.5	Compilation of final result	Weighing	The weighing is in accordance with the relative importance of the three issue dimensions of sustainable development.	(Böhringer & Jochem, 2007; Boulanger, 2008; Mayer, 2008)	
C.2.1	Application aspects	Accountability	Transparency	The indicators are publicly accessible and data sources and methods are publicly disclosed.	(Guy & Kibert, 1998; Pintér et al., 2012)
C.2.2.1		Outreach	Clarity	The indicators use simple language and can be interpreted by lay persons.	(Pintér et al., 2012)
C.2.2.2			Broad participation	The indicators are developed in consultation with and accepted by all relevant stakeholders.	(Böhringer & Jochem, 2007; Boulanger, 2008; Guy & Kibert, 1998; Pintér et al., 2012)
C.2.3		Long-term impact	Responsiveness	The indicators respond quickly and to changes.	(Guy & Kibert, 1998; Pintér et al., 2012)

[1 = (Vermeulen, 2018)]

4.4.4. Assessment framework for sustainable Alpine tourism certification schemes

Scoring & international benchmark level

To assess the potential effectiveness of the three certification schemes, a grading scale has been used. Each criterion was assessed and scored on a four-point scale ranging from 0 to 3 (Table 6). The 2 indicates the international benchmark level. This benchmark was determined based on the conformity with established standards (Tables 2-5). Once the certification exceeds the international benchmark level as captured in the criteria explanation, it scores a 3. To be considered overall potentially adequate, the scheme must score an average of two or higher.

Table 6: Grading scale for the assessment framework

Numerical Score	Description
0	Criterion not fulfilled
1	Criterion partially fulfilled
2	Criterion fully fulfilled (International benchmark)
3	Criterion exceeded (possible best practice example)

To illustrate the grading process and the role of the international benchmark level therein, in the following, one example for each assessment level will be given (Tables 7-10).

Table 7: Certification body management example

Nr.	Good Governance Category	Criterion	Explanation	Conformity with established standards		
				GSTC	ISEAL	ISO 17021
A.1.1	Legitimacy & Voice	Neutrality & impartiality	The certification body disposes over a guideline on its neutrality and impartiality. The certification body is legally and economically independent of potential certification users.	x	x	x

Certification body A disposes over an internal policy on its impartiality and neutrality. In addition, it is legally and economically independent of potential certification users. By doing so, the certification body meets the international benchmark level for this criterion.

Table 8: Certification standard impact example

Nr.	Sustainability Issue Dimension	Relevant Endpoint	Criteria	Explanation	Conformity with established standards	
					GSTC-D	ISO 26000
B.1.1.1	Planet	Natural resources	Energy management	Criteria of the certification ensure the measurement of energy consumption and implementation of measures for energy conservation and -efficiency	x	x

Certification standard B ensures that the destination monitors the energy consumption and ensures that measures are implemented to promote energy conservation and -efficiency. In addition, the standard requires the reduction of fossil fuel reliance and increased usage of renewable energy. According to this, the certification scheme meets the international benchmark level by ensuring the measurement and implementation of energy consumption and energy conservation measures. However, overall, it exceeds the international benchmark level, since it also includes criteria concerning fossil fuel reliance and renewable energy. Hence, the scheme scores three in this criterion.

Table 9: Certification standard process example

Nr.	Plan-Do-Check-Act Cycle Stage	Management System Element	Criteria	Explanation	Conformity with established standards	
					GSTC-D	ISO 14001
B.2.1.1	Plan	Analysis	Intensive analysis of initial situation	Criteria of the certification ensure the identification of existing issues in collaboration with stakeholders	x	x

Standard A requires a destination to unite relevant stakeholders around the issue of sustainable tourism. Rather than starting with an intensive analysis of the initial situation, the destination is stimulated to follow a predetermined strategy immediately. Like this, existing issues specific to the local context of that particular destination are not identified. Since the international benchmark level requires such an intensive analysis, and the scheme only partially fulfils the criterion, it scores one.

Table 10: Certification standard indicator quality example

Nr.	Elements of indicator construction	Key principles for indicator construction	Criteria	Explanation	Conformity with established sources
C.1.5	Methodological elements	Compilation of final result	Weighing	The weighing is in accordance with the relative importance of the three issue dimensions of sustainable development.	(Böhringer & Jochem, 2007; Boulanger, 2008; Mayer, 2008)

Standard B includes indicators for each issue dimension of sustainable development. However, in the compilation of the final score of a destination, certification body B gives double the weight to the planet dimension and only a minority to the people and prosperity dimension of sustainable development. Hence, the standard scores zero in this criterion since it does not fulfil the criterion.

Weighing

Not all international standards are grounded in theoretical concepts, such as the three issue dimensions of sustainability with its relevant midpoints (Vermeulen, 2018) or the good governance characteristics (United Nations Economic and Social Commission for Asia and the Pacific, 2009). Hence, while criteria were identified for all relevant theoretical domains on all three assessment levels, the number of criteria per category differed widely. On the certification body level, Legitimacy and Voice and Transparency were covered to a more significant extent than Fairness, Direction and Performance. In the impact category the certification standard level, the planet dimension was overrepresented compared to the people and prosperity dimension. In

the process category, the plan and do the stage of the PDCA cycle were found more broadly covered by international standards than the check and act stages. Lastly, no international standard for the quality of standard indicators was found, despite various scientific studies on that matter (Böhringer & Jochem, 2007; Bradley Guy & Kibert, 1998; Mayer, 2008; Pintér et al., 2012). Even within these scientific studies, more considerable emphasis was placed on the methodological elements of indicator construction than the applicability.

Therefore, to ensure that equal importance is placed on all three assessment levels, which are theoretical domains of the same value, the criteria were weighted according to a systematic percentage distribution scheme (Table 11). As a result, the three assessment levels were granted equal importance, with 33,34% each. On the certification standard level, the impact and process categories accounted for 16,67% each. The same structure was followed for the standard indicators level, weighing both the methodological and the application aspects with 16,67%. Furthermore, within all of these assessment categories, each theoretical domain (i.e., e.g., Legitimacy & Voice) was weighted equally. These considerations resulted in the following percentage distribution:

Table 11: Percentage distribution of the assessment

Theoretical Domain	Percentage distribution	
A – Certification Body [Management]		
A.1 Legitimacy & Voice	6,67%	33,34%
A.2 Direction	6,67%	
A.3 Performance	6,67%	
A.4 Accountability & Transparency	6,67%	
A.5 Fairness	6,67%	
B – Certification Standard [Performance]		
B.1 – Impact requirements		
B.1.1 Planet	5,56%	16,67%
B.1.2 People	5,56%	
B.1.3 Prosperity	5,56%	
B.2 – Process requirements		
B.2.1 Plan	4,17%	16,67%
B.2.2 Do	4,17%	
B.2.3 Check	4,17%	
B.2.4 Act	4,17%	
C – Standard Indicators [Quality]		
C.1 Methodological elements	16,67%	33,34%
C.2 Application aspects	16,67%	

Lastly, to test to what extent this percentage distribution impacts the final result, a sensitivity analysis was conducted in section 7.2., comparing the potential effectiveness of the schemes in different scenarios.

5 Certification schemes for sustainable Alpine tourism destinations

5.1. Overview of certification schemes

To answer the research sub-question two a), an overview of existing certification schemes for tourism destinations was made. The variety of destination level certification schemes was found to be relatively low. With his over 20 years of experience in the tourism certification sector, Martin Balas estimated that 80% of the certifications in tourism are in the accommodation sector, while the other 20% are distributed over tour operators, destinations, and other sectors. This estimate is in line with the extensive literature and internet research, which identified only 13 destination certification schemes globally. Table 12 provides an overview of the destination certification schemes that were found during the internet research.

Table 12: Overview of existing certification schemes for destinations

Certification Scheme	Applicability Level	Planet Dimension	People Dimension	Prosperity Dimension	Process Requirements	Independent Audit	Transparency	Uptake (Destinations only)	Google Scholar Results	Final Score
Biosphere Certification for Tourism Destinations	Destinations & Tourism Businesses	x	x	x	-	x	x	34 destinations	35	5/8
TourCert	Destinations & Tourism Businesses	x	x	x	x	x	x	25 destinations	118	8/9
European Charter EUROPARC	Protected Areas	x	x	x	x	x	x	105 destinations	490	8/9
Bergsteigerdörfer (Mountaineering Villages)	Destinations	x	To a lesser extent	To a lesser extent	x	-	x	29 destinations	81	7/9
Green Destinations Standard	Destinations	x	x	x	x	x	x	>400 destinations (across different awards and certification programs employing the Green Destinations Standard)	126	9/9
Alpine Pearls	Destinations; Focus Mobility	x	To a lesser extent	x	To a lesser extent	-	x	19 destinations	41	5/9
Mountain IDEAL Destination Standard	Destinations	x	x	x	x	x	x	Not specified	1	6/9
Green Scheme of Slovenian Tourism	Destinations & Tourism Businesses	x	x	x	Not specified	x	-	55 destinations	25	6/9
SlowFood Travel	Destinations; Focus Culinary/Food	x	x	x	x	-	x	Not specified	32	6/9
Qualitätsoffensive Naturparke (Quality Initiative Nature Parks)	Nature Parks (no main focus on tourism)	x	x	x	-	-	-	103 nature parks	1	4/9
Qualitätsstandards für die Prädikatisierung von Kurorten, Erholungsorten und Heilbrunnen (Quality Standard for health resorts & mineral springs)	Destinations; Focus health resorts	x	-	-	-	Not specified	x	Not specified	0	2/9
Wanderbares Deutschland ("Hikeable" Germany)	Destinations	x	-	-	-	Not specified	x	15 destinations	132	4/9
Earth Check	Destinations & Tourism Businesses	x	x	x	Not specified	x	-	Not specified	0	5/9

(Light green: the scheme scored in that selection criterion [following the selection criteria in section 4.3.];
dark green: the scheme was pre-selected due to high score)

The global schemes found during the internet research and mentioned to be relevant by Balas were Biosphere Responsible Tourism, Earth Check and Green Destinations. One certification scheme that started as a national scheme in Germany and is expanding to be applied globally is TourCert for Destinations. While all of the 15 schemes cover the planet dimension, many schemes were found to rather be environmental certification schemes than sustainability schemes. Hence, the people and prosperity dimension are covered to a lesser extent by some schemes.

Moreover, other certification schemes focus on specific destinations, such as the EUROPARC Charta for protected areas, the German quality initiative for nature parks and the certification for health resorts. Furthermore, some schemes focus on a particular sector within tourism, such as Slow Food with its certification for Slow Food Regions and Città slow, for cities.

In these schemes, the emphasis is placed on gastronomy and food-related issues in tourism, which can be regarded as very interesting from a consumer perspective, while being far from representing a sustainability scheme, according to Balas and Baumgartner. Hence, those schemes scored relatively low in the pre-selection process. The German scheme Viabono was mentioned in several label guides as including also a destination-level scheme. The website, however, did not provide any insight into that. In addition, 7 of the 15 schemes were found to cover also process requirements. Based on their overall score, the following four schemes were pre-selected: TourCert, EUROPARC, Mountaineering Villages (Bergsteigerdörfer), Green Destinations. While TourCert and Green Destinations are applicable worldwide, the Mountaineering Villages scheme is explicitly targeted at Alpine Destinations. Despite its lesser focus on the people and prosperity dimension, it was included in the first selection as a leading example for a very context-specific certification scheme. The EUROPARC scheme scored high on all criteria, despite the applicability scope, due to its narrow focus on protected areas only.

The interviews confirmed the pre-selection. TourCert Destinations was mentioned as a model example by both experts for several reasons. Firstly, Balas emphasized the process-oriented approach, which depends mainly on on-site collaboration and support based on local representatives. The most promising scheme with a specific focus on the Alps, according to Baumgartner, are the Mountaineering villages (Bergsteigerdörfer). In his view, this scheme is interesting for the Alpine area, in particular, due to its intense focus on safeguarding the Alpine environment. At the same time, the scheme is far from being GSTC-recognized and does not include third-party auditing. Lastly, due to its significant uptake and brand awareness of Green Destinations, the experts confirmed it to be a relevant case for a systematic analysis.

5.2. Identified trade-offs of destination schemes

During the case selection process, two trade-offs have been identified that need to be considered when assessing the potential effectiveness of certification schemes at the destination level. Firstly, there is a trade-off between the applicability scope of certification schemes, global or local, and their practicability. The crucial factor is that a certain level of context-specificity is required for certification schemes to be applicable and feasible locally. While global schemes often comply with international standards, such as GSTC, EMAS or ISO 26000, they often do not offer the same flexibility to adapt to local conditions. Such an adaptation requires specific local mechanisms, such as local support and collaboration, and an intense analysis of the local conditions to tailor the requirements to local needs (Grapentin & Ayikoru, 2019; Strambach & Surmeier, 2018). However, this localisation of measures can come at the cost of the breadth of the requirements. One example of this is the Mountaineering Villages standard, which stands out through its very context-specific requirements, tailored to Alpine destinations, but scores less in terms of the breadth of the criteria it covers (Bergsteigerdörfer, 2014).

A second trade-off that was identified relates to the emphasis placed on either impact of process requirements. While some schemes, such as TourCert, are recognised for their process-based approach, schemes like the Mountaineering villages consider strict compliance with their impact requirements essential. While the latter enables identifying the 30% best destinations, thereby establishing a quality brand, the former allows for every destination to become certified, more depending on its ambition and strategy. In that case, a more considerable emphasis is placed on process requirements, valuing the journey rather than the goal. In the view of

Baumgartner, both approaches have their justification. The question is what the underlying goal of the certification scheme is. Suppose the goal is to contribute to a sustainable transformation of the tourism industry. In that case, a process-based scheme enables and stimulates more destinations to take the step and improve their performance. Regardless, according to the expert, a minimum set of impact criteria is required to safeguard the baseline sustainability of the destination. Nevertheless, he argues that certification schemes focussing on process requirements can leverage the improvement potential of a destination, thereby appealing and accessible for destinations just starting their sustainability journey.

5.3. Selected certification schemes

Based on these results, three certification schemes were selected as cases for the assessment. In this selection, the two priorly identified trade-offs were considered. The decision to include schemes at different spots within this continuum was taken deliberately. Like this, this research will provide clarification within the plethora of labels and approaches to gain insights into which aspects might have a more significant impact on the potential effectiveness of such schemes. In the following, the three cases are briefly presented.

Case 1: Green Destinations

Green Destinations is a non-profit organisation based in the Netherlands. It is one of the most widespread and most discussed destination certification schemes currently active. It is a global scheme, currently including destinations in 60 countries. Since 2018, Green Destinations is GSTC recognised. The organisation operates in a decentralised way, employing a network of partners and representatives ranging from independent consultants to NGOs and government bodies (Green Destinations, 2021).

Case 2: TourCert Sustainable Destinations

The German non-profit organization TourCert was founded in 2009 to promote environmental, social and economic sustainability in tourism. Its main field of action is to advise and accompany destinations, tour operators, and accommodation providers to develop and implement a sustainable tourism strategy. Having started certifying only tourism businesses, TourCert birthed its destinations certification in 2014 as one of the first schemes to include all tourism service providers on the destination level (TourCert, 2018). The TourCert Sustainable Destinations certification system focuses on the entire customer journey and can be applied internationally. Certified destinations commit themselves to continuous improvement of their sustainability performance, supported by learning structures and tools provided online. The most significant uptake of the scheme is in Germany, Switzerland and Austria, with most certified destinations being located in Germany (TourCert, n.d.).

Case 3: Mountaineering Villages

The Austrian initiative Mountaineering Villages, or Bergsteigerdörfer, is an initiative founded and led by the Alpine Associations to establish a network of leading sustainable Alpine destinations. The initiative aims to showcase places that comply with the aims of the Alpine Convention in an extraordinary way. Primary emphasis is placed on mountain sports activities and the preservation of local cultural and natural values. Based on the underlying philosophy of tourism as an “all-embracing experience of nature” (translated from Bergsteigerdörfer, 2014) destinations are required to show restraint regarding increasing technological expansion in the Alps. This philosophy is mirrored in its mobility criteria, stimulating visitors to arrive without their private motor vehicle. This case represents the most context-specific scheme for tourism destinations in the Alpine area.

6 Application of the assessment framework

To answer research sub-question two b) and c), the following chapter presents the results of the analysis of the three selected certification schemes. For this purpose, the history and functioning of each certification was briefly introduced, followed by a systematic assessment based on the assessment framework presented in Section 4.4.

6.1. Green Destinations

6.1.1. Introduction to the standard

Green Destinations is a foundation and non-profit organisation based in the Netherlands. The Green Destination Standard is a consortium of three organisations with equal shares: Green Destinations, the Coastal & Marine Union (EUCC) and the European Centre for Eco and Agro Tourism (ECEAT). Within this consortium, Green Destinations is responsible for all operational tasks executed by its six people and regional coordinators in Spain, Portugal, Italy, and Africa. In 2018, the certification body was accredited by the GSTC. The Green Destinations Standard was first developed in 2015, originating from the Quality Coast programme and was GSTC recognised in 2016. With issuing a new version of the standard in 2021, it was recently re-recognised. It is important to note that the Green Destinations Standard does not equal the GSTC recognised Green Destination Certification. Instead, multiple programs use the Green Destinations Standard, such as Quality Coast, Slovenia Green and the Green Destinations Awards & Certification Programme. These programmes assess and award the destinations political regulations and their management organisation. More information regarding the sorts of schemes using the standard are listed in Table 13. Tourism businesses in the destinations are not included in the scope of this standard but covered by the sister standard Good Travel Seal. The Green Destinations Standard is communicated and spread through a global network of representatives in 52 countries. Some of these representatives have undergone a four-day training with Green Destinations to become auditors or advisors. Lastly, as a foundation, Green Destinations claims to follow the cost covering principle. The award costs start at a 1575€ annual fee, while the certification costs amount to a minimum of 5250€ excluding audit costs. Additional support packages are available between 1400€ for online only and 4000+€ for on-site support by Green Destinations or one of its regional representatives.

In addition to its awards and certification, Green Destinations offers destinations to create their own label based on the Green Destinations standard, referred to as ‘white label solution’. This solution enables destinations to communicate with their customers in their unique voice. Such a white label is based on all criteria of the Green Destination certification, with the only difference that the destination uses its own logo and communication. Green Destinations recognises all white labels as being Green Destinations certified and lists the destinations on their website.

6.1.2. Functioning and uptake of the certification

Functioning of the certification

The revised Green Destinations Standard is defined by a list of 84 criteria in 6 main themes: Destination Management, Nature & Scenery, Environment & Climate, Culture & Tradition, Social Well-Being and Business & Hospitality. The criteria follow the GSTC requirements for destinations. Moreover, the standard includes non-mandatory ‘optional’ criteria as well as ‘not applicable’ criteria. While the former was not considered relevant enough to be included in the core criteria, the latter was but can be excluded in certain circumstances. Lastly, additional criteria can be added which go beyond the GSTC requirements. In the recent revision of the standard, some criteria were removed, while others were added or formulated more stringently. The most significant additions refer to the inclusion of civil society stakeholders in the process, increasing reliance on renewable energy and promoting sustainable mobility. Removed criteria were focussed on community empowerment, seasonality, legal compliance and the obligation to take corrective measures in non-compliance. Of the 84 criteria of the revised standard, nine are optional, and for eight criteria, the destination may choose ‘not applicable’.

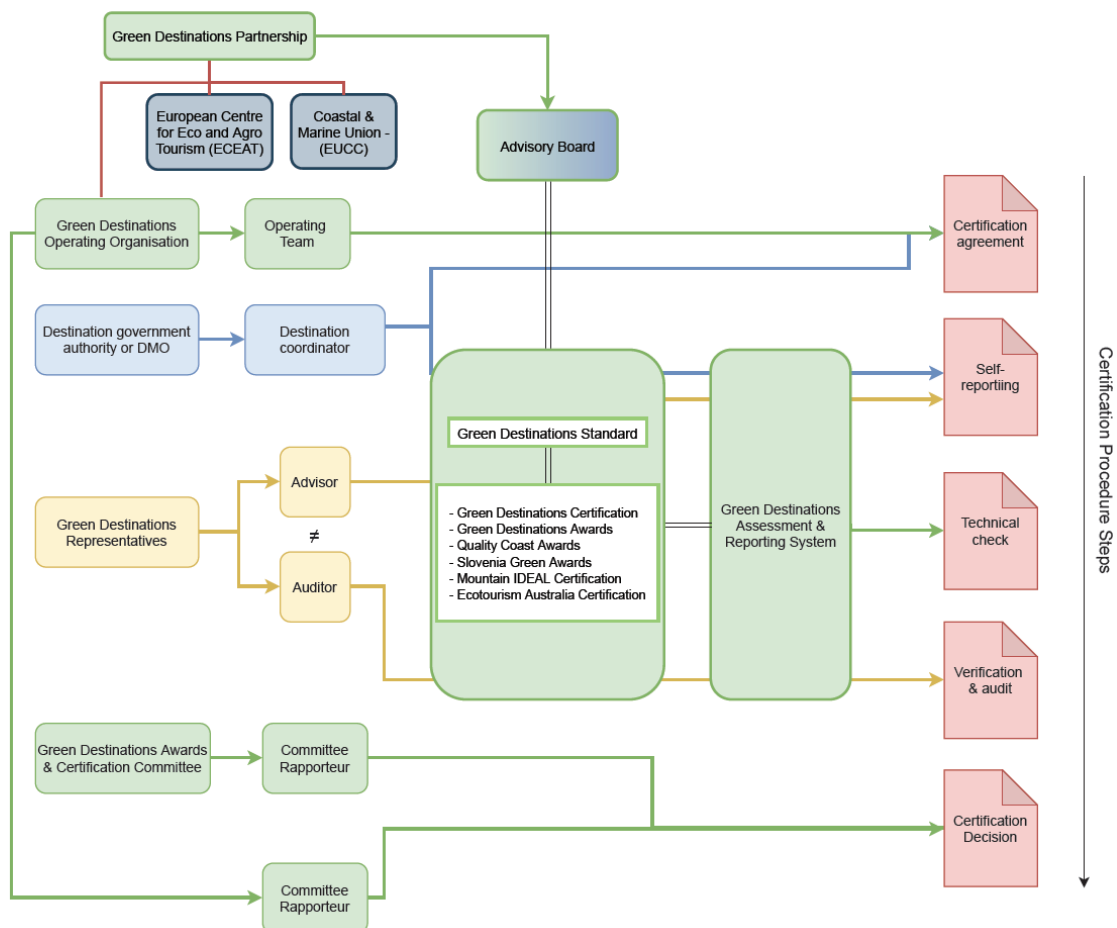


Figure 9: Green Destinations organisational structure and certification procedure

[Field & line colour coding according to affiliated actor group: green = certification organization; blue = destination; yellow = certification organization partners/representatives. Red fields = certification procedure steps. Red lines = ownership]

Certification procedure

Figure 10 provides an overview of the organisational structure and the certification procedure of Green Destinations. The certification procedure is initiated by a certification agreement between Green Destinations and the destination's governmental authority or DMO. Followingly, the destination receives access to the online Green Destinations Assessment & Reporting System, which provides the basis for the self-reporting of the destinations. The system includes a clear overview of the criteria as well as guidance on their implementation. Each destination receives its account, which the appointed destination coordinator who is responsible for managing the certification process in that particular destination manages. In addition, destinations are enabled to add employees to distribute responsibilities. The tool offers a library of best practices for each criterion, drawn from the worldwide network of awarded and certified destinations.

Moreover, the system constitutes the primary communication channel between the destination, the advisor and the auditor. Regional representatives from the Green Destinations network assume the advisor and auditor role. To safeguard their independence, the advisor is not allowed to take over the auditor role for the same destination. After completing the self-reporting, a technical check is conducted by Green Destinations to ensure that all criteria were considered. If the destination scores high, it is approved for the verification and audit. In that step, the self-assessment is first checked for completeness through a desk audit. Then, via the remarks function in the online reporting system, the auditor informs the destination on fulfilled requirements and non-conformity for each criterion. Based on this prior verification, destinations have the opportunity to submit further information and prepare for the on-site audit. Followingly, the on-site audit includes confidential stakeholder interviews and on-site visits to critical areas within the destination and a final meeting with all relevant stakeholders. At the end of the audit, the auditor issues an audit report summarising the results. For each criterion, the destination receives a score on a scale from 0 to 2, with 0 for non-compliance, 1 for partial compliance and 2 for full compliance. The audit report also includes the auditor's advice regarding the extent to which the destination reached certification status. Based on that, the Green Destinations Awards & Certification Committee and the Operating Organisation (Green Destinations) each appoint a Committee Rapporteur. They review the audit report and advice based on which they make the final decision. If all criteria are met, unconditional certification is granted. In the case of non-conformities, the certification can be postponed to a later point in time. Alternatively, conditional certification is granted with the obligation to correct smaller non-conformities (<10% of the criteria) within a given period.

Lastly, in case of severe non-conformities, the certification is not granted. The destination can then request to receive a pre-certification award based on its scores from the audit. For the final score, all individual criteria scores are converted into a score between 1 and 10. For each of the six main themes, the destination then receives a score between 1 and 10. The themes weigh equally, which finally results in an overall score between 1 and 10. In the prior version of the standard, only 70% of the total score were based on the criteria, while 30% were based on indicators. With its revised standard, Green Destinations decided to move away from indicators, now focussing its entire assessment on the criteria. The Green Destinations certification is valid for three years and has an assessment cycle of two years.

Compliance level requirements and uptake

In order to receive the Green Destinations certification, 100% compliance with the Green Destinations Standard is required. The award system, however, enables destination to already receive a recognition when less than 100% of the criteria are met. With 60% percent compliance, the destination receives the Bronze Award, with 70% the Silver Award, with 80% Gold and with 90% Platinum. In this way, many destinations register for the awards in the first place, rather than for certification. According to the Co-founder of Green Destinations, this is due to the lower entry barrier based on less stringent requirements and audits and much lower costs than the GSTC-Recognised certification. These dynamics are reflected in the relative share of certifications and awards using the Green Destinations Standard (Table 13). In the overall 16 countries, only one of the 94 destinations is Green Destinations *certified*. This implies that only one destination is 100% compliant with the Green Destinations Standard and certified according to GSTC-Accredited principles, such as third-party auditing. Among the other destinations, 12 have received one of the Green Destinations awards, with the majority being awarded silver or gold, thereby complying with 80% of the standard. Additionally, 26 destinations are Quality Coast awarded, amongst which most destinations reached 80% compliance or higher. Moreover, 54 destinations are part of the Green Scheme of Slovenian Tourism, one of the Green Destination white labels with the highest uptake. The Green Scheme Standard is based on the complete Green Destinations Standard and some ETIS indicators. Of these 54 destinations, none reaches the highest compliance level. Instead, the awarded destinations are almost evenly spread between the Bronze, Silver and Gold levels. Lastly, one destination received the Ecotourism Australia Certified Nature Tourism Certification, which is based on the Green Destinations standard and expanded by some criteria of Ecotourism Australia.

In addition to the schemes based on the Green Destination standard, two destinations are conditionally certified with the GSTC certified Mountain IDEAL Standard in the United States. This standard is not based on the Green Destinations Standard but affiliated with Green Destinations because the Dutch organisation acts as the certification body for the Mountain IDEAL.

Table 13: Relative share of sorts of certifications/awards using the Green Destinations Standard (n=94)

Type (Award/Certification)	Level (if applicable)	Required Compliance with the Green Destinations Standard	No. of awarded/certified destinations (*)	Geographical scope of uptake	Relative share of sorts of certifications/awards within the Green Destinations System [1]
Certifications/Awards using the GSTC-Recognised Green Destinations Standard					
Green Destinations Certified (GSTC - Accredited)	-	100%	1	The Netherlands	1,06 %
Green Destinations Award	Platinum	90%	2	Portugal, The Netherlands	2,13 %
	Gold	80%	5	Finland, Spain, Sweden, Taiwan, The Netherlands	5,32 %
	Silver	70%	4	Brazil, Croatia	4,26 %
	Bronze	60%	2	Japan, The Netherlands	2,13 %
Quality Coast Award	Platinum	90%	7	Portugal, The Netherlands	7,45 %
	Gold	80%	14	Cyprus, Germany, Malta, Portugal, Spain, The Netherlands	14,89 %
	Silver	70%	4	Dutch Caribbean, Portugal, The Netherlands	4,26 %
Green Scheme of Slovenian Tourism [2]	Platinum	90%	0	-	0 %
	Gold	80%	18	Slovenia	19,15 %
	Silver	70%	16	Slovenia	17,02 %
	Bronze	60%	20	Slovenia	21,28 %
Ecotourism Australia Certified [3]	Advanced Ecotourism (GSTC-Accredited)	100%	0	-	0 %
	Ecotourism	90%	0	-	0 %
	Nature Tourism	80%	1	Australia	1,06 %
Total (**)			94		100%
Affiliated Certifications using their own standard					
Mountain IDEAL Certification (GSTC-Recognized)	-	100%	2 (cond.)	USA	-

[1] = */**

6.1.3. Systematic assessment

The following three sections present the results of the assessment of the Green Destinations Certification based on the systematic assessment framework presented in section 4.4. The overall scores for each criterion are depicted in Appendix 2.

Certification body: management assessment

Figure 11 illustrates the summarized score per good governance category.



Figure 10: Certification body management assessment Green Destinations

(blue = Green Destinations scores, red = international benchmark level)

In Legitimacy & Voice, Green Destinations exceeds the international benchmark level (2,33). While all six criteria meet the benchmark level, two of them were found to exceed it. Like this, Green Destinations received a score of 3,0 for its assessment methodology and audit report. This score was based on the comprehensive character of the Green Destinations Assessment & Reporting System which provides a clear overview of all criteria and includes guidance for their implementation. The additional opportunity to consult international best practices, formulate action plans and assign responsibilities to provide the destination with insights into correcting measures in case of non-conformity led to extra points. Likewise, the system allows auditors and advisors to leave remarks based on which the destination can assign responsibilities for each required correction.

In Direction, Green Destinations does not live up to the international benchmark level (1,67). This score is due to an insufficient materiality analysis. Green Destinations bases its criteria catalogue and weighing entirely on the requirements of the GSTC and does not conduct a materiality analysis in the respective tourism sectors. However, the organisation is in regular exchange with the destinations and their stakeholders to increase the relevance and context-specificity of its certification. Hence, it received a score of 1,0 on criterion A.2.2.

In Performance, Green Destinations meets the international benchmark level for all three criteria (2,0). Destinations are supported during the process through the online reporting tool and a support package that can be booked according to a destination's needs. Additional consultancy is accessible via Green Destinations Representatives in the respective region. Regarding the impact of its certification, Green Destinations is conducting a qualitative study with destination stakeholders. Through on-site stakeholder consultations, the organisation aims at providing a fair overview of the certification impact in the destinations at hand.

Regarding Accountability & Transparency, Green Destinations does not live up to the international benchmark level (1,67). This performance is mainly due to a lack of transparency. The lack of indicator transparency and unclear information on the compliance level requirement for the multi-tiered certification, were found to be most pivotal. Green Destinations published its revised standard, including all 84 criteria on its website. This criteria catalogue, however, does not provide insight into the indicators used for assessing compliance. Furthermore, the interview made clear that Green Destinations bases its assessment largely on the presence of a policy document for each requirement, which does not become apparent from the criteria catalogue alone. Moreover, the organisation does not transparently share the compliance level requirement for the different levels of the awards and certification. In the interview, Green Destinations was very willing to share these compliance levels. Nevertheless, managing four award levels and one certification level, more public transparency would be required. In that light, also the transparency of the register of certified entities is worthy of improvement. Since only Green Destinations *Certified* destinations reached a full compliance level with all GSTC recognised criteria, while the Bronze level can already be reached by complying with merely 60% of the criteria, public communication is not fully transparent. Lastly, since the revised Green Destinations Standard does not include indicators, the measurability and benchmarking possibilities for certification users are hampered.

Lastly, in Fairness, significant shortfalls were identified (0,5). The organisation does not feature any guideline to ensure gender and racial equity in its board. While the majority of the organisation's employees are women, the board is mainly composed of men. However, a representative of Green Destinations shared his dissatisfaction about this misrepresentation and

showed interest in implementing such an internal policy. Regarding legal regulations, the criteria of the certification require legal compliance with international and national regulations. Its criteria, however, are not more ambitious than that. Hence, in some cases and countries, compliance with the certification criteria is guaranteed merely by complying with legal regulations.

Overall, Green Destinations does not reach the international benchmark level regarding the management of its certification (1,63).

Certification standard: performance assessment

Overall, the Green Destinations Standard does not live up to the international benchmark level in neither of the three issue dimensions of sustainability. In contrast, it scores well regarding the process requirements. Figure 12 illustrates these results, and the following sections investigate them more closely.

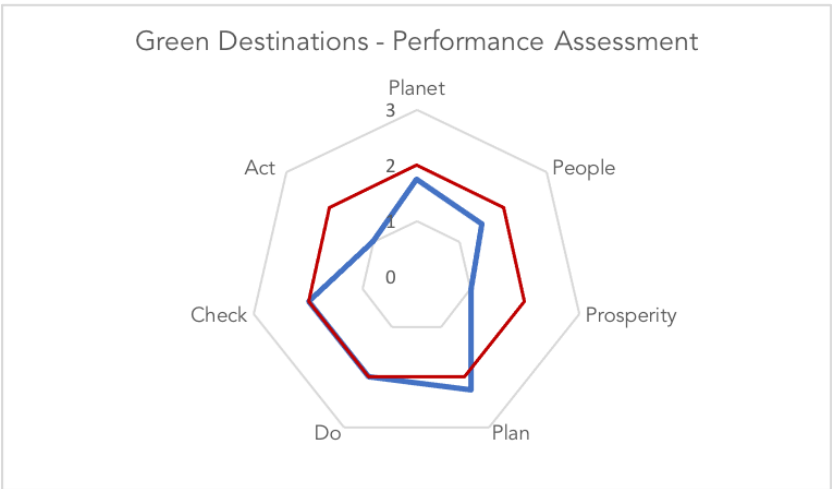


Figure 11: Certification standard performance assessment Green Destinations
 (blue = Green Destinations scores, red = international benchmark level)

Impact requirements

While the Green Destinations Standard scores below the benchmark level in all three issue dimensions, it scores comparatively well in the planet dimension (1,75). The majority of criteria meet the international benchmark level, with a few exceptions in both relevant endpoints. Regarding natural resources, the certification criteria ensure the measurement of energy and water consumption and waste management. However, water consumption reduction is only covered as an optional criterion, implying that non-conformity does not affect the destinations final score. In contrast, Green Destination's energy criteria are more comprehensive, including increasing renewable energy and reducing fossil fuel reliance. Criteria targeted at tourism enterprises within the destination were found to be phrased less stringent, using formulations such as 'encouraged to'. Hence, the criteria do not guarantee an actual minimum performance of the businesses. This shortcoming is further hampered by the lack of clear performance criteria tying the certification to a specific minimum threshold for each criterion. Green Destination consciously does not employ such performance thresholds; therefore, the certification does not give a complete insight into the quantitative performance of a destination.

Regarding the natural environment, the standard includes sufficient criteria on air and noise pollution. However, visual pollution is only addressing light pollution, while scenery is included as an optional criterion. Furthermore, the standard does not ensure measures for biodiversity but covers wildlife, animal welfare and nature conservation. A destination may opt for 'not applicable' for the wildlife criteria, which prevents the destination from scoring negatively if it does not have any wildlife interactions, such as an urban destination.

In the people dimension, the scheme has significant gaps regarding the worker well-being. While it includes criteria ensuring equal employment and training opportunities for all, it does not directly address the working conditions in local tourism businesses. These issues are reflected in the overall score in this dimension (1,47). Nevertheless, community livelihood is covered sufficiently by the standard.

In the prosperity dimension, the certification scores relatively low (1,16). While it fosters social stability by ensuring the priority of local producers and suppliers, it does not cover the seasonal dependency of tourism offers which is of particular importance for Alpine destinations. Albeit formerly being included in the first version of the standard, seasonality was removed in its revised version. This decision was made due to Green Destination's self-conception, not wanting to prescribe destinations any strategies regarding the seasonal distribution of visitors. Instead, the new standard includes a criterion regarding the management of visitor pressure in account of the needs of the local economy, community and environment. Lastly, there are slight gaps concerning the extent to which fairness in the economic system is ensured. While fair and transparent communication strategies are required of certified destinations, fair contracts with suppliers and fair competition are only included as an optional criterion.

Overall, the Green Destinations certification scores 1,47 on the impact requirements and hence does not live up to the international benchmark level.

Process requirements

In the process requirements, the standard scores better than in the impact requirements, with an overall score of 1,81. As Figure 12 illustrates, particularly the first three stages of the PDCA cycle are well represented in the Green Destinations Standard. In the Plan-stage, it exceeds the

international benchmark level (2,25) on Policy and Responsibility & Authority while scoring slightly below in terms of the intensive analysis of the initial situation. While the scheme requires destinations to identify their sustainability status quo as a first step of the certification process, it is left to each destination to what extent this occurs in collaboration with stakeholders. The implementation plan, however, is defined collectively, and political commitment is formally ensured. Furthermore, Green Destinations requires the destination to appoint a responsible person that is sufficiently trained or experienced in sustainability issues.

In the Do-stage, the scheme meets both requirements regarding regular monitoring of strategy and output and precise documentation. For this documentation, the Green Destinations Assessment & Reporting System provides a clear overview and enables a destination to assign responsibilities to the various tasks. Hence, the standard meets the international benchmark level (2,0).

In the Check-stage, the standard also lives up to the international benchmark (2,0). Furthermore, it includes criteria for regular review and evaluation of the objectives and targets of the policy and action plan and their implementation. Furthermore, the sustainability monitoring system is regularly reviewed. Besides, the sustainability management system and action plan implementation, a destination must undergo an independent audit by a Green Destinations auditor every two years.

Lastly, the scheme scores below target in the Act-stage (1,0). Once a destination has received the full GSTC certification, Green Destinations does no longer demand continual improvement. Similarly, a destination receiving the Bronze award is not obligated but merely invited to improve its performance to receive the Silver and Gold award and eventually becoming certified with the GSTC recognized certification. Hence, continual improvement is stimulated but not ensured. Nevertheless, in partial compliance with one of the criteria, a destination may receive the opportunity and obligation to take corrective actions, to prevent a termination of the certification or award.

On average, Green Destination scores 1,81 on the process requirements and does not entirely live up to the international benchmark standard.

Standard indicators: quality assessment

Green Destinations is moving away from indicators with the second version of its standard. For that reason, the focus of the quality assessment was adjusted to these circumstances and was based on the criteria of the standard. The majority of indicators relate to the presence of a policy document but do not specify requirements for such a document. In addition, the auditors are required to verify the implementation during the on-site audit. For that purpose, the certification procedure prescribes the auditor to execute confidential stakeholder interviews and collect anecdotal evidence of implementation. Due to limited auditing time, which takes five days for the Green Destination certification, this procedure allows a probing and identifying the most pressing issues rather than a complete detailed assessment. Furthermore, Green Destinations' decision to move away from quantitative indicators as benchmarks is negatively reflected in its score in the performance assessment and was not considered on this assessment level to prevent a double evaluation.

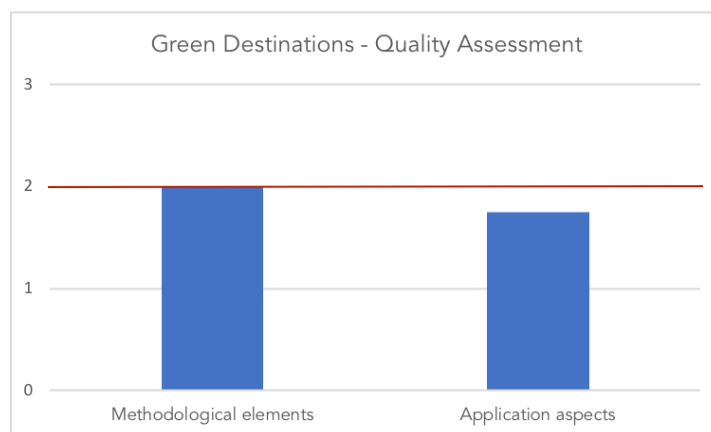


Figure 12: Standard indicator quality assessment Green Destinations

(blue = Green Destinations scores, red = international benchmark level)

Figure 13 illustrates Green Destinations' scores in the quality assessment. In terms of the methodological elements, the Green Destinations criteria meet the scientific benchmark requirements for indicator construction (2,0). The criteria link to all three dimensions of sustainability and cover the critical dimensions of sustainable tourism. However, in the criteria catalogue, little emphasis is placed on implementing the policies in each issue dimension. The interview sheds light on the standard application, which ensures that destinations implement their strategies and policies. A destination scores lower if the implementation cannot be proven and needs to live up to its promises until the next audit two years later. In the interview, Green Destinations clearly stated that to be certified, the destinations need to provide evidence of their compliance and implementation of the criteria.

Regarding the final result, all six themes of the standard weigh equally. However, since two of these themes deal with environmental and climate issues, the planet dimension is represented with a more significant number of criteria than the other two dimensions. Additionally, Green Destinations follows a justified and systematic method for the normalisation and aggregation of its criteria. Moreover, the criteria have an adequate scope, and the required data is easy to measure.

In terms of its application, the standard does not entirely live up to the scientific benchmark requirements (1,75). While the standard scores well in terms of transparency, clarity and participation, shortfalls were found regarding the responsiveness of the criteria. Furthermore, due to their qualitative character, the criteria are not as responsive as quantitative indicators. Lastly, criteria are developed and revised in consultation with key stakeholders and feedback from certified destinations, expert organisations and auditors. Overall, the Green Destination standard performs well in the quality assessment (1,88).

Overall score

Overall, the Green Destinations certification scores 1,72. Table 14 provides a summarised overview of the scores and weighing percentages for each assessment level and criterion. With its overall score, the standard does not live up to the international benchmark level.

Table 14: Green Destinations assessment overview and final score

Theoretical Domain	Score [0-3]	Category Weight	Assessment Level Score [0-3]	Level Weight	Total Score [0-3]		
A – Certification Body [Management]							
A.1 Legitimacy & Voice	2,33	6,67%	1,63	33,34%	1,72		
A.2 Direction	1,67	6,67%					
A.3 Performance	2	6,67%					
A.4 Accountability & Transparency	1,67	6,67%					
A.5 Fairness	0,5	6,67%					
B – Certification Standard [Performance]							
B.1 – Impact requirements							
B.1.1 Planet	1,75	5,56%	1,47	1,64		33,34%	
B.1.2 People	1,5	5,56%					
B.1.3 Prosperity	1,16	5,56%					
B.2 – Process requirements							
B.2.1 Plan	2,25	4,17%	1,81				
B.2.2 Do	2	4,17%					
B.2.3 Check	2	4,17%					
B.2.4 Act	1	4,17%					
C – Standard Indicators [Quality]							
C.1 Methodological elements	2	16,67%	1,88	33,34%			
C.2 Application aspects	1,75	16,67%					

6.1.4. Final observations

With its broad portfolio including various certifications and awards, the organisation aims to enable an easy entry for destinations. Destinations starting up their sustainability journey can receive the Bronze award with comparatively little effort due to its lower stringency compared to the certification. While this has shown to increase the uptake of the standard (see Table 13), the low stringency decreases its impact. The interview with Green Destinations made clear that the step from the Gold or Platinum level award to the GSTC Recognised certification is a big one for many destinations. This hurdle exists due to the difference in costs between the award and the certification level. The organisation acknowledges that additional incentives might be needed to stimulate the continuous improvement of destinations sustainability performance.

Furthermore, Green Destinations recently formed a platform of representatives for the DACH region. The network of independent consultants and Green Destinations representatives aims to make the Green Destinations criteria more accessible for Alpine countries. An interview with one independent representative emphasised challenges related to the language barrier due to the English criteria and the lack of context-specific criteria. The organisation currently develops Alpine-specific criteria as a benchmark for mountain destinations in collaboration with Alpine Stakeholders and tourism consultants. Lastly, Green Destinations currently tests and advances its Good Travel Seal in collaboration with the Austrian Ecolabel and the Alpine Convention, enabling tourism businesses to receive certification. The organisation is aiming to promote a close collaboration between its two certifications. Due to the collaboration with Alpine stakeholders, context-specificity is intended to be improved.

6.2. TourCert

6.2.1. Introduction to the standard

TourCert is a non-profit private limited company (gGmbH) founded in 2009. Besides its three offices in Germany, where it operates with a small team of 10 people, the TourCert System is currently being expanded to other countries and contexts. The particular focus of this expansion lies on Latin America, where TourCert has two offices in Ecuador and Peru. With its network of Preferred Partners in 6 countries, the organisation is building a growing community of representatives. TourCert Preferred Partners are other organisations in tourism consulting and auditing that represent the TourCert system and take over advisory and auditing roles in various cities and countries. While the TourCert Standard for Businesses is GSTC-Recognized, TourCert presently aspires to also have its destination standard recognized. From the beginning, the organisation based its standard on international benchmark standards such as ISO, EMAS and the GSTC. The TourCert consultancy and certification system considers the entire tourism service chain and is designed to be internationally applicable. The main emphasis of the system lies on the process and continuous improvement of a destination.

The majority of the certification costs are due for the process support during the introduction of the standard. Intense consultation, workshops and on-site visits cost 19.350€ and the audit and certification an additional 4.500€. On top of that, destinations are obliged to pay a yearly fee of 4050€.

6.2.2. Functioning and uptake of the certification

Functioning of the certification

The TourCert Standard is built around eight main themes: Management Strategy & Planning, Management Sustainable Offer Development, Economic Security, Local Prosperity, Environmental Protection and Landscape Conservation, Resource Management, Culture & Identity and Common Good & Quality of Life. The criteria catalogue subsumes 53 basic criteria in total, including 17 criteria regarding the management of a destination, six prosperity related criteria, 19 environmental ones and 11 social ones. Only 13 of the total 53 basic criteria are obligatory. For each criterion, where applicable, TourCert refers to the equivalent GSTC criterion. Further, the catalogue indicates which actor in the destination is responsible for the criteria. Responsibility is shared amongst the DMO, the sustainability council appointed by the DMO and those tourism partner businesses that committed to sustainable development. Businesses can become partner businesses if their services are mainly targeted at tourists and contribute to the leading share of their total revenue. Moreover, they need to be committed to the sustainability process of the destination. Therefore, they have completed TourCert Qualified, involving making an inventory of the business's sustainability status quo or being certified with a recognised environmental or sustainability certification such as EMAS, ISO 14001, the EU Ecolabel or other known ecolabels for tourism businesses (for the complete list of recognised certifications, see Appendix 3a). Alternatively, the tourism businesses can become directly certified by TourCert. Moreover, partner businesses must appoint a sustainability representative and sign a sustainability agreement with the DMO. In addition, they are obliged to yearly hand in surveys of their electricity and heat energy usage and yearly updated list of improvement

measures. Since TourCert certifies the DMO, that organisation also has the primary responsibility for all criteria.

Besides the standard criteria, the TourCert standard includes 11 additional core indicators to compare the destination's performance with industry benchmarks. Table 15 provides an overview of the core indicators.

Table 15: Core indicators TourCert Destinations Standard (TourCert, 2016)

No.	Core indicator	Unit
1	Share of recognised partner businesses	%
2	Share of certified service providers in tourism	%
3	Bed occupancy in accommodation	%
4	Average CO ² emissions from energy usage of accommodation (partner businesses)	t
5	Share of renewable energy from total energy usage (partner businesses)	%
6	Index destination rating on DMO-level	%
7	Index destination rating destination level	%
8	Index product rating	%
9	Share of service providers with recognition "Travel for everyone" (Reisen für alle)	%
10	Share of service providers in tourism with quality recognition	%
11	Share of regionally produced, organic and fair products in the DMO	%

The first core indicator gives the share of recognised partner businesses. For the second core indicator, all service providers certified with one of the recognised environmental or sustainability schemes are counted. The indices of core indicators six to eight are based on survey data generated by the DMO. For each survey, each answer receives points which are weighed and compiled into an index. Core indicator six is based on survey results of all DMO employees and all employees with direct client contact. Like this, TourCert aims to capture the visitor perspective as well. In addition, a representative selection of business partners is queried. For core indicator seven, a representative selection of tour guides is surveyed. Besides, the product rating indices are based on the rating of one marketed product or offer. For that purpose, a question catalogue is filled in by employees of the DMO and tourist information who are responsible for the offer development. Core indicator ten gives the share of service providers with a recognised quality label. TourCert does not specify a list of recognised quality labels but considers all international and national quality labels as well as more regional ones. These core indicators are weighed in a systematic and justified way to ensure comparability. While the standard criteria serve to guide the process to becoming a more sustainable destination, they only have informational purposes in the certification decision. The core criteria, in contrast, are in the focus of this decision. Due to the comparison with industry benchmarks, they further serve to ensure a minimum sustainability performance level.

As an alternative to its certification programme, TourCert offers a qualification programme, which enables destinations to take the first step towards becoming more sustainable. TourCert Qualified is more affordable than the certification and can be achieved in a much shorter time frame. Starting with a self-commitment declaration, TourCert Qualified involves a two-to-three-week training of a sustainability manager. This manager then leads the TourCert self-check. Based on that, the destination is obliged to identify at least three concrete measures for improvement which need to be submitted to TourCert. These measures need to be updated and expanded every year. The Qualification process is finalized with an online audit, upon which the destination receives a certificate stating their TourCert Qualified status.

Certification procedure

Figure 14 provides an overview of the organisational structure and the certification procedure with the TourCert Standard. The certification procedure is initiated with a certification agreement between TourCert and the destination. The procedure may only be started once sufficient tourism stakeholders within the destination came together around a shared vision of leading the destination towards more sustainable tourism. Once this was successful, the DMO appoints a destination sustainability council of various representatives from the destination. While the DMO is responsible for the managerial aspects of the process led by its sustainability manager, the sustainability council takes a more strategic role. It is responsible for developing a tourism strategy for the destination, implementing all criteria, and developing an improvement programme. Furthermore, it invites all tourism businesses to become partner businesses. Led by the DMO sustainability manager, the destination actors then conduct an inventory of the sustainability status of their destination. The TourCert Certification System and Online Tool guide this process. In the next step, an introductory and strategy workshop is held for all tourism stakeholders, led by an advisor from the TourCert Preferred Partners network. This advisor guides the process up to an internal audit that verifies the destinations compliance with the TourCert Standard. The DMO is responsible for generating the necessary data regarding the basic and core criteria in that process. Once this first audit is completed successfully, a third-party auditor executes an on-site audit to guarantee independence. The auditor then issues an audit report, including the destination's performance in the basic and core criteria. Based on the audit report, the honorary TourCert Certification Committee makes the final decision over the certification.

The certification is valid for three years. Before the end of this cycle, the destination restarts the process by doing a new inventory, collecting indicator data and carrying out surveys. TourCert does not require a certain minimum threshold of how much a destination must improve from the first certification to re-certification. However, re-certification requires the destination to execute additional surveys, such as visitor survey, business partners and tour guides.

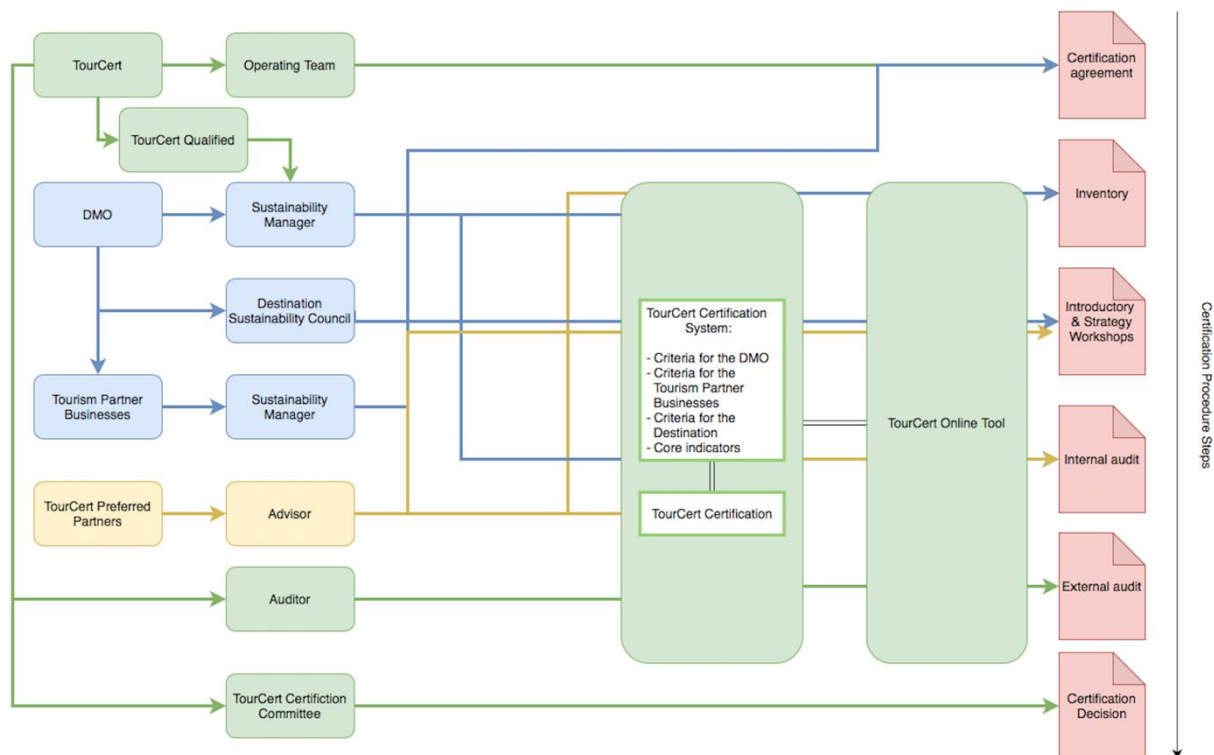


Figure 13: TourCert Destinations organisational structure and certification procedure

[Field & line colour coding according to affiliated actor group: green = certification organization; blue = destination; yellow = certification organization partners/representatives. Red fields = certification procedure steps.]

Compliance level and uptake

The TourCert Certification does not require a certain minimum compliance level. Instead, the decision is made based on the destination's relative performance compared to industry benchmarks in the 11 core criteria.

Overall, 37 destinations and municipalities are certified or qualified based on the TourCert Destinations Standard. Table 16 provides an overview of the relative share of all sorts of certifications and qualifications based on that standard. The majority of destinations are German, with 13 certified and 13 qualified destinations. The other destinations are all Latin American, with two certified destinations in Costa Rica, one in Ecuador and 2 qualified destinations in the Dominican Republic. Furthermore, three Ecuadorian municipalities are certified, and three more TourCert qualified. Thus, overall, the slight majority of the destinations and municipalities are TourCert *certified* (43,24% + 8,11%).

Table 16: Relative share of sorts of certifications/awards using the TourCert Standard (n=37)

Type (Certified/Qualified)	No. of qualified/certified destinations/municipalities (*)	Geographical scope of uptake	Relative share of sorts of certifications/qualifications within the TourCert System [1]
TourCert Destination Certified	16	Germany, Costa Rica, Ecuador	43,24%
TourCert Destination Qualified	15	Germany, Dominican Republic	40,54%
TourCert Municipality Certified	3	Ecuador	8,11%
TourCert Municipality Qualified	3	Ecuador	8,11%
Total (**)	37		100%

[1] = */**

6.2.3. Systematic assessment

The following three sections present the results of the assessment of the TourCert Destinations Certification based on the systematic assessment framework presented in section 4.4. The detailed assessment results can be found in Appendix 3.

Certification body: management assessment

Figure 15 illustrates a summary of the results.

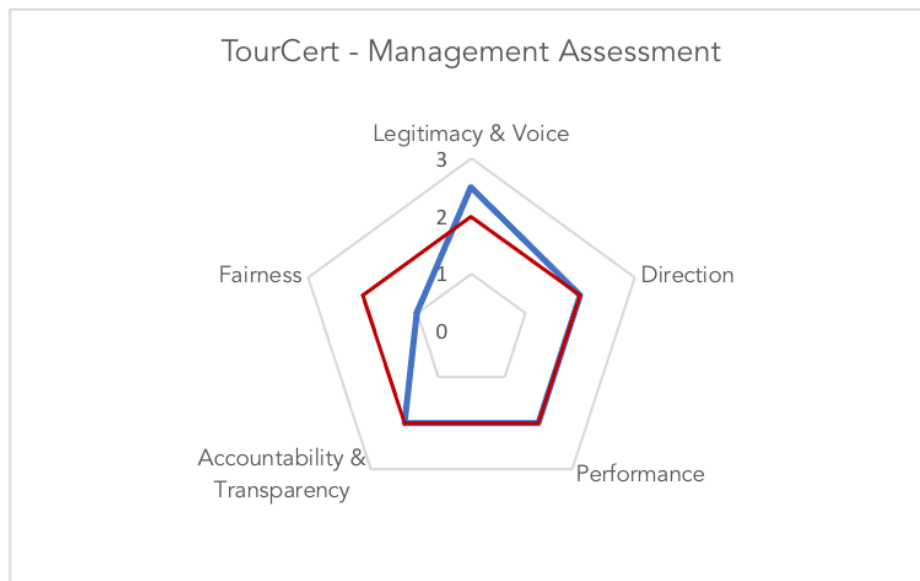


Figure 14: Certification body management assessment TourCert

(blue = TourCert scores, red = international benchmark level)

In Legitimacy & Voice, TourCert exceeds the international benchmark level (2,5). The certification body lives up to the international benchmark in all criteria and exceeds it in three criteria of this category. First of all, in terms of neutrality and impartiality, the certification body performs exceptionally well. TourCert ensures its impartiality in the certification process through its independent, voluntary expert and decision-making authority, the honorary TourCert certification committee. This committee is responsible for the final certification decision and the accreditation of the third-party auditors, thereby ensuring TourCert's impartiality in the process. Being composed of representatives from academia, NGOs, tourism industry, economic, environmental and social associations, the certification committee further guarantees a high stakeholder involvement in the certification process. The committee declared tourism industry stakeholders as extraordinary members, not entitled to participate in individual certification decisions to maintain its neutrality. Due to its independent role, the certification committee further validates the audit.

In Direction, TourCert meets the international benchmark level (2,0). Through its regular exchange with experts and practitioners from the field, TourCert considers recent findings and new developments on the international level in its processes and standard. While this also scientifically grounds the criteria catalogue, TourCert does not consider a materiality analysis in *weighing* the criteria. Since the main certification decision is based on the core criteria that aim

to represent all three issue dimensions of sustainability, no indication could be found about the scientific basis of this selection. TourCert balances this underperformance with its broad recognition of and reference to other sustainability standards. Many international certification schemes for tourism businesses are embedded in the TourCert system as proof of commitment to the sustainability of the partner businesses.

In Performance, TourCert meets the international benchmark level (2,0) in all three criteria. With its process emphasis, the certification body offers several support options. Through TourCert Qualified, these options are also available at a low entry barrier for destinations merely *interested* in the certification. In an exchange with its certification committee, the organisation further monitors its system's impacts, aiming for continuous improvement.

In Accountability & Transparency, TourCert likewise lives up to the international benchmark level (2,0) in all criteria. Since it does not offer a multi-tiered certification, criterion A.4.8 was not included in the final score. Overall, the certification body is very transparent. All information regarding the legal status, organisational structure, contractual arrangement and cost structure are shared publicly on the TourCert website. Likewise, the website and publicly available documents offer a complete insight into the use of the certification, certification process, regulation for recertification and termination, complaint management and register of certified entities.

Lastly, in Fairness, the organisation does not meet the international benchmark level (1,0). While it meets the benchmark level regarding exceeding and referring to legal requirements, it does not include any guidelines ensuring gender and racial equity in its Board membership. Nevertheless, the TourCert operating team and Board is mainly composed of women, despite the lack of such a guideline.

Overall, TourCert almost meets the international benchmark level in terms of its certification management (1,90).

Certification standard: performance assessment

In the performance assessment, the TourCert Standard does not live up to the international benchmark level in neither of the three issue dimensions of sustainability. In contrast, it scores well regarding the process requirements. Figure 16 illustrates these results, and the following sections investigate them more closely.

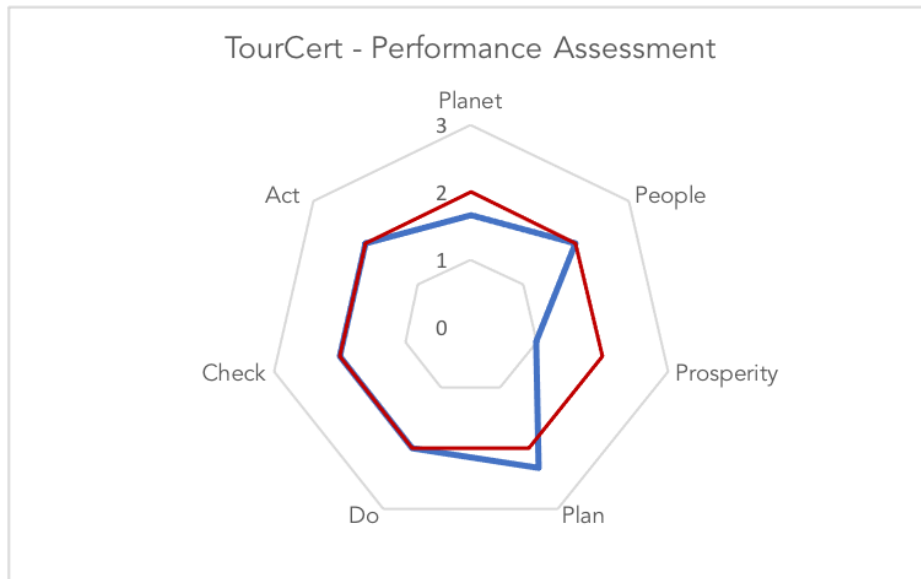


Figure 15: Certification standard performance assessment TourCert Destinations

(blue - TourCert scores, red - international benchmark level)

Impact requirements

In the planet dimension, the TourCert Standard does not meet the international benchmark level (1,66). Regarding natural resources, the standard covers water management to a broader extent than energy management. While the latter is only included in one criterion and does not ensure energy conservation measures, the former targets water conservation. Regarding the natural environment category, the standard comprises general requirements regarding air and noise pollution and biodiversity. In contrast, visual pollution and tourism land use are less targeted.

The TourCert Standard meets the international benchmark level (2,0) in all criteria across both endpoints in the people dimension. It includes requirements ensuring good working conditions and family-friendliness and equal employment opportunities independent of gender, age, ethnicity, origin, religion, or sexual identity. Moreover, it comprises detailed requirements regarding regional cultural heritage & traditions and likewise ensures the promotion of health and safety.

In the prosperity dimension, the TourCert Standard does not live up to the international benchmark level (1,0). While emphasizing local prosperity, the standard does not cover any seasonality related requirements. Concerning fairness in the economic system, the standard assures that the DMO and partner businesses are fair and transparent in their communication. Contracts and competition, however, are not encompassed in the standard.

Overall, the TourCert Standard scores 1,55 in the impact requirements, thereby not living up to the international benchmark level.

Process requirements

In the process requirements, the TourCert standard exceeds the international benchmark level slightly (2,08).

In the Plan-stage, the standard scores particularly well (2,33) due to its intense stakeholder involvement requirements. For example, a destination can only receive certification once local tourism service providers are committed to sustainability. Furthermore, the destination must conduct an inventory, develop an implementation plan and give a political commitment to continuous improvement. All these requirements are reflected as criteria in the standard.

In the Do-stage, the standard lives up to the international benchmark level (2,0) due to its process focus. The obligatory sustainability report ensures that destinations regularly compare their strategy with their actual performance and improvements. Due to the broad involvement of destination stakeholders, clear documentation is required and key to the successful implementation of the TourCert Standard.

In the Check-stage, the standard likewise meets the benchmark level (2,0). The internal audit constitutes an essential part of the destination certification process and is performed by an independent auditor. Similarly, the DMO is required to evaluate its management system regularly.

Lastly, in the Act-stage, the TourCert standard performs according to the international benchmark level (2,0) due to its emphasis on continuous improvement. Improvement measures are obligatory to be taken yearly, both at DMO and destination level.

Standard indicators: quality assessment

Since TourCert uses qualitative criteria and quantitative indicators and indices, the quality assessment was based on all types. However, the main emphasis of the certification decision lies on the core indicators. Hence, these were also the focus of the quality assessment. Overall, the TourCert Standard almost meets the international scientific consensus level for indicator construction (1,93). The results are illustrated in Figure 17.

Regarding the methodological elements, the TourCert Standard scores slightly below (1,86). This score is due to the lack of a systematic weighing process. While the TourCert Standard includes core indicators and criteria for all three issue dimensions covering the central aspects of sustainable tourism, the final decision is based on the core indicators only (Table 15). All standard criteria merely have an informative purpose. Besides, the criteria and indicators cover an adequate scope, and the required data is readily available and measurable. Through its use of surveys, TourCert can collect data that is otherwise very difficult to measure, such as, for example, the touristic expenditures per visitor per day. The indices specified in the core criteria are normalized and aggregated in a justified way, and the indicators and criteria are compiled using a systematic method.

Regarding the application aspects, the TourCert Standard meets the international scientific consensus level in all four criteria (2,0). The indicators are publicly accessible and formulated. Furthermore, the criteria and indicator formulation process underlie an exchange with stakeholders. Lastly, the core indicators respond quickly to changes through being specified in percentages.

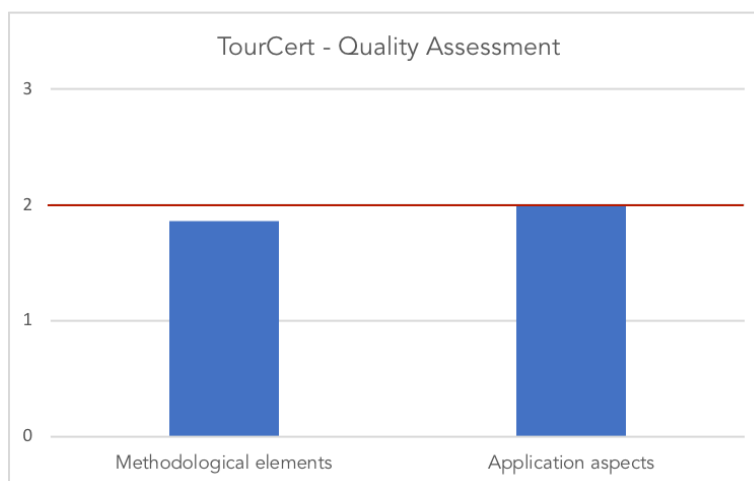


Figure 16: Standard indicator quality assessment TourCert Destinations

(blue = TourCert scores, red = international benchmark level)

Overall score

Overall, the TourCert destination certification scores 1,91. Table 17 provides a summarised overview of the scores and weighing percentages for each assessment level and category. The standard does not entirely live up to the international benchmark level with its overall score, although coming very close to it.

Table 17: TourCert assessment overview and final score

Theoretical Domain	Score [0-3]	Category Weight	Assessment Level Score [0-3]	Level Weight	Total Score [0-3]		
A – Certification Body [Management]							
A.1 Legitimacy & Voice	2,5	6,67%	1,90	33,34%	1,88		
A.2 Direction	2	6,67%					
A.3 Performance	2	6,67%					
A.4 Accountability & Transparency	2	6,67%					
A.5 Fairness	1	6,67%					
B – Certification Standard [Performance]							
B.1 – Impact requirements							
B.1.1 Planet	1,66	5,56%	1,55	1,82		33,34%	
B.1.2 People	2	5,56%					
B.1.3 Prosperity	1	5,56%					
B.2 – Process requirements							
B.2.1 Plan	2,33	4,17%	2,08				
B.2.2 Do	2	4,17%					
B.2.3 Check	2	4,17%					
B.2.4 Act	2	4,17%					
C – Standard Indicators [Quality]							
C.1 Methodological elements	1,86	16,67%	1,93	33,34%			
C.2 Application aspects	2	16,67%					

6.2.4. Final observations

As the preceding sections have shown, the TourCert Standard and certification perform pretty well in the assessment. However, one needs to stress ones more that the final certification decision is based mainly on the core criteria rather than the full criteria catalogue of the standard. This

difference is not directly covered by the assessment framework and hence not reflected in the overall score of TourCert.

Besides, it became apparent that TourCert is actively communicating its process focus. Therefore, the organisation moved from quantitative indicators to qualitative assessments. The interview with a representative of TourCert emphasised that this decision was made based on years of experience in collaboration with different destinations. Since every destination is different, TourCert places less emphasis on the fact that specific threshold values are passed. Instead, the certification values commitment to continuous improvement. To ensure that regardless of a certain standard is met, the core criteria are compared with benchmarks from the industry. In this context, it also needs to be emphasised that TourCert values providing context-specific support to its destinations. Before expanding to a new country or continent, the organisation ensures that TourCert representatives with local knowledge or experience are on the ground. So far, the organisation did not yet expand to the Alpine area.

6.3. Mountaineering Villages

6.3.1. Introduction to the standard

The Austrian initiative Bergsteigerdörfer, or Mountaineering Villages, emerged in 2005 and started to operate in 2008. The Mountaineering Villages do not refer to their initiative as a certification scheme. In the interview, a representative called the initiative a “conservation project”, conserving the heritage of the traditional mountaineering village in the Alps. In literature, it is also referred to as a quality seal or brand (Weiland, 2020) distinguishing destinations with exceptionally high ambitions in natural and cultural heritage preservation. One of the most evident characteristics distinguishing the initiative from other certification schemes is that it is not growth-oriented. Rather than trying to label as many villages as possible, the initiative has very high entry barriers and aims at safeguarding a certain exclusivity of the label. Based on the definitions provided in the glossary of the ISEAL Alliance, however, the label qualifies as a standard and certification. ISEAL defines a *standard* as a document providing guidelines “with which compliance is not mandatory” (ISEAL, 2016, p.4). A *certificate* is defined as a document communicating “that fulfilment of specified requirements has been demonstrated” (ISEAL, 2016, p.3). Hence, in the following chapters, the words certification scheme and standard will be used.

To understand the idea behind the standard, a rough understanding of its history is essential. Over the past 15 years, it developed from a ‘romantic idea’ (Representative of the Mountaineering Villages, personal communication, 23 April 2021) to an Alpine-wide network. Having maintained its original mission, the cultural heritage of Alpinism is still at its centre. Multiple drivers were stimulating the foundation of the initiative. Firstly, following the agreement “Helfen wir den Alpen” (Let us help the Alps) from 1994 in Lienz, the Mountaineering Villages aim to bring together a network of best practices for ecologically oriented tourism forms in the Alps. Furthermore, the initiative represents one implementation project of the Alpine Convention, aiming at sustainable Alpine development and emphasising the heritage aspects mentioned above. Mainly, implementation at the municipality level is put into practice by the Mountaineering Villages. By targeting a particular type of village, the main driver of the initiative is to preserve the unique Alpine places of silence, high biodiversity, hospitality and Alpinism.

Due to increased exposure to demographic risks such as an ageing population and increasing migration, more of these original places are tempted to follow classical mass tourism strategies. Such strategies promise profits but come at the cost of the cultural and natural heritage they are based on. With the ambition to strengthen the Alpine heritage's authentic character and make it consumable (Weiland, 2020) the Alpine Associations aim to represent an opposite pole in the increasingly growth-oriented developments in Alpine tourism. To give their conservative ambitions a face and turn from mere 'preventers' (Representative of the Mountaineering Villages, personal communication, 23 April 2021) to concrete implementors, the Mountaineering Villages regard themselves as a 'peer group for species protection' (Representative of the Mountaineering Villages, personal communication, 23 April 2021). The type the initiative aims to protect is the particular traditional Alpine village, as described above. This focus is reflected in the criteria catalogue, emphasising values such as nature and landscape.

The villages are required to pay an annual fee that is composed of two parts. The first part is a base fee, which is topped with a fee based on the last year's overnight stays. In the interview, a representative of the initiative indicated that most destinations arrive at a fee between 700€ and 4200€.

6.3.2. Functioning and uptake of the certification

Functioning of the certification

The standard is structured around three different types of criteria. The first criteria that are investigated are the exclusion criteria. These four criteria are rigid criteria and crucial when a village first aims at becoming a Mountaineering Village. Once an exclusion criterion applies to a village, the village is not considered for further investigation. Moreover, these criteria are reconsidered once profound infrastructure changes were made that threaten the village's general integrity. The main aspects leading to exclusion from the standard are insufficient tourism infrastructure, minor Alpine landscape character, landscape damage or dominance of technology, no village character or being located next to a highspeed transport route, such as highways or airports. These criteria are further specified, including qualitative requirements and quantitative threshold values, like the minimum altitude of the village.

The second category of criteria is the core criteria. These criteria are basic requirements that all Mountaineering Villages need to fulfil. If a village fails to fulfil them, it receives the opportunity to improve. In contrast, if a newly certified village departs from the core criteria, this can lead to exclusion. The core criteria concern tourism quality, Alpine competence, village scape quality, landscape quality, mobility and cooperation quality. Each of the five core criteria includes further requirements. For example, one requirement regarding landscape quality states that the village is obliged to forego any new ski area developments or expansions. In addition, the core criteria involve impact and process requirements. The first four mainly emphasize impact issues, while the fifth criterion on cooperation quality focuses entirely on process issues. Lastly, the target criteria serve as an additional qualification for Mountaineering Villages. They involve additional requirements regarding tourism quality, Alpine competence and landscape quality, and cultural and regional heritage.

Certification procedure

Figure 18 provides an overview of the certification procedure and organisational structure of the Mountaineering Villages. The certification procedure is initiated by a written informal statement of interest of the municipality to the national project team of the Mountaineering villages. That team then conducts a pre-screening based on the exclusion criteria. If the municipality screening is negative, the municipality receives a reasoned rejection. If the screening is positive, an on-site audit is executed based on the core and additional criteria. This audit is likewise lead by the national project team. Throughout the whole process, an advisor from the international steering committee can be consulted if required. Followingly, the audit report is filed and shared with the international steering committee, which then issues a written statement with the final decision. If the decision is negative, the municipality receives a reasoned rejection. If it is positive, the support process is inaugurated. Together with the municipality and local inhabitants, the national project team organises a first informational session to inform local inhabitants and inquire about their opinions and perspectives. If the local inhabitants are not favouring receiving the label, the process is not further pursued. If they show interest, the village receives the opportunity to present themselves to the Mountaineering Villages national project team and advisor. Finally, the villages issue their application and the audit report to the international steering committee for the final decision. Admission decisions are made at the second annual meeting of the international steering committee. If the admission decision is positive, a municipal council resolution is requested. With this formal statement, the process is officially finished. A village working group is established, and communication materials for the website are created. The certification is finalised with a declaration and statement of commitment on the part of the village.

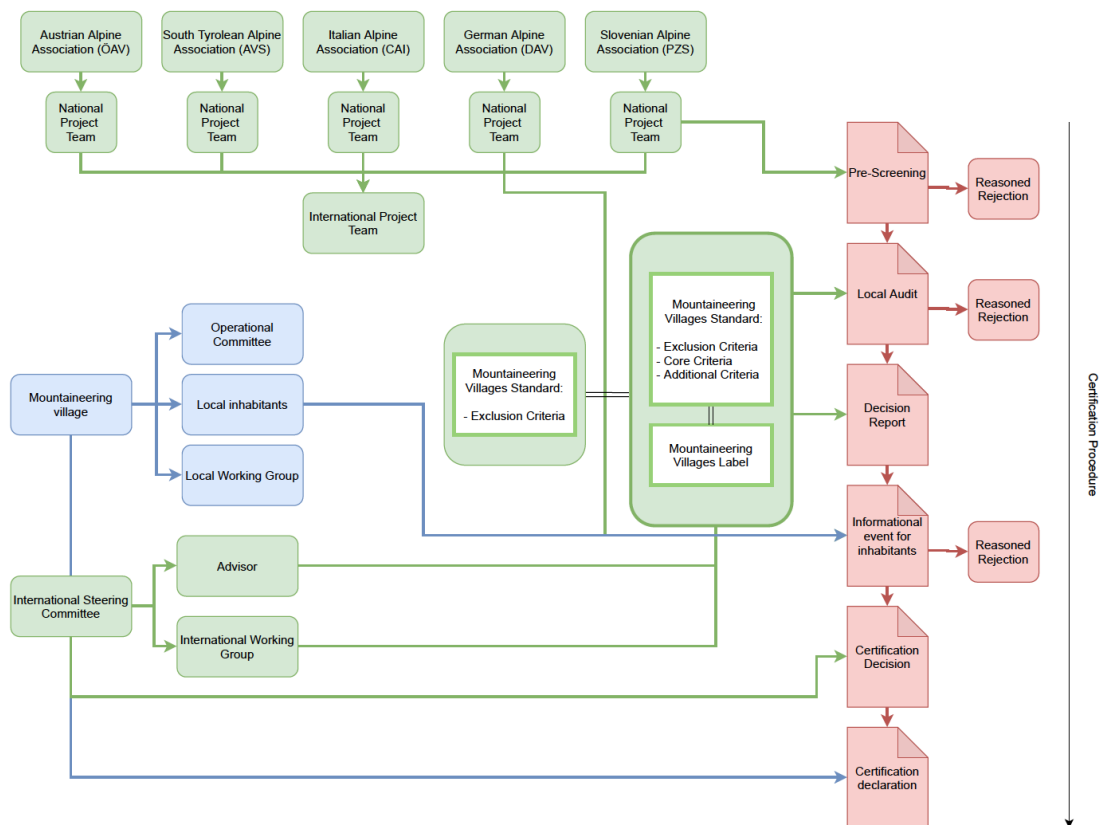


Figure 17: Mountaineering Villages organisational structure and certification procedure

[Field & line colour coding according to affiliated actor group: green = certification organization; blue = destination; yellow = certification organization partners/representatives. Red fields = certification procedure steps.]

Uptake

Overall, there are 29 Mountaineering Villages, the majority of which in Austria, with 20 villages. In addition, four villages are in Germany, three in Italy and two in Slovenia. Switzerland does not have any Mountaineering Villages, yet. However, the interview with two representatives of the initiative indicated that Swiss villages were currently aiming to become part of the Mountaineering Villages.

6.3.3. Systematic assessment

The following three sections present the results of the assessment of the Mountaineering Villages Certification based on the systematic assessment framework presented in section 4.4. The detailed assessment results can be found in Appendix 4.

Certification body: management assessment

Figure 19 illustrates the scores of the Mountaineering Villages in the five good governance categories.

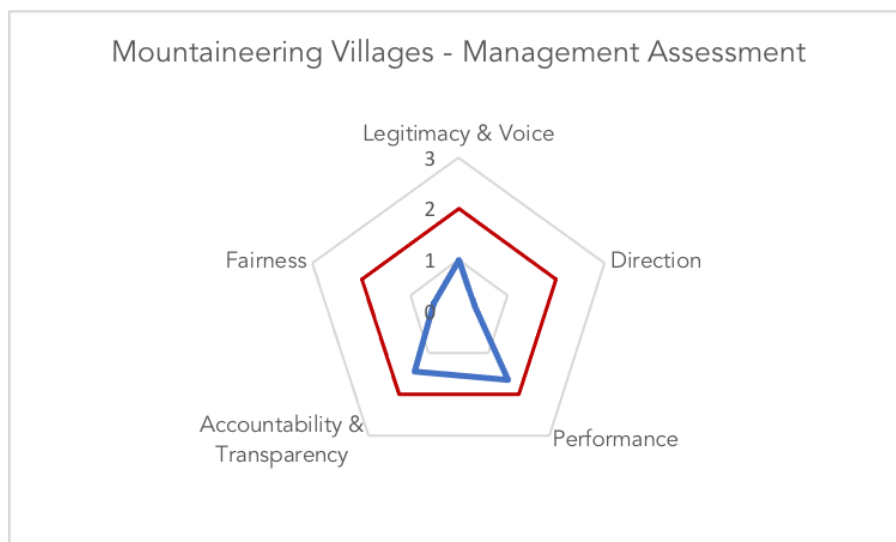


Figure 18: Certification body management assessment Mountaineering Villages

(blue = Mountaineering Villages scores, red = international benchmark level)

In Legitimacy & Voice, the Mountaineering Villages do not meet the international benchmark level (1,0). The majority of criteria score below, except for stakeholder involvement and the standard assessment methodology. The interview made clear that the Mountaineering Villages are consciously not neutral and impartial towards which destinations to certify and which ones not to. This subjectivity further becomes evident when having a closer look at the wording used in internal procedures. Rather than naming it *certification procedure* for destinations, it is referred to as the *new admission of villages into the partnership*. This admission procedure follows a standardised methodology which also includes correcting measures in case of non-conformity. However, the most crucial difference to a classical certification scheme is that the Mountaineering Villages do not use a third-party audit. While the international steering group makes the final admission decision, the first assessments are based upon the judgement of the national project teams, constituted of employees and local representatives of the Alpine

Associations. However, according to the interview with two representatives, the initiative aims to change this and introduce a mixed assessment commission to issue a recommendation on which basis the international steering group would make the final decision. Such a commission would be composed of representatives of all Alpine associations and voluntary and professional employees of the Mountaineering Villages.

Regarding Direction, the initiative scores far below the international benchmark level (0,33). Having used the same standard for 15 years, the initiative recently started reviewing some of its criteria regarding current events and European politics. One prominent example of this are challenges related to the big water reservoirs used for hydropower purposes that have been increasingly spreading over the Alpine countries. Based on top-down European decisions, some Alpine countries have hardly any valley that is not affected by extensive renewable energy infrastructure. While the Mountaineering villages understand the necessity of such infrastructure as part of the European energy strategy in light of the Paris Agreement, such reservoirs constitute a clear non-conformity with their exclusion criteria. Hence, the initiative contemplates updating some of its core criteria regarding scientific and political developments. Nevertheless, the criteria catalogue is not based on any materiality analysis, and the system does not interact with or refer to other sustainability standards. Furthermore, the criteria demonstrate the unmistakable touch of the Austrian Alpine Association that founded the initiative. This touch is reflected in the high emphasis placed on Alpine sports and Mountaineering tourism.

Regarding Performance, the Mountaineering villages score better but still below the benchmark level (1,66). The initiative engages in regular impact assessments and involves stakeholders in this process. Destinations are mainly supported through on-site visits and citizen assemblies. The initiative follows the subsidiarity principle, leaving the destinations much freedom in their development as long as compliance with the exclusion and core criteria is ensured.

In Accountability & Transparency, the Mountaineering villages meet the international benchmark level in the majority of criteria. However, the legal status, organisational structure and costs of admission are not sufficiently transparent. Hence, overall, the international benchmark level is not reached (1,45). The initiative does not have a standardised complaint mechanism but handles those on a trust basis. Furthermore, the criteria are only to a limited extent suitable for benchmarking purposes. Many criteria do not state an absolute threshold value but are instead based on a yes/no assessment. Only a few of the criteria generally include indicators. The interview emphasised that the assessment is rather qualitative than quantitative, where sometimes even ‘gut feeling decides’ (Representative of the Mountaineering Villages, personal communication, 23 April 2021).

Lastly, the Mountaineering village criteria do not refer to any legal requirements, thus not performing particularly well in terms of fairness (0,5). The strict core criteria, however, partly exceed legal regulation and can be regarded as ambitious. As a small initiative, it further does not comprise any equity-related guidelines regarding its board membership.

Overall, the Mountaineering villages perform below the international benchmark level regarding its certification management (0,99).

Certification standard: performance assessment

In the performance assessment, the Mountaineering Villages Standard does not live up to the international benchmark level in neither of the three issue dimensions of sustainability. In

contrast, it scores well regarding the process requirements. Figure 20 illustrates these results, and the following sections investigate them more closely.

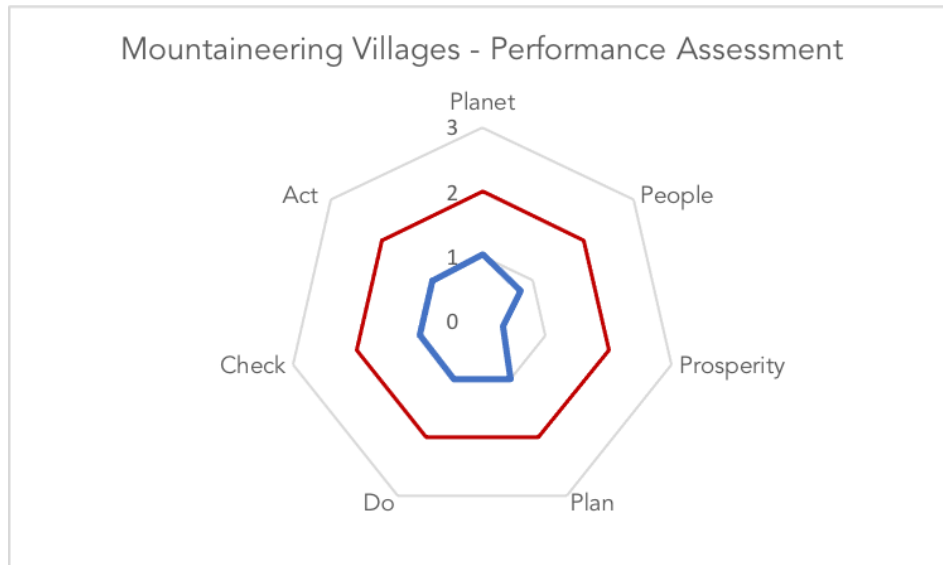


Figure 19: Certification standard performance assessment Mountaineering Villages

(blue = Mountaineering Villages scores, red = international benchmark level)

Impact requirements

The Mountaineering Villages do not live up to the international benchmark level in neither of the three sustainability issue dimensions, leading to an average score of 0,7. Generally, the initiative satisfies one criterion in a very stringent way, thereby exceeding the international benchmark level, or the criterion is not covered at all.

For example, in the planet dimension (1,03), natural resource issues are only included regarding water management, while energy and waste are disregarded. Moreover, the criteria oppose regional renewable energy developments, not from an energy perspective but an infrastructure perspective. Being majorly driven by the ambition to protect the traditional Alpine environment, landscape and village scape, visual pollution and tourism land use are covered in a very stringent way. Emphasis is placed on the typical, Alpine settlement picture, limited industry and number of inhabitants. In contrast, other natural environment criteria, such as air and noise pollution, are only indirectly targeted through requirements regarding reducing carbon-based mobility and distance to highly frequented traffic routes. The standard does not include biodiversity.

The criteria underrepresent the people dimension (0,75). Worker well-being is not included, and neither are health or safety issues. However, regional heritage and traditions are paid particular attention to by the criteria, emphasising Alpine competence, rural development and landscape quality, and regional traditions and products.

Equal to the people dimension, prosperity issues are not sufficiently covered by the Mountaineering Village Standard (0,33). The only criterion that is met on target is local prosperity, which is ensured through granting priority to local producers in suppliers in the partner businesses within each Mountaineering village.

Process requirements

In the process requirements, the Mountaineering villages score far below the international benchmark level (1,0).

In the Plan-stage, the initiative does not live up to the international benchmark level (1,0), although two criteria in this category do. The standard ensures the engagement of the stakeholders involving village inhabitants and local tourism businesses from the beginning. To initiate the process, various actors, including the municipality, tourism actors, the Alpine Association, nature protection initiatives and local inhabitants, need to be committed to the values and criteria of the Mountaineering Villages. The main difference compared to the international benchmark regards the lack of a comprehensive analysis of existing issues and the formulation of an action plan to improve them. In addition, the village is required to appoint a representative of the village that acts as a communicative bridge between the Mountaineering Village initiative and national project groups and the village. Furthermore, political commitment is crucial to finalize the certification process, proven with a formal declaration.

In the Do-stage, the Mountaineering Villages Standard does not meet the international benchmark level (1,0). Both criteria involving the monitoring and documentation processes are somewhat but not fully met. Since the certification does not involve laying out a strategy or sustainability policy, monitoring and documentation are limited.

In the Check-stage, the standard does likewise not live up to the international benchmark level (1,0). The appointed representatives of the village are obliged to take part in regular quality meetings. Furthermore, the quality is ensured through continuous engagement with the local Alpine associations and Alpine convention. However, the management or System reviews are not formally required by the standard.

Lastly, in the Act-stage, the standard underperforms compared to the international benchmark (1,0). Thus, while villages are obliged to improve their performance once they deviate from the core criteria, continuous improvement is generally not at the centre of the standard.

Standard indicators: quality assessment

Since the standard uses a mix of qualitative requirements and quantitative indicators, its quality assessment was based on both types. Overall, the Mountaineering Village Standard does not live up to the international scientific consensus level for indicator construction in the quality assessment (1,18).

From a methodological perspective, there is room for improvement (0,86). Besides the availability & measurability of the data, which meets the international scientific consensus level, the standard scores relatively low on the methodological elements. Regarding the scope, all three issue dimensions of sustainable development are touched upon. The people and prosperity dimension, however, are represented to a lesser extent. Consequently, in terms of representativeness, the criteria and indicators do not fully cover the critical dimensions of sustainable tourism. Furthermore, with the emphasis lying on Alpine competence and natural and cultural preservation, topics such as energy or waste management, biodiversity or worker-wellbeing are underrepresented. Moreover, on the one hand, the indicator and criteria scope are particular to the Alpine context, which increases its relevance for Alpine tourism. On the other hand, it has shortfalls regarding sustainability on the national or international level. One example of this is the initiative's disinclination against technological infrastructure projects, such as

hydropower reservoirs. In that specific case, the standard disregards sustainability measures on a European or national level due to its narrow geographical focus. For that reason, for some of its criteria, the scope is relatively narrow. Lastly, the standard does not follow any systematic method to compile its indicators in terms of reliability. The indicators were developed by the Austrian Alpine Association and have not been changed for over a decade. The interview, however, shed light on the ambitions of the initiative to adjust its indicators to increase topicality.

Regarding the application aspects, the standard performs slightly better (1,25). The indicators are publicly accessible and formulated in simple language. However, the publicly accessible criteria catalogue does not indicate the data source or methods behind the certification procedure. Moreover, the indicators were not developed in consultation with stakeholders. Lastly, the criteria and indicators are very responsive, reacting quickly to changes due to their rigid formulation, which does not leave much room for mediocre performance; either a village meets the criteria, or it does not.

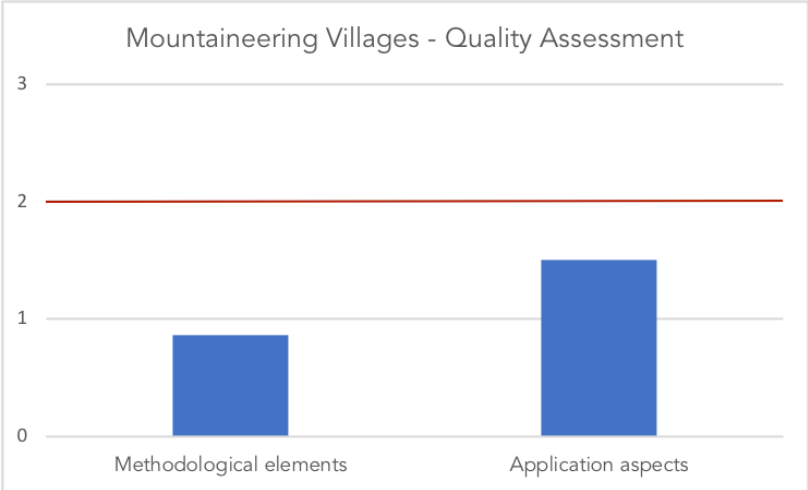


Figure 20: Standard indicator quality assessment Mountaineering Villages

(blue = Mountaineering Villages scores, red = international benchmark level)

Overall score

Overall, the Mountaineering villages certification does not meet the international benchmark level (1,01). Table 18 summarizes the results.

Table 18: Mountaineering Villages assessment overview and final score

Theoretical Domain	Score [0-3]	Category Weight	Assessment Level Score [0-3]	Level Weight	Total Score [0-3]		
A – Certification Body [Management]							
A.1 Legitimacy & Voice	1	6,67%	0,99	33,34%	1,01		
A.2 Direction	0,33	6,67%					
A.3 Performance	1,66	6,67%					
A.4 Accountability & Transparency	1,45	6,67%					
A.5 Fairness	0,5	6,67%					
B – Certification Standard [Performance]							
B.1 – Impact requirements							
B.1.1 Planet	1,03	5,56%	0,70	0,85		33,34%	
B.1.2 People	0,75	5,56%					
B.1.3 Prosperity	0,33	5,56%					
B.2 – Process requirements							
B.2.1 Plan	1	4,17%	1				
B.2.2 Do	1	4,17%					
B.2.3 Check	1	4,17%					
B.2.4 Act	1	4,17%					
C – Standard Indicators [Quality]							
C.1 Methodological elements	0,86	16,67%	1,18	33,34%			
C.2 Application aspects	1,5	16,67%					

6.3.4. Final observations

The interview with two representatives of the Mountaineering Villages reaffirmed that the initiative mainly serves as a 'conservation programme', protecting a particular village type and Alpine heritage. In the light of increasing infrastructure and technology dominated developments in Alpine tourism, the initiative aims to create a countermovement. With its Alpine focus, the scheme operates in a particular context where the heritage that the initiative aims to protect is directly threatened. Hence, the initiative does not come from a neutral standpoint and acts with a particular political interest to build a peer group representing their vision.

Furthermore, the interview shed light on specific secondary effects of the certification that positively impact the destination's sustainability without being operationalised in the criteria. One example of such an effect is biodiversity from the planet dimension. Since the initiative has very stringent criteria on landscape protection, emphasising the preservation of coherent ecosystems, these ecosystems automatically provide living space for many different species. Another example is from the people dimension and concerns the working conditions. In the Alps, the large majority of businesses are small family-owned businesses, mainly employing local people. The interviewees explained that the wages would often be relatively low, but in exchange, employees receive board and lodging at the employer's cost. Nevertheless, these factors cannot be guaranteed, and like always, there are also exceptions.

Additionally, with the scheme being very locally oriented, other issues, such as waste management, are already targeted by Austrian legislation and were therefore consciously not included in the criteria. However, in the past years, the scheme has increased its uptake in other countries, such as Germany, Slovenia, and Italy. Since national legislation differs, a certain Alpine-wide performance is not safeguarded by the Mountaineering Villages certification.

Moreover, the assessment shed light on a conflict of scope, as seen in its beforementioned strong opposition to significant renewable energy infrastructure projects. From an Alpine perspective, such developments threaten the Alpine natural and cultural heritage. However, from a European perspective, these projects are essential to keep up with the Paris Agreement. This disagreement illustrates how the context-specific scheme represents different priorities than a global scheme might defend.

Overall, as a certification scheme, the Mountaineering Villages is very niche. This niche orientation is reflected in the interest to maintain a sense of exclusivity and only certify villages sharing the particular values of the Alpine Associations. Additionally, the initiative places more emphasis on actual impact than on formal correctness. Therefore, many things remain implicit knowledge rather than being operationalised. However, despite its impact orientation, the scheme scored better in the process assessment than in the impact one.

7 Cross-case comparison

The assessment of the three cases resulted in that none of the three certification schemes lives up to the international benchmark level. While each scheme was found to have its particular strengths and weaknesses, this research identified certain commonalities and differences between the cases.

7.1. Average performance

The following table (Table 19) presents the average scores of the three schemes for each category across all three assessment levels. Following the assessment structure, the second assessment level was subdivided into impact and process requirements. In addition, the fourth column indicates the average of all individual scores per assessment category. Hence, each certification schemes' score for each of the theoretical domains was averaged to obtain the numbers displayed in column four. These numbers are very similar to those in column five, which displays the average of the average scores as displayed in column 3. While the relative scoring order of the scores does not differ from one average to the other, the exact numbers for the certification management category show a discrepancy. This difference can be explained by the Simpson's paradox (Simpson, 1951) which's explanation would go beyond the scope of this research. It is merely relevant to note that the only statistically correct averages are depicted in column four.

Table 19: Average performance per assessment category

Assessment Level & Category	Theoretical Category	Average Score	Average of individual scores per theoretical category	Average of average scores
Certification Body [Certification Management Requirements]	Legitimacy & Voice	1,94	1,51	1,26
	Direction	1,00		
	Performance	1,42		
	Accountability & Transparency	1,28		
	Fairness	0,67		
Certification Standard [Impact requirements]	Planet	1,48	1,24	1,24
	People	1,42		
	Prosperity	0,83		
Certification Standard [Process requirements]	Plan	1,86	1,63	1,63
	Do	1,67		
	Check	1,67		
	Act	1,33		
Standard Indicators [Quality requirements]	Methodological elements	1,57	1,66	1,66
	Application aspects	1,75		

As Table 19 shows, the certification schemes perform best in Legitimacy & Voice in the certification management category, almost meeting the international benchmark (1,94). On the certification standard level, the schemes, on average, score lower in the impact categories (1,24) than in the process categories (1,63). Amongst the impact categories, they were found to cover prosperity aspects to a much lesser extent (0,83) than the planet and people issues. In the process categories, all three schemes were discovered to underperform in the Act category (1,33). Lastly, on the standard indicators level, the schemes, on average, perform better in the application aspects (1,75) than regarding the methodological elements (1,57). Overall, the certification schemes score best on the indicator level, with an average of 1,66.

7.2. Sensitivity analysis

Cross-case comparison in four weighing scenarios

Based on the assessment results, a sensitivity analysis was performed to compare the potential effectiveness of the scheme in different scenarios. Figure 22 presents the results of this analysis. The yellow bar indicates the baseline scenario, weighing each of the three assessment levels equally. In the green scenario, most weights were given in equal parts to the certification body and certification standard level while only attributing 10% of the weight to the standard indicator level, ensuring a minimum methodological and application quality. The other two scenarios each give total weight to one part of the certification standard level. In the blue scenario, 100% weight is given to the process requirements, while in the orange scenario, 100% weight is attributed to the impact requirements.

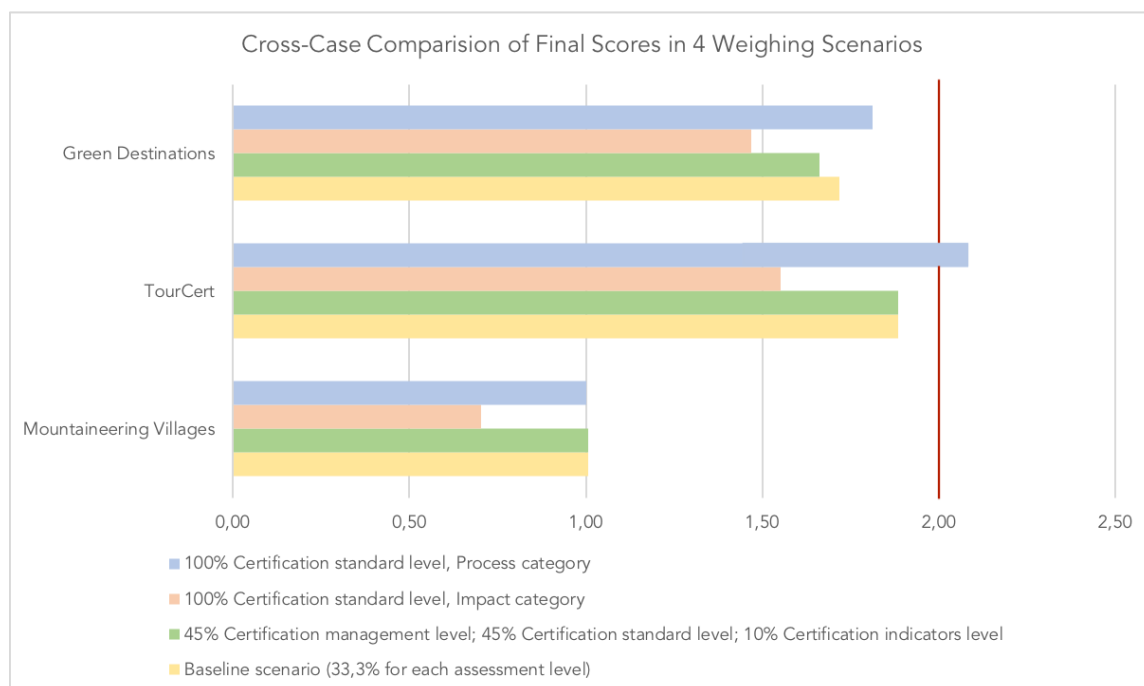


Figure 21: Cross-case comparison in different weighing scenarios

Interestingly, the schemes relative potential effectiveness does not differ across the different scenarios. TourCert remains the frontrunner, outperforming Green Destinations and the Mountaineering Villages in all scenarios. Green Destinations follows as a clear second, while the Mountaineering Villages reach the lowest potential effectiveness in all scenarios. The most considerable sensitivity was observed when giving total weight to the impact requirements. Compared to the other three scenarios, all schemes perform the lowest. This underperformance is reflected in the three schemes average score in the three issue dimensions of sustainability (1,24 – see table 19). In contrast, on average, the schemes performed best when attributing 100% weight to the process requirements. This performance is reflected in the higher average score for the four dimensions of the PDCA cycle (1,63 – see table 19). Both Green Destinations and TourCert perform best in this scenario, with TourCert surpassing the international benchmark level (2,08). The Mountaineering Villages perform slightly worse than in the two scenarios that also include certification management and indicator quality issues.

Case scores and the GSTC

Moreover, this analysis enables a reflection on the global baseline standard provided by the GSTC. While the GSTC standard aims at providing the international benchmark level for sustainability in tourism, the assessment framework used in this research was deliberately designed more comprehensively than the GSTC Accreditation (GSTC-A) and Destination (GSTC-D) criteria. Therefore, certification schemes that are both accredited and recognised by the GSTC might have still not met the international benchmark level in this analysis. However, since many tourism certification schemes look at the GSTC criteria as an international benchmark, it is interesting to perform an additional analysis comparing the schemes' average scores in criteria directly corresponding to GSTC-A or -D criteria with the average scores in the criteria that are not. The latter are in the following referred to as non-GSTC criteria.

Two of the investigated schemes in this research are oriented at the GSTC. While Green Destinations is already GSTC accredited and has its standard recognised based on the GSTC-D standard, TourCert is currently aiming to receive recognition of its destination standard. On its way to becoming recognised, the organisation is basing its criteria catalogue primarily on the GSTC criteria and indicates the correspondences where applicable. Table 21 presents the scores of these two GSTC-oriented schemes on the criteria of the assessment framework that are not part of the GSTC-A and -D criteria

Table 20: Scores of GSTC-oriented schemes in non-GSTC criteria

Nr.	Theoretical Domain	Criterion (non GSTC – A / - D criteria only)	Green Destinations Score	TourCert Score
Certification Management Requirements (non GSTC - A criteria)				
A.2.2	Direction	Materiality analysis	1	1
A.3.3	Performance	Management review	2	2
A.4.12	Accountability & Transparency	Measurability and benchmarking	1	2
A.5.1	Faimess	Reference to legal regulations	1	2
A.5.2		Board Membership	0	0
Impact Requirements (non GSTC - D criteria)				
B.1.2.4	People	Community livelihood	2	2
B.1.3.3.	Prosperity	Anti-Corruption & Responsible Political Involvement	1	0
B.1.3.5		Fair contracts & competition	1	0
B.1.3.6		Fair tax behaviour	0	0
Process Requirements (non GSTC - D criteria)				
B.2.1.3	Do	Monitoring	2	2
B.2.2.2		Documentation	2	2
B.2.3.1	Check	Internal Audit	2	2
B.2.3.2		Management review	2	2
B.2.4.1	Act	Continual Improvement	1	2
Average Score (non GSTC - A / - D criteria)			1,29	1,36

On average, Green Destinations scores 1,29 on the non-GSTC criteria, while TourCert scores 1,36. Table 22 compares these average scores with the average scores on the GSTC-

corresponding criteria. For that purpose, the non-GSTC criteria were excluded from the average to compare the schemes’ performance under both conditions. This comparison shows that on the criteria corresponding to the GSTC-A or GSTC-D standard, Green Destinations scores 1,87 and TourCert 2,05. Hence, both schemes were found to score much lower in the criteria not included in the GSTC Accreditation or Destination Standard.

Table 21: Comparison average scores of GSTC-oriented schemes in GSTC and non-GSTC criteria

Average Scores	Green Destinations	TourCert
Average Score (non GSTC - A / - D criteria only)	1,29	1,36
Average Score (GSTC – A / - D criteria only)	1,87	2,05
Average Score (all criteria)	1,72	1,88

7.3. Communalities and differences

Overall, the assessment shed light on more differences than commonalities between the schemes. Nevertheless, some commonalities were identified.

Assessment results

Firstly, comparing the individual schemes’ average scores for the different assessment levels, all three standards score the highest in the indicator quality and certification standard process assessment. Further commonalities were found for the certification management level, where all schemes score lowest in the Fairness category. All three schemes perform equally low in the prosperity dimension and best in the planet dimension in the certification standard category.

The Standard

Regarding the structure of the standard, all three standards include both obligatory and optional criteria. Moreover, both Green Destinations and TourCert include process requirements, while the Mountaineering Villages Standard only covers impact requirements. Hence, all data regarding the process requirements was obtained from internal documents capturing the processes and the interview with two representatives.

While the Green Destinations - and TourCert Standard showed an excellent breadth, covering a wide range of different criteria, the Mountaineering Villages Standard demonstrated a depth over breadth approach regarding its standard. TourCert was found to have the most balanced scores across all its criteria, except for the prosperity dimension in the impact category. However, one needs to add that the TourCert certification is mainly based on the core criteria (Table 15) and not on the essential criteria as indicated in the standard. Considering the certification as a whole, one could therefore argue that TourCert does not follow a comprehensive approach. This issue is further discussed in section 8.5.

The Certification

In terms of the certification user, some differences were found. While Green Destinations and the Mountaineering Villages certify the destination as a whole with all its political regulations, TourCert certifies the DMO. Moreover, looking at the uptake of the certifications, the Mountaineering Villages were found to have the highest uptake, closely followed by TourCert. Green Destinations is far behind due to the majority of their destinations being awarded rather

than certified. Regarding the legal status of the certification organisations, all three have a different form. Green Destination is a non-profit organisation and foundation, TourCert is a non-profit private limited company, and the Mountaineering Villages are a private-public partnership. Similarly, the cost of certification is spread over a whole range. The Mountaineering Villages offer the most affordable certification. Green Destinations follows as a second, and TourCert offers the most expensive certification.

Impact vs Process

Another interesting difference was observed regarding the impact or process focus of the standards. Both TourCert and Green Destinations communicate their certification as being very process-focussed. TourCert, in particular, emphasises the way to becoming a more sustainable destination as the most important, while the certification itself is seen as a bonus. Green Destinations also follows a process-focused approach, enabling destinations to enter their programme through their multi-tier awards and certification system. In line with that focus, both schemes support destinations during the process and give destinations that are just starting up their sustainability journey the opportunity to get in touch and discuss possible entry points. As mentioned in Section 6.1.4., the multi-tiered system of Green Destinations also has drawbacks and does not in every case serve as an incentive to keep on improving as a destination.

7.4. Applicability in mountain destinations

While all of the three schemes are applicable in mountain destinations, not all include mountain-specific indicators or criteria in their standard. For example, while the Mountaineering Villages follow a very context-specific approach and are exclusively applicable in the Alpine countries, the other two standards do not contain any mountain related criteria.

To change that, Green Destinations is currently working on extending its standard to include also mountain-specific criteria. The organisation indicated to collaborate with the Mountain IDEAL Certification in the USA. That certification was developed by the non-governmental organisation Walking Mountain Science Centre. The Mountain IDEAL is recognised by the GSTC and was developed specifically for mountain destinations. Geographically, the standard is only prevalent in the USA, with two certified destinations so far. Since the Walking Mountain Science Centre is not a certification body, the organisation approached Green Destinations to organise the audits and manage the certification procedure. In this way, Green Destination now includes the Mountain IDEAL in its offers and list of certified destinations. Green Destinations is still debating whether to disseminate the Mountain IDEAL in European mountain destinations such as the Alps. In the interview, the Green Destinations representative showed reluctance to include yet another standard to the Green Destinations portfolio. In its current version, the Mountain IDEAL only includes two mountain-specific criteria regarding snow melting and snowmaking. Therefore, he considers focussing the visitors' and destinations' attention on the existing Green Destinations multi-tier system and adding a module with mountain destination criteria. For such an addition, the foundation is currently in exchange with the Slovenian Tourist Board, which developed the white-label Slovenia Green under the Green Destinations Standard and possesses over local knowledge regarding Alpine environments. Moreover, Green Destinations DACH is in consultation with the Austrian Ecolabel and the Alpine Convention to develop Alpine-specific criteria and indicators.

TourCert, in contrast, is presently not focussing on mountain destinations. Instead, due to its high standard of context-sensitive process support, the organisation first expanded its geographical scope to Latin America, following the demand. In the interview, the TourCert representative underlined that the organisation is generally very open to acquiring local knowledge and expanding to other contexts, such as the Alps. However, due to limited human resources, such an expansion could only follow a demand, which is not given at present.

8. Discussion

8.1. Challenges of destination certification

Many challenges complicate sustainability certification at the destination level. Destinations are complex systems of various actors interacting in a decentralized way. As such, they are constantly changing (Schianetz et al., 2007). Due to this complexity, stakeholder collaborations can be challenging since different actors might have different opinions or conflicts of interest. This diversity is particularly challenging in more prominent destinations (Grapentin & Ayikoru, 2019). Such collaboration, however, is critical for the success of sustainable tourism. Hence, leadership is required to find constructive synergies between the actors. As an alternative to a DMO guided leadership approach, Zehrer et al. (2014) promote the notion of a leadership network as a coordinating force within a destination. Such a network would have various tasks, ranging from developing a vision and strategy, exchanging know-how, resource bundling, and cost-sharing to market development and joint projects. The authors identified several characteristics of such a network that are significantly influencing the development of a destination. Regarding the members of the network, mutual trust and active participation are crucial. Furthermore, both influential and competent actors should be at the table. Regarding strategy development, a variety of actors improves the performance. Moreover, establishing common goals and a shared need to take action is essential for the network's success. Additionally, other destinations actors should be in favour of the network. The network requires an efficient way of working related to its operations and should utilize resource and competence bundling between the various actors (Zehrer et al., 2014).

The assessment of the three certification schemes has shown that different choices can be made regarding who the certification user is and who is leading the sustainability process in a destination. The findings of this research seem to form a middle ground between the DMO and network leadership approaches. Dependent on which actor is ultimately receiving the certification, being it the DMO or the destination as a political entity, the leadership structure and definition of responsibilities within the destination vary.

8.2. Maximising impact: global applicability vs local context-specificity

Each tourism destination faces its challenges and issues. Hence, also global schemes need to leave room for context-specific adjustments. According to Strambach & Surmeier (2018), a lack of local embeddedness can impede the effectiveness of a certification scheme. Such adjustments, however, only include the impact criteria of a standard since these are the most sensitive to local conditions. All schemes should equally cover the management requirements for certification bodies, process requirements for certification standards and quality requirements for standard indicators.

Two approaches to enhance the local context specificity of global schemes are discussed in the literature. First, Grapentin & Ayikoru (2019) argue that destinations should select relevant indicators for the local context and the stakeholders. Since this would entail selecting which criteria of a standard to comply with and which not, it opens several questions. How is this selection made and under which circumstances, suppose the destination is making this decision independently? In that case, it is most likely subject to multiple biases and therefore not

necessarily reflecting where the destination has the most room for improvement (Kahneman, 2011) Instead, such prioritisation could rather serve marketing and commercial purposes than actual sustainability improvement.

Another possibility is to enlarge the global baseline criteria by an additional set of criteria fitting to the local context. Suppose a destination is located in a skiing area. In that case, it could include an additional set of criteria covering all aspects around winter tourism, ski pistes, lifts and snowmaking. If such an approach is followed, Johnsen et al. (2008) emphasise the need to relate these additional criteria to a frame of reference from sustainable tourism theory. Furthermore, the scholars argue that the compilation of such criteria needs to comply with international standards of indicator quality. Also according to the GSTC, the GSTC requirements constitute merely a global *baseline* standard and should be enlarged to suit the needs of local contexts (Global Sustainable Tourism Council, 2019).

The creation of local criteria comes along with various challenges. First of all, some local practices might be difficult to standardise (Strambach & Surmeier, 2018). As the assessment of the Mountaineering Villages has shown, a large part of the local knowledge regarding sustainability in Alpine destinations is implicitly included in the certification without being operationalised as part of the standard. Many of the criteria of the Mountaineering Villages Standard are based on a deep understanding of the Alpine nature stemming from years of closely living and working with this environment. This local knowledge is invaluable and difficult to achieve by global standard makers. Incorporating tacit knowledge entails that local standard makers might consider specific issues as more or less necessary to their target context, which again is subject to biases.

Moreover, regionalisation takes time (M. Balas, personal communication, 29 March 2021) and requires financial and human resources (Font, 2002). Especially for smaller organisations and certification bodies with little resources it can be challenging to create local criteria following international quality standards. Furthermore, if smaller schemes grow, they have to deal with more diverse applicants, which often leads to standardisation.

Furthermore, with their international networks, international labels are increasingly accessing local markets. From a consumer perspective, this strengthens the brands and achieves economies of scale. Consequently, according to Font (2002), global standards are more likely to make a difference to the consumer. The more touchpoints consumers have with a certification scheme, the more likely it is to influence their purchase decision. At the same time, there is a growing tendency towards destinations or countries creating their own schemes (Schweiz Tourismus, 2021) or strategies (Bundesministerium für Nachhaltigkeit und Tourismus, 2019; IDM Südtirol, 2020; Pechlaner et al., 2017). Such a decision is often based on political rather than operational grounds (Font, 2002). As offered by Green Destinations, white-label solutions can provide the operational and structural basis for a certification, while at the same time enabling destinations to use their own branding for political and marketing purposes.

In terms of stringency, some interesting observations can be made regarding the GSTC criteria. Tables 21 and 22 in Section 7.2. illustrated that both GSTC-oriented schemes perform much better in those criteria of the assessment that are also part of the GSTC-A or -D standard than in the ones that were added from other international standards. Due to their orientation at the GSTC as an international benchmark, global standards might lose other international standards, such as ISO or ISEAL, out of sight. This is not surprising if the GSTC claims to set the global baseline standard for the tourism industry.

At the same time, Green Destinations, which is both GSTC-Accredited and -Recognised, did still not meet the international benchmark level, also not for those assessment criteria that are corresponding with the GSTC standard. One explanation for this difference in performance could be a lower stringency of the GSTC criteria compared to the criteria of the assessment framework used in this research. Having a closer look at two exemplary GSTC criteria, in which both GSTC-oriented schemes scored only a 1,0 provides an insight into the difference in stringency between the GSTC criteria and the ones in this research.

As a first example, criterion B.1.1.6. (Visual pollution) corresponds to GSTC-D criterion D12 (Light & Noise Pollution). While criterion B.1.1.6. requires the certification to *“ensure the identification of [various] visual pollution sources and the reduction thereof”*, GSTC-D criterion D12 only requires guidelines and regulations to minimise light pollution, therefore accounting only for a part of all visual pollution. There are various sources of visual pollution ranging from wind turbines, abandoned buildings, building facades, lighting features, cell towers and advertisement (Chmielewski et al., 2018). In the assessment framework used in this research, noise pollution represents a separate criterion (B.1.1.5.). It can be observed that both certification schemes score 2,0 on noise pollution. Therefore, it can be concluded that the lower scores in criterion B.1.6. are most likely due to less stringent requirements of the GSTC on the matter of light pollution.

The second example concerns the seasonality of tourism and sustainable innovation (criterion B.1.3.1.). The criterion directly requires the standards to *“ensure the promotion of sustainable innovation to reduce the seasonal dependency of tourism offers”* and corresponds to GSTC-D criterion A8 (Managing visitor volumes & Activities). GSTC-D criterion A8, however, only mentions seasonality in its suggested performance indicators. While these indicators have merely a guiding purpose, the criterion states, *“Action is taken to monitor and manage the volume and activities of visitors, and to reduce or increase them as necessary at certain times and in certain locations, working to balance the needs of the local economy community, cultural heritage and environment.”* Hence, seasonal dependency issues are only implicitly included in the criterion.

These two examples shed some light on the stringency range between the GSTC criteria and the criteria used in this research. For certification schemes that orient their standards on the GSTC, this difference could account for some of the score variations. Furthermore, it could potentially explain why even GSTC-Accredited and -Recognised schemes such as Green Destinations did not reach the international benchmark level in this research.

8.3. The Alps as context for global change

Concerning the context of this study, some scholars argue that specific issues are more relevant for the regional sustainable development in the Alps. According to Tribaldos & Rist (2021), these issues include protecting essential resources, biodiversity, and ecosystems on the planet level. Moreover, on the people level, emphasis should be placed on the preservation of local cultures. Finally, on the prosperity level, local jobs and sustainable regional development should be in focus. All of these issues are included in the GSTC-D criteria.

Tourists often see the Alps as one entity, crossing national borders daily through thematic routes or one-day excursions. This tourist behaviour contrasts with the institutional setting made up of national parties, which often enough does not represent a unified entity. The institutional structure renders cross-border cooperation challenging. Nevertheless, even within one Alpine

states, destinations can learn from each other to find solutions to its present problems (Paunović & Jovanović, 2017). Also, the Alpine Convention appeals to harness synergies. Its recent Climate Action Plan 2.0 (Permanent Secretariat of the Alpine Convention, 2021) presents various detailed implementation pathways in ten sectors, one of which the tourism sector. In one of the pathways, the formation of an Alpine-wide coordinated approach is emphasised. The goal behind such coordination is to avoid unfair distributional effects or surpass individual destinations' carrying capacity.

In practice, however, there is still a clear tendency towards national approaches in the Alps. While Slovenia focuses on its award system Slovenia Green, based on the white-label solution of Green Destinations and slightly expanded to fit the Slovenian context, other Alpine countries follow different approaches. Switzerland Tourism has just launched its new sustainability strategy, *Swisstainable*, targeted at tourism businesses (Schweiz Tourismus, 2021). *Swisstainable* does not involve a new label but builds on existing standards and certifications in tourism. In doing so, it recognises a growing list of various certification schemes operating in the DACH region. Amongst the recognised schemes are also industry certification of TourCert and the Good Travel Seal of Green Destinations, both schemes which were not discussed in the scope of this research.

The Austrian federal ministry of agriculture, regional development and tourism published its strategy *Plan T* in 2019, defining conditions for sustainable development of Austria as a tourism destination (Bundesministerium für Nachhaltigkeit und Tourismus, 2019). When the Covid-19 pandemic hit the European tourism industry, the ministry involved various institutions and experts in restarting the Austrian tourism industry after the pandemic. Under the name “*Auf geht's*” (Let's go), the ministry is currently organising an interactive workshop series to adjust *Plan T* to the current circumstances in tourism (Bundesministerium für Nachhaltigkeit und Tourismus, 2021). To what extent such a strategy involves certification is unclear. Since the project has just started, no preliminary findings were available until the finalisation of this research.

The Italian Alpine province of South Tyrol has published a study on the future of tourism in South Tyrol, referring to various megatrends, one of them being sustainability (Pechlaner et al., 2017). Likewise, the DMO of South Tyrol included sustainability strategies in its activity program in 2020 (IDM Südtirol, 2020). For that purpose, the DMO currently focuses on three primary measures: firstly, a sustainability index is currently developed to increase the measurability of sustainability in South Tyrol. To what extent such an index would serve as a basis for certification is not known to the point of the finalisation of this research. Secondly, best practice examples are subjected to a sustainability audit to develop a promotion platform for leading businesses and products. Lastly, a three-year sustainability roadmap is developed to increase the destination's sustainability and set clearly defined action steps for various stakeholders.

These examples illustrate that Alpine states follow different pathways towards sustainable tourism. To what extent national competition plays a role in that represents an interesting avenue for future research. However, one can state that the increased nationalisation and fragmentation in sustainable Alpine tourism and certification complicates international comparability. Moreover, it hampers the awareness of visitors by exposing the tourist to an ever-growing label jungle.

8.4. The road to sustainability: continuous improvement

Sustainability, in tourism and beyond, is not an end state to be reached, but rather a process of ever-improving impacts and processes (Baumgartner, 2016). Since sustainability practices are constantly advancing, certification schemes must account for this. There are several ways for certification schemes to incorporate continuous improvement into their practices. First of all, regularly updating their standard is crucial for staying up to date with scientific developments and international best practices. The GSTC, for example, is regularly revising its standards to cover a more comprehensive set of sustainability criteria (Global Sustainable Tourism Council, n.d.).

Such a revision should occur in consultancy with experts from academia as well as practitioners (Arpin et al., 2016). Arpin et al. (2016) present one way of linking scientists with practitioners through the creation of scientific councils. Including representatives from both sides, the goal of such councils is to coproduce “science-based and operational knowledge” (p.8). Regarding the revision of standards, these councils can serve as ‘early warners’ for emerging issues that practitioners might not have in sight. Moreover, they can serve as arenas to explore and reflect on emerging approaches, debates and tools for destination sustainability thereby providing recommendations for the standard revision.

In addition, certification bodies can demand their certification users to commit to continuous improvement. Some certification schemes, such as Green Destinations, employ tiered schemes to stimulate continuous performance improvement. While this lowers the entry barriers for destinations just starting up their sustainability journey, it grants similar reputational benefits to all certified destinations, which might discourage continuous improvement (Mzembe et al., 2020). As in the case of Green Destinations, award schemes allow the awarding of schemes that comply with only 60% of the criteria. Once the full certification is reached at 100%, no further continuous improvement is guaranteed by the standard. While all investigated certification schemes require regular re-certification, such a re-certification is bound to maintain high performance rather than continuously improve this performance.

Ensuring ongoing improvement often goes along with a process-focus of a certification scheme. Close long-term collaboration between the certifying organisation and the certified destinations through regular support and exchange facilitate continuous improvement. Suppose a certification scheme has the ambition to make the tourism industry more sustainable. In that case, it is favourable to incorporate a strong focus on process requirements, supporting destinations on the way to becoming more sustainable. At the same time, it is crucial to guarantee a minimum level of impact reduction since focusing on improvement alone does not guarantee any specific results (Graci & Dodds, 2015). Impact-oriented schemes, in contrast, tend to have higher entry barriers regarding the sustainability requirements that need to be met to be certified. If these barriers are too high, this might neglect a considerable potential stemming from those destinations that are just starting their sustainability journey.

8.6. Reflections on the assessment framework

Applying the assessment framework to the case studies provided the opportunity to take a meta-view on the framework.

First of all, the analysis of TourCert illustrated shortcomings related to the certification standard level of the assessment. Since that level, only assesses the potential effectiveness based on the standard, it does not consider whether the final certification decision is based on the full standard criteria or only a selection. For the TourCert certification, the standard merely has a guiding role in the certification decision, and no full compliance with all criteria is required. Like this, the assessment framework might lead to unrepresentative results. Since the primary purpose of the framework is to assess the potential effectiveness of the certification scheme, one might argue that its application is necessarily tied to the assumption that the certification decision is based on compliance with the complete standard. In its glossary of key terms in the context of sustainability standards, however, the ISEAL Alliance does not link the issuing of certification to comply with the complete standard. Instead, the emphasis lies on the audit procedure, which needs to be executed through a third party to qualify as certification (ISEAL, 2016). If, however, one ties the potential effectiveness of a certification scheme to compliance with the complete standard, this would have two main consequences. Firstly, incorporating this assumption into the assessment would have resulted in a different score for TourCert, being lower than portrayed in this research. Secondly, it would require an adjustment of the assessment framework, either through adding a criterion regarding the basis of the certification decision or applying the certification standard assessment only to those criteria guiding the final certification decision.

Furthermore, the application revealed some necessary adjustments to the assessment framework. Two redundancies were found within the framework. Firstly, indicator quality criterion C.1.1. (Connection to sustainability dimensions) requires that the indicators of the standard link to the three-issue dimensions of sustainable development. Since this, however, is already assessed in the impact category, criterion C.1.1. can be discarded. Secondly, certification standard process criterion B.2.3.1. (System evaluation) requires a regular evaluation of the tourism system, processes and product by an independent auditor. Criterion A.1.3. (On-site third-party audit) in the certification management category already requires an on-site third-party audit and Criterion A.4.11. (Regulation of recertification and termination of certification) requires a precise mechanism regarding recertification. How regular such audits have to be conducted is not defined in either of the criteria. To reduce redundancies, criterion A.4.11. could be expanded to include the maximum timeframe of certification validity. In this case, criterion B.2.3.1. could be discarded.

In addition, some criteria require adjustments. In the process category, in particular, some criteria were found to be formulated vaguely. Criterion B.2.2.2. (Clear documentation) and Criterion B.2.3.1. are addressing an organisational context instead of a destination context. This confusion resulted from the origin of the criteria from ISO 14001, which is targeted at organisations. In the case analysis, the criteria were adjusted to the destination context. Hence, a reformulation is needed.

More differentiated formulations are also required in the quality category. For example, criterion C.1.2. (Representativeness) requires that the indicators cover the critical dimensions of sustainable tourism. What these dimensions are and how they might differ from one context to the other needs to be specified to improve the reliability of the assessment framework. Similarly,

clarification is needed for criterion C.1.5.1. (Weighing), mentioning the relative importance of the three issue dimensions. During the case analysis, it became apparent that also this relative importance might be context dependent. For example, following the argumentation of Tribaldos & Rist (2021), in the Alpine context, the planet dimension might be more important than people and prosperity issues due to increasing pressures from climate change and over-tourism. Similarly, criterion C.1.3.1. (Adequate scope) lacks some specification regarding what can be defined as adequate in a given context. Hence, a context-dependent clarification of these criteria is required.

Overall, the application of the quality assessment criteria was accompanied by the most challenges. In addition to the adjustments mentioned above, it became apparent that the standard indicator level does not meet the actual complexity of approaches followed by certification schemes. All investigated schemes rely on qualitative indicators and criteria. Green Destinations focusses a large part of their certification decision on the presence of policy documents and sampling examinations of implementation on-site. As mentioned above, TourCert bases its certification decision on its core indicators only. These differences illustrate that certification bodies make different choices regarding how to measure the destinations' compliance with a standard. A comprehensive assessment framework needs to account for these differences. Therefore, the quality assessment level requires some revision before repeated application by other scientists.

8.7. Theoretical and policy implications

Theoretical implications

While many studies in certification literature approach potential effectiveness from a regime theory perspective (Kalfagianni & Pattberg, 2013; Tikina & Innes, 2008) others use limited context-specific metrics (Morgans et al., 2018) or critical components of effectiveness (Mori Junior et al., 2016) to perform their assessment. Again other studies rely their assessment merely on international standards without connecting those to theoretical endpoints (Abel et al., 2017). No study was found that bases its assessment criteria on sustainability or management theory.

Hence, this study offers a broader understanding by establishing that the potential effectiveness of schemes depends strongly on the combination of several factors. These factors concern both the certification management and the standard and include impact and process aspects.

This broader understanding was obtained by integrating several literature streams, harnessing synergies between sustainable development, corporate sustainability, and management literature. Sustainable tourism objectives were linked directly to elements of sustainable development theory, a theoretical connection whose underdevelopment has been repeatedly criticised by scholars (Saarinen, 2013; Sharpley, 2000) and might be explained by the lacking theoretical foundation in the field compared to certification impact literature (Bilbao-Terol & Bilbao-Terol, 2020; Capacci et al., 2015)

In line with that, on the certification standard level, the results of this research emphasised that more research is needed to determine prosperity criteria that measure prosperity aspects at a destination. While research is increasingly considering the prosperity concept, the theoretical understanding in many studies (e.g., Morgans et al., 2018) is still rather focused on neo-liberal indicators such as profit and economic growth (Vermeulen, 2018).

In addition, this research has shown that more studies are needed to put forward a theory-based set of mountain-specific criteria and indicators. So far, only minimal research exists (Bošković et al., 2020; Kuščer, 2014; Tribaldos & Rist, 2021), which is usually not tied to certification but instead merely postulating essential aspects to consider in Alpine development. Through continuously relating to the Alpine context, this research provides several points of reference for further research.

Lastly, this research opens up avenues for future analyses of certification schemes in other contexts and other levels of certification, such as industry certification. For that purpose, the certification standard assessment level would need to be adjusted to fit another context.

Policy and managerial implications

The results of this research yield several managerial and policy implications.

For managerial practice, this research emphasises the need to base standards for sustainability certification on findings from sustainability theory. To ensure that standard development does not take place in a theoretical vacuum but leads to actual, tangible results, impact and process aspects should be granted equal importance. While impact criteria guarantee that a destination's ambition of becoming more sustainable is achieved, process criteria guide the way while allowing for context-sensitive development. Moreover, a certification body is advised to pay attention to its internal management, using the good governance principles as a guideline. Besides, destinations aiming at certification benefit from making an informed decision of which certification scheme to adopt. When aiming at a comprehensive sustainability standard, global standards, such as the GSTC-Recognized standards, might present the most promising alternative.

Moreover, global certification schemes can benefit from a close collaboration with Alpine stakeholders to develop context-specific criteria sets as an addition to their global standards. Possible synergies between local and global schemes can be harnessed if both sides follow a common goal. In that case, local schemes can benefit from the breadth and operational quality of global schemes. At the same time, local schemes can contribute their context-specific know-how and tacit knowledge to increase local topicality and understanding of global standards. The outcomes of such an exchange would benefit the global standards in terms of additional criteria and increase the context-sensitivity of their process support.

On the Alpine level, the countries can benefit from increased cross-border collaboration, aiming to coordinate strategies and tools for sustainable tourism and destination development and the dispersion of know-how and best practices. For that purpose, an international steering group with representatives from all Alpine states as proposed by the Alpine convention (Permanent Secretariat of the Alpine Convention, 2021) could present a good starting point.

From the policy perspective, it needs to be noted that actions at the destination level can only reap their full effectiveness if accompanied by policy and regulatory frameworks for sustainable tourism development. Such frameworks must be comprehensive, covering all three issue dimensions of sustainability while simultaneously covering ambitious targets. Due to the cross-border character of Alpine tourism, developing these policies could be most beneficial on the European level. Furthermore, regulations can be complemented with financial incentive structures on the EU level. On the one hand, such measures can involve direct subsidising of certification costs for destinations, thereby increasing the uptake of certifications. On the other hand, financial measures can include other green financial instruments, such as green taxation or

green financing. Lastly, in the light of the current recovery programs from Covid-19, such programs could be bound to sustainability measures, fostering a green recovery of the industry. The OECD underlines the opportunity behind this crisis for rethinking the industry and giving it a new direction (Development, 2020). The recently published EU recovery plan already take steps in this direction, allocating specific funds to “clean, smart and fair urban mobility”, “green and digital solutions”, and environment and rural development (European Travel Information and Authorization System, 2021). The funds to rebuild the tourism industry, however, are not directly linked to any conditions. Therefore, in its current state, the EU recovery plan can at most stimulate the sustainability transition in tourism.

8.8. Limitations & outlook

Several limitations of this research pave the way for future research.

First, in terms of reliability, the grading scale of this research may be applied slightly differently from one researcher to another. While the research design was constructed to ensure maximum replicability and application to different cases, one might argue that the criteria leave some room for interpretation. Taking criterion A.3.1., for example, the international benchmark level is defined as *"The certification body offers information and support in the certification process."* Since it does not specify what such support should entail, researchers might draw the line between the grading levels differently. While one researcher might give a 2,0 for on-site support, another might already give the international benchmark level for online support. To minimise this risk, methodology and analysis choices were outlined transparently to ensure that the reader can follow the reasoning behind each scoring decision. Future research can endeavour on the operationalisation presented in this research while specifying the grading more clearly for each criterion.

Second, to ensure internal validity, data triangulation has been followed, and all steps taken during the analysis were made explicit. Results were obtained from academic literature, official documents of the certification organisations and interviews. Furthermore, the theory-based assessment framework and the embedding of the results in the broader context of international practices and theory aimed to safeguard the study's external validity. Like this, the study might provide equally interesting insights when conducted with other certification schemes.

Third, this research was limited in its time and scope. Consequently, only a small selection of certification schemes could be analysed, limiting the generalizability of the results. Moreover, the case selection subject to bias since it was partly based on interviews with two experts affiliated with TourCert. Since the interviewees were selected based on their expertise, this affiliation was unfortunately identified after the case analysis had already started. The case was assessed rigorously and based on the same assessment procedure as the other two cases to prevent influence on the analysis.

Fourth, due to its limited scope, the assessment of the potential effectiveness of the schemes was based entirely on the analysis of the certification body and standard. The research could have been complemented by an investigation of certified destinations to gain more insights into the applicability of the certification. Building on the comprehensive assessment framework presented in this research, future research could integrate the destination perspective as a certification user.

Lastly, following its objective, this research systematically assessed the potential effectiveness of tourism destination certification schemes. However, this study did not attempt to measure the actual effectiveness of the schemes. For that purpose, future longitudinal quantitative studies would be required to investigate the direct sustainability outcomes following destination certification. Besides, to test the assessment framework presented in this research, more systematic empirical research is needed.

9 Conclusion & practical recommendations

Conclusion

This research aimed to systematically assess the potential effectiveness of the major certification schemes for sustainable tourism destinations in the Alps. This aim was approached in two objectives. The first objective was to develop a comprehensive, theory-based assessment framework including performance, management and quality criteria to ensure that all angles affecting the potential effectiveness of such schemes were considered. Subsequently, the second objective was to apply this framework to three certification schemes applicable to Alpine destinations to provide empirical findings on their potential effectiveness. Hence, this research addressed the following research question: *What is the potential effectiveness of certification schemes for sustainable tourism destinations in the Alps based on performance, management and quality criteria?*

This study was further guided by four sub-questions that will be answered subsequently to answer this central question.

Firstly, to answer sub-question one a) *How can the management and performance of certification schemes for sustainable tourism destinations be assessed?* and b) *How can the quality of the indicators applied in the certification standards be assessed?*, a systematic assessment framework was developed encompassing three assessment levels and four categories (certification management requirements, impact -, process -, and quality requirements). The impact and process category together formed the performance criteria. The assessment framework was developed following a systematic procedure to assess the potential effectiveness based on theoretical consensus and international best practice. To start with, for each assessed category, theoretical domains were developed combining governance, sustainability, management and indicator theory. Then, in a second step, assessment criteria were developed for each theoretical domain across all assessment levels. These criteria were established based on international standards and extended by findings from academic literature. In the analysis, these criteria represented the international benchmark level for the potential effectiveness of sustainable destination certification schemes. In this way, the first research objective was fully met, evidence for which can be found in section 4.4.

Secondly, to answer sub-question two a) *Which are the major certification schemes targeting sustainable tourism destinations in the Alps?*, an overview of existing certification schemes for tourism destinations was made, presented in section 5.1.1. Overall, 13 schemes were identified. This number was further downsized based on nine selection criteria. In this way, Green Destinations, TourCert and the Mountaineering Villages were identified as the most relevant schemes for sustainable tourism destinations in the Alps. Two schemes with global applicability and one local scheme specific to the Alpine context were identified with that selection.

Thirdly, to answer sub-question two b) *To what extent do these certification schemes cover the performance and management criteria defined in 1a?* and c) *To what extent do the indicators in these certification schemes fulfil the quality criteria defined in 1b?*, the assessment framework was applied to the three cases. The findings show that none of the schemes lives up to the international benchmark level of potential effectiveness. On average, the schemes demonstrated the highest degree of potential effectiveness in the process and quality categories.

Moreover, impact categories were covered less comprehensively on the certification standard level, with a particular underrepresentation of prosperity issues.

In this way, the second research objective was likewise fully met, evidence for which can be found in chapter 6.

The case analysis shows that some certification schemes approximate the international benchmark level more than others. TourCert obtained the highest score on potential effectiveness based on the assessment framework, closely followed by Green Destinations. The Alpine-specific scheme Mountaineering Villages was found to score much lower. In line with that, the results suggest that global schemes orient themselves at the Global Sustainable Tourism Council standard as an industry benchmark, resultantly tending to cover a wider breadth of criteria. Moreover, global standards tend to rely on the Global Sustainable Tourism Council criteria for completeness, thereby disregarding their role merely as a global *baseline* standard. Clarity on this role is particularly relevant in the light of the open wording of the standard resulting from being targeted at global applicability. While some global standards were discovered to include additional criteria, the question remains to what extent this also tackles limited criteria depth.

In comparison, this research provides first evidence that local schemes tend to have a more context-specific focus than global ones while covering a smaller breadth of criteria. This difference might indicate that local schemes tend to disregard global developments and scientific findings regarding sustainable tourism development at the destination level, thereby limiting their potential effectiveness. Finally, the empirical cases featured in this research indicate an apparent lack of theory-based mountain-specific criteria, emphasising a clear avenue for future research.

Overall, these findings allow us to conclude that based on performance, management and quality criteria, the potential effectiveness of certification schemes for sustainable tourism destinations in the Alps does not meet the international benchmark level as defined by leading international standards. Instead, the potential effectiveness was found to be lower than the international benchmark, with considerable differences between global and local schemes.

This research enables maximising the contribution of destination certification for promoting sustainable tourism development in the Alps and beyond. Its contribution extends the understanding of the potential effectiveness of sustainable tourism destination certification schemes by providing a comprehensive, systematic and theory-based assessment framework covering three levels of potential effectiveness.

Recommendations

Based on these conclusions, practitioners should consider the following practice-oriented recommendations:

- ▲ In their following revision process, global certification schemes should consider enlarging their standard to cover broader aspects of prosperity. Moreover, global certification schemes could be advanced by consulting Alpine stakeholders or local certification bodies to enlarge their standards by mountain-specific criteria. Local schemes can benefit from orienting themselves at the breadth of global standards to ensure their context-specificity does not come at cost of comprehensiveness. The baseline provided by the Global Sustainable Tourism Council can serve as a guide.
- ▲ Destinations on the path towards sustainable tourism development can benefit from contemplating sustainable destination certification as an essential element of their journey. When aiming at a comprehensive standard, covering all three dimensions of sustainability while providing guidance and maximising process effectiveness, certification schemes recognised by the Global Sustainable Tourism Council might present the most promising alternative.
- ▲ The Global Sustainable Tourism Council can benefit by placing particular emphasis on prosperity issues in the following revision of its standard, assuring the revised standard also includes a corruption assessment and aspects providing fairness in the economic system. Similarly, in its Accreditation Manual, fairness aspects could be considered more significantly.
- ▲ National governments can enhance the role of cross-border collaboration in their sustainability and tourism strategies. In addition, Alpine-wide operating non-governmental organisations such as the Alpine Convention can amplify such collaboration by providing a platform for knowledge and best practice exchange.

Moreover, the following recommendations should be considered by European policymakers:

- ▲ In its upcoming proposals on sustainable tourism, the European Commission should consider reinforcing the need for comprehensive regulatory frameworks, covering all three dimensions of sustainability while similarly encouraging ambitious European-wide targets.
- ▲ In its following budgetary procedure, the European Union should deliberate to allocate financial incentive structures for sustainability certification in tourism. In addition, the institution should consider binding some of its Covid-19 recovery plans for tourism destinations and businesses to sustainability measures, thereby fostering a green recovery of the industry.

References

- Abel, G., Teusch, C.-D., Strasdas, W., & Balas, M. (2017). *Anforderungen an Unternehmenszertifizierungen für nachhaltigen Tourismus in Deutschland*.
https://www.zenat-tourismus.de/images/pdf/Ergebnisbericht_Nachhaltiger-Tourismus1.pdf
- Adler, C., Otero, I., Reynard, E., & Balsiger, J. (2020). Mountains as contexts for global change: interdisciplinary experiences, challenges and new perspectives across the natural and social sciences. *Mountains as Contexts for Global Change*, 576–601.
<https://doi.org/10.7892/boris.147606>
- Aguilera, R. V., & Cuervo-Cazurra, A. (2004). Codes of Good Governance Worldwide: What is the Trigger? *Organization Studies*, 25(3), 415–443.
<https://doi.org/10.1177/0170840604040669>
- Alparc. (2019). *Final Report: Destination Parks*. <https://alparc.org/de/alpine-resources/final-report-destination-parks>
- Alpine Convention. (1991). *Alpine Convention. Framework Convention*.
<https://www.alpconv.org/en/home/convention/framework-convention/>
- Alpine Convention. (2007). Transport and Mobility in the Alps. *Alpine Signals - Special Edition 1*.
https://www.alpconv.org/fileadmin/user_upload/Publications/RSA/RSA1_EN.pdf
- Antonioli, M., Baumgartner, C., Bausch, B., Elmi, M., Stephan, M., Mottironi, C., Pfahl, S., Siegrist, D., Spisla, K., & Viganò, G. (2016). *Alpine tourism: Valorising Heritage - Governing sustainable destinations. Final Report Working Group Sustainable Tourism*.
https://www.alpconv.org/fileadmin/user_upload/fotos/Banner/Organisation/thematic_working_bodies/Part_02/sustainable_tourism_working_group/1_FinalReport_WG_Sustainable_Tourism.pdf
- Arpin, I., Ronsin, G., Scheurer, T., Wallner, A., Hobléa, F., Churakova, O., Cremer-Schulte, D., & Braun, V. (2016). The scientific councils of Alpine protected areas: an overview and analysis of their contribution to linking science and management. *Eco.Mont: Journal on Protected Mountain Areas Research and Management*, 8(2), 4–12.
<https://doi.org/10.3929/ethz-b-000117601>
- Balas, M. (2010). *Erfolgsfaktoren für Destinationsentwicklungsprozesse in Deutschland - untersucht am Beispiel Sächsisches Burgen*. Hochschule für Nachhaltige Entwicklung Eberswalde.
- Balas, M., & Rein, H. (2016). *Developing criteria for the sustainable structuring of tourism destinations in Germany*. <https://www.bte-tourismus.de/wp-content/uploads/2019/03/Kurzfassung-Kriterien-Nachhaltigkeit-ENG.pdf>
- Balas, M., & Strasdas, W. (2019). *Sustainability in tourism: developments, approaches and clarification of terms*. <https://www.umweltbundesamt.de/publikationen/sustainability-in-tourism-developments-approaches>
- Barney, J., Wright, M., & Ketchen, D. J. (2001). The resource-based view of the firm: Ten years after 1991. *Journal of Management*, 27(6), 625–641.
<https://doi.org/10.1177/014920630102700601>
- Baumgartner, C. (2016). *Destination-oriented Assessment of Sustainability in Tourism*.
http://www.responseandability.com/images/downloads/artikel/2016_SustAssessment_Tourism.pdf
- Bergsteigerdörfer. (2014). *Kriterien für Bergsteigerdörfer*. Austrian Alpine Association.
<https://www.bergsteigerdoerfer.org/6-0-Die-Philosophie-der-Bergsteigerdoerfer.html>
- Biermann, F., Stevens, C., Bernstein, S., Gupta, A., Kabiri, N., Kanie, N., Levy, M., Nilsson, M., Pintér, L., Scobie, M., & Young, O. R. (2014). *Integrating Governance into the Sustainable Development Goals Policy Brief #3*.
- Bilbao-Terol, A., & Bilbao-Terol, C. (2020). Measuring the Economic Impact of a Voluntary

- Sustainable Tourism Certification. *Sustainability*, 12(13), 5465.
<https://doi.org/10.3390/su12135465>
- Böhringer, C., & Jochem, P. E. P. (2007). Measuring the immeasurable. A survey of sustainability indices. *Ecological Economics*, 63(1), 1–8.
<https://doi.org/10.1016/j.ecolecon.2007.03.008>
- Bošković, N., Vujičić, M., & Ristić, L. (2020). Sustainable tourism development indicators for mountain destinations in the Republic of Serbia. *Current Issues in Tourism*, 23(22), 2766–2778. <https://doi.org/10.1080/13683500.2019.1666807>
- Boulanger, P.-M. (2008). Sustainable development indicators: a scientific challenge, a democratic issue. *Surveys and Perspectives Integrating Environment and Society*, 1(1), 59–73. <https://doi.org/10.5194/sapiens-1-59-2008>
- Bowen, H. R. (2013). *Social Responsibilities of the Businessman*. University of Iowa Press.
<https://doi.org/10.2307/j.ctt20q1w8f>
- Bradley Guy, G., & Kibert, C. J. (1998). Developing indicators of sustainability: US experience. *Building Research & Information*, 26(1), 39–45.
<https://doi.org/10.1080/096132198370092>
- Buckley, R. (2003). Ecological Indicators of Tourist Impacts in Parks. *Journal of Ecotourism*, 2(1), 54–66. <https://doi.org/10.1080/14724040308668133>
- Bundesministerium für Nachhaltigkeit und Tourismus. (2019). *Plan T. Masterplan für Tourismus*. <https://info.bmlrt.gv.at/service/publikationen/tourismus/plan-t-masterplan-fuer-tourismus.html>
- Bundesministerium für Nachhaltigkeit und Tourismus. (2021). *Auf geht's - zum Comeback des heimischen Tourismus*.
https://info.bmlrt.gv.at/themen/tourismus/masterplan_tourismus.html
- Burch, S., Gupta, A., Inoue, C. Y. A., Kalfagianni, A., Persson, Å., Gerlak, A. K., Ishii, A., Patterson, J., Pickering, J., Scobie, M., Van der Heijden, J., Vervoort, J., Adler, C., Bloomfield, M., Djalante, R., Dryzek, J., Galaz, V., Gordon, C., Harmon, R., ... Zondervan, R. (2019). New directions in earth system governance research. *Earth System Governance*, 1, 100006. <https://doi.org/10.1016/j.esg.2019.100006>
- Butler, R. W. (1999). Sustainable tourism: A state-of-the-art review. *Tourism Geographies*, 1(1), 7–25. <https://doi.org/10.1080/14616689908721291>
- Capacci, S., Scorcu, A. E., & Vici, L. (2015). Seaside tourism and eco-labels: The economic impact of Blue Flags. *Tourism Management*, 47, 88–96.
<https://doi.org/10.1016/j.tourman.2014.09.003>
- Castka, P., & Corbett, C. (2016). Adoption and diffusion of environmental and social standards: The effect of stringency, governance, and media coverage. *International Journal of Operations & Production Management*, 36(11), 1504–1529.
- CIPRA International. (2011). Tourismus im Klimawandel. Ein Hintergrundbericht der CIPRA. *Compact*, 1, 1–32. https://www.cipra.org/de/dossiers/20/964_de/inline-download
- CIPRA International. (2018). *Sustainable Tourism in the Alps. Who are the main actors?*
<https://www.cipra.org/de/cipra/deutschland/projekte/aktuelle-projekte/nachhaltiger-tourismus-in-den-alpen>
- Curkovic, S., & Sroufe, R. (2011). Using ISO 14001 to promote a sustainable supply chain strategy. *Business Strategy and the Environment*, 20(2), 71–93.
<https://doi.org/10.1002/bse.671>
- Delmas, M. A. (2002). The diffusion of environmental management standards in Europe and in the United States: An institutional perspective. *Policy Sciences*, 35(1), 91–119.
<https://doi.org/10.1023/A:1016108804453>
- Development, O. for E. C. and. (2020). Mitigating the Impact of COVID-19 on Tourism and Supporting Recovery. In *OECD Tourism Papers* (Vol. 03, Issue December).
<https://doi.org/10.1787/47045bae-en>
- Disterer, G. (2012). Why firms seek ISO 20000 certification - A study of ISO 20000 adoption.

- In *Proceedings of the 20th European Conference on Information Systems ECIS*.
https://www.researchgate.net/publication/333403216_Why_Firms_Seek_ISO_20000_Certification_-_A_Study_of_ISO_20000_Adoption
- European Commission. (2016). *The European Tourism Indicator System. ETIS toolkit for sustainable destination management*. <https://ec.europa.eu/docsroom/documents/21749>
- European Parliament. (2021). Report on establishing an EU strategy for sustainable tourism. In *Plenary Sitting A9-0033/2021*. <https://doi.org/10.1080/00344897208656356>
- European Travel Commission. (2021). *Sustainable Tourism Implementation: Framework and Toolkit*. <https://etc-corporate.org/reports/sustainable-tourism-implementation-framework-and-toolkit/>
- European Travel Information and Authorization System. (2021). *How the EU's recovery plan helps restore tourism & travel*. <https://www.etiasvisa.com/etias-news/eu-recovery-plan>
- fair unterwegs, ECOTRANS e.V., Naturefriends International, & Tourism Watch. (2016). *Sustainability in Tourism. A guide through the label jungle*. <https://www.humanrights-in-tourism.net/publication/sustainability-tourism-guide-through-label-jungle>
- Font, X. (2002). Environmental certification in tourism and hospitality: progress, process and prospects. *Tourism Management*, 23(3), 197–205. [https://doi.org/10.1016/S0261-5177\(01\)00084-X](https://doi.org/10.1016/S0261-5177(01)00084-X)
- Freyer, W. (2015). *Tourismus* (8th ed.). De Gruyter. <https://doi.org/10.1515/9783486857542>
- Gajdosik, T., Gajdosikova, Z., & Strazanova, R. (2018). Residents Perception of Sustainable Tourism Destination Development - A Destination Governance Issue. *Global Business Finance Review*, 23(1), 24–35. <https://doi.org/10.17549/gbfr.2018.23.1.24>
- Global Sustainable Tourism Council. (n.d.). *Criteria Feedback & Revisions*. Retrieved June 21, 2021, from <https://www.gstcouncil.org/gstc-criteria/criteria-feedback-revision/>
- Global Sustainable Tourism Council. (2019). *GSTC Destination Criteria*. <https://www.gstcouncil.org/wp-content/uploads/GSTC-Destination-Criteria-v2.0.pdf>
- Global Sustainable Tourism Council. (2021). *Accreditation Manual*. <https://www.gstcouncil.org/wp-content/uploads/GSTC-Accreditation-Manual-HATO-v2.5-April-2021.pdf>
- Gorcheva, T. (2011). The economic nature of international tourism. *Enlightening Tourism. A Pathmaking Journal*, 1(1), 62–92. <http://hdl.handle.net/10272/5236>
- Graci, S., & Dodds, R. (2015). Certification and Labeling Solutions. In M. Hall, S. Gössling, & Daniel Scott (Eds.), *The Routledge Handbook of Tourism and Sustainability* (pp. 135–141). Routledge. <https://doi.org/10.4324/9780203072332.ch15>
- Graham, J., Amos, B., & Plumptre, T. (2003). Principles for Good Governance in the 21st Century. In *Policy Brief No.15*. https://d1wqtxts1xzle7.cloudfront.net/63517368/9._Graham__Amos__Plumptre20200603-39838-ysrafx-with-cover-page-v2.pdf?Expires=1624522894&Signature=S8cKcK2BMfAdu8ITsNVevZs029YUtr3Uqk6Op79NtFoUOAqbecmvAkfqRo6S8231LAQXV-KXHWEJY0V7Jt5-yvwIFmCambBriH6TFIOpHhHBC
- Grapentin, S., & Ayikoru, M. (2019). Destination Assessment and Certification: Challenges and Opportunities. *Sustainability*, 11(13), 3691. <https://doi.org/10.3390/su11133691>
- Green Destinations. (2021). *About us*. <https://greendestinations.org/about/>
- Gretter, A., Ciolli, M., & Scolozzi, R. (2018). Governing mountain landscapes collectively: local responses to emerging challenges within a systems thinking perspective. *Landscape Research*, 43(8), 1117–1130. <https://doi.org/10.1080/01426397.2018.1503239>
- Hahn, R. (2013). ISO 26000 and the Standardization of Strategic Management Processes for Sustainability and Corporate Social Responsibility. *Business Strategy and the Environment*, 22(7), 442–455. <https://doi.org/10.1002/bse.1751>
- Hall, C. M., & Scott, D. (2015). The Routledge Handbook of Tourism and Sustainability. In C. M. Hall, S. Gössling, & D. Scott (Eds.), *The Routledge Handbook of Tourism and*

- Sustainability*. Routledge. <https://doi.org/10.4324/9780203072332>
- Hart, S. L. (1995). A Natural-Resource-Based View of the Firm. *The Academy of Management Review*, 20(4), 986. <https://doi.org/10.2307/258963>
- Heras-Saizarbitoria, I., Dogui, K., & Boiral, O. (2013). Shedding light on ISO 14001 certification audits. *Journal of Cleaner Production*, 51, 88–98. <https://doi.org/10.1016/j.jclepro.2013.01.040>
- Howie, F. (2003). *Managing the Tourist Destination*. Continuum.
- Hutchinson, C. (1996). Integrating environment policy with business strategy. *Long Range Planning*, 29(1), 11–23. [https://doi.org/10.1016/0024-6301\(95\)00061-5](https://doi.org/10.1016/0024-6301(95)00061-5)
- IDM Südtirol. (2020). *Tätigkeitsprogramm 2020*. <https://www.idm-suedtirol.com/media/ff852eb5-a80f-47d1-aa25-71980dff07c/taetigkeitsprogramm-2020.pdf>
- International Organization for Standardization/International Electrotechnical Commission. (2020). *ISO/IEC 17000. Conformity assessment - Vocabulary and general principles*. <https://www.iso.org/obp/ui/#iso:std:iso-iec:17000:ed-2:v2:en>
- International Organization for Standardization. (n.d.). *Standards*. Retrieved May 5, 2021, from <https://www.iso.org/standards.html>
- International Organization for Standardization. (2010). *ISO 26000. Guidance on social responsibility*. <https://www.iso.org/obp/ui/#iso:std:iso:26000:ed-1:v1:en>
- International Organization for Standardization. (2015). *Introduction to ISO 14001:2015*. <https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100371.pdf>
- International Trade Centre. (2021). *Standards Map*. <https://standardsmap.org/standards?q=eyJzZWxlY3RIZENsaWVudCI6Ik5PIEFGRklMSUFUSU9OIiwicHJvZHVjdFNLcnZpY2VzIjpbIIRvdXJpc20gc2VydmVjZXMiXX0%3D>
- ISEAL. (2014). *Setting Social and Environmental Standards. ISEAL Code of Good Practice*. https://www.isealalliance.org/sites/default/files/resource/2017-11/ISEAL_Standard_Setting_Code_v6_Dec_2014.pdf
- ISEAL. (2016). *Researching standards and certification. A guidance note*. https://www.isealalliance.org/sites/default/files/resource/2018-01/Researchers%27_Guidance_Note_Apr2016.pdf
- ISO Update. (n.d.). *ISO 17021: Requirements for Certification Bodies*. Retrieved May 6, 2021, from <https://isoupdate.com/standards/iso17021/>
- Johnsen, J., Bieger, T., & Scherer, R. (2008). Indicator-based Strategies for Sustainable Tourism Development. *Mountain Research and Development*, 28(2), 116–121. <https://doi.org/10.1659/mrd.0973>
- Kahneman, D. (2011). *Thinking, fast and slow*. Farrar, Straus and Giroux.
- Kalfagianni, A., & Pattberg, P. (2013). Fishing in muddy waters: Exploring the conditions for effective governance of fisheries and aquaculture. *Marine Policy*, 38(March), 124–132. <https://doi.org/10.1016/j.marpol.2012.05.028>
- Kapos, V., Rhind, J., Edwards, M., Price, M. F., & Ravilious, C. (2000). Developing a map of the world's mountain forests. In M. F. Price (Ed.), *Forests in sustainable mountain development: a state of knowledge report for 2000. Task Force on Forests in Sustainable Mountain Development*. (pp. 4–19). CABI. <https://doi.org/10.1079/9780851994468.0004>
- Klinge, J. (2018). *The quality of standards. An assessment framework to measure the quality of organisations producing and maintaining voluntary sustainability standard systems* [Utrecht University]. <http://dspace.library.uu.nl/handle/1874/364828>
- Krippendorf, J., Zimmer, P., & Glauber, H. (1988). *Für einen anderen Tourismus: Probleme - Perspektiven - Ratschläge*. Fischer.
- Kuščer, K. (2014). Determining Indicators of Mountain Destination Development. *Tourism Analysis*, 19(4), 441–460. <https://doi.org/10.3727/108354214X14090817031071>
- LePree, J. (2009). Certifying sustainability: The efficacy of Costa Rica's certification for sustainable tourism. *Florida Atlantic Comparative Studies Journal*, 11(2008–2009), 57–78.

- <https://home.fau.edu/peralta/web/FACS/certyfyingsustainability.pdf>
- Manders, B. (2010). *Implementation and Impact of ISO 9001* [Erasmus University Rotterdam]. <https://repub.eur.nl/pub/77412>
- Marinelli, L. (2013). *Transition Towards Sustainable Tourism in Protected Areas in Trentino (Italy)* [Utrecht University]. <http://dspace.library.uu.nl/handle/1874/280670>
- Mayer, A. L. (2008). Strengths and weaknesses of common sustainability indices for multidimensional systems. *Environment International*, 34(2), 277–291. <https://doi.org/10.1016/j.envint.2007.09.004>
- Merli, R., Lucchetti, M., & Preziosi, M. (2016). Tourism towards sustainability: challenges and opportunities for the accommodation sector. *20th IGWT Symposium. Commodity Science in a Changing World., September*. https://www.researchgate.net/publication/308267400_Tourism_towards_sustainability_challenges_and_opportunities_for_the_accommodation_sector
- Meyer, M. A., & Priess, J. A. (2014). Indicators of bioenergy-related certification schemes – An analysis of the quality and comprehensiveness for assessing local/regional environmental impacts. *Biomass and Bioenergy*, 65, 151–169. <https://doi.org/10.1016/j.biombioe.2014.03.041>
- Modica, P., Capocchi, A., Foroni, I., & Zenga, M. (2018). An Assessment of the Implementation of the European Tourism Indicator System for Sustainable Destinations in Italy. *Sustainability*, 10(9), 3160. <https://doi.org/10.3390/su10093160>
- Morgans, C. L., Meijaard, E., Santika, T., Law, E., Budiharta, S., Ancrenaz, M., & Wilson, K. A. (2018). Evaluating the effectiveness of palm oil certification in delivering multiple sustainability objectives. *Environmental Research Letters*, 13(6), 064032. <https://doi.org/10.1088/1748-9326/aac6f4>
- Mori Junior, R., Franks, D. M., & Ali, S. H. (2016). Sustainability certification schemes: evaluating their effectiveness and adaptability. *Corporate Governance*, 16(3), 579–592. <https://doi.org/10.1108/CG-03-2016-0066>
- Mowforth, M., & Munt, I. (2003). *Tourism and Sustainability: Development and New Tourism in the Third World* (2nd ed.). Routledge. https://www.academia.edu/613154/Tourism_and_sustainability_Development_globalisation_and_new_tourism_in_the_Third_World
- Mustapha, M. A., Manan, Z. A., & Wan Alwi, S. R. (2017). Sustainable Green Management System (SGMS) – An integrated approach towards organisational sustainability. *Journal of Cleaner Production*, 146, 158–172. <https://doi.org/10.1016/j.jclepro.2016.06.033>
- Mzembe, A. N., Lindgreen, A., Idemudia, U., & Melissen, F. (2020). A club perspective of sustainability certification schemes in the tourism and hospitality industry. *Journal of Sustainable Tourism*, 28(9), 1332–1350. <https://doi.org/10.1080/09669582.2020.1737092>
- Paunović, I., & Jovanović, V. (2017). Implementation of Sustainable Tourism in the German Alps: A Case Study. *Sustainability*, 9(2), 226. <https://doi.org/10.3390/su9020226>
- Pechlaner, H., Volgger, M., Demetz, M., Scuttari, A., Innerhofer, E., Lun, L.-M., Erschbamer, G., Bassani, R., Ravazzoli, E., Maier, R., & Habicher, D. (2017). *Zukunft Tourismus Südtirol 2030*. https://www.handelskammer.bz.it/sites/default/files/uploaded_files/IRE_ricerca_economic_a/Pubblicazioni/170526_Report_DE_.pdf
- Pechlaner, H., Volgger, M., & Herntrei, M. (2012). Destination management organizations as interface between destination governance and corporate governance. *Anatolia*, 23(2), 151–168. <https://doi.org/10.1080/13032917.2011.652137>
- Permanent Secretariat of the Alpine Convention. (2021). *Climate Action Plan 2.0*. https://www.alpconv.org/fileadmin/user_upload/Organization/TWB/ACB/AlpineConvention_ClimateActionPlan2.0_EN.pdf
- Pfahl, S., Milinkovič, I., Spenga, K., Pfister, M., Elmi, M., & Gaggia, G. (2018). *Setting up an award for sustainable tourist destinations in the Alps. Feasibility study and international*

- experience*.
https://www.alpconv.org/fileadmin/user_upload/fotos/Banner/Topics/tourism/VII_Report_Award_Tourism_FINAL.pdf
- Pintér, L., Hardi, P., Martinuzzi, A., & Hall, J. (2012). Bellagio STAMP: Principles for sustainability assessment and measurement. *Ecological Indicators*, *17*, 20–28.
<https://doi.org/10.1016/j.ecolind.2011.07.001>
- Porter, M. E., & Kramer, M. R. (2012). Shared Value: Die Brücke von Corporate Social Responsibility zu Corporate Strategy. In A. Schneider & R. Schmidpeter (Eds.), *Corporate Social Responsibility* (pp. 137–153). Springer Berlin Heidelberg.
https://doi.org/10.1007/978-3-642-25399-7_9
- Price, M. F., Arnesen, T., Gløersen, E., & Metzger, M. J. (2018). Erratum to: Mapping mountain areas: learning from Global, European and Norwegian perspectives. *Journal of Mountain Science*, *16*, 1. <https://doi.org/10.1007/s11629-018-5008-0>
- Saarinen, J. (2013). Critical Sustainability: Setting the Limits to Growth and Responsibility in Tourism. *Sustainability*, *6*(1), 1–17. <https://doi.org/10.3390/su6010001>
- Schianetz, K., & Kavanagh, L. (2008). Sustainability Indicators for Tourism Destinations: A Complex Adaptive Systems Approach Using Systemic Indicator Systems. *Journal of Sustainable Tourism*, *16*(6), 601–628. <https://doi.org/10.1080/09669580802159651>
- Schianetz, K., Kavanagh, L., & Lockington, D. (2007). Concepts and Tools for Comprehensive Sustainability Assessments for Tourism Destinations: A Comparative Review. *Journal of Sustainable Tourism*, *15*(4), 369–389. <https://doi.org/10.2167/jost659.0>
- Schweiz Tourismus. (2021). *Swisstainable. Strategie für eine nachhaltige Entwicklung des Reiselands Schweiz*.
https://www.stnet.ch/app/uploads/2021/02/Swisstainable_Strategie_D.pdf
- Scott, D. (2021). Sustainable Tourism and the Grand Challenge of Climate Change. *Sustainability*, *13*(4), 1966. <https://doi.org/10.3390/su13041966>
- Scuttari, A., Marcher, A., Pechlaner, H., Habicher, D., & Vanzi, G. (2018). Sustainable mobility initiatives in mountain destinations : observation , mobile and visual methodologies to monitor traffic management measures in the Dolomites ' passes (Italy). *2nd UNWTO World Conference on Smart Destination*. <http://sdt.unwto.org/event/2nd-unwto-world-conference-smart-destinations-0>
- Sharpley, R. (2000). Tourism and sustainable development: Exploring the theoretical divide. *Journal of Sustainable Tourism*, *8*(1), 1–19. <https://doi.org/10.1080/09669580008667346>
- Simpson, E. (1951). The Interpretation of Interaction in Contingency Tables. *Journal of the Royal Statistical Society, Series B*(13), 238–241. <https://www.jstor.org/stable/2984065>
- Sirakaya, E., Jamal, T. B., & Choi, H. S. (2001). Developing indicators for destination sustainability. In U. Oxon (Ed.), *The encyclopedia of ecotourism* (Weaver, D., pp. 411–432). CABI. <https://doi.org/10.1079/9780851993683.0411>
- Steinecke, A. (2010). *Populäre Irrtümer über Reisen und Tourismus*. Oldenbourg Verlag.
<https://doi.org/10.1524/9783486709995>
- Strambach, S., & Surmeier, A. (2018). From standard takers to standard makers? The role of knowledge-intensive intermediaries in setting global sustainability standards. *Global Networks*, *18*(2), 352–373. <https://doi.org/10.1111/glob.12163>
- Strasdas, W., Balas, M., & Zeppenfeld, R. (2016). *Bestandsaufnahme und Bewertung von Zertifizierungssystemen für nachhaltigen Tourismus in Deutschland*. https://www.zenat-tourismus.de/images/pdf/Zertifizierungssysteme_nachhaltiger_Tourismus_in_Deutschland.pdf
- Tikina, A. V., & Innes, J. L. (2008). A framework for assessing the effectiveness of forest certification. *Canadian Journal of Forest Research*, *38*(6), 1357–1365.
<https://doi.org/10.1139/X08-011>
- Torres-Delgado, A., & Palomeque, F. L. (2014). Measuring sustainable tourism at the municipal level. *Annals of Tourism Research*, *49*, 122–137.

- <https://doi.org/10.1016/j.annals.2014.09.003>
- TourCert. (n.d.). *Destinations*. Retrieved March 10, 2021, from <https://www.tourcert.org/en/services/destinations/>
- TourCert. (2016). *Durchführungsbestimmungen zur Zertifizierung von Destinationen*. https://www.tourcert.org/wp-content/uploads/2017/11/1705_TourCert_Durchführungsbestimmungen_TB.pdf
- TourCert. (2018). *Kriterienkatalog für Destinationen*. https://www.tourcert.org/wp-content/uploads/2021/02/TourCert_Kriterienkatalog_Dest_2018-1.pdf
- Tribaldos, T., & Rist, S. (2021). Developing indicators for sustainable regional development in mountain areas. In C. Adler, I. Otero, E. Reynard, & J. Balsiger (Eds.), *Mountains as contexts for global change*. <https://doi.org/10.7892/boris.147606>
- Tudorache, D., Simon, T., Frenț, C., & Musteață-Pavel, M. (2017). Difficulties and Challenges in Applying the European Tourism Indicators System (ETIS) for Sustainable Tourist Destinations: The Case of Brașov County in the Romanian Carpathians. *Sustainability*, *9*(10), 1879. <https://doi.org/10.3390/su9101879>
- Tueanrat, Y., Papagiannidis, S., & Alamanos, E. (2021). Going on a journey: A review of the customer journey literature. *Journal of Business Research*, *125*(December 2020), 336–353. <https://doi.org/10.1016/j.jbusres.2020.12.028>
- Twining-Ward, L., & Butler, R. (2002). Implementing STD on a Small Island: Development and Use of Sustainable Tourism Development Indicators in Samoa. *Journal of Sustainable Tourism*, *10*(5), 363–387. <https://doi.org/10.1080/09669580208667174>
- United Nations Development Programme. (2013). *A New Global Partnership. Eradicate Poverty and Transform Economies Through Sustainable Development*. <https://sustainabledevelopment.un.org/content/documents/8932013-05 - HLP Report - A New Global Partnership.pdf>
- United Nations Development Programme. (2014). *Discussion Paper. Governance for Sustainable Development. Integrating Governance in the Post-2015 Development Framework*. <https://www-dev.undp.org/publications/discussion-paper-governance-sustainable-development>
- United Nations Development Programme, & World Tourism Organization. (2005). *Making Tourism More Sustainable. A Guide for Policy Makers*. [https://wedocs.unep.org/bitstream/handle/20.500.11822/8741/-Making Tourism More Sustainable_ A Guide for Policy Makers-2005445.pdf?sequence=3&isAllowed=y](https://wedocs.unep.org/bitstream/handle/20.500.11822/8741/-Making_Tourism_More_Sustainable_-_A_Guide_for_Policy_Makers-2005445.pdf?sequence=3&isAllowed=y)
- United Nations Economic and Social Commission for Asia and the Pacific. (2009). *What is Good Governance?* <http://www.unescap.org/sites/default/files/good-governance.pdf>
- Vermeulen. (2018). Substantiating the rough consensus on concept of sustainable development as point of departure for indicator development. In S. Bell & S. Morse (Eds.), *Routledge Handbook of Sustainability Indicators* (pp. 59–90). Routledge. <http://dspace.library.uu.nl/handle/1874/369709>
- Vermeulen, W. J. V., & Metselaar, J. A. (2015). Improving sustainability in global supply chains with private certification standards: testing an approach for assessing their performance and impact potential. *International Journal of Business and Globalisation*, *14*(2), 226. <https://doi.org/10.1504/IJBG.2015.067437>
- Vermeulen, W. J. V., & Witjes, S. (2016). On addressing the dual and embedded nature of business and the route towards corporate sustainability. *Journal of Cleaner Production*, *112*, 2822–2832. <https://doi.org/10.1016/j.jclepro.2015.09.132>
- Visser, W. (2013). *Corporate Sustainability & Responsibility: An Introductory Text on CSR Theory & Practice - Past, Present & Future*. Kaleidoscope Futures. https://www.researchgate.net/publication/273105157_Corporate_Sustainability_Responsibility_An_Introductory_Text_on_CSR_Theory_Practice_-_Past_Present_Future
- Weiland, R. (2020). Die gemachten Gäste. Die Bergsteigerdörfer und ihr Bild von den Reisenden. *Český Lid*, *107*(4), 493–510. <https://doi.org/10.21104/CL.2020.4.04>

- Weston, R., Grebenar, A., Lawler, M., Hamele, H., Silience, G., Balas, M., Denman, R., Pezzano, A., & Reiner, K. (2018). *Research for TRAN Committee - European Tourism Labelling*. <https://doi.org/10.2861/01367>
- White, V., McCrum, G., Blackstock, K. L., & Scott, A. (2006). *Indicators and sustainable tourism: Literature review*. <https://macaulay.webarchive.hutton.ac.uk/ruralsustainability/LiteratureReview.pdf>
- World Tourism Organization. (2004). *Indicators of Sustainable Development for Tourism Destinations. A Guidebook*.
- World Tourism Organization. (2020). *Global Guidelines to Restart Tourism*. <https://webunwto.s3.eu-west-1.amazonaws.com/s3fs-public/2020-05/UNWTO-Global-Guidelines-to-Restart-Tourism.pdf>
- Zehrer, A., Raich, F., Siller, H., & Tschiederer, F. (2014). Leadership networks in destinations. *Tourism Review*, 69(1), 59-73. <https://doi.org/10.1108/TR-06-2013-0037>
- Zulberti, A. (2012). I Parchi per le Alpi. In C. Lasen (Ed.), *Aree protette alpine: ruoli, esperienze, prospettive* (pp. 111-116). Edizioni ETS.

Appendices

Appendix 1: Sustainable tourism actors in the Alps

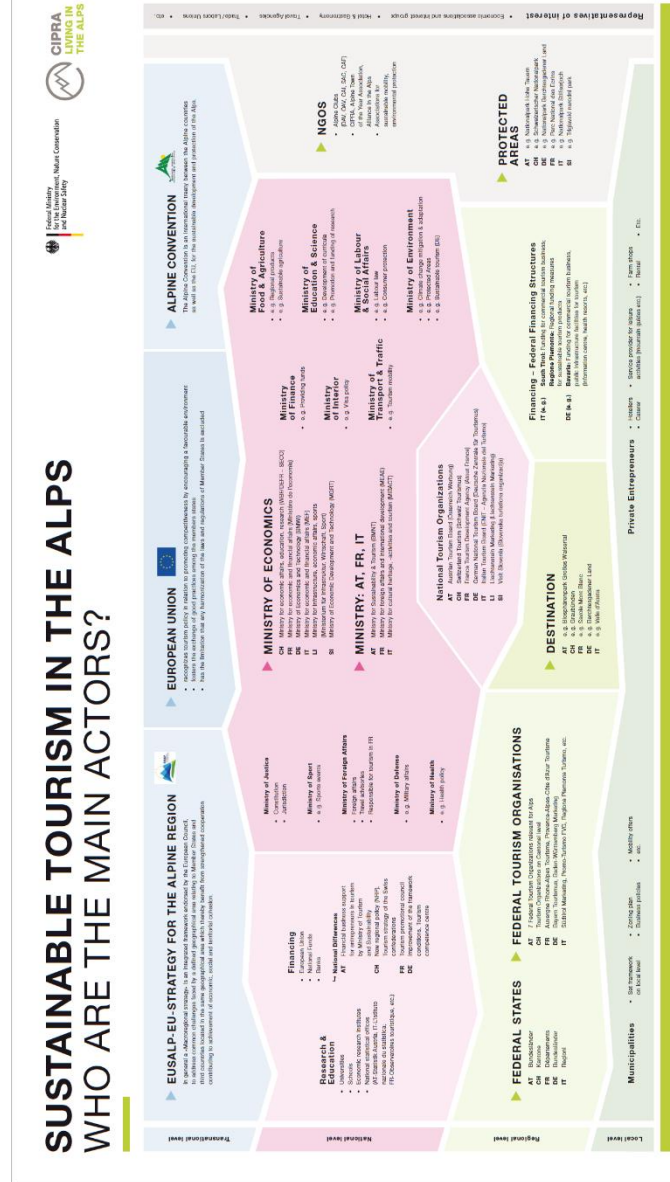


Figure 22: Sustainable tourism actors in the Alps (CIPRA International, 2018)

Appendix 2: Assessment Green Destinations

Certification body: management assessment

Nr.	Good Governance Category	Criterion	Explanation	Assessment	Data Quality
A.1.1	Legitimacy & Voice	Neutrality & impartiality	The certification body disposes over a guideline on its neutrality and impartiality. The certification body is legally and economically independent of potential certification users.	2	Interview 2
A.1.2		Standardised assessment methodology	The certification body disposes over a standardised and documented assessment methodology for the fulfilment of requirements. This methodology provides clear guidelines on minimum requirements and insights into correcting measures in case of non-conformity.	3	Interview 1
A.1.3		On-site third-party audit	The assessment of the fulfilment of the criteria takes place an independent on-site third-party audit.	2	Interview 1
A.1.4		Stakeholder involvement	There exist mechanisms for the involvement of stakeholders (e.g. in case of non-conformity with requirements or complex matters).	2	Interview 2
A.1.5		Standardised audit report	The certification body or audit body compiles a standardised audit report with all information about fulfilled requirements and non-conformity. This report is accessible for the certification user.	3	Interview 1
A.1.6		Validation of audit	The certification body disposes over a system for the validation of the audit results and the final decision for certification. This occurs independent of the audit body and is documented in writing.	2	Interview 1
A.2.1	Direction	Consideration of current events	The certification considers recent scientific findings as well as relevant international standards.	2	Interview 2
A.2.2		Materiality analysis	The criteria catalogue and weighting of requirements is based on results of a materiality analysis in the respective tourism sector.	1	Interview 1 + 2
A.2.3		Reference to other sustainability standards	The certification body refers to other, similar certification systems and disposes over mechanisms for mutual recognition.	2	Interview 1 + 2
A.3.1	Performance	Support in certification process	The certification body offers information and support in the certification process. This offer is open to all current and potential certification users.	2	Interview 1 + 2
A.3.2		Impact assessment	The certification body engages in continual monitoring of its impacts and documents this internally.	2	Interview
A.3.3		Consistent stakeholder dialogue	The certification body is in regular dialogue with stakeholders to measure inachievement effects. This process is documented.	2	Interview 2
A.4.1	Accountability & Transparency	Legal status	The legal status of the certification body is easily recognizable on all its publicly available documents.	2	Website
A.4.2		Organisational structure	The organisational structure of the certification body is publicly available.	2	Website
A.4.3		Contractual arrangements	Between the certification body and certification user exist contractual arrangements.	2	Interview 2
A.4.4		Transparent use of certification	There exist free and publicly available information on the criteria for the fulfillment of performance-based requirements.	2	Website
A.4.5		Transparent target group	There exists a publicly available overview of the relevant sectors and stakeholder and applicability scope of the certification.	2	Website
A.4.6		Standardised & transparent certification process	There exists free and publicly available information on the criteria for the fulfillment of process-based requirements.	2	Website
A.4.7	Fairness	Transparent register of certified entities	There exists a publicly available register of certified entities.	1	Website
A.4.8		Transparent requirements for multi-tiered certification	There exists free and publicly available information on the concrete minimum requirements for multi-tiered certification (e.g. Bronze, Silver, Gold).	0	Interview 2
A.4.9		Transparent cost structure	The costs of certification and possible additional costs are clear, transparent and publicly accessible.	2	Brochure
A.4.10		Complaint management	The certification body disposes over a standardised and documented complaint mechanism that defines clear steps, time frame and responsibilities of a complaint procedure.	2	Interview 2
A.4.11		Regulation for recertification and termination of certification	The certification body disposes over a clear mechanism for recertification and termination of certification. The certification user is timely informed about necessary recertification.	2	Website
A.4.12		Measurability and benchmarking	There exist comparable indicators for the measurability of the requirements and the benchmarking of certification users.	1	Interview 2
A.5.1	Fairness	Reference to legal regulators	The certificate exceeds legal requirements and refers to existing national and international legislation and regulation.	1	Criteria Catalogue
A.5.2		Board Membership (Kollmann & Pantberg, 2013)	The certification body disposes over guidelines to ensure gender and equity in its Board membership.	0	Interview 2

Figure 23: Complete certification body management assessment Green Destinations

Certification standard: performance assessment

Impact requirements

Nr.	Sustainability Issue Dimension	Relevant Endpoint	Criteria	Explanation	Assessment	Criterion No.	Data Quality		
B.1.1.1	Planet	Natural resources	Energy management	Criteria of the certification ensure the measurement of energy consumption and implementation of measures for energy conservation and efficiency	3	3.16 + 3.17	Criteria Catalogue		
B.1.1.2			Water management	Criteria of the certification ensure the measurement of water consumption and implementation of measures for water conservation	1	3.4-3.7; 6.4	Criteria Catalogue		
B.1.1.3			Waste management	Criteria of the certification ensure the measurement of waste management and the implementation of measures for waste reduction, -separation and recycling	2	3.8-3.11	Criteria Catalogue		
B.1.1.4	Natural environment	Natural environment	Air pollution	Criteria of the certification ensure the measurement and reduction of GHG emissions	2	3.12 - 3.14	Criteria Catalogue		
B.1.1.5			Noise pollution	Criteria of the certification ensure the identification of noise pollution sources and the reduction thereof	2	3.1	Criteria Catalogue		
B.1.1.6			Visual pollution	Criteria of the certification ensure the identification of visual pollution sources and reduction thereof	1	3.2 + 2.5 (optional)	Criteria Catalogue		
B.1.1.7			Biodiversity	Criteria of the certification ensure: identification of areas and indirect effects on biodiversity activities on biodiversity Measures for biodiversity protection Responsible interaction with wildlife	1	2.6-2.8 + 2.1	Criteria Catalogue		
B.1.1.8			Tourism land use	Criteria of the certification ensure the consideration of environmental and socio-cultural limits of capacity in construction - and infrastructure planning	2	3.3	Criteria Catalogue		
B.1.2.1			People	Worker well-being	Employment quality	Criteria of the certification ensure the establishment of best working conditions with special attention to over-hours and family-friendliness	1	5.14 + 6.8	Criteria Catalogue
B.1.2.2					Employment diversity	Criteria of the certification ensure equal opportunities of all employed persons, independent of gender, age, ethnicity, origin, religion or sexual identity	1	5.14	Criteria Catalogue
B.1.2.3	Prosperity	Community livelihood	Regional cultural heritage & traditions	Criteria of the certification ensure respect and appreciation of cultural heritage and traditions and the implementation of measures for the conservation thereof	2	4.1-4.2 + 4.4	Criteria Catalogue		
B.1.2.4			Health & safety	Criteria of the certification ensure the promotion of health and prevention of accidents	2	5.17	Criteria Catalogue		
B.1.3.1			Seasonality & sustainable innovation	Criteria of the certification ensure the promotion of sustainable innovation to reduce seasonal dependency of tourism offers	1	1.12	Criteria Catalogue		
B.1.3.2			Local prosperity	Criteria of the certification ensure the priority of local producers and suppliers	2	5.12 + 5.13	Criteria Catalogue		
B.1.3.3	Fairness in Economic System	Fairness in Economic System	Anti-Corruption & Responsible Political Involvement	Criteria of the certification ensure the prevention of corruption, bribery, unfair competition and one-sided influencing.	1	1.19 (optional)	Criteria Catalogue		
B.1.3.4			Fair marketing	Criteria of the certification ensure fair, truthful and transparent communication strategies and materials	2	6.10	Criteria Catalogue		
B.1.3.5			Fair contracts & competition	Criteria of the certification ensure fair contracts with suppliers and fair competition.	1	1.20 (optional)	Criteria Catalogue		
B.1.3.6			Fair tax behaviour	Criteria of the certification ensure fair tax behaviour	0	-	Criteria Catalogue		

Figure 24: Complete certification standard assessment impact category Green Destinations

Process requirements

Nr.	Plan-Do-Check-Act Cycle Stage	Management System Element	Criteria	Explanation	Assessment	Criterion No.	Data Quality
B.2.1.1	Plan	Analysis	Intensive analysis of initial situation	Criteria of the certification ensure the identification of existing issues in collaboration with stakeholders	1	1.5-1.6	Criteria Catalogue
B.2.1.2		Policy	Implementation Plan	Criteria of the certification ensure the definition of action steps in collaboration with stakeholders	3	1.7 – 1.9 + 5.7 – 5.9	Criteria Catalogue
B.2.1.3			Political commitment	Criteria of the certification ensure the existence of a formal system of commitment to meet the requirements and initially improve responsibilities	2	-	Interview 2
B.2.1.4		Responsibility & authority	Organisational structure	Criteria of the certification ensure the definition of clear responsibilities	3	1.1 + 1.2 + 1.3	Criteria Catalogue
B.2.2.1	Do	Monitoring	Monitoring	Criteria of the certification ensure the regular comparison of policy and strategy with output	2	1.15 – 1.16	Criteria Catalogue
B.2.2.2		Documentation	Clear documentation	Criteria of the certification ensure the documentation of policies, manuals and procedures to establish that all employees have a clear understanding of the requirements	2	-	Interview 2
B.2.3.1	Check	Internal Audit	System evaluation	Criteria of the certification ensure the regular evaluation of system, processes and product of the organisation, performed by an independent organisational auditor	2	-	Interview 2, Criteria Catalogue
B.2.3.2		Management review	Management evaluation	Criteria of the certification ensure the regular evaluation of management system	2	-	Interview 2, Criteria Catalogue
B.2.4.1	Act	Continual Improvement	Preventive & corrective actions	Criteria of the certification ensure that action is taken based on the results of the management and system evaluation	1	-	Interview 2, Criteria Catalogue

Figure 25: Complete certification standard assessment process category Green Destinations

Standard indicators: quality assessment

Nr.	Elements of indicator construction	Key principles for indicator construction	Criteria	Explanation	Assessment	Data Quality
C.1.1.	Methodological elements	Scope & core concept	Connection to sustainability issues dimensions	The indicators link to the three issue dimensions of sustainable development (planet, people, prosperity).	2	Criteria Catalogue
C.1.2.		Key elements	Representativeness	The indicators cover the important dimensions of sustainable tourism.	2	Criteria Catalogue
C.1.3.1		Data specification	Adequate scope	The indicators have an appropriate time horizon to cover short- and long-term effects and an appropriate geographical scope.	2	Criteria Catalogue
C.1.3.2			Availability & measurability	The required data is available and easy to measure.	2	Criteria Catalogue
C.1.3.3			Reliability	The indicators are compiled using a systematic and fair method.	2	Criteria Catalogue
C.1.4.		Data manipulation	Normalization & aggregation	The normalization and aggregation of indicator data occurs in a justified way.	2	Criteria Catalogue
C.1.5		Compilation of final result	Weighing	The weighing is in accordance with the relative importance of the three issue dimensions of sustainable development.	2	Criteria Catalogue
C.2.1	Application aspects	Accountability	Transparency	The indicators are publicly accessible and data sources and methods are publicly disclosed.	2	Criteria Catalogue
C.2.2.1		Outreach	Clarity	The indicators use simple language and can be interpreted by lay persons.	2	Criteria Catalogue
C.2.2.2			Broad participation	The indicators are developed in consultation with and accepted by all relevant stakeholders.	2	Interview, Standard & Reporting System
C.2.3			Long-term impact	Responsiveness	The indicators respond quickly and to changes.	1

Figure 26: Complete standard indicator assessment Green Destinations

Appendix 3: TourCert

a. TourCert recognized environmental- and sustainability certifications for partner businesses

- Blaue Flagge
- Blaue Schwalbe
- BIO-Hotels
- Ecocamping
- TourCert certification
- Green Globe
- Viabono
- EMAS
- ISO 14001:2004
- Green Key
- Partner Nationale Naturlandschaften (Partner national nature landscapes)
- Certified Green Hotel
- Ökoprofit
- TripAdvisor Green Leaders with minimum Bronze status
- Green Sign/infraCert
- ehc eco hotels certified
- Wellness-Stars
- Wellnesshotels & Resorts Qualitätsstandards
- Qualitätsmanagement Golf & Natur
- EU Ecolabel for accomodations
- Qualitätsmanagement Wassertourismus (QMW) Kanu (quality management water tourism)
- TUI Eco Resorts
- Umweltgütesiegel Alpenvereinshütten (environmental quality seal for mountain huts)
- DGNB - Zertifizierungssystem für nachhaltiges Bauen (certification system for sustainable construction)
- Green Pearls

Regional certifications or other certifications need to fulfil the following requirements to be recognized:

- Focus on environmental, social and sustainability aspects (at least 50% of the criteria), spread across various thematic fields
- On-site audit or third-party audit
- Certificate valid no longer than three years.

(TourCert, 2016)

b. Assessment TourCert

Certification body: management assessment

Nr.	Good Governance Category	Criterion	Explanation	Assessment	Data Quality
A.1.1	Legitimacy & Voice	Neutrality & impartiality	The certification body disposes over a guideline on its neutrality and impartiality. The certification body is legally and economically independent of potential certification users.	3	Website, Certification guideline
A.1.2		Standardised assessment methodology	The certification body disposes over a standardized and documented assessment methodology for the fulfilment of requirements. The methodology provides clear guidelines on minimum requirements and legal aspects of the fulfilment of the criteria taking into account the third-party audit.	2	Certification guideline, Implementing provisions
A.1.3		On-site third-party audit	The awarding of the fulfilment of the criteria takes place independently on the third-party audit.	2	Certification guideline, Interview
A.1.4		Stakeholder involvement	There exist mechanisms for the involvement of stakeholders (e.g. in case of non-conformity with requirements or disputes, etc.).	3	Interview
A.1.5		Standardised audit report	The certification body or audit body completes a standardized audit report with all information about fulfilled requirements and non-conformity. This report is acceptable for the certification user.	2	Certification guideline, Implementing provisions
A.1.6	Validation of audit	The certification body disposes over a system for the validation of the audit results and the final decision for certification. This occurs independent of the audit body and is documented in writing.	3		
A.2.1	Direction	Consideration of current events	The certification catalogue and weighting of requirements is based on results of a materiality analysis in the respective tourism sector.	2	Interview
A.2.2		Materiality analysis	The certification body refers to other, similar certification systems and disposes over mechanisms for mutual recognition.	1	Interview
A.2.3		Reference to other sustainability standards	The certification body offers information and support in the certification process. This offer is open to all current and potential certification users.	3	Certification guideline, Implementing provisions
A.3.1	Performance	Support in certification process	The certification body engages in continual monitoring of its impacts and documents this internally.	2	Interview, Implementing provisions
A.3.2		Impact assessment	The certification body is in regular dialogue with stakeholders to measure subsequent effects. This process is documented.	2	Interview, Implementing provisions
A.3.3		Consistent stakeholder dialogue	The legal status of the certification body is easily recognizable on all its publicly available documents.	2	Website, Implementing provisions
A.4.1	Accountability & Transparency	Legal status	The organisational structure of the certification body is publicly available.	2	Website
A.4.2		Organisational structure	Between the certification body and certification user exist contractual arrangements.	2	Interview
A.4.3		Contractual arrangements	There exist free and publicly available information on the criteria for the fulfilment of performance-based requirements.	2	Website
A.4.4		Transparent use of certification	There exist a publicly available overview of the relevant sectors and stakeholder and applicability scope of the certification.	2	Website
A.4.5		Transparent target group	There exist free and publicly available information on the criteria for the fulfilment of process-based requirements.	2	Criteria Catalogue
A.4.6	Standardised & transparent certification process	Transparent register of certified entities	There exists a publicly available register of certified entities.	2	Website
A.4.7	Transparent register of certified entities	Transparent requirements for multi-tiered certification	There exist free and publicly available information on the concrete minimum requirements for multi-tiered certification (e.g. Bronze, Silver, Gold).	n/a	
A.4.8	Transparent requirements for multi-tiered certification	Transparent cost structure	The certification body disposes over a transparent and publicly accessible cost structure and public additional costs are clear, transparent and publicly accessible.	2	Website
A.4.9	Transparent cost structure	Complaint management	The certification body disposes over a standardized and documented complaint mechanism that defines clear steps, time frame and responsibility of a complaint procedure.	2	Implementing provisions
A.4.10	Complaint management	Regulation for recertification and termination of certification	The certification body disposes over a clear mechanism for recertification and termination of certification.	2	Implementing provisions
A.4.11	Regulation for recertification and termination of certification	Measurability and benchmarking	The certification user is clearly informed about necessary recertification.	2	Implementing provisions, Criteria Catalogue
A.4.12	Measurability and benchmarking	Reference to legal regulations	There exist comparable indicators for the measurability of the requirements and the benchmarking of certification users.	2	Implementing provisions, Criteria Catalogue
A.5.1	Fairness	Reference to legal regulations	The certificate exceeds legal requirements and refers to existing national and international legislation and regulation.	2	Criteria Catalogue
A.5.2		Board Membership (Kulligmann & Puttberg, 2013)	The certification body disposes over guidelines to ensure gender and equity in its Board membership.	0	Interview

Figure 27: Complete certification body management assessment TourCert

Certification standard: performance assessment

Impact requirements

Nr.	Sustainability Issue Dimension	Relevant Endpoint	Criteria	Explanation	Assessment	Criterion No.	Data Quality
B.1.1.1	Planet	Natural resources	Energy management	Criteria of the certification ensure the measurement of energy consumption and implementation of measures for energy conservation and efficiency	1	6.8	Criteria Catalogue
B.1.1.2			Water management	Criteria of the certification ensure the measurement of water consumption and implementation of measures for water conservation	2	6.4+6.7	Criteria Catalogue
B.1.1.3			Waste management	Criteria of the certification ensure the measurement of waste management and the implementation of measures for waste reduction, separation and recycling	2	6.10+6.11	Criteria Catalogue
B.1.1.4		Natural environment	Air pollution	Criteria of the certification ensure the measurement and reduction of GHG emissions	2	6.2+6.4, 6.5	Criteria Catalogue
B.1.1.5			Noise pollution	Criteria of the certification ensure the identification of noise pollution sources and the reduction thereof	2	6.7	Criteria Catalogue
B.1.1.6			Visual pollution	Criteria of the certification ensure the identification of visual pollution sources and reduction thereof	1	5.4	Criteria Catalogue
B.1.1.7			Biodiversity	Criteria of the certification ensure: - Identification of direct and indirect effects of tourism offers and activities on biodiversity - Measures for biodiversity protection - Responsible interaction with wildlife	2	5.2+5.3	Criteria Catalogue
B.1.1.8	People	Worker well-being	Tourism land use	Criteria of the certification ensure the consideration of environmental and socio-cultural limits of capacity in construction – and infrastructure planning	1	5.4	Criteria Catalogue
B.1.2.1			Employment quality	Criteria of the certification ensure the establishment of best working conditions with special attention to over hours and family-friendliness	2	8.3	Criteria Catalogue
B.1.2.2		Employment diversity	Criteria of the certification ensure equal opportunities of all employed persons, independent of gender, age, ethnicity, origin, religion or sexual identity	2	8.8	Criteria Catalogue	
B.1.2.3		Community livelihood	Regional cultural heritage & traditions	Criteria of the certification ensure respect and appreciation of cultural heritage and traditions and the implementation of measures for the conservation thereof	2	7.1+7.2	Criteria Catalogue
B.1.2.4			Health & safety	Criteria of the certification ensure the promotion of health and prevention of accidents	2	8.2	Criteria Catalogue
B.1.3.1		Prosperity	Societal stability	Seasonality & sustainable innovation	Criteria of the certification ensure the promotion of sustainable innovation to reduce seasonal dependency of tourism offers	1	3.2
B.1.3.2	Local prosperity			Criteria of the certification ensure the priority of local producers and suppliers	3	4.1+4.2	Criteria Catalogue
B.1.3.3	Anti-Corruption & Responsible Political Involvement		Criteria of the certification ensure the prevention of corruption, bribery, unfair competition and one-sided marketing	0	-	Criteria Catalogue	
B.1.3.4	Fairness in Economic System		Fair marketing	Criteria of the certification ensure fair, truthful and transparent communication strategies and materials	2	1.9+1.10	Criteria Catalogue
B.1.3.5			Fair contracts & competition	Criteria of the certification ensure fair contracts with suppliers and fair competition	0	-	Criteria Catalogue
B.1.3.6			Fair tax behaviour	Criteria of the certification ensure fair tax behaviour	0	-	Criteria Catalogue

Figure 28: Complete certification standard assessment impact category TourCert

Process requirements

Nr.	Plan-Do-Check-Act Cycle Stage	Management System Element	Criteria	Explanation	Assessment	Criterion No.	Data Quality
B.2.1.1	Plan	Analysis	Intensive analysis of initial situation	Criteria of the certification ensure the identification of existing issues in collaboration with stakeholders	2	2.2	Criteria Catalogue
B.2.1.2		Policy	Implementation Plan	Criteria of the certification ensure the definition of action steps in collaboration with stakeholders	3	1.2+1.3	Criteria Catalogue
B.2.1.3			Political commitment	Criteria of the certification ensure the existence of a formal statement of commitment to meet the requirements and continually improve	2	1.1	Criteria Catalogue
B.2.1.4		Responsibility & authority	Organisational structure	Criteria of the certification ensure the definition of clear responsibilities	2	1.4	Criteria Catalogue
B.2.2.1	Do	Monitoring	Monitoring	Criteria of the certification ensure the regular comparison of policy and strategy with output	2	1.10	Criteria Catalogue
B.2.2.2		Documentation	Clear documentation	Criteria of the certification ensure the documentation of policies, manuals and procedures to establish that all employees have a clear understanding of the requirements	2		Certification Guideline
B.2.3.1	Check	Internal Audit	System evaluation	Criteria of the certification ensure the regular evaluation of system, processes and product of the organisation, performed by an independent organisational auditor	2		Certification Guideline
B.2.3.2		Management review	Management evaluation	Criteria of the certification ensure the regular evaluation of management system	2		Certification Guideline
B.2.4.1	Act	Continual Improvement	Preventive & corrective actions	Criteria of the certification ensure that action is taken based on the results of the management and system evaluation	2	1.12	Criteria Catalogue

Figure 29: Complete certification standard assessment process category TourCert

Standard indicators: quality assessment

Nr.	Elements of indicator construction	Key principles for indicator construction	Criteria	Explanation	Assessment	Data Quality	
C.1.1.	Methodological elements	Scope & core concept	Connection to sustainability issues	The indicators link to the three issue dimensions of sustainable development (planet, people, prosperity).	2	Criteria Catalogue	
C.1.2.			Representativeness	The indicators cover the important dimensions of sustainable tourism.	2	Criteria Catalogue	
C.1.3.1			Adequate scope	The indicators have an appropriate time horizon to cover short- and long-term effects and an appropriate geographical scope.	2	Criteria Catalogue	
C.1.3.2		Data specification	Availability & measurability	The required data is available and easy to measure.	2	Criteria Catalogue	
C.1.3.3			Reliability	The indicators are compiled using a systematic and fair method.	2	Interview	
C.1.4.			Normalization & aggregation	The normalization and aggregation of indicator data occurs in a justified way.	2	Interview	
C.1.5		Completion of final result	Weighting	The weighing is in accordance with the relative importance of the three issue dimensions of sustainable development.	1	Interview	
C.2.1		Application aspects	Accountability	Transparency	The indicators are publicly accessible and data sources and methods are publicly disclosed.	2	Criteria Catalogue
C.2.2.1				Clarity	The indicators use simple language and can be interpreted by lay persons.	2	Criteria Catalogue
C.2.2.2			Broad participation	The indicators are developed in consultation with and accepted by all relevant stakeholders.	2	Interview	
C.2.3			Long-term impact	Responsiveness	The indicators respond quickly and to changes.	2	Criteria Catalogue

Figure 30: Complete standard indicator assessment TourCert

Appendix 4: Assessment Mountaineering Villages

Certification body: management assessment

Nr.	Good Governance Category	Criterion	Explanation	Assessment	Data Quality
A.1.1	Legitimacy & Voice	Neutrality & impartiality	The certification body disposes over a guideline on its neutrality and impartiality. The certification body is legally and economically independent of potential certification users.	0	Interview
A.1.2		Standardised assessment methodology	The certification body disposes over a standardised and documented assessment methodology for the fulfilment of requirements. This methodology provides clear guidelines on minimum requirements and insights into correcting measures in case of non-conformity.	2	Document
A.1.3		On-site third-party audit	The assessment of the fulfilment of the criteria takes place an independent on-site third-party audit.	0	Interview
A.1.4		Stakeholder involvement	There exist mechanisms for the involvement of stakeholders (e.g. in case of non-conformity with requirements or complex material).	2	Interview
A.1.5		Standardised audit report	The certification body or audit body completes a standardised audit report with all information about fulfilled requirements and non-conformity. This report is accessible for the certification user.	1	Interview
A.1.6		Validation of audit	This certification body disposes over a system for the validation of the audit results and the final decision for certification. This occurs independent of the audit body and is documented in writing.	1	Interview, internal Document
A.2.1	Direction	Consideration of current events	The certification considers recent scientific findings as well as relevant international standards.	1	Interview
A.2.2		Materiality analysis	The criteria catalogue and weighing of requirements is based on results of a materiality analysis in the respective tourism sector.	0	Interview
A.2.3		Reference to other sustainability standards	The certification body refers to other, similar certification systems and disposes over mechanisms for mutual recognition.	0	Interview
A.3.1	Performance	Support in certification process	The certification body offers information and support in the certification process. This offer is open to all current and potential certification users.	1	Interview
A.3.2		Impact assessment	The certification body engages in continual monitoring of its impacts and documents this internally.	2	Interview
A.3.3		Consistent stakeholder dialogue	The certification body is in regular dialogue with stakeholders to measure achievement effects. This process is documented.	2	Interview
A.4.1	Accountability & Transparency	Legal status	The legal status of the certification body is easily recognizable on all its publicly available documents.	1	Website/Interview
A.4.2		Organisational structure	The organisational structure of the certification body is publicly available.	1	Internal documents
A.4.3		Contractual arrangements	Between the certification body and certification user exist contractual arrangements.	2	Interview
A.4.4		Transparent use of certification	There exist free and publicly available information on the criteria for the fulfilment of performance-based requirements.	2	Website/Criteria Catalogue
A.4.5		Transparent target group	There exist a publicly available overview of the relevant sectors and stakeholder and applicability scope of the certification.	2	Website
A.4.6		Standardised & transparent certification process	There exists free and publicly available information on the criteria for the fulfilment of process-based requirements.	2	Website
A.4.7		Transparent register of certified entities	There exists a publicly available register of certified entities.	2	Website
A.4.8		Transparent requirements for multi-tiered certification	There exists free and publicly available information on the concrete minimum requirements for multi-tiered certification (e.g. Bronze, Silver, Gold).	n/a	-
A.4.9		Transparent cost structure	The costs of certification and possible additional costs are clear, transparent and publicly accessible.	1	Interview
A.4.10		Complaint management	The certification body disposes over a standardised and documented complaint mechanism that defines clear steps, time frame and responsibilities of a complaint procedure.	0	Interview
A.4.11	Regulation for recertification and termination of certification	The certification user is timely informed about necessary recertification.	2	Internal documents	
A.4.12	Measurability and benchmarking	There exist comparable indicators for the measurability of the requirements and the benchmarking of certification users.	1	Criteria Catalogue, Interview	
A.5.1	Fairness	Reference to legal regulations	The certificate exceeds legal requirements and refers to existing national and international legislation and regulation.	1	Criteria Catalogue, Interview
A.5.2		Board Membership (Kalligjanni & Patberg, 2013)	The certification body disposes over guidelines to ensure gender and equity in its Board membership.	0	Interview

Figure 31: Complete certification body management assessment Mountaineering Villages

Certification standard: performance assessment

Impact requirements

Nr.	Sustainability Issue Dimension	Relevant Endpoint	Criteria	Explanation	Assessment	Criterion No.	Data Quality	
B.1.1.1	Planet	Natural resources	Energy management	Criteria of the certification ensure the measurement of energy consumption and implementation of measures for energy conservation and efficiency.	0	-	Criteria Catalogue	
B.1.1.2			Water management	Criteria of the certification ensure the measurement of water consumption and implementation of measures for water conservation.	2	B2b	Criteria Catalogue	
B.1.1.3			Waste management	Criteria of the certification ensure the measurement of waste management and the implementation of measures for waste reduction, separation and recycling.	0	-	Criteria Catalogue	
B.1.1.4			Natural environment	Air pollution	Criteria of the certification ensure the measurement and reduction of GHG emissions.	1	Indirectly B3b, B4	Criteria Catalogue
B.1.1.5				Noise pollution	Criteria of the certification ensure the identification of noise pollution sources and the reduction thereof.	1	See above	Criteria Catalogue
B.1.1.6				Visual pollution	Criteria of the certification ensure the identification of visual pollution sources and reduction thereof.	3	A2-4, B3a+b, B4	Criteria Catalogue
B.1.1.7				Biodiversity	Criteria of the certification ensure: Identification of direct and indirect effects of tourism offers and activities on biodiversity. Measures for biodiversity protection. Responsible interaction with wildlife.	0	-	Criteria Catalogue
B.1.1.8		Tourism land use	Criteria of the certification ensure the consideration of environmental and socio-cultural limits of capacity in construction - and infrastructure planning.	3	A2+3, B3a+b	Criteria Catalogue		
B.1.2.1	People	Worker well-being	Employment quality	Criteria of the certification ensure the establishment of best working conditions with special attention to over hours and family-friendliness.	0	-	Criteria Catalogue	
B.1.2.2			Employment diversity	Criteria of the certification ensure equal opportunities of all employed persons, independent of gender, age, ethnicity, origin, religion or sexual identity.	0	-	Criteria Catalogue	
B.1.2.3		Community liveliness	Regional cultural heritage & traditions	Criteria of the certification ensure respect and appreciation of cultural heritage and traditions and the implementation of measures for the conservation thereof.	3	C2	Criteria Catalogue	
B.1.2.4			Health & safety	Criteria of the certification ensure the promotion of health and prevention of accidents.	0	-	Criteria Catalogue	
B.1.3.1	Prosperity	Societal stability	Seasonality & sustainable innovation	Criteria of the certification ensure the promotion of sustainable innovation to reduce seasonal dependency of tourism offers.	0	-	Criteria Catalogue	
B.1.3.2			Local prosperity	Criteria of the certification ensure the priority of local producers and suppliers.	2	C2	Criteria Catalogue	
B.1.3.3			Anti-Corruption & Responsible Political Involvement	Criteria of the certification ensure the prevention of corruption, bribery, unfair competition and one-sided influencing.	0	-	Criteria Catalogue	
B.1.3.4			Fair marketing	Criteria of the certification ensure fair, truthful and transparent communication strategies and materials.	0	-	Criteria Catalogue	
B.1.3.5			Fair contracts & competition	Criteria of the certification ensure fair contracts with suppliers and fair competition.	0	-	Criteria Catalogue	
B.1.3.6			Fair tax behaviour	Criteria of the certification ensure fair tax behaviour.	0	-	Criteria Catalogue	

Figure 32: Complete certification standard assessment impact category Mountaineering Villages

Process requirements

Nr.	Plan-Do-Check-Act Cycle Stage	Management System Element	Criteria	Explanation	Assessment	Data Quality
B.2.1.1	Plan	Analysis	Intensive analysis of initial situation	Criteria of the certification ensure the identification of existing issues in collaboration with stakeholders	1	Interview, internal documents
B.2.1.2		Policy	Implementation Plan	Criteria of the certification ensure the definition of action steps in collaboration with stakeholders	1	Interview, internal documents
B.2.1.3			Political commitment	Criteria of the certification ensure the existence of a formal statement of commitment to meet the requirements and continually improve	2	Interview, internal documents
B.2.1.4			Responsibility & authority	Organisational structure	Criteria of the certification ensure the definition of clear responsibilities	2
B.2.2.1	Do	Monitoring	Monitoring	Criteria of the certification ensure the regular comparison of policy and strategy with output	1	Interview
B.2.2.2		Documentation	Clear documentation	Criteria of the certification ensure the documentation of policies, manuals and procedures to establish that all employees have a clear understanding of the requirements	1	Interview
B.2.3.1	Check	Internal Audit	System evaluation	Criteria of the certification ensure the regular evaluation of system, processes and product of the organisation, performed by an independent organisational auditor	1	Interview
B.2.3.2		Management review	Management evaluation	Criteria of the certification ensure the regular evaluation of management system	1	Interview
B.2.4.1	Act	Continual Improvement	Preventive & corrective actions	Criteria of the certification ensure that action is taken based on the results of the management and system evaluation	1	Interview

Figure 33: Complete certification standard assessment process category Mountaineering Villages

Standard indicators: quality assessment

Nr.	Elements of indicator construction	Key principles for indicator construction	Criteria	Explanation	Assessment	Data Quality	
C.1.1.	Methodological elements	Scope & core concept	Connection to sustainability issues dimensions	The indicators link to the three issue dimensions of sustainable development (planet, people, prosperity).	1	Criteria Catalogue	
C.1.2.			Representativeness	The indicators cover the important dimensions of sustainable tourism.	1	Criteria Catalogue	
C.1.3.1			Adequate scope	The indicators have an appropriate time horizon to cover short- and long-term effects and an appropriate geographical scope.	1	Criteria Catalogue	
C.1.3.2	Data specification	Data specification	Availability & measurability	The required data is available and easy to measure.	2	Criteria Catalogue	
C.1.3.3			Reliability	The indicators are compiled using a systematic and fair method.	0	Interview	
C.1.4.			Normalization & aggregation	The normalization and aggregation of indicator data occurs in a justified way.	1	Interview	
C.1.5	Completion of final result	Completion of final result	Weighing	The weighing is in accordance with the relative importance of the three issue dimensions of sustainable development.	0	Interview	
C.2.1			Application aspects	Transparency	The indicators are publicly accessible and data sources and methods are publicly disclosed.	1	Website, Criteria Catalogue
C.2.2.1				Clarity	The indicators use simple language and can be interpreted by lay persons.	2	Criteria Catalogue
C.2.2.2	Broad participation	The indicators are developed in consultation with and accepted by all relevant stakeholders.		1	Interview		
C.2.3	Long-term impact	Long-term impact	Responsiveness	The indicators respond quickly and to changes.	2	Criteria Catalogue	

Figure 34: Complete standard indicator assessment Mountaineering Villages