Abstract

Adventure tourism operators have historically drawn upon a range of broad, multi-purpose sustainability frameworks to provide experiences that are more ecologically and socially just. However, these efforts have been hindered by the need to interpret and translate large volumes of diverse sustainability guidance, which is often unclear or prohibitively complex in terms of how it can be applied to specific adventure operations. This paper aims to address this issue by (1) identifying the primary types of sustainability guidance available for adventure operators; (2) critiquing the benefits and limitations of each form of guidance; and (3) making recommendations for research and practice. The inquiry employed a systematized review methodology, informed by Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, to interrogate the various forms of sustainability guidance available to adventure tour operators. The analysis revealed three broad categories of guidance: *Paid Memberships and Certifications, Guidelines and Frameworks,* and *Pledges and Declarations.* The findings demonstrate how each of these categories brings distinct benefits and limitations to operators, depending on their size and scope of provision. Implications for practice are offered, in terms of how existing frameworks might be adopted and / or alternative approaches to integrating and monitoring sustainability initiatives developed. Suggestions for further research include examining adventure travellers' and operators' perceptions of the three different categories of guidance found in the current study, and the ways in which operators engage with this guidance.

Keywords: adventure tourism, sustainability, guidance, certification, systematized review

How can we adventure sustainably?

A systematized review of sustainability guidance for adventure tourism operators

Prior to the COVID-19 pandemic, adventure tourism was one of the fastest growing tourism sectors (e.g., Allied Market Research, 2018; Chouhan, Vig & Deshmukh, 2019; UNWTO, 2014). Similarly, while participation rates across many traditional sports and exercise activities have been declining or stagnating, the popularity of outdoor adventure pursuits, such as skydiving, rock climbing, white-water kayaking, and snowboarding, has been steadily increasing (e.g., Brymer & Schweitzer, 2017; Outdoor Industry Foundation, 2018). While the COVID-19 pandemic has impacted how people engage in adventure activities, global market research has nevertheless shown significant increases in adventure equipment sales, particularity for pursuits that allow for effective social distancing (NDP Group, 2021; Powell, 2020). Scholars also predict that adventure travel will endure in a post-pandemic world, albeit with changes in adventure destinations, target markets, and practices (e.g., Nepal, 2020). Nepal (2020), for instance, anticipates further diversification of adventure activity offerings post-pandemic, with an increased demand for adventure products that promote environmental health and personal well-being. Further, scholars have argued that meaningful sustainability progress must go beyond introducing novel products to embracing more holistic sustainability approaches (Peattie & Peattie, 2009). This evolution mirrors larger trends across the tourism, hospitality and marketing sectors. For example, Lim (2016) argues that "sustainability no longer resides on the outskirts but rather is at the center of many organizational and governmental strategic efforts" (p. 235). Thus, adventure tourism is at a critical juncture in terms of how it responds to dual global crises: the COVID-19 pandemic and on-going climate change.

Proactive adventure operators will view these crises as opportunities to develop unique experiences that respond to market and environmental imperatives by addressing a wide range

of sustainability principles. To make these changes, operators will require effective guidance on how to help their clients adventure sustainably. However, given the diversity of adventure operators, products and locations, it may be difficult to identify appropriate sustainability guidance that is feasible to implement and applies to their specific adventure context (e.g., Hanna et al., 2019; Kent et al., 2012; Rantala et al., 2018).

The current paper seeks to interrogate this quandary by first examining the relationship between adventure and sustainability, and associated challenges faced by adventure operators. It then evaluates a wide range of the sustainability guidance available for adventure tourism operators, and outlines implications for future research and practice based on this analysis. The aims of this investigation are to (1) identify the primary types of sustainability guidance available for adventure operators; (2) critique the benefits and limitations associated with each form of guidance; and (3) make recommendations for future research and practice based on this evaluation and analysis. While providing a definitive sustainability framework for adventure operators is beyond the scope of any single paper, the current investigation provides a meaningful analysis of existing guidance and identifies areas for adventure researchers, operators, and policy makers to enhance sustainability guidance in the future.

This paper is structured as follows. First, links between sustainability and adventure are explored, with reference to common definitions of sustainability and adventure, respectively. Second, the United Nations Sustainable Development Goals (SDGs) (UN, 2015) – one of the most widely endorsed global sustainability frameworks – is reviewed and evaluated, in terms of its applicability to adventure tourism contexts. Third, the methodology underpinning the systematized review of sustainability guidance frameworks for adventure operators is presented. Fourth, the systematized review findings are reported and interpreted in relation to relevant literature. Finally, implications for practice are offered, along with recommendations for future research.

The Adventure-Sustainability Nexus

Adventures have been defined as "planned, challenging experiences that feature a degree of unpredictability and which demand certain physical and mental skills to undertake" (Beames et al., 2019, p. 6). Boudreau and colleagues (2020) offer a more technical definition by suggesting that adventures are "self-initiated, nature-based physical activities that generate heightened bodily sensations and require skill development to manage unique perceived and objective risks" (p. 2). While the term 'adventure' remains contested in academic literature and popular usage, in the realm of leisure and tourism there seems to be broad agreement that key dimensions include voluntary activity featuring uncertainty, physical and mental challenges, and an outdoor context, which is often accompanied by kinaesthetic pleasure (e.g., Ewert & Hollenhorst, 1989; ATTA, 2016; Kerr & Houge Mackenzie, 2012; Swarbrooke et al., 2003; Beames & Pike, 2013).

While typical definitions of outdoor adventure exclude sustainability criteria, we have adapted Higgins' (2010) views on learning for sustainability, which suggest that while there are many dimensions of sustainability that have nothing to do with outdoor adventure, every aspect of outdoor adventure is inherently linked to sustainability. Further, although mitigating climate change and protecting ecosystems are often positioned as dominant goals of sustainability initiatives (e.g., Intergovernmental Panel on Climate Change, 2014), the United Nations (2015) also reminds us that "billions of our citizens continue to live in poverty and are denied a life of dignity" (p. 8). The implications of these assertions are twofold. We cannot consider adventure independently from sustainability, and issues such as environmental degradation and anthropogenic climate change must be addressed alongside issues relating to social inequity and well-being in sustainability. Thus, this inquiry adopted an holistic lens in relation to both the scope of activities considered (e.g., beyond 'on tour' activities) and the range of sustainability foci included (e.g., beyond environmental impacts).

Sustainability Definitions and Limitations

The Bruntland Report's (1987) oft-cited definition of sustainable development is that it "meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 16). Thiele's (2016) definition is somewhat more sophisticated, as it outlines how sustainability is "the practice of satisfying current needs without sacrificing future well-being by preserving core values and relationships while managing the scale and speed of change" (p. 4). In essence, this means not using more of a resource than social and ecological systems can support. In the tourism context, operators thus need to address "current and future economic, social and environmental impacts", while "addressing the needs of visitors, the industry, the environment and host communities" (United Nations Environment Programme & World Tourism Organization, 2005, p. 12). This is no small task.

Scholars contend that the "ambiguity and lack of clarity about the concept of sustainability is a recurring obstacle to sustainability research" (Salas-Zapata & Ortiz-Muñoz, 2019, p. 153). One of the inherent difficulties in evaluating and enhancing the sustainability of adventure operations is that operator actions may have widespread impacts on ecosystems and / or communities far from the destination where an adventure unfolds (i.e., impacts are geographically distant from activities). Further, these impacts may not be realized in concrete terms by those ecosystems and communities for many years (i.e., impacts are temporally distal from activities) (see Merchant's 2017 analysis of iPhone materials for a detailed example). This means that it may be difficult, if not impossible, for individuals or organizations to consider the myriad impacts of their adventures across different geographical and temporal scales in relation to environmental and social dimensions. In order to even initiate this type of holistic thinking, it has been argued that humans need to first view "the world as an integrated whole rather than a dissociated collection of parts" (Capra, 1997, p. 6), in which all forms of life – human and more than human – are interdependent.

The dilemmas identified above highlight why striving for sustainability in adventure operations is so challenging, but also so critical. Operators need to become more adept at tasks ranging from using renewable resources and fostering well-being for individuals and ecosystems, to generating social and cultural benefits (Rosenberg et al., 2021). Unfortunately, operators' efforts are often thwarted by a combination of highly complex and interrelated 'wicked' issues (see Rittel & Webber, 1973, for origins of this term). Sustainability can be considered as a bundle of wicked problems because these problems defy "efforts to delineate their boundaries and to identify their causes" (Rittel & Webber, 1973, p. 167). The literature suggests that sustainability is not something that can be 'done' in small, isolated parts. Rather, for adventure operators, it requires the ability to think and act critically and holistically about how we travel and do business.

Sustainability in Tourism and Hospitality

The literature on sustainability in tourism and hospitality is broad and approaches this topic from myriad perspectives. In the *Journal of Hospitality and Tourism Management* (JHTM), for example, research in this domain encompasses studies of carbon emissions calculations in tourism transport (Liu & Pan, 2016), sustainable hotel building and design (Reid, Johnston, & Patiar, 2017), visitor trends in national parks (Liu, Huang & Lin, 2021), as well as examinations of tourism influences on local communities (Mathew & Sreejesh, 2017). While no investigations of sustainability guidance for adventure tourism operators have been published in JHTM, or other leading tourism journals, Al-Aomar and Hussain (2017) identified 'green practices' used by hotels and proposes a framework for assessing green practices in hotel supply chains specifically. Further, Dimitriou's (2017) work on developing practical approaches to decision-making argued that "tourist organizations keep facing all sorts of moral issues without any guidance or support on how to deal with them" (p. 45). Although generic

sustainability information is abundantly available, practitioners require specific guidance that they can identify, adopt and apply to their own contexts.

The wider consumption and sustainability literature also highlights the importance of understanding larger economic, social, and environmental impacts of production and consumption cycles if we are to meaningfully examine sustainable practices (e.g., Jones et al., 2008; Lim, 2017). For example, this holistic view of sustainability is rarely used in relation to assessments of carbon emissions (Lim, 2017), which is one of the largest sustainability dilemmas facing tourism operators. Further, the role of ethical social responsibilities (e.g. corporate social responsibility) is an on-going debate in the literature (e.g., Bondy et al., 2012; Lim, 2016). To address these quandaries, Lim (2017) proposed an integrated conceptual model for sustainability rooted in the concepts of responsible consumption, anti-consumption, and mindful consumption. In support of this approach, Lim (2017) argued that, as there is no universal sustainability solution, "sustainability…needs to be continuously nurtured by taking an adaptive, balanced, and contextualized approach" (p. 71).

The current investigation builds on this literature by seeking to identify how sustainability can be 'continuously nurtured' in a particular context (i.e. adventure tourism). Specifically, the inquiry analyzed various forms of sustainability guidance to identify how they might support more contextualized, adaptive and balanced sustainability approaches suited to the needs of individual adventure operators. As there are currently no studies that have systematically organized and analyzed the multitude of sustainability guidance documents in relation to adventure tourism operators, this study extends the literature by identifying the primary types of sustainability guidance available for adventure operators; critiquing the benefits and limitations of each form of guidance; and making recommendations for future research and practice in this domain.

The United Nations Sustainable Development Goals

Before moving onto the methodology, the following section locates the academic literature outlined above within over-arching global sustainability discourses. In recognition of the complex, global-scale challenges reviewed above, the United Nations (2015) led the development of The 2030 Agenda for Sustainable Development, which includes diverse Sustainable Development Goals (SDGs). These goals, set to be achieved by 2030, include a variety of ambitious aims that are directly relevant for adventure operators. The SDGs feature 17 goals, 169 targets, and 232 indicators.

Several SDGs have particular resonance with the adventure tourism sector. These include SDG 4 (Quality education), SDG 5 (Gender equality), SDG 8 (Decent work and economic growth), SDG 10 (Reduced inequalities), SDG 12 (Responsible production and consumption), SDG 15 (Life on land), and SDG 17 (Partnerships for the goals). While there is little debate over the desirability of achieving these SDGs, the application of the SDGs has come under intense criticism. Some critics in the popular press have highlighted the ambiguity of the SDGs and, accordingly, have suggested that they be renamed 'Senseless, Dreamy, Garbled' (Foreign Policy, 2015). It has also been argued that the goals are too broad and unwieldy to put into practice (see Hickel, 2015). Similarly, the SDGs have been criticized on the basis that all 17 are positioned as a 'top priority', which may pose challenges in deciding which to actually prioritize (Foreign Policy, 2015). In summary, critics have argued that the SDGs are often unactionable, unquantifiable, and/or unattainable.

While the SDGs provide essential guidance for governments, cities, and large organizations, their scope and scale poses challenges for smaller adventure tourism operators seeking to translate these goals into operational sustainability practices. Adventure operators require more targeted guidance on how to adventure sustainably within the overarching SDG framework. Specifically, adventure operators require sustainability guidance that is responsive to the unique places and peoples involved in distinct adventure travel contexts. In recognition

of this issue, the current inquiry follows Salas-Zapata and Ortiz-Muñoz' (2019) proposition that, in addition to being an overall aim, sustainability can also be viewed as "a set of guiding criteria for human action" (p. 157). Accordingly, the current study conducted a systematized review of existing sustainability guidance for adventure operators in order to assess their benefits, limitations and overall usefulness in practice.

Methodology

While the *systematized* review methodology employed in the current study shares features of the *systematic* review methodology commonly used in the medical sciences, these are two distinct methodologies (Grant & Booth, 2009). The systematic review methodology entails researchers identifying, evaluating, and synthesizing the relevant literature on a particular topic (Uman, 2011). Similar to a systematic review, the rigour of the systematized review methodology lies in its traceable and clearly outlined process of locating and reviewing literature (van Kraalingen, in press), which provides a comprehensive synthesis of multiple sources in one document (Aromataris & Pearson, 2014). Following Lim et al.'s (2021) and Kaheliya's (2018) lead, the rationale for doing this kind of review stems from the number of sustainability guidance documents being large and diverse enough to demand consolidation, organization and interpretation. As Paul et al. (2021) noted, "[a]mong the many types of reviews that exist (e.g., critical reviews, post-published reviews), systematic literature reviews are by far the most informative and scientific, provided that they are rigorously conducted and well justified" (p. 1).

In keeping with the principles of systematic reviews, the current systematized review featured a "detailed and comprehensive plan and search strategy derived a priori, with the goal of reducing bias" (Uman, 2011, p. 54). The review was informed by the *Preferred Reporting Items for Systematic Reviews and Meta-Analyses* (PRISMA) approach (Liberati et al., 2009; Moher et al., 2009; Page et al., 2021; PRISMA, n.d.). However, as most of the sustainability

guidelines available are classed as grey literature (e.g., industry documents), they did not meet all criteria required by PRISMA for a systematic review (e.g., review of academic peer-reviewed literature). Thus, the present study was a systematized review that employed PRISMA search and reporting guidelines across these key areas: search strategy, eligibility criteria, data extraction, risk of bias, and synthesis of results (PRISMA, n.d.).

In the identification stage of the review, sustainability guidance was identified using the Google search engine through two sequential rounds of searches. This approach was augmented by additional searches in two leading academic peer-reviewed databases (Scopus and Web of Science) with these key terms, which resulted in no additional relevant citations. Google was selected as the search engine, over other search software available through academic libraries, as this is the tool most likely to be used by tour operators seeking sustainability guidance. The first round of searches consisted of the terms "adventure tour operator sustainability guidance" (k=100), "outdoor recreation sustainability guidance" (k=50) and "outdoor education sustainability guidance" (k=50). The search results were reviewed and sustainability guidance deemed relevant for adventure tour operators was entered into a spreadsheet database.

In the initial round of searches, the titles of the guidance documents featured terms such as, "membership", "certification", "pledge", "declaration", "guidelines", and "framework". In order to delve further into these terms, a second round of searches was then conducted using the terms "adventure tour operator sustainability guidelines" (k=50), "adventure tour operator sustainability framework" (k=50), "adventure tour operator sustainability pledge" (k=50), "adventure tour operator sustainability declaration" (k=50), "adventure tour operator sustainability membership" (k=50) and "adventure tour operator sustainability accreditation" (k=50).

Finally, the authors drew upon their own tourism industry experience to augment the data. It should be noted that the Google searches were conducted in [location redacted for peer review]. As location influences search results, the authors' international experiences were particularly valuable in ensuring that additional relevant examples of global and national-level guidance, beyond [locations redacted for peer review], were included.

The systematized review process outlined above yielded an initial sample of 500 search results that were screened based on their titles and descriptions. Of these 500 search results, 479 were excluded for one of four reasons. The first reason was duplication. In particular, the second round of searches frequently led to search results that had already been identified in the first round. Second, some of the search results yielded academic literature that lacked specific guidance, such as literature exploring sustainability issues more broadly. Third, searches often resulted in individual adventure company sustainability reports and policies. While these would be worthwhile to review in a different study, they were excluded from this specific study due to its current research focus on sustainability guidance documents created for operators. Fourth, results were excluded if they were not directly relevant for adventure operators, such as those providing guidance for individual adventure tourists. This process resulted in a sample of 21 sustainability guidance documents (16 from the first round of searches and five from the second round of searches), which was augmented by a further nine examples contributed by the authors based on their industry experience. Thus, the final sample included 30 sustainability guidance documents (see Appendix 1).

Data analysis

The sustainability guidance retrieved during the identification stage was analyzed using reflexive thematic analysis approach (Braun & Clarke, 2019). Reflexive thematic analysis involves iterative stages of analysis to facilitate deeper reflection, understanding, and interpretation of the data. Specifically, the analysis was guided by Braun and Clark's (2019)

recommended six phases: (1) familiarization, (2) coding, (3) generating themes, (4) reviewing themes, (5) defining and naming themes, and (6) writing up. In the familiarization phase, each form of guidance was initially reviewed by all researchers.

One researcher (the primary coder) led the coding phase by, first, recording the following descriptive attributes for each form of guidance: author or organization responsible for developing the guidance; launch date; scale (e.g., global, national, local); target audience (e.g., tour operators only, visitors, destinations); and cost (if any). Subsequently, coding involved multiple iterations of reviewing the guidelines to identify their core purpose, function, target sustainability areas and requirements, key characteristics, scope, and structure. During this process, the primary coder created a database with key codes that captured core characteristics of each guideline, and then compared and contrasted the various forms of guidance to identify areas of congruence and divergence. This process led to the identification of preliminary higher order themes that captured key concepts across the diverse forms of guidance. The primary coder then shared the database containing codes and preliminary themes with all researchers to ensure clarity and appropriate representation of the data. The codes and themes were, first, independently reviewed by the two co-researchers, and then subsequently critiqued and discussed by all researchers before being finalized. During this process, the researchers considered key themes within the 2030 Agenda for Sustainable Development (United Nations, 2015), as well as looking for emergent themes that may not have been well captured within this framework.

In the process outlined above, one researcher took the role of primary coder while the other researchers acted as 'critical friends' by critically reviewing raw data and associated analyses. Akin to using inter-rater reliability to enhance consistency between two or more coders (Jeyaraman et al., 2020), this approach was used to increase the rigour and trustworthiness of findings (e.g., Denzin & Lincoln, 2000; Stake, 1995). Rather than seeking

to establish absolute agreement across researchers, the purpose of this process was "to encourage reflexivity by challenging each other's construction of knowledge" (Cowan & Taylor, 2016, p. 508). The coders engaged in an iterative and reflexive process throughout data analysis and writing up phases, guided by pointed questions such as Maxwell's (2005) maxim: "How might you be wrong?" (p. 105). This ethos was a hallmark of the entire research process, wherein researchers challenged each other's positions in a critical but supportive manner.

Trustworthiness and Reflexivity

In qualitative research, the quality of data and findings depend upon investigators establishing sufficient trustworthiness, rather than reliability and validity (e.g., Denzin & Lincoln, 2017). Trustworthiness has the following four key components: credibility, dependability, transferability, and confirmability (e.g., Guba, 1981; Guba, & Lincoln, 1981; Lincoln et al., 2011). Although these elements are often operationalized in relation qualitative interviews or focus groups (i.e., recorded conversations), these components still apply to the current analysis of sustainability guidelines (i.e., written documents). In the current study, these four components were established in multiple ways including: thick descriptions' of the study procedures; transparency in describing criteria used to determine the sample of sustainability guidance; the use of triangulation amongst the researchers, which involved iterative critical reviews and discussions of data in relation to themes; disclosure of key researcher information (see below); and a reflexive research process (Denzin & Lincoln, 2017; Guba, 1981; Lincoln et al., 2011). Key details regarding the search and inclusion strategy for sustainability guidance were also included to ensure data and findings are confirmable and replicable.

A key step in establishing trustworthiness in qualitative research generally, and particularly in reflexive thematic analysis, is reflecting on how investigator backgrounds may influence the research process. Reflexivity involves reflecting critically on the role of the self

in the research process, or the "human as instrument" (Guba & Lincoln, 1981). From a constructivist perspective, the researchers understood that personal experiences with the research topic influenced all aspects of the current research process, including the choice of research topic, creation of the research team, data collection, data analysis, and presentation of results. As such, the researchers recognized their values, experiences, and priorities in the research process (Charmaz, 2014), and the importance of sharing these influences with readers.

All researchers had a background in tour guiding (two in adventure guiding contexts and one in socially responsible tours) and in academic research (two were full-time academics and one was pursuing her PhD). One author also owned and operated a tour company that offered tours on six continents. These experiences motivated the researchers to assess practical ways in which adventure operators might make meaningful progress towards more sustainable practices. Their experiences of attempting to put sustainability guidelines into practice while tour guiding also fostered a critical perspective on many existing sustainability guidelines. While researchers' experiences inherently influence study design and analysis, in the current study the researchers' distinct backgrounds (e.g., female and male guides, distinct countries of origin, diverse tour guiding and operational contexts) provided advantages in terms of, first, ensuring that any relevant frameworks that did not appear in the Google searches could be included in the data collection process, and second, understanding unique adventure contexts and operator challenges and needs. The analysis and findings were informed by these varied researcher lenses and backgrounds.

In addition to coding data to reflect the type of guidance it offered and the characteristics of that guidance, sustainability guidance was also analyzed in relation to the following three themes: *economic, social, environmental.* These three themes reflect key elements identified in the 2030 Agenda for Sustainable Development (United Nations, 2015) and were highlighted in Our Common Future (i.e., the 1987 Bruntland Report of the World

Commission on Environment and Development). While these three themes have been critiqued, James and Magee (2017) argue that this foundational document remains "an influential touchstone for contemporary developments in public policy, administration, and governance" (p. 6). In addition to these themes, the researchers also identified a fourth theme, *emergent issues,* which encompassed considerations that were not adequately captured by the first three themes. These included such topics as health and safety, marketing, human resources, and procurement (see Appendix 1).

Findings

The data analysis revealed three broad categories of sustainability guidance for adventure tourism operators: *Paid Memberships and Certifications, Guidelines and Frameworks,* and *Pledges and Declarations.* This section explains the distinguishing elements of these categories, as well as discussing their benefits and limitations for operators. Before outlining the principle findings, however, it may be useful to provide an overview of the sustainability guidance landscape and to note that data collection began in 2019 (prior to the COVID-19 pandemic) and continued into 2021 (during the first 18 months of the pandemic). The review process therefore captured sustainability guidance before and during the COVID-19 pandemic. Data collection revealed a large volume of sustainability guidance available to adventure operators, much of which was relatively recent. Of the 20 documents reviewed in the *Guidelines and Frameworks* and *Pledges and Declarations* categories, 12 were launched in the past five years[1]. This proliferation in available guidance is consistent with the increasing growth in global awareness of sustainability and associated increases in consumer demand for sustainable tourism experiences prior to the COVID-19 pandemic (e.g., Chouhan et al., 2019; UNWTO, 2014). These trends appear to have accelerated in response to pandemic-related

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[1] Note: the *Paid Memberships and Certifications* category includes dates that organizations were founded, rather than dates when policies were published.

tourism disruptions. For example, the *Future of Tourism* (2019) guidance was developed specifically to ensure that destination needs are at the centre of tourism planning in response to COVID-19 impacts. Thus, data collection revealed not only a large volume of potential guidance, but also a rapidly expanding volume of guidance in response to COVID-19 disruptions.

Paid Memberships and Certifications

This category reflects programs wherein tourism businesses pay for membership in an organization that provides training and educational resources, and in some cases offers accreditation or certification. This is the largest of the three categories identified. For example, Tourism 2030 DestiNet Services (2020) estimates there are currently over 200 sustainable tourism certification programmes operating worldwide. Several of these programs are led by non-profit organizations, with membership or accreditation fees being reinvested into furthering the organization's mission of facilitating sustainable tourism. Of the 10 programs reviewed, seven are global and three are national (for Australia, New Zealand, and South Africa). Fees are generally tiered according to business size or annual turnover and, at the time of writing, ranged from $25USD annually for a 'supporter' level membership for *Sustainable Travel International*, to $5000 USD annually (excluding consulting and auditing) for a *Green Globe* large business membership.

The strength of this category for adventure travel operators is that these programmes all appear to promote learning and development through access to educational resources, training, technical assistance and/or personalized feedback. In the case of certification programmes, the process of accreditation itself has been designed to prompt reflection and improvement on behalf of tourism businesses. The inclusion of award tiers in several of the accreditation programmes (e.g., Bronze, Silver, and Gold for *Qualmark Sustainable Tourism Business Awards*) exemplifies how accreditation programmes incentivize businesses to make

improvements and approach sustainability as an ongoing, evolutionary process rather than a 'one and done' approach to sustainability. The value of this category for adventure operators also lies in the certification component and the associated marketing benefits. For example, by displaying the *Green Globe* logo and being listed in the *Green Globe* member directory, operators may attract new clients from the growing sustainable traveller market.

The primary disadvantages of memberships and certifications for operators are cost and time. While most programmes have been designed to cater to varying budgets through tiered pricing, the cost of accreditation is still a barrier for many adventure operators. Similarly, the time required to complete certification processes may also be a barrier, particularly for small and medium-sized businesses with limited staff. There are, however, a limited number of membership and certification routes that may be appropriate or desirable for single operators. Thus, beyond cost and time considerations, adventure operators need to weigh a range of factors in selecting a membership or certification scheme, such as whether a global versus a national programme will benefit them most on their sustainability journey and which programmes have sufficient status and recognition to enhance marketing. These decisions should be informed by consideration of a range of organization-specific factors, such as operators' current and future target markets; time, money and human resources that can be allocated to the tasks required for certification; and where operators currently are on their sustainability journey (i.e. to what extent they will benefit from training and/or personalized feedback).

Pledges and Declarations

The second sustainability guidance category reflects pledges and declarations focused on encouraging adventure tour operators to make a public commitment to either a specific sustainability issue (e.g., *World Animal Protection Pledge*, 2020), or a wider set of sustainability actions in a specific destination (e.g., *New Zealand Tourism Sustainability*

Commitment, 2020). The pledges and declarations analyzed do not incur any cost for operators and are self-regulated, with no external enforcement mechanisms. Pledges and declarations appear to be a relatively new and growing category of sustainability guidance. All of the initiatives identified in this category that had launch dates publicly available had started since 2017, with four launched in 2020 alone. The growing popularity of pledges for adventure travel related tourism businesses aligns with the rise of tourist pledges more broadly as a visitor management tool (Albrecht & Raymond, 2020).

The strength of this category for adventure operators lies in the ease of participation; some pledges are as simple as entering the organization name and ticking a box to express agreement with specific sustainability actions (for an example, see the *Trunks & Leaves Responsible Tourism Pledge*, 2020). In addition, several of the organizations leading these initiatives have a list of signatories on their websites. These signatories are then provided with a logo for use in their marketing materials. Importantly, the majority of pledges focus on actions that are practical and specific, which makes them relatively easy for tour operators to implement almost immediately.

The primary disadvantage of pledges and declarations is that some pledges can be criticized for being tokenistic due to their ease of participation and lack of enforcement. In addition, issue-specific pledges may allow operators to garner a positive reputation as a 'sustainable business' by implementing important, but relatively minor, actions (e.g. reducing single-use plastics) without addressing wider sustainability issues holistically across multiple dimensions. These issues notwithstanding, encouraging small, incremental changes among smaller operators who are just beginning their sustainability journey may be a more effective initial approach to mainstreaming and enhancing sustainability than presenting operators with a long, and potentially overwhelming, set of requirements.

Guidelines and Frameworks

Guidelines and Frameworks is the broadest of the three categories and it includes good practice guidance documents, criteria and indicators, checklists, frameworks, principles, standards, and codes of conduct. The majority of guidance in this category is free or inexpensive to download (e.g., 58 Swiss Francs for the International Organization for Standardization's (ISO) *Adventure tourism: Good practices for sustainability*). While some guidance includes a comprehensive list of sustainability criteria or actions, others are focused on specific issues, such as *Child Welfare and the Travel Industry: Global Good Practice Guidelines*, which focuses on preventing all forms of exploitation and abuse of children (ChildSafe, 2018). Thus, the guidance varies in scope: some is over-arching and covers all practices within the sector, while other guidance focuses on specific elements.

The strength of this category for adventure travel operators lies in easy online access, low cost, and the ability to adapt guidelines and frameworks to suit specific operations. Operators with the time and expertise to research and evaluate different guidelines and frameworks could feasibly develop their own sustainability policy based on this guidance, and reach standards of practice equal to those which can be achieved through expensive accreditation processes. For example, the Global Sustainable Tourism Council's (GSTC, n.d.) tour operator criteria and indicators are available for download without charge. These could be complemented by issue-specific guidance from organizations that are experts in specific areas, and thus have particular relevance to certain operators. This approach may also allow operators to take a more holistic approach to sustainability, while also targeting key sustainability issues that align with their specific values and context.

The disadvantage of this category is that it requires operators to invest significant time and effort reviewing, comparing, and translating potentially diverse forms of guidance into practical, sustainability policies and strategies for their specific business. Operators require either sufficient existing awareness of sustainability approaches, or an initial learning period to

familiarize themselves more broadly with sustainability approaches and frameworks, in order to critically assess and adopt specific elements of diverse sustainability guidance. For example, the *Child Welfare and the Travel Industry: Global Good Practice Guidelines* mentioned above is an excellent resource that includes a range of practical recommendations from experts in child protection. However, it is 83 pages long and is only designed to address one specific issue. In addition, while the Guidelines and Frameworks category includes a wealth of valuable guidance that operators can integrate into their sustainability policies and practices at no cost, these initiatives may have less marketing value compared to more recognizable certifications or pledges with associated iconic logos.

The advantages and disadvantages of each form of guidance identified herein (i.e., *Paid Memberships and Certifications*, *Pledges and Declarations*, and *Guidelines and Frameworks*) are summarized in Table 1 below. Paid Memberships and Certifications, the largest sustainability guidance category for adventure operators in terms of the number of different schemes, provides comprehensive, targeted, on-going support to operators. Operators can use certifications as marketing aids, however these also present significant costs, particularly if a business seeks multiple certifications. In contrast, pledges and declarations are available free of charge, are self-regulated, and have no external enforcement. However, these forms of guidance do not carry the same market recognition or industry esteem as many certifications, and can be regarded as tokenistic. The third category, Guidelines and Frameworks, is the broadest and most diverse, in terms of variety and the types of available resources. It includes low- or no-cost resources, such as good practice guidelines and sustainability indicators, checklists, frameworks, principles, standards, and codes of conduct. While these include excellent resources that can be tailored to operator contexts and values, some guidance may be too intricate and / or operators may not have the time or expertise to distil and translate these different guidance options. Similar to the issues associated with pledges and declarations,

general checklists and good practice criteria may also lack market recognition and thus fail to provide potential customers with any guarantees of sustainability excellence.

[INSERT TABLE 1 ABOUT HERE]

Sustainability Themes: Environmental, Social, Economic, Emergent

The following section discusses in greater depth the sustainability themes identified across the three types of categories explicated in this section so far. Each of the 30 guidance documents were further analyzed to appraise their key focus areas and the relative attention they paid to topics of environmental, social, economic, or other forms of sustainability (see Appendix 1). As discussed in the methodology, the theme 'emergent' was applied in instances where the categories of environmental, social, or economic sustainability were deemed to be inadequate umbrella terms for the approaches identified in that guidance document.

This deeper analysis revealed one principal finding: the variety and breadth of guidance documents available to adventure operators is even more expansive and diverse than previously imagined. For instance, some guidance addresses multiple SDGs across a broad range of aims (e.g., the Outdoor Friendly Pledge), and arguably reflects the realistic overlap and interconnectivity of environmental, social and economic sustainability. By contrast, other guidance is narrowly focused on a specific aspect of one sustainability theme. An example of the latter is the Ethical Elephant Experiences Pledge, which focuses exclusively on elephant welfare in tourism.

In general, guidance within the *Paid Memberships and Certifications* and *Guidelines and Frameworks* categories appeared to offer more holistic approaches to sustainability, in that they identified a broader range of sustainability themes and actions. In contrast, *Pledges and Declarations* tended to be either narrowly focused on a specific theme (e.g., animal welfare, reducing plastic use) and/or offer fewer specific actions to support sustainability themes (e.g., 'advocate for sustainable tourism'). Although the current findings highlight how sustainability

guidelines seek to broaden operators' approaches to sustainability, they also show how many sustainability practices remain 'siloed' under narrow sustainability themes. The findings from this part of the analysis further illustrated the lack of consensus on sustainability priorities across the different forms of guidance, and the myriad options facing adventure operators striving to adopt more sustainable practices. When considering the findings relating to the diverse sustainability themes encompassed in guidance documents alongside the findings relating to the various types of sustainability guidance, the lack of coherence and agreement across guidance documents is evident. Collectively, these findings clearly demonstrate why adventure operators may find it challenging to locate appropriate sustainability guidance that is feasible to implement, and which applies to their specific work contexts.

Implications for Practice and Research

There are three key implications for practice derived from these findings. First, unless organizations have the time, expertise and resources to develop their own set of sustainability guidelines, it is advisable to adopt one form of existing framework for steering practice. Such a framework should be proportional to the size of the organization and its administrative complexity. Second, organizations who are able to develop their own guidance, and who do not require an external certification in order to increase their credibility in the eyes of the public, are well placed to address and publicize their sustainability in other ways. These might include including sustainability actions and values in their mission statement; creating their own set of measurable sustainability indicators, which they monitor over time; and publishing an annual sustainability report in relation to these key indicators. Finally, as the world is in a constant state of fluidity (e.g., Bauman, 2007), the adventure tourism sector will continue to evolve in response to social, economic, political, technical and environmental changes. Thus adventure tour operators both large and small should actively engage with organizations who are creating

the frameworks, pledges and certifications reviewed herein in order to ensure the guidance that they are following remains relevant and useful.

Paul and Criado (2020) explain the importance of review articles in terms of helping readers gain a 'state-of-the-art' understanding of the research area, as well as identifying key research gaps and future research opportunities. Accordingly, these findings suggest three areas that would benefit from further investigation. First, research should further explore adventure travellers' perceptions of sustainability policies, pledges, and certifications, in order to understand how they influence travellers' consumption choices. If it is found that these initiatives positively influence travellers' sustainable adventure travel choices and behaviours, as well as enhancing operators' sustainability practices, this would present a relatively low cost option for fostering sustainability in this sector. Second, research is needed to better understand tour operators' requirements, priorities, and perceptions of the value of third-party sustainability guidance across all major categories (e.g., policies, pledges, certifications). This would help to inform the development and utility of distinct types of sustainability guidance for adventure operators. Third, a longitudinal examination of how adventure tour operators engage with distinct types of sustainability guidance and outcomes would highlight key trends that could inform policy and practice across the sector.

These findings also have implications in terms of how we might broaden and extend our conceptualization of 'sustainability', and thereby enhance the development of future guidelines. The current findings highlight the continued prevalence of siloed sustainability categories (e.g., environmental, economic, social) and the absence of more holistic, integrated approaches to sustainability issues. Drawing on complementary fields beyond tourism may help to inform more effective approaches to adventuring sustainability in future. For example, in the marketing field, Lim (2016) proposed a holistic, transconceptual approach to sustainability based on five key dimensions: economic, environmental, social, ethical, and

technological, which are all interrelated and mutually reinforcing. Similarly, the emerging literature on regenerative tourism draws upon holistic principles of agriculture and indigenous wisdom regarding the interconnection of all things (e.g., Becken, 2021; Pollock, 2020). These types of novel approaches could help to further develop the sustainability guidance analyzed herein, as well as future sustainability initiatives. Further investigations in this vein might lead to the evolution of guidelines that seek to go beyond traditional 'sustainability' by identifying how adventure operators might move beyond a mindset of reducing harm (sustainability), to one of seeking to actively enhancing their local environments and communities (regeneration).

Limitations

Guided by the PRISMA methodology, this evaluation comprehensively analysed the principal international guidance available to adventure tourism operators across the globe, as well as key national-level sustainability guidance that was readily available to adventure travel operators in an English-language format. Nevertheless, a principal limitation of this research was that it did not analyse every form of sustainability guidance that an adventure operator might potentially access. There may be other forms of guidance found, for example, on social media channels or in companies' internal literature. Further, the analysis was limited to guidance available in English language formats, which precluded a wide range of potentially useful and culturally distinct approaches to sustainability. Indeed, many countries have developed sustainability guidance for their particular nation, often provided in languages other than English. Therefore, the results are most applicable to adventure travel operators operating in a primarily English language context (in terms of supply or demand). Another limitation of this analysis was that, as all aspects of sustainability inherently overlap, there are multiple lenses through which sustainability guidelines and strategies might be analysed and classified. For example, the *GSTC Criteria and Suggested Indicators for Tour Operators* can be viewed as a no-cost framework, however these criteria also form the foundation for a range of accreditation

programs (e.g., *Preferred by Nature Sustainable Tourism Certification*), and the GSTC have endorsed national-level accreditation programs (e.g., *Fair Trade Tourism in South Africa*). Thus, while three distinct types of sustainability guidance adventure operators were evident, there may be instances in which these three categories overlap.

Conclusions

The current inquiry provides a useful resource for operators seeking to better understand – and subsequently adopt and apply – diverse forms of sustainability guidance available, along with their strengths and limitations. The research thus addresses a crucially important area of adventure tourism literature for the first time. It also extends this literature by identifying areas of future research in relation to sustainability guidance and adventure travel.

It is important to acknowledge that, in addition to the sustainability guidance reviewed here, some adventure operators have been proactive in developing their own sustainability guidelines[2]. Notwithstanding the above, many adventure tourism businesses are small to medium-sized enterprises (UNWTO, 2014) that may lack the financial and human resources or expertise to thoroughly investigate and appraise existing guidelines and then adapt them to their own contexts. Operators face a range of barriers to implementing sustainability guidelines, such as documents being imprecise or prohibitively complex, or lacking clarity on which elements are most appropriate for their operation.

Another critical issue is that many adventure tourism operators and clients may be so narrowly focused on specific environmental sustainability initiatives and practices that they miss the larger sustainability 'picture'. Alagona and Simon (2012) remind adventurers that "Leave No Trace starts at home, not at the trailhead" (p. 123). An illustrative example of this issue is when supply chain considerations are overlooked by operators seeking to address sustainability within their adventure operations. If operators only focus on practicing

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[2] See for example, Ocean Vertical: https://www.oceanvertical.com/about-us

sustainability *during* an adventure trip, rather than before or after, they may overlook key sustainability considerations in other areas of their business, such as the procurement of clothing, food, and equipment, or in their employment practices.

Another way that adventure operators can begin to honestly and bravely 'look beyond' leaving no trace during adventure trips (Simon & Algona, 2009) is by starting to consider the true carbon emissions associated with adventure travel. While guidance on reducing carbon emissions is included within several sustainability frameworks, this typically focuses on emissions directly resulting from operators' activities and operations. It does not address the 'elephant in the air': the need to reduce transport emissions from visitors' travel *to and from* adventure travel destinations (e.g., international air travel to the trip departure point). This is an important consideration as, regardless of how environmentally-friendly adventure operations are, travel to and from a destination can account for at least 50% of the total carbon emissions associated with tourism, depending on how far clients are from the destination and the nature of the trips (Parliamentary Commissioner for the Environment, 2021). Seen this way, a major sustainability challenge for adventure tourism lies not in the 'on the ground' environmental costs of the operation, but rather in the carbon that is emitted before and after the activity. Thus, there is a major gap in the sustainability guidance for tourism operators of all kinds, as well as the need for coordinated national- and global-level commitments, such as the introduction of international aviation departure or fuel taxes (Parliamentary Commissioner for the Environment, 2021).

These examples illustrate that a large part of the challenge for adventure operators lies in identifying how to act sustainability in relation to largely invisible or incomprehensible distal impacts caused by adventure consumers and operators. It also highlights how all key stakeholders in the global adventure realm (e.g., equipment and clothing manufacturers, adventure operators, consumers, government agencies, academics) have obligations to

deliberately and systematically incorporate sustainability practices and principles into their business plans, research agendas, policy documents, and concrete actions. These efforts require the development and adoption of sustainability guidance that takes a truly holistic approach and provides practical strategies across a range of adventure tourism stakeholders. This shift may also involve developing 'uncertainty competences' that are required to make sense of conflicting information across sources that vary in their trustworthiness (Tauritz, 2012).

The difficulties posed by imperatives to both live and adventure more sustainably are generally issues of (in)action, rather than attitude. Beames and colleagues (2019) argued that "[f]iguring out how to live sustainably can be very challenging for adventurers and non-adventurers alike, because so many of the sustainability issues in our lives comprise multiple, interwoven, highly complex, interdisciplinary, and even 'wicked' problems" (pp. 177-178). Indeed, given the diversity of adventure operators, products and locations, it may be difficult to identify appropriate sustainability guidance that is feasible to implement and applies to their specific adventure context (e.g., Hanna et al., 2019; Kent et al., 2012; Rantala et al., 2018).

This inquiry's findings demonstrate how the grey literature that exists to guide adventure tourism operators may appear overwhelmingly large and challenging to interpret. These findings will thus assist adventure operators as they endeavour to select the most appropriate sustainability guidance for their context. This study extends the literature by analyzing and assessing existing sustainability guidance, identifying limitations of current sustainability guidance; and identifying opportunities for future research and practice in this domain.

The adventure tourism sector is uniquely positioned to act for positive social and environmental change, and can arguably be a bold example of what caring, inclusive, and environmentally-conscious groups of people can contribute to society. If one accepts this moral

imperative, it is logical for adventure tourism operators to consider how their roles, responsibilities, and guiding frameworks can support ecological and social flourishing.

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