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ECOTOURISM AND THE TROUBLE WITH TRANSPORTATION

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Introduction

In 1903, the 26th president of the United States, Theodore Roosevelt, travelled into the heart of Yosemite National Park with environmentalist John Muir with the intention of seeing for himself the grandeur and majesty of the American Wilderness. The resulting experience, which Wearing and Schweinsberg (2018) have used as the basis for an examination of a culturally framed ecotourism gaze was described in glowing terms by the then president. As Roosevelt observed in a post-trip letter to Muir:

> I trust I need not tell you (Muir), my dear sir, how happy were the days in the Yosemite I owed to you, and how greatly I appreciated them. I shall never forget our three camps; the first in the solemn temple of the great sequoias; the next in the snow storm among the silver firs near the brink of the cliff; and the third on the floor of the Yosemite, in the open valley fronting the stupendous rocky mass of El Capitan with the falls thundering in the distance on either hand". (Roosevelt, 1903)

Some readers might bristle with the idea of President Roosevelt being used as an exemplar of an ecotourism experience given his predilection for hunting and subsequent tension with Muir over the protection of the Hetch Hetchy Valley (Curry & Gordon, 2017; Richardson, 1959). While such concerns are valid, 'ecotourism' and 'ecotourist' are contested phenomena (see Fennell, 2015b) subject to the cultural framing of societies that participate in (Lorenzo-Romero, Alarcón-del-Amo, & Crespo-Jareño, 2019) and support (Schweinsberg, Darcy, & Wearing, 2018) nature-based travel. It is important to begin this discussion of ecotourism transportation with reference to history because "it is through the quoting of history with all of its inbuilt societal and cultural discourses that we are able to expose those contraditions and ruptures that brought science, art, capitalism, railroads and tourism together in the production of national park space" (Denzin, 2008, p. 453 in Wearing et al., 2019, p. 183)

The transport options available to ecotourists in environments like Yosemite National Park have evolved over time. Prior to the introduction of cars into America's national parks in 1916 the primary means of traversing the park landscape, whether as a private individual or the president of the United States was by wagon, stagecoach, or horseback (National Parks Service,

2016). The vivid experiences that were available to early travellers as they traversed the wide expanses of the American wilderness have progressively been juxtaposed with concern that 'improvements' in transportation options will result in overcrowding of many high visitation park regions (White, 2007). For President Roosevelt, his trip to Yosemite began routinely for an individual of his stature:

> Muir came from San Francisco on the train with the Presidential Party of eight, including Governor George C. Pardee of California, Benjamin Ide Wheeler, President of the University of California, and Roosevelt's personal secretary Mr Loeb. The group was placed in an eleven passenger coach … Under Lieutenant Mays, thirty cavalrymen escorted this stage from Raymond directly to the Grizzly Giant in the Mariposa Grove. (Leidig, 1903/2003, p. 4 in Wearing & Schweinsberg, 2018, p. 138)

After dismissing most of his travelling entourage, Roosevelt transferred to horseback and began a journey that would help lay the policy groundwork for the protection of some of North America's most iconic ecotourism landscapes. Today, however, the negative effects of horse-based transport on conservation areas is widely recognised, both in terms of direct impacts e.g., trampling, as well as indirect impacts resulting from the effects of horse faeces and urine on local soil regimes (Newsome, Milewski, Phillips, & Annear, 2002; Newsome, Moore, & Dowling, 2012; Newsome, Smith, & Moore, 2008). Schiller (2018) has observed that the sustainability of a transport form will be determined on the basis of its resultant level of pollution and its ability to promote socially equitable access to sites that would otherwise be difficult to reach. This chapter will explore these and other sustainability issues, whilst also recognising that ecotourism transport occurs at different geographical scales—"… transport directly associated with the ecotourism experience, for example a boat trip around an eco-tourism site; … travel between various ecotourism sites or operations; and … transport from the home location to the destination, where the ecotourism experience takes place" (Simmons & Becken, 2004, p. 15).

The ecotourism—Transport nexus

The local dimension

Fennell (2002) has identified that ecotourism and sustainable development discourse emerged simultaneously from the literature on ecodevelopment in 1970s and 1980s. It was in this period that people first started looking seriously for an alternative to traditional mass tourism, pro-moting an approach to development that sought to both protect the environment and maximise development opportunities for local people. With the rise of air transport being entwined with the development of mass tourism in the second half of the twentieth century (Lumsdon, 2000), alternative tourism forms like ecotourism have throughout history been forced to justify their reliance on transportation forms that are increasingly linked to anthropocentric climate change (Peeters, Higham, Cohen, Eijgelaar, & Gössling, 2019). While existing transport scholarship has considered mechanisms whereby airlines and other transport forms can be made more sus-tainable (Graham & Shaw, 2008; Lumsdon & Page, 2007; Sarker, Hossan, & Zaman, 2012), ecotourism scholarship has tended to focus on the management of the industry at a destination level (Hall, 2013). This includes research investigating the relevance of community based ecotourism (CBET) as a strategy for sustainable local development (Pookhao Sonjai, Bushell, Hawkins, & Staiff, 2018; Reggers, Grabowski, Wearing, Chatterton, & Schweinsberg, 2016;

Wearing, McDonald, Schweinsberg, Chatterton, & Bainbridge, 2019), as well as other co-management arrangements in different jurisdictional contexts (Abebe & Bekele, 2018; Reggers, Schweinsberg, & Wearing, 2013).

Transport represents an important management consideration for ecotourism at the local destination level on account of its ability to both facilitate experiences, as well as to facilitate unintended impacts from poor visitor behaviour and a lack of regulation. In the case of dive tourism for example, fins used for on-site personal transportation have been identified as a principle mechanism whereby tourists may inadvertently cause damage to reef ecosystems (Giglio, Luiz, Chadwick, & Ferreira, 2018; Hammerton, 2017). In Australia, award-winning ecotourism ventures such as the Penguin Parade on Summerland Peninsula (Phillip Island, Victoria—Head, 2000) have over the course of their history developed management responses to deal with the issue of fairy penguins killed by cars, as well as by feral dogs and cats (Anon, 2008). Internationally, the use of trail bikes and mountain bikes are associated with the development of informal trails and the often associated issues of erosion and damage to native vegetation (Newsome & Davies, 2009; Pickering, Rossi, & Barros, 2011; White, Waskey, Brodehl, & Foti, 2006). The use of elephants as local transport options in countries including Thailand and Malaysia has led to debates over the liberalisation of nature (Duffy & Moore, 2010) and the morality of methods used to domesticate and control wild animals as tourism transports and attractions (Kontogeorgopoulos, 2009; Taylor, Hurst, Stinson, & Grimwood, 2019). In the case of whale watching and whale diving (see Cunningham, Huijbens, & Wearing, 2012; Kessler, Harcourt, & Heller, 2013; Orams, 2001), local whale boats are often subject to critique on account of their ability to disrupt animal behaviour (Amerson & Parsons, 2018; Sullivan & Torres, 2018). While the potential for transport forms to impact on the sustainability of local ecosystems is therefore acknowledged in the literature, the challenge for ecotourism managers is how to balance a tourist's right to access a site in a manner acceptable to them, whilst simultaneously protecting the resources on which the experience is based. Non-automotive forms of transport including walking (Hall & Ram, 2019) and cycle tourism (Lumsdon, 2000) are often recognised for their sustainability credentials. However, as we will demonstrate later in this chapter many ecotourists are reliant on mechanised transport options to access otherwise inaccessible ecotourism destinations. The importance of balancing a right of access for all with the development of diverse sustainable transport forms will be an important issue for the sector going forwards.

The breadth of destinations that can broadly be considered part of the global ecotourism industry including the Monteverde Cloud Reserve, Kruger National Park, Patagonia, the New Zealand south island, and Australia's Great Barrier Reef are diverse with respect to the nature of their visiting clientele, as well as in terms of politics of land-use management and access. While organisations including the American Association of Travel Agents continue to espouse core principles of ecotourist behaviour through their *Ten Commandments of Ecotourism* (Edgell & Swanson, 2019); the operationalisation of a sustainable ecotourism industry is very much determined based on local conditions. The challenge for destination planners is how to integrate transport forms into a broader strategic development framework given the role that transport plays in facilitating ecotourism demand (Khadaroo & Seetanah, 2007). In established ecotourism locales like Australia, demand for ecotourism products and services was the impetus for the Queensland Shire of Douglas to commence an accreditation process, which saw it labelled the "world's first eco certified destination" by Ecotourism Australia (Ecotourism Australia, 2019b). The criteria for Eco Destination Certification includes a focus on sustainable mobility, which is concerned with the "impact from transportation to people, environment and climate" (Ecotourism Australia, 2019a, p. 11). With more and more localities e.g., the Commonwealth

of Dominica seeking to market themselves as an ecotourism destination (see CS Global Partners, 2019) policymakers must increasingly explore the applicability of different environmental management frameworks including carrying capacity analysis and the Recreation Opportunity Spectrum (see, for example, Ferreira & Harmse, 2014; Smith, Tuffin, Taplin, Moore, & Tonge, 2014) to different ecotourism environments. At the heart of all these methods are a series of fundamental questions including: how much development is too much? And what level of alteration to a resource is a particular stakeholder group(s) willing to accept? Different stakeholder groups will respond to these questions on the basis of their own evolving value positions, as is evidenced in the continued inability for some travellers to reconcile the negative impacts from their use of air transport with their ability to have a sustainable holiday (see Hanna & Adams, 2019).

In the case of ecotourism, transport is therefore both the facilitator of experience and, if one is pessimistic, a necessary evil for ensuring the perpetuation of holiday forms that many stakeholders believe are more sustainable than mass packaged holiday travel. But is it really? As Horton (2009) has argued with respect to the Osa Peninsula in southwestern Costa Rica; in a few decades the area went from an "off the beaten track travel destination with very limited services for tourists and a way of life centred on traditional activities of agriculture, cattle ranching and gold panning … [to a thriving ecotourism destination characterised by] small planes transporting ecotourists … and local taxis and expatriate SUVs clogging the main streets of the peninsula's new ecotourism hub, Puerto Jiménez" (Horton, 2009, p. 93). Transport and ecotourism can in many respects be considered a zero-sum game. Yes, on the one hand it is indisputable that there are a range of transport related impacts on the destination. On the other hand, however, the development of ecotourism experiences carries with it the potential to protect societies and environments from potentially more damaging impacts from traditional mass tourism or other forms of resource extraction (Schweinsberg, Wearing, & Darcy, 2012). What a particular stakeholder or society considers sustainable will evolve over time according to the particular place based circumstances (see Schweinsberg, Wearing and Wearing, 2015). In the early twentieth century when the decision was made to allow automobiles into national parks for the first time, passionate objections were lodged by individuals including the superintendent of Yellowstone on account of the conflicts that would inevitably in their mind develop between car users and horse riders (National Parks Service, 2004). Writing a few decades after the introduction of cars, Edward Abbey observed that the introduction of cars had essentially shrunk the park, thus devaluing the experience that was on offer; "no more cars in national parks. Let the people walk. Or ride horses, bicycles, mules, wild pigs—anything—but keep the automobiles and the motor cycles and all their motorised relatives out" (Abbey, 1968, p. 160). Today, the use of automotive transport in national parks is commonplace. As Youngs, White, and Wodrich (2008) have observed with respect to Yosemite, automotive access has evolved from simply being an alternative to "uncomfortable and expensive" accommodation forms like train and stage coaches to become intimately connected to the cultural landscape of the region.

Ecotourism, transport, and diversity in a national park setting

Throughout the history of the national parks movement, managers have been forced to reconcile their dual mandate to provide experiences for visitors, whilst also protecting the ecology on which tourist experiences are based in its own right (see Wearing, McDonald, Ankor, & Schweinsberg, 2015; Wearing, Schweinsberg, & Tower, 2016). The potential for transport forms to be caught in the cross-hairs of this classic sustainable management trade-off between

use and preservation can also be illustrated in the contemporary debate over helicopter national park tours. Helicopter and fixed-wing flyovers have been a part of national park management debates for many decades (see Wichelns, 2017). Environmentalists including Sigurd F. Olson have since the mid-twentieth century campaigned against the use of aircraft and other mechanised transportation forms in regions including the Boundary Waters Wilderness Area in the northern Minnesota (Harvey, 2002). More recently the National Parks Service and the Federal Aviation Administration have worked to develop the 2019 *Air Tourism Management Plans*. The primary goal of such regulation is to "protect park resources and visitor use without compromising aviation safety or the nation's air traffic control system" (National Parks Service, 2019). The importance of getting the balance right was illustrated in a fictitious case of two young adults who visited the Grand Canyon National Park in the edited volume *Cases in Sustainable Tourism: An Experiential Approach to Making Decisions* (see Herremans, 2006b). The two tourists, named Katie and Sam, had their hike constantly interrupted by the sounds of over flights:

> In the morning they discovered a whole new Canyon with interesting combinations of light and shadow providing a totally different view of the geology than they had enjoyed the night before. After a relaxing breakfast they broke camp and got their backpacks ready for another day's travel. They enjoyed an hour of 'natural quiet' before they were once again disturbed by the whirling sound of helicopter blades overhead. (Herremans, 2006a, p. 184)

However, in the course of watching people board charter flights at Grand Canyon Airport they were forced to re-assess the cost and benefits of different transport forms. Yes, it was true that tourists taking a half-hour scenic flight would:

> never hear the rushing water or the noise of the wildlife over the sounds of the aircraft … [However, as Katie observed at the airport] did you notice the couple with the two small children? Do you think they could have enjoyed the same [hiking] adventure we did or should alternatives [like air tours] be available for those whose situations require a different experience? (Herremans, 2006a, p. 185)

If we are to answer this question, we must consider the specific requirements of visitor groups in national parks and the way they dovetail (only sometime successfully) with the availability of transport and mobility infrastructure. For example, Lovelock (2010) has identified that managers of national parks and other protected areas find themselves in a dilemma with respect to access provision for people with disabilities and seniors with access needs. While there will always be debate about site hardening of national park environments for reasons of transport access, amenity provision and other issues of carrying capacity; what has not been considered when decisions are made to provide access to these areas involving transport options is the social sustainability of the choices made. Darcy, Cameron, and Pegg (2010) argue that accessibility and sustainability are not mutually exclusive but should be considerations in sustainable destination management. While sustainability is quite often discussed without considering the three areas of environment, economic and social (+ governance), to do so with any infrastructure feasibility exercise is inappropriate, ineffective, and inefficient (Veal, 2010). People with disability and seniors with access needs make up 31% of tourists (Darcy & Dickson, 2009) and will account for 1.5 billion people worldwide by 2050 (World Health Organisation & World Bank, 2011). Amadeus (2017) and the GKF, University of

Surrey, Newman Consult, and Pro A Solutions (2015) identify that 2 billion people around the world have a disability or access needs and valued the market worldwide at US$500 billion annually.

To provide an example of the importance of considering the social sustainability of this group for the tourism industry we provide three examples of gondola design and operations in Skyrail Kuranda Queensland (Australia), Skyline Gondola Tours Queenstown (New Zealand), and the Ngong Ping gondola (Hong Kong). The two 'western' examples from Australasia chose a gondola design that prevents independent access by those who are wheelchair users, those who are frail aged, or are unsteady on their feet. From an operations perspective, those who are ambulant need to step up and across a vertical and horizontal gap from the platform to the carriage. For wheelchair users, the opening is only 57 cm (Queenstown, New Zealand) and 63 cm (Kuranda, Australia). This precludes all but the narrowest of manual wheelchairs with the exception of those that fold and can be lifted aboard the carriage (Queenstown, New Zealand) or tilted/lifted (Kuranda, Australia), as shown in Figure 3.1, with the person having to either walk themselves (most wheelchair users don't have this option) or be lifted or assisted on board, which can be a work, health, and safety issue if staff are not properly trained. To facilitate their experience requires that the gondola be stopped and restarted after access or egress. In the case of Skyrail (Kuranda) this is further complicated by having to change gondolas during the standard circuit.

In contrast, as shown in Figure 3.2, the case of Ngong Ping the cable car design is one based on a universal design principles where there are no vertical or horizontal gaps, a wide entry (120 cm), and circulation space for manual and power wheelchairs as well as other

Figure 3.1   Manual handling of wheelchair required for the Kuranda Skyrail

(*Source:* Have Wheelchair Will Travel 2020 with permission)

Figure 3.2   Ngong Ping cable car access showing universal design from platform to cable car without horizontal or vertical gap

(*Source:* Fiona Darcy © 2010 with permission)

mobility devices. The cable car only needs to be brought to a halt if requested by the individuals who are boarding. Given the 170 national signatories to the UN *Convention on the Rights of Persons with Disabilities* (United Nations, 2006), it would be hoped that all new tourism infrastructure in national parks would include universal design principles to provide transport access for all. Apart from the human rights arguments, this form of social sustainability built into the design and planning of parks infrastructure can provide a significant boost to a destination's and operator's economic bottom line as individuals with disabilities typically travel with families, friends, and business groups. Recent United Kingdom, United States, and Australian national visitor surveys have identified average group size of 2–5 people travelling with an individual with a disability on day trips or overnight travel (Amadeus, 2017; Darcy, McKercher, & Schweinsberg, 2020; GKF et al., 2015). As a footnote, the International Standards Organisation is currently preparing an international standard on accessible tourism due for completion in 2021 (see International Standards Organisation, 2020). This work, together with the UNWTO research, has established accessible tourism as part of mainstream considerations for destination competitiveness (Clara, Darcy, Garbero, & Almond, 2019; T. Vila, Darcy, & González, 2015).

A regional/international perspective

Sustainable transportation seeks to question "business as usual approaches to mobility … It questions whether all trips are necessary and whether those ones most necessary could be done with minimal or no environmental burden" (Schiller, 2018, p. 234). As our under-standing of what is or is not ecotourism evolves (see Fennell, 2015b), new forms of transport become essential for ensuring that desired ecotourism experiences can be met. Fennell (2015) has noted that to be sustainable, it is not enough for one part of the industry (e.g., attractions or transportation) to work in a sustainable way. Rather, the whole industry must be both working in concert, as well as working in a manner that acknowledges changing societal understanding of the value and role of nature (see Hay, 2002). For example, as humankind's attitude to the intrinsic value of the natural world has evolved, attitudes to the role of animals in the provision of ecotourism services have become more nuanced and sophisticated (Burns, Macbeth, & Moore, 2011; Fennell & Nowaczek, 2010; Lemelin, Fennell, & Smale, 2008; Stronza, Hunt, & Fitzgerald, 2019). Newsome and Rodger (2013) have argued that eco-tour operators tend to view wildlife tourism as sustainable on account of its educative nature and focus on minimal impacts on the animals concerned. As Wearing, Cunningham, Schweinsberg, and Jobberns (2014) have argued, however, whale-based ecotourism whilst non-extractive is not necessarily as sustainable as may be thought on first glance. Higham, Bejder, Allen, Corkeron, and Lusseau (2016) have argued that the sustainable management of whale watching operations requires that such activities be perceived in terms of their "sub-lethal anthropogenic stress and energetic impacts … [and] for the industry to be managed within an architecture of strong national and international regulation" (p. 83). What this means for the present discussion is that as ecotourism resources dovetail with transport forms across international boundaries, the industry as a whole must not think of its sustainability solely in terms of its local impacts, but rather on a global scale with full acknowledgement of the impacts caused by transport and other parts of the tourism system that facilitate the movement of people to and from ecotourism destinations.

   Quantifying such impacts and assigning responsibility for their management is often easier said than done. Gössling (2002) observed that some 90% of tourism's contribution to climate change comes from its transport dimension. The long-haul nature of many of the ecotourism destinations has meant that aviation policy has had a disproportionate impact on the sector's sustainable future relative to other parts of the global tourism industry. Gössling (1999) argues that fuel consumption, as an example of an environmental damage cost, needs to be factored into any robust measure of the 'total environmental impact' of a tourism operation. However, should we stop with fuel consumption? Weaver (2011) has asked, should we not also include the indirect impacts resulting from aircraft manufacture and maintenance? The partially industrialised nature of the global ecotourism industry makes such questions chal-lenging to answer. For example, cruise ship tourism has been subject to critique over its sustainability in a variety of destinational contexts (Hritz & Cecil, 2008; Klein, 2011; Lamers, Eijgelaar, & Amelung, 2015; Larsen & Wolff, 2019). As Hopkins (2019) has observed, "maritime activities contribute to emissions by way of ship emissions, crane emissions, and the emissions associated with vehicles in the harbour" (p. 6). With cruise operators ex-panding into more remote localities as part of Last Chance Tourism (see Eijgelaar, Thaper, & Peeters, 2010), iconic localities including the North West Passage are now part of the cruise tourism itinerary (Sevunts, 2019; Snider, 2016). With Last Chance Tourism infrastructure such as ports being used for non-tourism purposes (see Schweinsberg, Wearing, & Lai, 2020), ecotourism's sustainability potential must increasingly be seen in relation to a

multifaceted understanding of 'place'. At the same time, however, the development of new nature based tourism forms is not only precipitating the need for the development of new transport infrastructure (Lamars, Eijgelaar, & Amelung, 2012); it is also leading many commentators to question the ethics of travel to remote and threatened regions (M. Vila, Costa, Angulo-Preckler, Sarda, & Avila, 2016) and by implication to question the sustainability of different tourism related transport forms that may be involved in their facilitation. At a philosophical level the act of tourism related travel cannot be separated from transport; to have one without the other Gross and Grimm (2018) observe would be "inconceivable" (p. 402). Given that people also have an intrinsic right to travel, as per article seven of the World Tourism Organisation's *Code of Ethics for Tourism* (1999), the question becomes how one can make ecotourism transport options more sustainable within the framework local and global circumstance?

Pursuing a sustainable ecotourism transport future

Simmons and Becken (2004) have argued with respect to New Zealand that the ecotourism sector's contribution to greenhouse gas emissions is both a consequence of it being over 12,000 km from popular tourism-generating regions in Europe, as well as based on what they describe as an often over reliance on private cars for commutes to popular ecotourism sites. With respect to the first issue—travel to the destination—Wood (2017) has shown how an inefficient long-haul flight of a little over 12,000 km can emit more CO_2 than is recommended for an individual per year if we are to help keep global temperature increases to less than 2 degrees. Simmons and Becken (2004) have similarly demonstrated that the CO_2 emissions from a short-haul flight between New Zealand and Australia is roughly equivalent to the total CO_2 emissions of a hypothetical 20-day self-drive tour in New Zealand.

Any move to develop a more sustainable ecotourism transport future in these and other destinations must find a way to manage the interplay of two often inextricably opposing forces. On the one hand, there are technologies out there that can help to mitigate the negative environmental and other impacts from ecotourism transport options. These technologies include virtual reality experiences (Bristow, 1999) where tourists are offered the opportunity for remote experience of nature in lieu of being transported to the site in question through technologies like Google Earth (see Appnbrink, 2019). While the use of interactive multimedia is recognised as having a role to play in facilitating a mediated experience of ecologically vulnerable resources (Skibins & Sharp, 2019), it has also been observed that a range of independent variables will play role in a tourist's level of satisfaction with such experiences (Orru, Kask, & Nordlund, 2019). Similarly, the use of drones as a mechanism for conservation and destination marketing has been recognised by groups including Ecotourism Australia (Mills, 2016). While the potential for drones to impact on the behavioural patterns of local wildlife is acknowledged (Ditmer et al., 2015); to date, drones have received minimal attention in the ecotourism literature (exceptions include King, 2014). One of the key issues for tourism scholars around the use of new technologies will be to what degree does the average tourist care about the environmental consequences of their transport choices? Ecotourists are not a homogenous group with respect to their motivations to travel, their level of environmental awareness or behaviours (Weaver & Lawton, 2002). As such, there is the potential for some travellers to maintain a socially organised denial over the relationship between their transport choices and their impact (Hanna & Adams, 2019). In recent years, tourism scholars have begun to employ the concept of 'Akrasia' to explore some tourists' "deficient capacity to contain or restrain one's desires, broadly conceived; where the anticipation of pleasure overwhelms good judgement" (Fennell, 2015a, p. 95).

While much of the discussion around a sustainable transport future will focus on the use of different transport forms, what must also be considered is the potential for transport systems to render an ecotourist immobile for sustainability gains. Within the wider sustainable tourism literature the concept of de-growth has recently come into vogue (Andriotis, 2018; Higgins-Desbiolles, Carnicelli, Krolikowski, Wijesinghe, & Boluk, 2019). Referring to the need to decouple tourism's sustainable future from a growth-at-all-costs mantra, which had characterised neoliberal economies in the twentieth century (Fletcher, Murray Mas, Blanco-Romero, & Blázquez-Salom, 2019); de-growth is seen as offering a sustainable future for the industry, one where the "rights of local communities [are valued] above the rights of tourists for holidays or the rights of tourism corporations for profits" (Higgins-Desbiolles et al., 2019, p. 1926). Andriotis (2018) has argued that ecotourists who ascribe to a de-growth mantra will tend to make environmental protection the overriding factor when making decisions over transport choices. This will often mean avoiding long-haul air travel and automobiles in favor of slow tourism alternatives. Wearing, Wearing, and McDonald (2012) have argued that slowing down the pace of our ecotourism experiences carries with it the potential for the development of sustainable links between the tourism industry, nature, and communities. At the same time, however, any move to render a particular transport form accessible to some will equally often have the effect of rendering others immobile (Hopkins, 2019).

The development of urban ecotourism in areas along the urban/rural interface is illustrative of this phenomena. Urban ecotourism has been recognised for many years as being a means of cultivating tourism demand whilst also helping to green and make more sustainable what are often otherwise rundown urban precincts (Gibson, Dodds, Joppe, & Jamieson, 2003; Higham & Lück, 2002). While the literature exploring the transport dimensions of urban ecotourism is limited (see Aversa, Petrescu, Apicella, & Petrescu, 2017), there is recognition that urban ecotourism destinations serviced by effective public transport systems (Wu, Wang, & Ho, 2010) can have the effect of encouraging more sustainable destination futures (Sorupia, 2007). While such futures may increase the transport options available to some eco-travellers, others from emerging destinations may be precluded on the basis of their inability to navigate the complex array of regulatory restrictions governing the global tourism industry. Duffy (2006) has observed that at the national level "ecotourism requires a particular kind of national policy environment that favours the global market, accepts and facilitates global air travel and supports the development of local transport networks … to serve the ecotourism market" (p. 5). While many examples exist of best practice with respect to the facilitation of sustainable ecotourism experiences (Edgell, 2016; Queensland Government Department of Environment and Science, 2017–2019); what is still needed is comprehensive evaluation of ecotourism's transport needs and a recognition that not only does the industry need to "address the aviation issue, … [but also that they need to] give travellers the option of doing something to repair the damage they do" (Mader, 2019).

Conclusion

The chapter is entitled *Ecotourism and the trouble with transportation* to draw attention to the fact that whilst the aviation sector and other transport forms are vital for the enactment of the ecotourism experience (see Snow & Snow, 2003), the environmental damage from transport mechanisms is often disproportionate to other parts of the ecotourism system (Folke, Østrup, & Gössling, 2006). The scope of the problem was articulated by the World Tourism Organisation and the United Nations Environment Program who estimated that the "tourism sector contributed approximately 5% of all man-made CO_2 emissions in 2005, with transport

representing the largest component, i.e., 75% of the overall emissions of the sector" (World Tourism Organisation & International Transport Forum, 2019, p. 12). How can we seek to move the industry out of the paradox that characterises a reliance on that very thing that poses the greatest risk to ecotourism's survival? Firstly, one must recognise that a business as usual approach to tourism mobility is inconsistent with global efforts to reduce levels of CO_2 emissions in line with the Paris Climate Agreements (see Peeters et al., 2019). Secondly, we must embrace the access—impact paradox. We must look to understand mobility needs, both in the destination and more regionally and develop coordinated transport plans that align transport offerings to both the carrying capacity of a locality and perceptions of visitors of the appropriateness of different tourist numbers (Scuttari, Orsi, & Bassani, 2019). Finally, we must recognise that the right to free movement and mobility for all is governed under both the International Covenant on Civil and Political Rights (see Perkumienė & Pranskūnienė, 2019). We should not try to halt ecotourism growth on account of transport, but rather recognise that as with sustainable development debates more broadly, the tourism industry has the potential to use its diverse systems-based characteristics to be a leader in the development and operationalisation of sustainable transport forms.

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