Introduction

Access to ecotourism by persons with disabilities has rarely been the subject of academic research; nor has a great deal of guidance been developed in this regard for organisations responsible for the planning, management and delivery of ecotourism. The assumption seems to be that ecotourism is similar enough to other forms of tourism for research recommendations and practical guidance to be transferred directly from the general to the specific. As other chapters in this volume clearly demonstrate, however, the defining characteristics of ecotourism require that decisions about its management, planning, and delivery cannot be based simply upon an understanding of general tourism, no matter how sophisticated this might be. Indeed, Fennell (2020) defines ecotourism as:

travel with a primary interest in the natural history of a destination. It is a non-invasive and participatory form of nature-based tourism that is built around learning, sustainability (conservation and local participation/benefits), and ethical planning, development and management. (Fennell, 2020, p. 20)

Ecotourism is thus different in its focus, its operation, and its intent. Sustainability is clearly a central goal. While this definition does not explicitly state that ecotourism should consider the needs and wants of people with disabilities, the condition that ecotourism should be ethically planned, developed, and managed might reasonably be taken to imply such. Indeed, as this chapter will argue, there are strong ethical reasons for ensuring that access to ecotourism is provided for people with disabilities.

Defining disability is also something that has greatly exercised the minds of researchers. Language is crucial when discussing disability issues, particularly in respect of the terminology employed (e.g., Alén, Domínguez, & Losada, 2012). Gillovic, McIntosh, Darcy, and Cockburn-Wootten (2018, p. 615) argue that we all have the power to “(re) produce oppression through language that maligns and misrepresents, or to (re) conceptualise and (re) construct the world we live in with liberating language that facilitates positive social change”. The range of terms that has been used to describe people with disabilities has in the past included terms such as ‘handicapped’, ‘wheelchair-bound’, ‘retards’, ‘cripples’, and ‘crazies’:

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terms that are today considered to be not only outdated but also condescending, stigmatising and discriminatory.

Much has changed, however, in the last quarter of a century. This has been ascribed to the gradual transition from the medical model of understanding disability to the social model. The now largely outmoded medical model assumes that disability is something opposite of what is ‘normal’ that should somehow be ‘cured’ or ‘fixed’ (Gillovic et al., 2018). The social model, in contrast, proposes that disability is a social construct. As such, disability only exists because society puts barriers in the way of people doing things. Were these barriers to be removed, a person considered disabled would no longer effectively be disabled because they could fully access every aspect of life. The social model therefore proposes that disability is, always and everywhere, a socially reproduced phenomenon. Research following the social model of disability therefore tends to focus on identifying the barriers to disabled access and then determining suitable strategies for overcoming those barriers (Randle & Dolnicar, 2019).

The terminology used in this chapter will follow the social model by referring to the reduction of function a person may experience as an ‘impairment’, while the term ‘person with disability’ (PwD) will be used to describe someone who has one or more impairments. This reflects a preference not to label people with disabilities by using the term as an adjective (as in ‘disabled person’) but rather to acknowledge that they are people first and foremost. Similarly, rather than describing people without disabilities as ‘normal’ or even ‘able-bodied’, this chapter will use the term ‘non-disabled people’.

Following the World Tourism Organization (UNWTO) (2016), the terms mobility, sensory, and intellectual disability will be used in the chapter to describe the various impairments of PwDs. Mobility disability refers to a restriction in a person’s ability to freely move about. Such individuals may or may not use some form of aid to assist their mobility (for example a wheelchair, walking frame, or sticks). Mobility disability may include those who lack full use of their arms and/or hands. Sensory disability relates to an impairment relating to the use of one’s senses, these being chiefly visual and hearing, although it is quite possible that impairment of other senses may affect a person’s tourism experience. Intellectual disability relates to a person’s intellectual functioning, which may be delayed relative to people of their same age. This includes the development of conceptual skills (e.g., those relating to money, time, or use of language), social skills and everyday-life skills. Mental illnesses may also be included in this group. Such distinctions are, however, largely artificial and for the convenience of researchers and policy makers, with many PwDs having combinations of impairments from one or more groups. The UNWTO also argues that people who would not normally be considered PwDs may have wants and needs that overlap with those who would, for example, as people age, they tend to have reduced capacities in all three categories of impairment. Also included would be people who have young children in prams or pushchairs, pregnant women, those with temporary disabilities (such as a broken limb), people who are obese, those of very tall or short stature, and indeed children (see Figure 15.1).

None of these forms of impairment should, or indeed necessarily do, prevent PwDs from taking tourism trips. By the same token, PwDs with many different impairments are likely to wish to engage in ecotourism (Chikuta, du Plessis, & Saayman, 2018). It is widely acknowledged that tourism organisations should not simply aim to provide special access to PwDs but to ensure that their operations allow full, universal access to all (Darcy, Cameron, & Pegg, 2010; World Tourism Organization, 2013). The term ‘accessible tourism’ is therefore often used to denote research and practice in this area (Altinay, Saner, Bahçelerli, & Altinay, 2016; Buhalis & Darcy, 2010; Darcy, 2010). As this chapter will shortly argue, there are good reasons why this
principle should also be applied to ecotourism: not only ethical reasons (which are important in themselves) but sound commercial reasons as well.

There has been a tendency for the primary focus of disability concerns to be on physical disabilities. This stereotypical thinking tends to be based on simple visual cues (such as a person’s use of a wheelchair) when deciding who might require additional assistance to access a location or use a service. This is reminiscent of the medical model of disability. With the greater acceptance of the social model of disability, however, this (often unconscious) bias is becoming less prevalent in society. Even so, the literature on accessible tourism has been slow to respond to this social shift, with most published research focusing on mobility disabilities, sometimes including some forms of sensory disability such as visual impairment. Few studies of disability in the tourism context have considered intellectual disabilities. Exceptions include Sedgley, Pritchard, Morgan, and Hanna (2017), Hamed (2013) and Dattolo, Luccio, and Pirone (2016), who focus on tourism by people with autism spectrum disorder, Page, Innes, and Cutler (2015) and Connell, Page, Sheriff, and Hibbert (2017), who examine the development of dementia-friendly tourism, and Rix, Lowe, and The Heritage Forum (2010), who study the inclusion of people with learning difficulties at heritage sites. None of these focus on ecotourism, and none seems to recognise the possibility that PwDs may have combinations of impairments. The extent of impairment is also largely overlooked in such studies.

**The market for accessible tourism**

Providing access to tourism by PwDs has traditionally been viewed as an ethical issue rather than a business opportunity. One reason for this is the introduction of legislation in many countries to ensure that tourism organisations make minimum provision for PwDs. Relevant
legislation includes the Equality Act of 2010 in the United Kingdom, the Americans with Disabilities Act of 1990 in the USA, and the Canadians with Disabilities Act of 2015 in Canada, all of which support and enforce the rights of PwD to undertake tourism. At the international level, meanwhile, there is the UN Convention on the Rights of People with Disabilities (2006), Article 30 of which concerns the rights of PwDs to participate in cultural life, recreation, leisure and sport. The European Union (EU) adopted this convention in 2010, which was the first time the EU formally accepted an international human rights treaty. It has since developed a framework for its implementation. There is also a wide range of guidelines and advice available, for example from global institutions such as World Tourism Organization (n.d., 2013, 2016), national destination marketing organisations such as VisitBritain (2020), and charities such as Tourism for All (2020). The need for such laws, conventions, guidelines, and advice tends to reflect the ethical perspective that PwDs have the same right to participate in tourism as anyone else, and that any lack of provision on the part of the tourism industry must be corrected.

This ethical view is also based on the presumption that providing access to PwDs will not be profitable for tourism businesses or represent an acceptable use of taxpayers’ money in the case of public-sector organisations. As Darcy et al. (2010) note, in the accommodation sector there has been a persistent belief that investment in ‘rooms for the disabled’ is unwarranted due to low expected market returns. This is because the accessible tourism market is thought to be inherently small and highly specialist in character, making the cost of the necessary adaptations prohibitive. Tourism providers also tend to believe that PwDs travel infrequently and have lower disposable incomes (Darcy et al., 2010).

These presumptions are, however, largely incorrect. While there are currently no reliable statistics available on the number of PwDs taking general tourism trips (let alone ecotourism trips specifically), all the indications are that the potential market is not only substantial but also rapidly growing. For example, the World Tourism Organization (n.d.) notes that there are presently around one billion PwDs in the world, representing 15% of the global population. Furthermore, disability is strongly associated with age (Chikuta et al., 2018), and the world’s population is aging rapidly. This means that there will be approximately 2 billion people aged over 60 by 2050, representing more than 20% of the global population (World Tourism Organization, n.d.). In most developed countries, the proportion of PwDs in the overall population tends to range from around 15% to 20% (Alén et al., 2012).

Studies do tend to suggest that the propensity to take a tourism trip is lower for PwDs than in the non-disabled population. A study conducted in Australia estimated that PwDs made up 11% of the total number of tourists in Australia; meanwhile a similar study in the UK found that PwDs made up 12% of domestic tourist numbers (World Tourism Organization, 2013). Studies show that while PwDs tend to travel less often than non-disabled people, a considerable number would take more tourism trips if there were fewer barriers to doing so (Alén et al., 2012). Research also demonstrates that PwDs are prepared to stay longer, spend more per day, and purchase more services than other tourists. Many choose to travel outside the high season to avoid crowds (Chikuta et al., 2018). They also generally prefer to travel with family members or carers, who also pay their way (Alén et al., 2012). This suggests that accessible tourism is not the inherently unprofitable market segment that many in the tourism industry seem to believe.

The accessible ecotourism market is also likely to be significant scale. A report by EBSCO (2009) suggested that even a decade ago, ecotourism made up between 5 to 7% of overall tourism. The report also suggested that ecotourism was one of the fastest sectors in the industry. While ecotourism statistics for ecotourism are notoriously difficult to validate, particularly because of the inherent disagreements about its proper definition, the market for
accessible tourism might have grown considerably over the past decade. A figure of 7% of overall tourism is likely, therefore, to be a conservative estimate. This would imply that in the United Kingdom, for example, the accessible ecotourism market might be in the region of 8.5 million trips.

Tourism providers nevertheless tend to treat accessible tourism as a legal obligation rather than a commercial opportunity (Chikuta et al., 2018). It is difficult to explain why this disparity remains. Possibly it is because industry leaders are not persuaded by the available market research, and there is certainly a need for more and better-quality market research to be undertaken, particularly with respect to ecotourism. Another explanation might simply be that tourism providers are unaware of the wants and needs of tourists with disabilities (Chikuta et al., 2018).

Motivations and expected benefits

Little research has been undertaken into the motivations and expectations of PwDs taking tourism trips. The few studies that do exist tend, however, to emphasise certain overarching themes. The first is that PwDs generally want to be treated as equals to non-disabled tourists (Chikuta et al., 2018). Unfortunately, this is still not the experience of many PwDs, despite the tourism industry in many countries having done much to provide additional facilities for them. Sometimes, PwDs need to adopt extreme coping strategies as a result. Yau, McKercher, and Packer (2004), for example, report that people who use wheelchairs often find that the toilets in airplanes are too restricted in terms of space, and that asking for assistance is embarrassing. Some therefore take to deliberately starving and dehydrating themselves before the flight so they do not need to use the toilet. As such, it is not enough for PwDs to have their needs met: they would like their wants to be met also. This means that they should be able to make full use of any facilities any activities that are offered by the tourism provider.

The second theme is that PwDs, just like non-disabled tourists, are often looking for challenge. This includes activities such as exploring nature and going to inaccessible places such as wilderness areas, so it is probable that many ecotourism offerings would be of interest (Ray & Ryder, 2003). Sometimes PwDs seek out tourism activities that are even more challenging relative to their abilities compared to non-disabled tourists (Chikuta, du Plessis, & Saayman, 2017). The trip may be seen an opportunity to challenge themselves, to increase their self-confidence (Chikuta et al., 2018; Yau et al., 2004), and to build positive self-image and self-esteem (Lord & Patterson, 2008). Burns and Graefe (2007) argue that PwDs often undertake outdoor recreation to prove a point to themselves and/or to others. Related to this, Chikuta et al. (2018) argue that some PwDs are also motivated to undertake challenging tourism activities while they still can, particularly if they do not know how much harder it might be to undertake them in the future if their disabilities worsen with age.

A third theme is learning and personal development. A study of the motivations for PwDs to engage in physically active leisure by Lord and Patterson (2008), for example, found that PwDs believe that being involved in such activities helps them build stronger relationships with family and peers, as well as to increase their personal competencies in social, decision-making and communication skills. Such activities may also provide learning experiences. While Lord and Patterson’s study focuses on active leisure participation, rather than tourism, it is likely that these benefits are sought by PwDs who undertake tourism trips.

Seeking healing and wellbeing benefits is a fourth theme. It is now widely accepted that spending time in natural environments can have positive health and wellbeing benefits to people in general (Buckley et al., 2019). There is no reason to expect these benefits not to apply
equally to PwDs, if not more so. A study by Chikuta et al. (2017), for example, found that seeking healing in nature was a strong motivation for PwDs to travel to national parks.

Knowledge of the motivations and expectations of PwDs to undertake tourism trips is still, however, quite limited. One thing that can be taken as given is that PwDs with different types, combinations, and degrees of severity of impairment are likely to have different motivations and expectations. Very little research has been undertaken, however, to investigate these likely differences. One exception is the study by Chikuta et al. (2017), which found that people with hearing disabilities were statistically more likely to seek adventure- and enrichment-related benefits than those with physical or visual disabilities. In terms of escape-related motivations, meanwhile, no statistically significant relationship was found. Another study in the context of physically active recreation found that people with high support needs felt it was more important to challenge their abilities and work towards a goal than those with low support needs (Lord & Patterson, 2008). Perhaps contrary to expectations, however, they found no statistical differences between men and women in any of the motivations they studied.

It is also important to note that, by definition, ecotourists are likely to have different motivations and expected seek different benefits to general tourists. These include being physically active, escape from the home routine, challenging oneself, enjoying undisturbed nature, learning new things, and spending time with family and friends (Chikuta et al., 2017). They are also likely to exhibit different behaviours. Research tends to suggest that ecotourists often travel alone or with a partner/spouse, stay somewhat longer in the destination, spend as much as other tourists, and prefer more basic accommodation. The same is likely to be true of ecotourists with disabilities.

**Barriers to access by persons with disabilities**

Much of the recent research on accessible tourism has focused on the barriers that PwDs encounter (Yau et al., 2004). This is doubtless the product of the growing use of the social model of disability. Table 15.1 presents a summary of barriers that may be faced by PwDs in the course of their tourism trip. As per the social model, these are divided into three distinct categories: attitudinal, informational, and physical.

The first group, attitudinal barriers, relate to the assumptions people make about PwDs. This might include, for example, making stereotypical assumptions about what PwDs can and cannot do, overlooking or ignoring them (including speaking to them indirectly through a companion or carer), making disparaging remarks, and offering them inappropriate assistance. Research suggests that PwDs simply wish to be treated like everyone else: as valued and respected customers (Darcy, 2010; Randle & Dolnicar, 2019). While they are often overlooked, attitudinal barriers can be more influential than physical or informational barriers. Indeed, a study by Zhang and Cole (2016) suggested that staff attitudes can be the most important variable in terms of tourist accommodation service performance; often being the factor that solely determined the satisfaction of guests with disabilities.

The second group of barriers are informational: they limit or prevent PwDs from gaining information about the provision available to tourists and, in particular, those with disabilities (Mills, Han, & Clay, 2008). PwDs often use the Internet to research their trips in order to ensure that their needs and wants can be met (Ray & Ryder, 2003) and to predict any problems that they might encounter so that they can develop coping strategies. This includes both website searches and the use of the social media (Altinay et al., 2016). PwDs often need to put considerable time and effort into such research before they feel confident taking a trip (Buhalis & Michopoulou, 2011). The range, detail, comprehensiveness, and correctness of such information are all therefore important factors. More importantly, however, PwDs will need to
Table 15.1 Social model of disability applied to tourism

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitudinal</td>
<td>• Treating disabled visitors differently to others</td>
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<tr>
<td></td>
<td>• Good service is not seen as a right for all</td>
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<tr>
<td></td>
<td>• Lack of awareness of needs/wants of visitors with disabilities</td>
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<tr>
<td></td>
<td>• Lack of use of appropriate terminology when talking about disability issues</td>
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<td></td>
<td>• Assumptions and stereotyping about people with disabilities</td>
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<td></td>
<td>• Overhelpfulness or overprotectiveness</td>
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<td></td>
<td>• Visitors hiding disability and/or misrepresenting their abilities</td>
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<td></td>
<td>• Training to improve knowledge and competencies of staff members</td>
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<tr>
<td></td>
<td>• Recognise essential differences in wants and needs of different disability groups</td>
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<tr>
<td></td>
<td>• Adopt a compliance-plus approach to disability issues</td>
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<td></td>
<td>• Include accessibility in all organisational policies and strategies</td>
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<tr>
<td></td>
<td>• Develop a range of accessibility policies</td>
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<td></td>
<td>• Employ people with a range of disabilities</td>
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<td></td>
<td>• Make use of people with disabilities in advertising and promotion</td>
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<tr>
<td></td>
<td>• Provide simple and easy-to-use information on websites</td>
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<tr>
<td></td>
<td>• Include photos of facilities and spaces on websites</td>
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<tr>
<td></td>
<td>• Design information provision that is effective regardless of ambient conditions and user abilities</td>
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<tr>
<td></td>
<td>• Use of captions and voiceovers on videos</td>
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<tr>
<td></td>
<td>• Use social media to assist in the spread of information about facilities</td>
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<tr>
<td></td>
<td>• Develop a clear accessibility policy and published it on the Internet</td>
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<tr>
<td></td>
<td>• Encourage visitors with disabilities to ask questions, and provide clear answers in an accessible way</td>
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<tr>
<td></td>
<td>• Consult people with disabilities in the design of information</td>
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<tr>
<td></td>
<td>• Use profiling and personalisation features to tailor information to individual website users</td>
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<tr>
<td></td>
<td>• Prioritise the less costly but most influential improvements</td>
</tr>
<tr>
<td></td>
<td>• Apply universal design principles to facilities to accommodate all preferences and abilities</td>
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<tr>
<td></td>
<td>• Ensure that the most-used assets are the most accessible</td>
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<td></td>
<td>• Ensure that hazardous elements are eliminated, isolated, shielded, or minimised.</td>
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<tr>
<td>Informational</td>
<td>• Websites that lack usability by people with different level of sensory ability</td>
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<tr>
<td></td>
<td>• Lack of detailed, up-to-date, comprehensive, qualitative information about facilities</td>
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<td></td>
<td>• Websites where it is difficult to find information specific to particular needs and wants</td>
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<tr>
<td></td>
<td>• Accessible room and/or parking space cannot be reserved in advance</td>
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<td></td>
<td>• Lack of signage that accessible to people with disabilities</td>
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<td></td>
<td>• Guides not available who have knowledge and competency to serve needs and wants of disabled patrons</td>
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<tr>
<td>Physical</td>
<td>• Non-accessible public transport, e.g., lack of suitable seating, restraints, arrangements for boarding and disembarkation, etc.</td>
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<td>• Lack of accessible, well-marked parking at the point of entry</td>
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<td></td>
<td>• Presence of steps and staircases</td>
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<td></td>
<td>• Narrow doorways, passages, gates, etc.</td>
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<tr>
<td></td>
<td>• Lack of level access to waterside for water-based activities</td>
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</tbody>
</table>

(Continued)
be able to access that information and those with sensory impairments may find that particularly
difficult, particularly if the websites do not provide alternative formats such as large font sizes to
assist those with visual impairments or captioned videos for those with audio impairments
(Randle & Dolnicar, 2019).

The third group of barriers relates to the features of the built or natural environment that
prevent equal access. Architectural and design features are the most common sources of such
barriers, including diverse factors such as room to manoeuvre wheelchairs in hotel rooms;
sufficient width of doors and gateways; the heights of room furniture; the availability of suitably
adapted toilets, showers, and changing facilities; the availability of lifts and ramps to avoid steps
or stairs; provision for carers and service dogs; and accessible parking spaces (e.g., Zhang &
Cole, 2016). PwDs will often find it difficult to navigate environments with which they are
unfamiliar (Randle & Dolnicar, 2019). Such barriers are relatively well researched, having long
been the subject of disability research under the medical model. They are not, however, ne-
cessarily the most influential in terms of restricting access by PwDs to tourism; nor is the relative
importance of the different barriers generally well understood (Darcy, 2010; Poria et al., 2011).

The content of Table 15.1 is intended to be indicative rather than comprehensive. It
nevertheless demonstrates the benefits of the social model in identifying a wide range of barriers
tourists with disabilities face. This range clearly extends beyond the physical barriers that are so
often focused upon. It should also be noted that tourists with different types, combinations, and
severity of impairment are likely to have different emphases when it comes to the relevance and
influence of each of the different barriers. They will therefore have different priorities when it
comes to their wants and needs being addressed, and these will need to be fully taken into
account by the organisations making those interventions.

### Strategies for increasing to access for people with disabilities

The social model of disability is considered useful as a means not only of identifying the barriers
to participation in a particular activity by PwDs but also of developing strategic interventions to
reducing or, ideally, eliminate them (Randle & Dolnicar, 2019). The strategic interventions shown in Table 15.1 are therefore classified into the same three groups: attitudinal, informational and physical. These examples of strategic intervention are intended to be illustrative rather than comprehensive. The first group, which relates to attitudinal barriers, focuses on the strategies that tourism organisations can implement to challenge the ways of thinking and behaviours of staff towards customers with disabilities. Such training should be done across the organisation and at all levels of seniority. Some of the biases PwDs experience will be unconscious on the part of the staff member, so it is important that they uncover their biases and learn how to correct them. A key message is that PwDs deserve and expect the same level of service as any other customer.

Another area where strategic interventions can address the attitudinal barriers to disability is in the development of organisational policies. Organisations should ensure that disability issues are included in all of their policies and practices. Such policies should aim to go beyond simply meeting current disabilities legislation to adopt a compliance-plus approach. Indeed, as Poria et al. (2011) note, if customers with disabilities feel that the tourism organisation has gone beyond what is necessary, they will feel more welcome and that they have been extended due hospitality.

The second group of strategies relate to addressing informational barriers. Such strategies have tended to be applied to the ‘old’ media, such as paper-based and broadcast media, but increasingly the focus is on their use in ‘new’ media such as websites and the social media (Altinay et al., 2016). Many of the strategies that could be implemented apply, however, to both old and new media. For example, alternative formats will normally be required for access by PwDs with sensory disabilities: large print, Braille, or audio alternative formats for those with visual disabilities; written versions and signed/subtitled visual material for those with hearing disabilities. The overarching principle is that information should be universally accessible. It is important to note that PwDs are, if anything, more likely to use the Internet to research and book their trips (Buhalis & Michopoulou, 2011). Access by users with various disabilities is already a component of best practice in website design and following the guidelines that area already available in this respect would certainly help address the informational barriers to tourism.

Buhalis and Michopoulou (2011) also argue that tourism providers could make better use of the customisation and personalisation features of websites in order to market their services to PwDs more effectively. They argue that many tourism providers typically segment the accessible tourism market according to type of disability (be it mobility, sensory, or intellectual). Modern website functionality can, however, enable individual PwDs to express their own needs and wants, so that tourism providers can understand and serve them more precisely on an individual basis.

Thirdly, there are strategies to address the physical barriers to tourism. Perhaps understandably, these have tended to be the focus of a great deal of the effort of tourism organisations, often to the neglect of even recognising the attitudinal and information barriers that may exist alongside them. Indeed, physical barriers tend to be the most visible and apparently most easily solved of the three types, often relying on the application of technical ‘fixes’ such as the modification of buildings or the installation of equipment. They have also been the area upon which existing legislation has tended to focus, as they are easily verified by inspection. Most of guidance available to organisations thus focuses on physical barriers to access. The guidelines developed by the World Tourism Organization (n.d., 2013, 2016), for example, are based heavily on the concept of universal design (see Figure 15.2). This is defined as “The design of products, environments, programmes, and services to be usable by all people, to
the greatest extent possible, without the need for adaptation or specialized design” (World Tourism Organization, 2016, p. V49). Such principles relate well to the physical barriers, and to some extent to the informational barriers, but they far less relevant to addressing the attitudinal barriers to accessible tourism. They also tend to relate to the built rather than the natural environment. Indeed, the World Tourism Organisation’s (2013) guidelines to implementing the principles include full sections for the urban environment, transport, and accommodation, for example, but relegate ‘natural areas’ to a ‘miscellaneous’ category along with excursions and sport.

Fundamental to the problem is that the principles of universal design presuppose that it is possible (and indeed desirable) to design the environment in which tourism is taking place. With the built environment, design is arguably a more practical possibility, as tourism facilities are often purpose-built and can thus be designed from scratch. The same cannot, however, be said in the case of ecotourism. While it is realistic to envisage the application of universal design rules to some elements of the ecotourism experience, for example the design of information boards, waymarking signs, safety announcements or interpretation in visitor centres, these are largely peripheral elements of the experience. When thinking about the core elements of ecotourism provision, however, it is much more difficult to envisage how the principles of universal design might best be applied, not only because there is often less scope to do so but because doing so may not be considered desirable for sustainability reasons. As Chikuta et al. (2018) suggest, proponents of sustainability often argue that any change to existing ecological conditions in order to accommodate the needs and wants of PwDs may serve to compromise the quality of the natural environment. For example, PwDs may require

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### Principle 1 Equitable use
The design is useful and marketable to people with diverse abilities

### Principle 2 Flexibility in use
The design accommodated a wide range of individual preferences and abilities

### Principle 3 Simple and intuitive use
Use of the design is easy to understand, regardless of the user’s experience, knowledge, language skills or current concentration level

### Principle 4 Perceptible information
The design communicates necessary information effectively to the user, regardless of ambient conditions or the user’s sensory abilities

### Principle 5 Tolerance of error
The design minimizes hazards and the adverse consequences of accidental or unintended actions

### Principle 6 Low physical effort
The design can be used efficiently and comfortably and with a minimum of fatigue

### Principle 7 Size and space for approach and use
Appropriate size and space is provided for approach, reach, manipulation and use, regardless of the user’s body size, posture or mobility

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*Figure 15.2* Seven principles of universal design

*Source:* World Tourism Organization (2013)
use of motorised vehicles to visit an ecotourism site, which may necessitate the building of roads and could generate noise in an otherwise tranquil wilderness environment. Ironically, the qualities of the natural environment that are being threatened are the very ones that all ecotourists want to experience, whether they have disabilities or not. Access for all may inadvertently bring ruin to all.

The above discussion exposes a clash of ethics. On the one hand, it seems only right that PwDs should have equal access to nature, and that it would be an infringement of their human rights to deny them this, particularly in national parks that have been established for the common good (Chikuta et al., 2018). On the other hand, there is also a strong ethical argument that the protection of these natural resources for the benefit of future generations should supersede considerations about who should or should not be allowed to use them. This reinforces the suggestion already made in this chapter than much more research specifically on how best to address physical accessibility concerns in the ecotourism context is urgently needed.

**Conclusion**

Research into accessible tourism remains limited, and that which does exist tends to focus on the physical barriers to access and to lack sophistication in terms of recognising the essential differences in motivations, expectations, barriers, and intervention strategies that are appropriate to people with different types, combinations, and degrees of impairment. Research specifically on ecotourism, meanwhile, remains elusive.

While it is not possible to state the number of global ecotourists with any great confidence, what we do know is that ecotourism is a specialist market segment. As such, it is likely that the research that has been undertaken on general tourism, and the various guidelines that have been produced to assist providers in meeting the requirements of tourists with disabilities, is not likely to be well-suited to the ecotourism context. There is thus a risk that the strategic interventions that are implemented to address them may be ineffective. Even worse, there is potential for such measures to conflict with the broader Sustainable Development Goals that are considered fundamental to ecotourism.

This is not to suggest that ecotourism providers should do nothing. There are strong ethical reasons for ensuring that ecotourism meets the needs and wants of PwDs, which are complemented by sound commercial reasons related to the size and growth rate of the market. The key will be to adopt a precautionary approach and start by implementing measures that are known to have few negative implications for sustainability. Best practices can be identified as a model for the development of future provisions. Addressing the attitudinal and informational barriers to access may be a good place to start as they tend to pose fewer risks to the natural environment than the physical barriers. In the meantime, more research needs to be undertaken on how to achieve better access for PwDs in the specific context of ecotourism. This will produce more robust guidance to ecotourism providers in respect of how best to address the physical barriers to access in the longer term.

**References**


