



ATTITUDES AND APPROACHES TO SUSTAINABLE COASTAL ADVENTURE TOURISM

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Master of Arts (Research)

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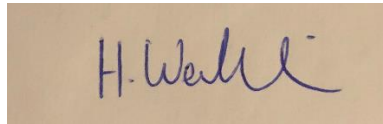
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Declaration of Originality

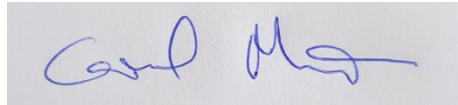
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Abstract

Attitudes and Approaches to Sustainable Coastal Adventure Tourism by Helen Wehrheim

This study explores the attitudes and approaches of adventure tourism providers towards sustainable practices and coastal preservation. It evaluates existing guidelines on sustainability for adventure tourism businesses, explores current obstacles observed by adventure tourism businesses regarding their operations, and includes their perception on responsibility regarding the environment. The study further discusses what measures are being used or may perhaps be implemented to minimise erosion caused by adventure tourism and how this would impact business practices.

The study additionally includes the opinions and attitudes of tourists, who have undertaken adventure tourism activities along the Irish coastlines, regarding coastal erosion. It examines the tourists' evaluation of the problem of erosion and their willingness to change behaviour and spending habits for a more sustainable adventure experience with the Irish tourism field. The above aims were addressed through research on existing published literature based on international examples but likewise reviewed domestic literature, focusing on Irish circumstances, climate, and business practices. The primary research was carried out through online based questionnaires for both businesses and tourists, and in-depth one on one phone interviews, providing a comprehensive overview of the attitudes of adventure business providers.

The primary research displayed the lack of environmental regulations through governmental institutions and lack of involvement by both business owners and tourists throughout the adventure tourism industry in Ireland, as well as an absence of awareness of the effects of coastal erosion. Many of the already limited number of sustainable certifications in place, are not credible qualifications and not being used by many adventure tourism businesses. Furthermore, coastal area infrastructures, as well as marketing are not considering the host communities and future sustainable development.

The conclusion chapter of this thesis presents recommendations, including a framework for businesses and recommendations for tourists, for more sustainable conduct in the coastal environment.

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Overview of Chapters

Chapter one highlights the importance of the protection of the Irish coastal landscape as a tourism asset and experience co-creator. It further identifies aims and objectives, which are the main focal points throughout the research.

Chapter two includes the review of relevant literature in the tourism industry, adventure tourism, as well as coastal erosion and protection. It provides definitions and comprehensive information for all sectors of the industry in order to provide a deeper understanding of the topic.

Chapter three outlines and details the methodology of the research study, as well as the researcher's philosophical approach. It gives an overview of various research methods and justifies the ones which were most appropriate and suitable. The methods chosen for the primary research includes two sets of questionnaires and interviews.

Chapter four presents the findings obtained through the primary research. These are presented in themes according to patterns which became apparent through the data analysis. All themes are discussed in this chapter while also connecting them to the relevant literature outlined in Chapter two.

Chapter five concludes the research and presents relevant recommendations for sustainable development and the protection of coastal areas for adventure tourism businesses, based on the findings in chapter four. It also includes recommendations for feasible future studies and framework recommendation for businesses and tourists.

1.0 Chapter One - Introduction

1.1 Introduction

The intention for this research lies in the concern for the coastal landscape of Ireland and the preservation of this important tourism asset. Tourism is an increasingly significant part of contemporary culture and needs to be sustainable. Both Fáilte Ireland with its “*Wild Atlantic Way*” campaign (Fáilte Ireland, 2020), Tourism Ireland with campaigns such as “*Game of Thrones®*” and the most recent virtual “*#FillYourHeartWithIreland*” campaign (Tourism Ireland, 2020) showcase the breath-taking landscapes and various activities, marketing the Island of Ireland as an adventure destination. While Tourism Ireland focuses on getting foreign visitors to Ireland, Fáilte Ireland is focusing on the quality of the experience provided, as well as the Irish tourism industry, both have released promotional material like reports, videos and tourism guides showing high percentages of adventure tourism activities (Henry, 2020). There are a multitude of adventure tourism activities available in Ireland which, amongst many others, include surfing, mountain biking, coasteering, walking, stand up paddle boarding and climbing. In 2019 the Irish adventure tourism sector was valued at €1.7 billion (Fáilte Ireland, 2021) and said to be one of the fastest growing in the country (IAAT, 2018), highlighting its importance as part of Ireland's economy and therefore an industry worth protecting.

The coastal landscape of Ireland represents one of the main incentives for foreign tourists to visit (CSO, 2018), and furthermore highlights the importance for research based on its sustainability. Data on the length of Ireland's coastline varies between reports of 3172 km (Lynch, 2013) to 7400 km (+/-5%) (Devoy, 2008). Coastlines are irregular in shape and therefore the length depends on the measurement unit used. It also depends on whether fields along coastlines were estimated in size and whether or not rock cliffs protruding into the sea are being calculated as coastline, or simply as part of the mainland which stops a few meters before these cliffs. It is however, widely accepted that approximately 3000 km of coastline is rock dominated, while the rest is categorised as soft coastline, including beaches, dunes and agricultural land. While there is not enough extensive research and therefore detailed evidence, it is estimated that up to 1500 km are currently deemed to be “at risk” and 500 km of the soft coastline is under “immediate danger” (Murphy, 2014). Current coastal defences and other infrastructures are oftentimes old, most in fact stemming from agricultural boundaries from the 19th century and not from proactive coastal management. Figures suggest less than 4% of the

coastline is protected by coastline defences (Carter, 1991), equivalent to the 350 km of Irish coast currently protected by artificial sea walls (Devoy, 2011). While coastal preservation measures have been implemented in severely affected areas, they are often not ideally suited for the area or lack the maintenance required. If the topic of coastal erosion is not addressed soon, not only for a sustainable environment and ecosystem, but also for sustainable operating practices for adventure tourism businesses, it is likely that there eventually will be a decrease in tourism numbers as a result of the loss of usable environment. This could be either due to the locations being over polluted and less attractive, them not being suitable for the purpose of tourism, or due to incidences similar to the ones in Cinque Terre, Italy where the vast number of visitors has impacted the stability of their cliffs (Blair, 2018) and visitors have been injured in landslides on several occasions.

The aim of this research is not to restrict the adventure tourism providers in their offering, but to explore their attitudes and approaches regarding the environment they operate in and create conversation about the topic. Furthermore, to create a framework for businesses as a guideline on sustainable behaviour in the industry. Bringing awareness to the importance of sustaining the coastal landscape can also help showcase the broad tourism product offering, benefits of local employment and contribution to the Irish economy.

Furthermore, this research is an expansion of the researcher's previous study of analysing the changes of the dune landscapes due to the impacts of horse-riding establishments. It provided a cohesive insight into the impacts and opinions of stakeholders in the equine tourism sector, as well as the creation of a framework outline for said businesses. One of the recommendations included future research that would be beneficial to extend the exploration of attitudes towards a sustainable usage of beaches, dunes and rock coasts to the whole adventure tourism sector, in order to get a more comparable understanding of their probable contribution to coastal erosion (Wehrheim, 2019). This is a realistic and important next step, as in reality multiple adventure tourism providers use the same areas to carry out their business. While the researcher acknowledges that the general public also contributes vastly to coastal erosion in the form of landscape usage, adventure tourism providers may have a bigger impact due to group bookings and the intensity level of their environmental usage. Arguably adventure tourism is one aspect contributing to positive environmental impacts by providing it with a source of monetary value/income and therefore a more likely incentive for conservation. The environmental damage of adventure tourism in terms of erosion, pollution, disruption of wildlife, and loss of

biodiversity is arguably outweighing the good in various places (Seguel, 2019). This chapter presents aims and objectives, as well as the relevant research questions. Furthermore, it outlines the research instruments used for the literature review.

1.2 Significance of Research

Through the comprehensive exploration in this study on attitudes and approaches to sustainable coastal adventure tourism, it was possible to gain insight in the actual sector stakeholders' opinions on coastal erosion and concerns that come with it. There is a need to include adventure tourism business providers in decisions on coastal preservation and research in this area is lacking in Ireland. In addition to this, the data analysed, and recommendations presented in this research can help foster a push for new paradigms, which will be useful for future discussion on coastal preservation and may lead to a more in-depth analysis of the relationship between nature, its erosion, businesses and tourists who use endangered coastal areas for recreational purposes.

1.3 Aims and Objectives

The overall aim of this study was to explore the attitudes and approaches of adventure tourism businesses towards coastal erosion. The following points outline the specific aims and objectives used to achieve this.

Aims:

- Explore attitudes and opinions of adventure tourism providers towards coastal erosion.
- Determine which measures can be taken to minimise coastal erosion caused by tourism and establish what regulations are currently in place for Ireland's coast.
- Evaluate existing guidelines on sustainability for adventure tourism businesses.
- Examine the perspective of tourists undertaking adventure tourism activities in Ireland on coastal erosion.

Objectives:

- Gain an understanding on international best practice regulations for minimising coastal erosion through the literature review, in order to make recommendations for the Irish adventure tourism industry.
- Identify if adventure tourism businesses believe there is a problem with coastal erosion caused by adventure tourism.
- Assess if adventure tourism businesses find that coastal erosion could affect their business; and if so whether they would be willing to implement coastal preservation techniques.
- Examine attitudes towards coastal erosion among adventure tourism businesses and determine the perceived barriers, if any, that would be associated with implementing sustainability guidelines.
- Evaluate tourists' attitudes towards environmentally sustainable adventure tourism activities, by exploring their impression on the significance of coastal erosion.
- Recommend what a potential framework and certification outline for adventure tourism business could look like, based on reported international best practice approaches.
- Create a checklist and auditing specifications for Irish adventure tourism businesses on preserving the coastal landscape.
- Recommend different levels of environmentally positive behavioural changes for tourists in order to preserve the coast, based on their level of willingness to facilitate change.

1.4 Research Questions

1. How do Irish adventure tourism providers feel about coastal erosion in regard to their business?
2. Do Irish adventure tourism providers see a need for change in operation tactics and how far are they willing to comply with possible future changes?
3. How do tourists perceive coastal erosion? Are they willing to contribute to the preservation of the coastal landscape, and if so to what extent?

1.5 Conclusion

In conclusion the primary purpose of this research is the exploration of attitudes and approaches of adventure tourism businesses in relation to coastal erosion in Ireland. Furthermore, it considers the attitudes of tourists engaging in adventure tourism activities in Ireland regarding the topic of coastal erosion. The remaining chapters of this thesis outline the current state of erosion and published literature on the topic before presenting the primary research findings, discussion and relevant recommendations. Primary data tools included questionnaires and interviews designed based on the aims, objectives and research question presented. The basis for the questions asked emphasised the attitudes of adventure tourism providers towards coastal erosion as well as the tourist's perception. These included businesses current policies/self-initiatives in place, the opinion of providers on the possibility of tourists being willing to pay a higher price for sustainable adventure activities, as well as whether or not adventure tourism businesses would be willing to adapt their business operations to operate in a more sustainable manner and what the perceived barriers could be.

The tourist's attitudes towards coastal erosion and preservation in Ireland were explored, their opinions on who is responsible for coastal landscape preservation, their perceived impacts by tourism on the environment and tourists' willingness to pay higher prices for environmentally sustainable adventure activities.

The findings and discussion, as well as the recommendations are presented in chapters four and five concluding this thesis.

2.0 Chapter Two - Literature Review

2.1 Introduction

Tourism generally is a great asset to a country, harnessing its potential through economic benefits. Yet, tourism development is often no different than other forms of development, and therefore can bring certain problems with it. These often include social issues, loss of cultural heritage, economic dependence and ecological decline (Stainton, 2019). Tourism represents Ireland's largest indigenous industry (ITIC, 2018). The number of overseas tourists in 2018 grew by 6.5% to a total of 9.6 million. The most recent tourism report suggests that in 2019 a total of 11.3 million overseas tourists visited Ireland delivering a revenue of 5.8 billion (Fáilte Ireland, 2021), demonstrating a 15% increase and exceptional record numbers in tourism. The visitor's engagement breakdown shows that in 2019 26% of visitors engaged in hiking/walking (about 2.4 million people), 20% engaged in water sport activities (excluding swimming), 8% came to cycle and horse-riding engagement was represented with 126,000 people. In total around 68% of visitors actively engage in adventure tourism activities (Fáilte Ireland, 2019) and another 4-10% become "accidental adventure tourists" when visiting Ireland, these include people who had no active intention of taking part in an adventure tourism activity, however on their travels decided to partake in one. This statistic shows how valuable the adventure tourism industry is to Ireland where almost three quarters of tourists engage in outdoor activities. It further shows the importance to understand the vast impact and size of the adventure tourism industry to coastal usage, and how important the preservation of the environment, which hosts these activities is. However, the above numbers do not include the hundreds of thousands of domestic Irish tourists who also partake in adventure tourism activities throughout the year, those numbers are included in overall tourism activity participants and therefore are not precisely quantifiable.

This chapter continues by defining and discussing tourism and different environmental strategies. It explores Irish tourism certification, business responsibilities towards the environment and compares responsible and sustainable tourism practises. It examines adventure tourism, the Irish adventure tourism market, and economic contributions. Lastly, the coastal landscape, Irish erosion, and a review of current coastal erosion preservation measures.

2.2 Tourism Definitions

There are several tourism definitions in the literature, due to this, from 2005 to 2007 the United Nations World Tourism Organization (UNWTO) embarked on a research journey to create a common glossary of terms for tourism. According to this tourism is a “...*social, cultural and economic phenomenon which entails the movement of people to countries or places outside their usual environment...*” and includes travelling for personal or business purposes (United Nations World Tourism Organization, 2008, p. 7). The people in this definition are referred to as “*visitors*” and their tourism related activities “...*imply tourism expenditure...*”. Tourism in this sense is used as the generic term to cover both demand and supply sides of the industry. The definition however implies that tourism expenditure is optional, while some tourism activities do not cost money, the means to get to those locations, for example transport, are generally connected to expenditure, which arguably contributes towards tourism.

There was a need to define tourism with its aspects further, on the basis of the activities of individuals or groups. The term visitor is used for anyone “...*making a visit to a main destination outside his/her usual environment for less than a year...*” (UNWTO, 2010, pp. 1-2). This definition further includes a wider range of businesses and organisations contributing to the tourism experience as a whole; transport, accommodation, food, activities and amenities are crucial co-creators of the tourism product.

Having defined international tourism, domestic Irish tourism definitions, amongst others, include Fáilte Ireland's definition. Fáilte Ireland, the National Tourism Development Authority, was created to support the tourism industry and work to sustain Ireland as a competitive tourism destination. Definitions are divided up into three categories of tourism participants. Visitors with a comparable definition to the one above, of taking a trip outside one's usual environment “...*for any main purpose other than to be employed by a resident entity in the country or place visited.*” Further, specifying a tourist to be someone “...*whose trip includes an overnight stay*”, but separating anyone who is travelling for holiday/leisure/recreation purposes as a Holidaymaker (Fáilte Ireland, 2019, pp. 1-2). To segment tourists further, Fáilte Ireland then categorises tourism participants into Culturally Curious, Social Energisers and Great Escapers. However, these segmentations were mainly established for international target markets, displaying slight behavioural differences and largely do not include domestic tourists.

Additional terms used in the tourism industry are “*Same Day visitors*”. These can also be referred to as “*day-trip tourists*” who are commonly semi-local to an area and spend a minimum of three hours away from home. Any visitors who spend less than three hours away from their usual environment are categorised as “*Leisure Day visitors*” (Middleton, 2015, p. 88). These more detailed definitions show how many different types of tourists there are and hint at their wide range of impacts whether economic, social or environmental. Adventure tourists in this research includes anyone who purposively travelled to a location, whether international or domestic, with the specific purpose to engage in an adventure tourism activity along Ireland’s coast.

2.2.1 Sustainable Tourism and Definitions

Tucker (2001) identified that “*Tourism destroys the object of its desire*”, referring to the concerning paradox that while tourists tend to search for naturally beautiful places it is their impact that often leads to the destinations’ demise (Tucker, 2001, p. 868). Because of that sustainable tourism has been the path adapted by many destinations in recent years and ultimately is the only viable option to ensure future tourism offerings. Much like tourism itself, sustainability in tourism is a broad term and there is no universal definition for it, as it can be evaluated and approached from different viewpoints.

The word “*sustainable*” as per the initial definition from the early 17th century, meaning “*bearable*,” coming from “*sustain + able*”. Acknowledged by the 1845 definition of “*defensible*”, further advanced into “*capable of being continued at a certain level*” in 1965, which was the first year where growth in the sustainability sector was recorded (Harper, 2001). This initial definition is interesting, as it appears that suitability was never meant to “*preserve*” the environment as closely to its original state as possible, but only to use it in a way that was “*tolerable*”. As Collins (2007) established, often times businesses see sustainability practices as a chore or burden or merely as “*the thing to do*” (Collins, et al., 2007) and treat it in a way that makes it part of their Corporate Social Responsibility more so than it being the right thing to do for the environment.

Considering the general academic literature on sustainable development, the difference in perceptions on the topic is significant (Mitlin, 1992; Murdoch, 1993). Over time there has been a lot of room for controversy in the discussion around how sustainability aims, and objectives should be carried out or evaluated. This led people to stray from following the original ideas

and values of sustainability to different visions of environmentalism. Hunter (1997) summarised these in a table highlighting “*Major Issues in Interpreting Sustainable Development*”. Some elements from his collective of issues include the role of economic growth in promoting human well-being, which is closely linked to the growth potential that the environment has. If one grows significantly more than another the imbalance eventually leads to dissatisfaction. He further touches on the importance of the ethical value placed on the “*natural world*” including the rights of non-human species and ecosystems. These are important to be maintained, however depending on how much value is placed on them the approaches will vary and be the reason for discussions in planning decisions (Hunter, 1997). Some theorists suggest that ecotourism is a better or more comprehensive execution of sustainable tourism, however much like sustainable tourism the term ecotourism is surrounded by confusion and has a number of definitions and interpretations (Carter, 1994). Most commonly it is being defined as “*responsible travel to natural areas that conserves the environment and sustains the well-being of local people*” (Blangy & Wood, 1993, p. 42). However, regardless of its definition, ecotourism is always aiming to be an instigator of change. No matter where, the introduction of tourists to an area that was previously not visited by outsiders will always put new challenges and strains on the environment and ecological infrastructure. These can include new activities, and facilities, no matter how eco-friendly those are planned they undoubtedly have an impact, since the simple task of putting a building into a space, which was previously a piece of nature displays loss of natural habitat (Wall, 1997). The associated impacts are unfortunately more often than not negative ones. Ecotourism is largely perceived to safeguard natural areas and thereby contribute to the conservation of biodiversity (Kiper, 2013), but by this very definition not sufficient to combat negative impacts. Therefore, some theorists argue that it does not matter which definition is placed on tourism development, the only way a “sustainable” outcome is achieved is through careful planning with the main focus on the environment, while managing all other related factors.

Nonetheless, the most referred to definitions in this sustainability include the Brundtland Report (1987, p. 37) which defined sustainable development as, “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*”. This report was very much considered to be ahead of its time, as it stood for a new rise of a consciousness on the importance of sustainable development. Much like the UNEP and UNWTOs definition in 2005, this plan contained a balance of sustainability’s three pillars economy, society, and the environment. The World Tourism Organization and the United

Nations Environmental Programme definition of sustainable tourism includes multiple important fragments. It firstly stated that sustainable tourism development requires “...*informed participation of all relevant stakeholders...*”, for this to be executed properly the basis must be strong political leadership. This definition identified a key factor for sustainable tourism being a “...*continuous process requiring constant monitoring.*”, as well as maintaining a high level of tourist satisfaction, while likewise raising awareness around sustainable tourism practices (UNEP & UNWTO, 2002, p. 9). The above definition clearly outlines that sustainable tourism must include continuous auditing since the environment, even without human influences, is ever changing. Yet often the only variable changing is the tourism industry as such, and environmental practices within the industry may be kept for several years, becoming outdated, as established by several researchers such as Hardy (2002), Weaver (2008) and Lockington (2009). Further, while the definition states that a high level of tourist satisfaction must be kept and the awareness of the tourist must be strengthened, there is very little to no evidence suggesting this is being obeyed by many governments and business providers. This is most likely due to the lack of control and audits. Ideally both the Department of Tourism and the Environment Department should work together to facilitate the needed regulations within the tourism sector, to facilitate a comprehensive set of regulations. These must be designed to fit the diverse tourism sectors and different environmental concerns. It is also crucial that all types of tourism are sustainable, this includes not only generic holidays but also business travel, conferences, and visits to friends/relatives. Business tourism in Ireland alone account for approximately 1.2 million trips, while visits to friends and family take up nearby 2.6 million (Fáilte Ireland, 2019). This highlights even more the importance of stakeholders working together to not only facilitate sustainable holidays, but also take into consideration the different levels of tourism planning regarding general infrastructures.

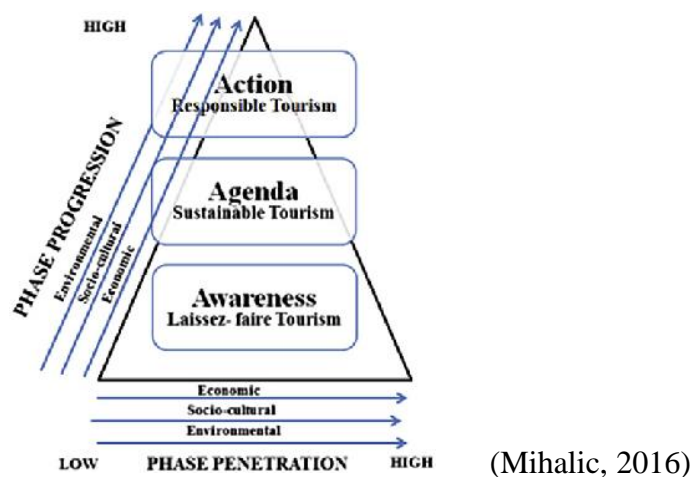
Ireland's most recent Tourism Action Plan 2019-2021 adapted the United Nations World Tourism Organisation definition from 2005, which was more recently developed to include the specific form tourism takes as “*Tourism that takes full account of its current and future economic, social and environmental impacts...*” (UNEP & UNWTO, 2005, pp. 11-12). It further highlights the importance of addressing needs of visitors, as well as the environment and host communities in an equal measure. The above definition means to highlight how important a suitable balance between all 3 dimensions is. However, the report which includes the above definition stated that sustainable development and management practices can be applied to all forms of tourism in all types of destinations. This includes mass tourism and

various niche tourism segments (UNEP & UNWTO, 2005). This is conflicting with other views that mass tourism can never be sustainable. Mass tourism causes increased pollution, commodification of cultural aspect of host communities and generally comes with a decline of living standards of local residents (Corradi, 2017). While the argument of making mass tourism more sustainable is a good one in practise it clearly does not align with the fundamental aims of sustainability. It would most likely be more constructive to minimise mass tourism as much as possible through laws and regulations in order to then be able to make what remains sustainable.

2.2.2 Responsible Tourism vs. Ecotourism

Responsible tourism focuses on the way tourism is consumed. It refers to the responsibility that both visitors and locals have to ensure that sustainability is addressed and maintained in a specific location (Gomez, 2019). In recent times an argument was made to combine sustainable and responsible tourism into “*responsustable*”. Here the sustainability part is seen as a concept and the responsibility part as the suitable action. The idea of responsustable tourism originates from Frey's social stages, which evaluate the relation between environmental morale and environmental motivation (Frey, 1985), and was first applied to the tourism field by Mihalič and Kaspar (1996). This was then further developed into the “Triple-A Model”. This model represents action, agenda and awareness as a comprehensive sustainability–responsibility action concept.

Figure 1 Triple-A-Model



This model sees sustainable tourism as the foundation for responsible tourism. However, if this is the case one would not be able to combine them into “*responsustable*” as suggested by other researchers. One could argue, when the peak is reached in this model, all economic, socio-cultural and environmental aspects are ranked at medium level of penetration, impact or in other

words importance. While the progression in each phase is essential, it is argued that each factor cannot be at the same level. Lindel (2021) reasoned that the wellbeing of tourism, and with that the fulfilment of the requirement of the Triple Bottom Line (impacts on environment, economy, social also referred to as people, profit and planet), can only be reached when not only sustainability is prioritised, but also the fulfilment and happiness of people in the community. Host satisfaction is further reviewed under the discussion of the European Tourism Indicators System (ETIS) in the following paragraphs, as it gained popularity and importance since the development of the Triple-A-Model.

The Cape Town declaration on responsible tourism is the most inclusive definition in the literature with a comprehensive list of principles. According to this responsible tourism should minimise negative social, economic, and environmental impacts, while simultaneously generating a greater economic benefit for locals and improve their working conditions. Locals should be included in the tourism development decision making process as they commonly have a better link to culturally sensitive aspects and care for the conservation of the natural and cultural heritage. The declaration further highlights the importance of providing access for physically challenged individuals in the tourism industry, whether that is as a tourist or employee. This is one aspect which is frequently overseen in other outdoor tourism development structures (The Cape Town Declaration, 2002). This inclusivity ranges from providing access ways for wheelchairs into tourism centres and access to local amenities along coastal areas to the inclusivity for some activities, which can be slightly adapted to suit people with disabilities. The European Network for Accessible Tourism (ENAT) are pioneers with their offering which is a comprehensive list of inclusive locations and adventure activities (including skiing and abseiling amongst others), their mission being to make European tourism destinations, products and services accessible to all travellers and to promote accessible tourism around the world (ENAT, 2020). Overall, despite years of academic research and many debates of sustainable tourism practises, it is found that the application of appropriate and recommend models is still difficult for businesses and destinations (Mihalic, 2016). Often it is due a lack of understanding of the process, and as shown above the differences in aims and objectives that are being presented as definition outlines. Due to these variations in models and differences in aims, this research put importance on establishing business providers attitudes about the guidance they get, or lack thereof, regarding environmental behaviour. Definitions and models are broad and often hard to apply to every tourism business, and without the necessary guidance from governing bodies can be challenging to implement. Since it is not compulsory, often this

effort is simply putting a strain on small tourism business and therefore environmental behaviour is not prioritised. Responsible tourism is often compared to Ecotourism, the “...*environmentally responsible travel and visitation to relatively undisturbed natural areas...*” (Ceballos-Lascuráin, 1993, p. 14), (the official definition adopted by the IUCN in 1996). Ecotourism according to this should be primarily undertaken to study and appreciate local nature and culture. These cultural aspects can be both from the regions past or present and should focus on promoting conservation. With this aim ecotourism puts emphasis on keeping visitor impacts as low as possible and ideally enables individuals to deliver local population benefits through active socio-economic involvement.

While ecotourism’s definition is clearly worded in a way to make the environment the dominant aspect, without an adequate understanding of underlying industry factors, considerate planning and management, ecotourism may also include unsustainable aspects (Cater, 1993). Often, especially in third world countries, it has led to the neglect of sociocultural, economic and environmental needs of the host economy (Mbaiwa, 2005). Since the understanding of the tourism industry in a lot of regions is limited and government guidance lacking, it often leads to leakages from the tourism providers and therefore the money needed to practice environmentally sustainable development lost. Therefore, one could argue if responsible tourism and ecotourism should be combined to offer a more comprehensive approach. Ecotourism often also expands into Geotourism, defined as tourism that focuses on an area’s geology and landscape as the basis of fostering sustainable tourism development (Dowling, 2018). So, it is closely based on the principles of ecotourism, but it is argued that geotourism offers a new form of sustainable tourism, which is more holistic than previous niche forms of tourism, since it gives more insight on both the so called Biotic and Abiotic side of the environment. The biotic side refers to all living things such as animals and plants, while abiotic refers to environmental resources such as sunlight and water. Geotourism is also said to include six issues that are often overlooked but are crucial to a substantiable outcome in practices. These include the role of tourism demand and the nature of tourism resources. Furthermore, the role tourism has in promoting sociocultural development and how sustainability development should be measured (Liu, 2010). These in fact align most with what sustainability stands for, it takes into account the domestic/host communities’ resources and tries to focus on the effects those aspects have on an area and how they change the area, which then opens the door to find a practical solution.

Of course, every definition has valid arguments, originating from sustainable tourism and developed into different systems of sustainability, one model trying to be more inclusive of issues than the last. It is important to consider all relevant factors of sustainability, however it is subject to the geographical location and the type of tourism. For example, Geotourism, while comprehensive, may not be the ideal model to use for adventure tourism businesses, since some activities can be rather invasive on species and landscapes (rock climbing, mountain biking, remote nature excursions). While the negative environmental impacts should always be limited to the best of an adventure providers ability, it may never fully align with the Geotourism principles. The same applies to Ecotourism, it is challenging to put just one of the above sustainability labels on every adventure tourism business, therefore a “mix and match” approach for this industry may be most appropriate based on the activity intensity.

2.3 Adventure Tourism Industry

2.3.1 Adventure Tourism Motivation and Economic Contribution

The Adventure Travel Trade Association classifies an adventure tourism as a trip that includes at least two of the following three aspects *“a physical activity, a natural environment, and a cultural emersion”* of some sort. While the traditional definition of adventure tourism only requires two of these, combining all three elements guarantees the most inclusive adventure travel experience. Adventure tourism, much like conventional tourism, can be either domestic or international, and must include an overnight stay, but not last longer than one year to qualify as a tourism engagement (UNWTO, 2014). While adventure tourism may be the driving force for a holiday or day trip it goes hand in hand with other essential services of the tourism industry. Even though adventure tourism is highly diversified it is most commonly classified into soft and hard adventure tourism. Both types have characteristics of adventure (Swarbrooke, et al., 2003) including uncertain outcomes, risks, stimulation, excitement, escapism and contrasting emotions.

Soft adventure tourism is considered relatively safe and typically requires very little skills and experience. These activities only have a mild risk element to them, while still giving the participants the desired adrenaline rush, they are seeking. This form of adventure tourism can also be more satisfying on an emotional basis, the tourist being able to interact with the nature through having an experience in it, without a high risk of physical injury. Examples of soft

adventure activities include backpacking, birdwatching, camping, fishing, safaris, sailing and walking.

Hard adventure tourism includes the high-risk level commonly associated with adventure tourism activities. These often require the tourist to have more skills and experience. Some examples include rock climbing, coasteering, bungee jumping, and off the path trekking. Important to note is that the perceived level of risk and adventure is subject to the tourist perception (Swarbrooke, et al., 2007). Some might find a soft activity highly dangerous while another tourist sees it as easy. This study sampled both soft and hard adventure tourism activities for its primary research, in order to get an adequate overview of attitudes through the different offerings. Previous research showed the most successful adventure tourism operators tend to be the ones who reduced the actual risk of activities, while also successfully commodifying the thrill that it brings the tourist. Therefore, the business provider minimises loss in both a financial and ethical way. The risk is smaller and therefore more reassuring for the tourist taking part, while also being more likely to ensure long-term business sustainability (Cater, 2006). In an Irish context this suggests that tourists might prefer monitored adventure tourism experiences, as the natural risk in coastal areas is higher and more unpredictable.

So far fourteen different motivations for adventure tourism and recreation have been identified some being based on internal and others on external needs (Buckley, 2012). Adventure tourism motivation, similarly to general tourism motivation, are based on the need for escapism represented by several push and pull factors. Push factors are internal reasons causing tourists to seek activities to reduce their needs, pull factors are destination generated forces through marketing and existing knowledge tourists have about a destination (Gnoth, 1997). Traditionally, push factors are considered important in initiating travel desires, while pull factors are more decisive in explaining destination choice (Bello & Etzel, 1985). Adventure travellers seek self-fulfilment (Swarbrooke, et al., 2007), wanting thrills, challenges and enjoy the aspect of an uncertain outcome of an experience. Adventure tourism has no guarantee that everyone has the same experience and/or danger level. It usually entails intellectual, physical or emotional risk and challenges perceived as rewarding and including self-development for each individual.

There has also been a strong and continued growth in the demand for family adventure holidays (Pomfret, 2019). They tend to engage in both soft and hard adventure due to the family dynamics of the children wanting more exciting experiences, while adults are more inclined to want to relax. Recently adventure tourism started including wellness, mental and physical wellbeing, due to the growing importance of self-care for European travellers (CBI Ministry for Foreign Affairs, 2020), demonstrating new examples of soft adventure. Once motivated to travel, tourists contribute greatly to the economy. Statistics from the WTO show 1.4 billion international tourists travelled the world in 2019, supporting jobs, generating income and boosting development in each country. International tourism currently accounts for 9% of global GDP (World Tourism Organization, 2019). Figures suggest that overseas visitors to Ireland account for the greater part of the revenue. In 2018 domestic and cross-border visitor expenditure contributed €2 billion, being equivalent to about 30-35% of the total tourism revenue. This figure therefore may also represent the domestic adventure tourism activity usage (OECD, 2018). More recent figures suggest that there was a 7% increase in 2019 (Fáilte Ireland, 2020) of domestic tourist expenditure.

Taking into consideration other aspects of the tourism industry, including accommodation, and catering, the figures from the Central Statistics Office on direct employment in the tourism sector was 177,700 in Q3 2019, which is equivalent to 7.6% of total employment (Fáilte Ireland, 2020). This estimate of employment is based on the CSO's Household Survey and the jobs identified are defined as "the respondent's main job" however does not include part-time workers. It is questionable why this statistic focuses on full-time workers, since the tourism industry is subject to seasonal work and to a great extent relies on part-time workers throughout the year, whether that is due to seasonal contracts or weekend work. The total figure of employees in the tourism industry is estimated to be 260,000 jobs, this includes "main jobs" full and part time (Kelly, 2020). Illustrating an alternative approach, Fáilte Ireland estimates the total of all jobs in the tourism and hospitality industry based on past surveys of businesses. Here all full-time, part-time, seasonal/casual individuals and working students are included. These figures indicate total employment in the sector at approximately 325,000. This estimate includes an additional category of secondary tourism services and attractions, which is not covered by the CSO. Therefore, the above 7.6% figure from the CSO underestimates the importance of the tourism sector in providing employment. Perhaps the criteria could be widened, and activity providers considered in the calculations, much like the approach of Fáilte Ireland to be able to quantify the numbers more accurately.

Adventure tourism is one of the biggest parts of the tourism contribution due to its broad definition and activities. The adventure tourism market outlook for 2026 predicts to reach \$1,626.7 billion, while the global adventure tourism market was valued at \$586.3 billion in 2018 (Chouhan et al., 2019). Previous research established more sustainable orientated tourists tend to spend more money and time in a destination (Polovitz-Nickersona et al., 2016). Often people who purposely travel to take part in adventures are more sustainably mindful and willing to spend more to ensure the activities are eco-friendly. This could be a positive development for businesses, by charging more they are able to facilitate additional sustainable practices. Europe is one of the biggest source markets for adventure tourism companies according to the Adventure Travel Trade Association. Around 10 million trips are embarked on a year with the main reason being to engage in adventure tourism. Further, based on Eurostat and UNWTO numbers almost 100 million trips were undertaken by Europeans that engaged in “accidental” adventure tourism, where adventure tourism activities were undertaken as part of the holiday. Most European tourists partake in adventure tourism activities all over Europe accounting for approximately 60% of adventure travellers. Yet Europeans are also main markets for Africa (43%) and Asia (30%) (Dunford, 2008). In recent years, older European travellers are engaging more in adventure travel. The so called “Active Resters” travel to seek spiritual/intellectual enrichment, and escape. Coastal areas often combine all the required infrastructure and therefore are ideal for those travellers (Shoemaker, 1989). Older generations today are healthier and more active than previously and their engagement in soft adventure tourism is rising. In this study the active resters were represented by the “65 or above” age group making up 13% of participants. While their activities were mostly based on soft adventures, such as walking and fishing, their overall impact on coastal erosion could be considered less than the impact of the age groups who undertake hard adventure activities. However, active resters` impacts are mainly based on the total quantity of people represented in Ireland. For instance, in 2019 one in seven people on the Island of Ireland was aged 65 or over with rising predictions for the coming years (Institute of Public Health, 2020). While in this study only 13% of participants were active resters, according to the aging population statistics there is a higher percentage overall, using the coast recreationally and therefore contributing to coastal erosion to a considerable extent. In contrast, “Generation Y” and “Millennials” represent the biggest part of hard adventure tourists seeking new and exciting adventure.

According to the UNWTO, the United Kingdom has been offering the largest adventure tourism market in Europe, accounting for 19% of the world’s adventure travel tourists. In second place

are Germans (12%), who are well educated and tend to seek a lot of information and careful planning before travelling to a destination. Austria, while a smaller country, has one of the highest disposable incomes in Europe and is the country with the second-highest percentage of personalised bookings in Europe, 8.9% of them seeing sport activities as the most important reason to travel (CBI Ministry of Foreign Affairs, 2019). European travellers therefore are some of the most active tourists, making them highly valuable for the adventure tourism industry.

Assessing adventure tourism, the most cited definition was developed by Weiler and Hall (1992) who focus on the fact, that adventure tourism includes a wide spectrum of activities which are “...often commercialized and involving an interaction with the natural environment and containing elements of risk...” (Weiler & Hall, 1992, p. 82). The element of risk and activity outcome is further described to be influenced by the level of participant involvement, the natural setting, and execution of the touristic experience.

2.3.2 Adventure Tourism and the Environment

Passion for an outdoor activity may suggest adventure tourists are more likely to uphold pro-environmental attitudes (Peterson, Hull, Mertig, & Liu, 2008; Thapa, 2010). Said passion may cause people to have a strong commitment to protect the features of the environment that contribute to the enjoyment of the activity. Environmental awareness and social justice are considered strong and growing values among adventure tourists (Buckley, 2018), which if treated correctly can be linked straight back into local conservation. For example, research undertaken in Portugal found 86% of surf tourists were willing to pay a “usage tax” for environmental protection of the Algarve (Portugal’s most southern region) (Pintassiglo, et al., 2015). Adventure tourists' spending is also considered to have a much larger local impact than that of mass tourists. It is estimated that 5–20% of international mass-tourists’ expenditure stays in the destination’s economy, while 65% of adventure tourist revenues support local economies (UNWTO & ATTA, 2014). Adventure tourists are willing to pay more for local guides with skills and knowledge creating an authentic cultural experience (Buckley, 2017; Buckley et al., 2014; UNWTO & ATTA, 2014). In particular “harder” adventure tourism activities require more skilled guides and tourism operators, resulting in higher paid jobs and increased local economic opportunities (Cheng, et al., 2018). However, this is highly “place based”, some destinations may offer great activities, however due to personal preference tourist may favour one place over another, meaning an uneven distribution of expenditure, resulting in over development of areas, and leading into new problems for communities.

From a consumer point of view the engagement of people who practise adventure tourism is an important part in natural preservation. However, once one looks at the bigger picture while the tourist can be the most environmentally minded individual, if business providers and local authorities don't get involved in the asset protection of the natural habitat, it will mean very little. Not to mention the adverse impacts of mass tourism. Mass tourism in this context does not mean hundreds of thousands of tourists engaging in coastal adventures, like the masses that can be seen flocking into Venice, Rome or other destinations that have been victim to overtourism over the past few years. Mass tourism in smaller more sensitive environments like the Irish coast can have devastating effects (Sarantakou, 2019). The UNWTO defined tourism's carrying capacity as the maximum amount of people visiting a destination at the same time without "*...causing destruction of the physical, economic and sociocultural environment and an unacceptable decrease in the quality of visitors' satisfaction*" (Pololikashvili, 2018, p. 12). This links in closely with the UNEP and UNWTO definition of sustainable tourism, as both include the tourist's satisfaction as a focal point. However, when it comes to overtourism the satisfaction of host communities is often more affected than the tourist's satisfaction. While tourists may still enjoy the experiences, the community might suffer already. Overtourism is essentially the opposite of responsible tourism. While responsible tourism tries to use tourists to improve the quality of life in a given place, overtourism is present in any destination where the hosts community and/or tourists themselves, feel that there are too many visitors, leading to a deteriorating quality of life (Goodwin, 2017). With that, overtourism often poses the discussion of "Tourism vs. Nature", and which one is more important to a country's society, government, and locals. Many places around Ireland are seeing an increase in tourism, in numerous places bordering on overtourism such as Connemara National Park, which is fighting to gain funding for preservation (O'Doherty, 2018) or the Cliffs of Moher which continuously breaks visitor record numbers year after year (Flynn, 2020). Many more coastal areas are seeing an increase in tourism, mainly coming from the demand of people for more tourism, is often followed by the inevitable natural destruction unless managed correctly. Therefore, it is important for host communities to use the European Tourism Indicators System (ETIS) for sustainable destination management. ETIS is a toolkit that manages, supports and monitors destinations who want to take a sustainable approach (ETIS, 2020), this is helpful as it not simply tells a business what they should be doing but actively helps them to archive it. This toolkit is different to certification in the way that it provides flexible primary support and clear explanations about what the indicators are, and how to use them (European Commission, 2019), certification only gives outlines as certification criteria for businesses in order to receive their

award. However, they tend to be rarely adaptable without providing actual support, tools or consideration that not all businesses run the same way.

If regulatory institutions such as the European Commission wanted to design a sustainable scheme of certifications, which would be suitable for all of Europe, they could use the European Tourism Indicators System as a basis. Each country or region could pick and choose which tools fit their demographic and economic outlines best since the system is so flexible, but it would give Europe the chance to have a common certification basis to ensure transparency and protect businesses from deceitful certification and give tourists piece of mind. Some may argue that the demand for sustainable (adventure) tourism will determine the offering based on basic microeconomics. However, it seems as of yet there are less environmentally demanding tourists than tourists that just want a “quick” adventure regardless of its impact.

Furthermore, often less experienced, or less progressive destinations do not know what strategies to put in place to spread demand from peak times to off season times or how to implement a tourism tax (World Travel & Tourism Council, 2018). Again, this highlights the importance of giving destinations and organisations tools to use in their benefit. Not only to make tourism as such more profitable to them, but also to manage their destination capacities in a sustainable way.

2.3.3 Adventure Tourism in Ireland

Irish tourism expenditure was estimated to be worth €5.6 billion to the Irish economy in 2019 (Fáilte Ireland, 2020), and hosted 9.7 million overseas visitors. The main countries whose tourists visit Ireland are the UK, America, France and Germany. Those account for 70% of visitors, 69% of holidaymakers and, 63% of revenue (Tourism Ireland, 2020). Tourists, whether international or domestic, are a huge part of the Irish economy and Ireland has greatly invested in its tourism development over the years to ensure a wide variety of tourism offerings. According to the latest research statistics on adventure tourism published by Fáilte Ireland, the overseas adventure sector was worth €900+ million to Ireland in 2014 with approximately 1.5 million visitors who engaged in adventure activities (Fáilte Ireland, 2014). These tourists tend to stay longer, on average 8.9 to 10 days, while the other overseas holiday makers only stay 7 days. Furthermore, adventure tourists tend to spend 45% more than the average overseas visitor (FáilteIreland, 2012). Unfortunately, the last update on Fáilte Ireland website under the adventure tourism category is from 2014, and while yearly statistics are being published on

visitor numbers and revenue, the insight on real numbers in each sector, such as adventure tourism are absent. These would be hugely beneficial in being able to plan and support adventure tourism industries better in the future.

Due to the latest statistics and adventure tourism being a rapidly growing sector the representative body “Ireland’s Association for Adventure Tourism (IAAT)” was launched in 2018. Their aim is to work with adventure tourism operators, help grow the sectors and develop it in a sustainable and responsible manner. They offer a range of memberships businesses can sign up for to gain access to their benefits. While part of their aim includes suitability the IAAT Membership Benefits outlined on the website simply include the following: “*Savings for your Business, Business Representation, Promotion, Networking Lobbying and Training*” (IAAT, 2020), none of which mention the environment and/or sustainability. While this seems to be a good initiative, based on literature of programmes and certificate memberships, a programme like this may be more beneficial to businesses themselves than the environment. A greater benefit could be gained if sustainability certification or similar programmes were to be made mandatory and freely accessible to businesses.

Since Ireland’s beaches and coastal areas cater for several adventure tourism activities it is important to maintain these assets and make sure to preserve them for future tourists to visit and use them. This will not only benefit the tourists but also ensure sustainable business models for the operators who rely on this fragile natural resource. Therefore, this research showcases some of the impacts that adventure tourism has on the coast and how sustainable the current situation in Ireland is, as through increased marketing the impacts on those natural assets are amplified. Further, there is a focus on the attitudes of adventure tourism businesses and tourists, and their views on a sustainable way of engaging in adventure tourism as well as the lack of protection of the coast or enforcement of preservation regulations in Ireland.

2.4 Adventure Tourism and Sustainability

Generally, adventure tourism can be an ally for conservation on natural protected areas, however it also has the potential to pose a threat to it (Canteiroa, et al., 2018). It depends on its compatibility with local conservation objectives, which should be determined by management planning, however this is lacking in many parts of the coast. This brings the threat of overtourism, “*The excessive growth of visitors leading to overcrowding in areas where*

residents suffer the consequences of temporary and seasonal tourism peaks” (Milano, et al., 2019, pp. 353-357). This overcrowding leads to permanent changes to local populations’ lifestyles and their general well-being.

Ideally tourism zones should be strictly monitored and protected through being framed within ecotourism principles and contribute to reach the conservation targets of the area (Eagles, et al., 2002). The monitoring and management of these zones generally has two main goals, to maintain the natural environment and to provide opportunities for recreational activities. However, since most existing destinations were not developed based on ecotourism or sustainable principles the current monitoring often does not align with the general goals. This has led to many tourism destinations being overpopulated or not monitored strictly enough. This leads to a decrease in the quality of the natural environment, which eventually leads to the lack of opportunities for new or existing recreational activities.

2.4.1 Certification and Greenwashing

Certification in the tourism and sustainability sector is a controversial topic for many operators. While it aims to validate environmentally conscious businesses there is an argument that it does not address the critical mass (Dodds, 2001). Certification as defined by Dodds and Joppe (2005, pp. 2-16) clearly highlights the positives about certification “...*assuring industry and consumers the assessed company met a set of minimum standards.*” With the purpose “...*of achieving voluntary standards meeting or exceeding baseline standards or legislation.*” While some operators may argue that certification is an extra point of cost and may not benefit their business operations the reality is that nowadays almost all services and products must have a certain standard or quality to be accepted. Food products needs to be controlled through Acts, Regulations and Orders made at national level as well as Directives and Regulations required by the European Union. Those products are further being certified through institutions such as Bord Bia who was established by an act of the Irish parliament (Irish Food Board, 2020). Furthermore, any manufactured products, which are to be sold in the Irish market must adhere to the “S.I. No. 199/2004 European Communities Regulations 2004”, these outline in detail how manufactures and any other professional involved with production lines in supply chains must conduct themselves. A “product” in this directive refers to any product, including the context of providing a service (Irish Statute Book, 2004). Why should tourism offering be any different?

As previously established, sustainability definitions are unclear because they do not include a structure to follow, certification however generally provides tourism businesses with an action plan for improvement. Not only does it certify the ethical and environmental aspects of the business, but it can also include improved management, upgraded tourism offering and higher customer satisfaction (Peřan, 2008). Certification originated from ecolabeling and is based on the assumption that there is demand for quality control. While general environmental awareness increased over the past years due to climate change and the new “Generation Z” being more environmentally aware (Patel, 2017), there is no evidence this has led to an increase in tourism certification. Tourism certification practices also tend to vary across regions, this became apparent through a survey by the World Tourism Organisation. Here 59 sustainable tourism and ecotourism certification were reviewed, results displayed certification programmes are irregular in practices and development (World Tourism Organisation, 2002). Most countries required their accommodation sector to be sustainably certified, therefore an argument could be made to implement further mandatory tourism certification. This trend could be the accelerator to develop certification regarding transparent environmental business operations in all tourism business settings not just adventure tourism business who use the environment directly.

However, looking at the certification or regulations according to the Irish Government information on “Regulation of the Tourism Sector”, the statutory regulation arrangements only include the Regulation of Accommodation (Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, 2020). According to the government this is of high importance to provide consumers with reassurance about the type of product they can expect. Nevertheless, solely regulation the accommodation sector is not enough to ensure an all-over sustainable tourism product. The Hawaii Ecotourism Associations (2018) “Sustainable Tourism Certification Checklist” for example, has comprehensive principles for businesses, however, is lacking environmental usage recommendations and mainly focusing on overall sustainable business operations (waste management, water and light savings in business buildings) much like many other similar guidelines. Global Certification seems to also neglect the behavioural aspects of tourism. If each framework could be expanded to consider environmental impacts of tourists, it would be a useful tool for the tourism industry overall and as a basis for business certification. Unfortunately, certification schemes frequently have regrettable connection to greenwashing since it is often used as a tool to promote a company’s greenwashing practices. There are around 150 to 180 eco-labels in the tourism industry worldwide (Balas, 2016) all of which, have inconsistent measures, indicators, and definitions of sustainability.

The term greenwashing was first created in 1986 by environmentalist Jay Westerveld. He used the phrase in a paper criticising how the hotel industry puts the responsibility of towel-washing frequency on the customers in order to guilt trip them into wanting fresh towel less frequently, subsequently feeding into the hotels money-saving practices (Myers, 2019). Another tourism industry highly prone to greenwashing issues and negative consequences on destinations is volunteer tourism. These programmes are often demand-led through young enthusiastic individuals and highly marketed by companies offering volunteer tourism initiatives, there is a criticisable lack of consideration for the environmental and social costs of host communities (Smith & Font, 2014). The inconsistency in certification alone could be acknowledged as greenwashing. Due to lack of regulation on sustainability practices and selective disclosure, any business labelling themselves eco-friendly or sustainable can do so without consequences (Marquis, et al., 2016). While greenwashing sometimes refers to the process of how businesses market themselves, there is an important difference between businesses green marketing and greenwashing. Green marketing occurs through businesses advertising a product, being sold but not produced by them, to be environmentally safe. Greenwashing on the other hand is the conscious act of misleading customers about their environmental practices or similarly to volunteer tourism, the perceived environmental benefits of their services. In 1992 Greenpeace officially acknowledged greenwashing to be a global issue in their publication “The Greenpeace Book of Greenwash”. Demonstrating how long evidence of greenwashing has been apparent and seems to be a deeply rooted problem across all tourism sectors.

Greenwashing often starts with false or misleading marketing claims and ends with the incorporation of non-green practices. An analysis undertaken in 2017 of 31 rural tourism businesses in the UK found 70% guilty of greenwashing. Once questioned on their methods businesses stated thinking that consumers would not care about their practices or, that the business would come across providing lesser quality services unless they “*polished*” their services greener (Font, et al., 2017). Literature on the Irish tourism industry does not have any tangible figures on greenwashing however, a recent study by the International Consumer Protection Enforcement Network in Ireland relating to food businesses reviewed 500 websites and found 4 in 10 gave misleading information. Even An Taisce, a charity working to promote environmental awareness and action, criticised Bord Bia’s “Origin Green” programme as “*more about greenwashing than promoting genuine sustainability*” (Lumley, 2020, p. 2), which is devastating critique for a food standard company set up through governmental legislation. Most websites mislead customers about their environmental values through either making unclear

environmental claims or by purposively omitting certain information. The foundation for this evaluation of websites originated through a review carried out by the EU Commission, discovering that much like environmental certification, over half of the “green” references on said websites lacked evidence (Maher, 2021). These statistics show how many companies already engage in greenwashing and in a time where consumers seem to be getting more environmentally aware, many more companies may start similar practices in order to save money and profit of unknowing customers. Similarly, greenwashing can occur through false marketing in the adventure tourism industry, whether on purpose or accidentally. Companies who actively present themselves to be environmentally minded may simultaneously knowingly order activity supplies (surfboards, harnesses, equipment) from unsustainable or unethical sources. Unconsciously it may happen through social media channels, making activities seem more environmentally friendly than they are. For instance, one arrives to a kayaking school with online images comprised of calm coastal exploration, but tourists are being brought to locations in old SUVs, used by many tour operators in Ireland based on images and explanations on their websites, leaking oil and driving on delicate unofficial “off road” pathways. Generally, any business who transparently advertises their sustainability online can be reliable, it is however in the tourist’s interest to hold providers to the standards they claim to have, as the governing authorities largely have no power on marketing related greenwashing in tourism at present.

2.4.2 Corporate Social Responsibility (CSR)

Briefly touching on Corporate Social Responsibilities in the tourism sector, here as well as in most industries, CSRs have become increasingly more important. The European Commission defines Corporate Social Responsibility (CSR) as the “*responsibility of enterprises for their impact on society*” (European Commission, 2011, p. 11). It further outlines that CSRs in a business strategy and operational procedures should be company lead and include characteristics to address social, environmental, ethical, consumer, and human rights concerns. Therefore, while CSRs are largely internally driven its effects on external concerns, such as the environment and social settings, should be validated in the same way as certification by external sources. Based on this definition the tourism sector could use CSRs more productively as a guideline for their mission and to implement business policies for social and environmental concerns, and through that gain credible certifications if schemes based on this model were to be developed. Since CSR actions are voluntary authorities are the opinion that if implemented, they should exceed legally required regulations (Lund-Durlacher, 2013). However, looking at

current procedures various small and medium-sized businesses tend to be reluctant to engage in CSR behaviour (Parker, et al., 2010), for the same reasons they are reluctant to engage in obtaining certification for their businesses. Often these reasons range from lack of financial resources to lack of time and knowledge about credible certification organisations and procedures. This lack of credible certification means that there is less motivation for companies to spend money and time on developing sustainable practices, since business providers may see this as a waste of time and resources. This was evident through some of the response and statements made by tourism providers in the primary research interviews on their lack of funding, staff, incentives and rewards to implement sustainable routines and practices, which are further discussed in detail in chapter four.

2.5 The Coastline – Climate, Cliffs and Coastline, and its Progression of Erosion

Ireland is highly vulnerable to coastal decline with more than 50% of the Irish population living within 15 km of the current coastline (European Commission, 2009). The urgency of this research is highlighted by the fact that the first meeting of the National Coastal Change Management Strategy Steering Group was only held on the 3rd of September 2020 (Dept. Housing, Local Government and Heritage, 2020), even though coastal loss due to erosion has been occurring for years with the initial set up of the Department of the Marine and Natural Resources in 1988, which was responsible for the national policy for coastal and marine environments regarding coastal infrastructures and shoreline protection measures (Devoy, 2008). Upon a search on government websites and search engines, as of August 2021, there have been no detailed publications from the new steering group ever since their first meeting in 2020, except for a statement that the group will reconvene over the coming weeks (Stanton, 2021).

A new different development with a publication on the 19th of October 2021 by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, outlined the establishment of a working group under the Tourism Action Plan 2019-2021. This group is meant to review international policy in sustainable tourism and propose guiding principles for sustainable tourism development (Department of Tourism, 2021). While this sounds exactly like the requirement this thesis calls for, a review of the proposed action plan and guiding principles only seem to

focus on rationale and benefits of a sustainable approach, carbon footprints, management decision and marketing, as well as the conservation of cultural heritage. All of which are important, however the document simply refers to “sustainability of the environment” and “environmental impacts”, without clarifying what is included apart from the mentioned CO₂ emission. It does not touch on coastal preservation, or flora and fauna aspects. A good feature of this plan however seems to be the aim for the consideration of tourist carrying capacity in communities, which hopefully will help facilitate better destination planning in the future.

While the following paragraphs outline the historic events surrounding coastal erosion in Ireland, therefore making it apparent that is not a recent problem, many argue that the sudden urgency regarding this topic is due to the increase in erosion on the east coast, especially along Dublin coastlines. A Coastwatch Coordination report (2018) evaluated threats to the coastal landscapes in Ireland, showed that erosion was overwhelmingly considered to be the greatest threat (Dubsky, et al., 2018). Mulrennan (1993) highlighted the combination of increasing recreational pressure and infrastructural changes of the Dublin coastline to be “*responsible for recent degradation and shoreline recession*” (Mulrennan, 1993, p. 6). Further, that a comprehensive understanding of the tidal patterns and changes to operating practices are essential for effective management. In 1981, due to its rare and internationally important habitats and species of wildlife UNESCO recognised the importance of Dublin Bay and designated the North Bull Island as a Biosphere of high importance (UNESCO, 1981). This status was extended and renamed in 2015, therefore arguably the awareness of coastal erosion, with its delicate aspects, was present and of urgency for several years prior to the first National Coastal Change Management Strategy Steering Group meeting in 2020. The Irish Coastal Protection Strategy Study from 2014 found that especially in the north west there is a “*Uncertainty in the protected status of the coast*” regarding the capacity to accurately map out these areas, in order to assess the degree of erosion hazard (OPW & RPS, 2014, p. 4). These maps are vital to assist in identifying and developing of appropriate measures in order to effectively manage the erosion risk.

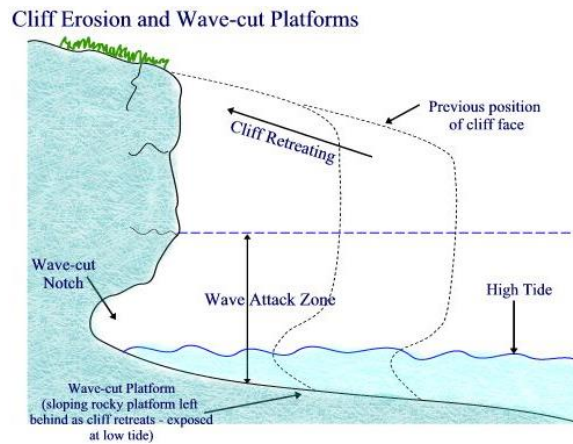
Historically, coastal tourism as known today originated in the 19th Century and has increased in a non-linear manner since (Davenport & Davenport, 2006). The development of mass tourism visible in big cities and most coastal areas around the world originated from the introduction of personal vehicles and motorised mass transport in the mid-19th century. This

got accelerated after the development of passenger airlines from 1945 onward combined with the mainstream marketing approaches for beach holidays. Ever since then but particularly over the past few years the coastal dune landscape has been changing dramatically all around the world (Robertson, 2010). The vegetation along the coast can be destroyed by either natural causes such as storms, droughts or by human intrusion, such as vehicles driving on sensible areas or excessive foot traffic.

Starting by looking at the emersion of cliffs and the shaping of the coastline there are two main processes are responsible for how a coast is shaped, through natural erosion and deposition. Coastal erosion occurs when materials break down and get carried away by the sea. Deposition occurs when material carried by the sea is deposited or left behind in a different location along the coast. There are two types of waves that shape the coast, destructive and constructive waves (Gibson, 2014). Destructive waves lead to coastal erosion. With high energy the waves create a backlash, which pulls materials away from the coastline into the sea. On the other hand, constructive waves result in the build-up of material on the coastline. Material carried by the sea are washed up and begin to build up along the coastline similarly to deposition. Overall coastline recession can affect wetland ecosystems and if applicable any tourism services provided, due to the wetland's migration inward (Runting, et al., 2017). Unfortunately, over the past few years, most likely due to weather changes brought on by climate change, the constructive waves do not deposit nearly as much coastal material as the destructive waves take away. Therefore, sea cliffs are one of the clearest examples of erosion. Sea cliffs are steep fronts of rock and soil that are formed by destructive waves. Waves crashing against the coastline erode the land until a dent is formed. The erosion of this dent undercuts the ground above it until it becomes unstable and collapses. This process repeats itself and the sea cliff will continue to retreat. Overtime a wave-cut platform will form in the sea just underneath the cliffs. Further, sea caves can form when cracks in the rock at the base of a cliff is eroded and expanded by the waves. If a cave continues to erode and expands until it cuts through a headland it builds a sea arch. If the sea arch continues to be eroded and widens until the rock becomes too weak to support the roof of the sea arch and collapses into the sea, then it is called a sea stack; this is the only remaining pillar of rock (Department of Communications, Climate Action and Environment, 2019). In addition to coastal rock erosion, coastal squeeze can arise. It occurs due to rising sea levels, increased storms and a rigid coastline. Coastal squeeze has the potential to affect tourism because it induces both flooding and erosion (Lithgowac, et al., 2019). This is critical as Ireland is highly prone to experience multiple storms through the winter months.

Therefore, it may change some parts of the coast and cliffs used for adventure tourism from season to season, meaning a constant risk assessment would be necessary for adventure activities. An accurate example of the detailed stages of coastal erosion as described above can be made by referencing the Cliffs of Moher in County Clare.

Figure 2 Cliff Erosion Process



(Walsh, 2008)

This illustration visualises the previously mentioned stages of coastal erosion. The hydraulic action and compression caused by the waves at high tide, is causing a notch in the cliff at first, this becomes larger over time due to the natural wave currents and eventually creates a platform which is overhanging and will eventually break off. This process is repeated then over time and leads to the retreat of the coast.

When it comes to dunes, there are two types of erosion to consider, natural issues such as climate and the intensive use of dunes resulting from tourism. Ireland has a more critical exposure to dune erosion as the rate of erosion is faster in areas with damper climates, so beaches constantly struggle (Robertson, 2010). Dunes naturally are regenerating themselves, similar to Figure 2 above on coastal erosions sand dunes are ever changing. They erode and build-up in cycles over months and years. In settled weather the sand builds up on the beach and dunes and minimal erosion takes place. However, during winter storms the much higher and stronger waves erode the sand on the beach and dunes, leaving behind a steeper dune hill. After a storm the sand is more unstable and is easier transported back onshore to rebuild the beach. The sand that is being blown landward during high winds is trapped by the dune vegetation, resulting in it gradually repairing and rebuilding the dune (Northland Regional Council, 2016). This would be a natural dune cycle however, storms and severe weather conditions are increasing due to climate change (Kunkel, 2013) and are not giving the dunes enough time to recover, adding the increased use by people due to tourism activities the dunes are slowly disappearing.

Coastal erosion rates mostly relate to ‘‘soft’’ coasts, which are sediment-dominated (i.e., sand systems). These soft zones reach an average erosion of 0.2–0.5 meter per year (Carter & Bartlett, 1990), but can rise to erosion of between 0.2m and 1.6m per annum (DELG, 2001) on some areas along the west, southern and eastern coasts. Retreat rates for rocky shorelines are still not well known (McKenna, et al., 1992). Current total rates of land loss for Ireland because of erosion and flooding have been estimated to be approximately 1.6 km² per year. This average was based on a concentration on about 300 sites (Carter, 1991). However, erosion rates even reached values of 1-2 m annually as per the most recent figures shown in the economics of climate change adaptation in EU coastal areas report for Ireland (European Commission, 2009). This report also highlighted in comparison with other countries that it does not have any national coastal defence plans available. These figures can be considered outdated but new data is not being published. Not only the current active erosion poses a threat, annual water levels are increasing by 3.3mm/year (Murphy, 2019) due to climate change.

The intensive use through tourism has two groups of people to consider. The domestic or foreign tourist that comes to a beach as part of their recreational holiday and the locals who live close to the beach. Through more product offerings along the beach such as cafes, surf schools or horse-riding facilities beaches are used more frequently than in the past. Looking at it from an ecosystem service research point of view, there is an economic value on the environment, especially in the West of Ireland where the landscape, or specifically the beaches are the co-creator to many tourism activities. All this considered, there should be a way for businesses to invest back into the environment as their co-creator. Any business tries to maintain their individual physical assets, including offices, equipment or factories as a reinvestment into their own business. An investment through the American Recovery and Reinvestment Act 2009 showed that habitat refurbishment projects created around 17 jobs for every million dollars spent on the project (Edwards, et al., 2013). This statistic is similar to other preservation work being completed in parks and other land conservation, and higher than in other industries such as the coal or gas production industries. While some may argue these project jobs are not permanent, overall habitat restoration has shown to have longer-term economic benefits, including future job creation in coastal tourism, and benefits to coastal economies including higher property values and better water quality (Edwards, et al., 2013). Therefore, in order to overcome issues surrounding sustainability an ecosystem-based protection strategy could be an alternative once business see that reinvesting in the environment will benefit them, as well as the community and on a larger scale also the economy.

2.5.1 Irish Tourism and Climate

The relationship between tourism sector and climate is very complex. Climate (sun, temperature, snow, wind) is a vital resource which can be utilised, while also being an important limiting factor associated with risks requiring management by the tourism industry and tourists alike (Scott & Lemieux, 2010). Climate is a basic resource (Smith, 1993), including sun and beaches contributing to tourism, as well as winter and water sports, health tourism, and other niche categories of tourism activities (Gómez & Belén, 2005). All tourism destinations and operators are climate-sensitive, and with that a key influence on travel planning patterns and the overall travel experience. Influences include latitude, elevation, nearby waters, ocean currents, vegetation, and dominant wind patterns (NOAA, 2016), most of which contribute to coastal erosion and need to be monitored to facilitate a save environment for tourism activities. Previously many considered climate to be a special natural resource due to it being renewable and nondegradable, meaning next year's climate available to humanity cannot be affected by the amount used this year. However, recent climate change studies have shown that certain human activities can in fact change the climate and weather. These can lead to future impacts on tourism sites with possible further effects on local and regional economies (Breiling & Charamza, 1999, König & Abegg, 1997, Maddison, 2001, Scott & McBoyle, 2001, Wall & Badke, 1994). This highlights not only the effects of climate change, but the need to monitor how certain activities impact the natural resources used for tourism, to be able to counteract impacts such as erosion.

2.6 Coastline Usage and Preservation Legislation

2.6.1 Existing Regulations in Ireland

As previously mentioned, Ireland does not have any public national coastal defence plans. The Irish Coastal Protection Strategy Study (ICPSS), commissioned in 2003 and published in 2013, was meant to inform the Irish government about coastal flooding and erosion (European Commission, 2009). The Office of Public Works (OPW) is the responsible government agency for both coastal erosion and flood-risk management and see these combined functions as being linked in many coastline situations (i.e., erosion of dune resulting in increased flood risk). The OPW's priorities regarding coastal erosion are based on risks to public safety and public infrastructure and works are undertaken according to the necessities of the Coastal Protection Act 1963 (Irish Statute Book, 1963). The OPW assesses priority areas and can apply for

funding. As of the year 2007, any coastal protection measures can only be proposed by local authorities and can be eligible for funding under the coastal protection sub-programme of the 2007-2013 National Development Plan (European Commission, 2009). It is currently continued in the National Development Plan 2018-2027 however, it falls under the section addressing climate changes, mostly focussing on flooding and properties at urgent risks. The National Development Plan 2018-2027, which is a pillar of the Project Ireland 2040 plan, was reviewed in November 2020. Amendments were made to sections of infrastructure projects throughout the country, with better transport links, the facilitating of better health facilities and environmental outcomes (McGrath, 2020). However, the changes to the environmental outcomes section only refer to upgraded Waste Water Treatment Plants in selected locations around the country and did not update any sections on coastal preservation.

Minister of State at the Department of Transport, Tourism and Sport Deputy Brendan Griffin stated that he welcomes the opportunity to contribute on the issue of sustainable tourism. However, once one proceeds to read the Government's tourism policy statement, "People, Place and Policy - Growing Tourism to 2025", it merely commits to make tourism the key element of its economic strategy, with the development of the tourism sector reflecting the highest standards of environmental and economic sustainability (Griffin, 2019). While it mentions the United Nations Sustainable Development Goals (SDGs) evident environmental protection is only mentioned in the same sentence as economic growth and benefits, but never addressed on its own or future environmental actions or aims outlined. A representation of this is the following sentence "*As we seek to make tourism socially and economically sustainable, we should ensure there is a greater geographic spread of tourists...*" (Griffin, 2019, p. 2). While he mentions the greenway as an excellent example of a sustainability project, none of the five objectives of the greenway projects, which is to be further developed in the coming years, mentions the environment. The article proceeds with a statement of Deputy Robert Troy listing climate change and environmental deterioration as greatest challenges that a country faces today and mentioning that all tourism products rely on the environment. However, he proceeds this by arguing that cycling and rail transportation as a more sustainable way of travel would be a great asset. While this statement is not untrue unfortunately Ireland's rail systems are lacklustre and not well connected, and tourists who wish to travel around the country are not able to do so on a bicycle due to the lack of safe roads and long distances especially in rural areas. The next comment by Deputy Imelda Munster underlines this argument, with her identifying that "*Decades of poor regional development means that many rural areas are suffering from a lack*

of basic services like local public transport and broadband...” (Munster, 2019, p. 10). The article mentions further statements of other deputies in the department, however they all display the same theme, while everyone is aware that environmental standards may not be up to date in Ireland, there seems to be very little concrete planning in this regard while the main focal point remains on the economic development.

The most recent announcement regarding climate change funding by the Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media (2021) in collaboration with the Department of the Environment, Climate and Communications was greatly lacking consideration of coastal erosion issues. The announced €2 million in supports for creative and cultural projects, aimed to raise awareness around climate change. However, none of the 14 recipient locations have any coastal based projects, even though the coast is one of the biggest affected areas of climate change.

When looking at a national strategy regarding the topic, the OPW reflects and directs to the Irish Coastal Protection Strategy Study, which is considering extreme events and stated that those events like serve storm will naturally identify where the highest risks are. The government has committed almost €1 billion to flood relief measures as part of the National Development Plan 2018-2027, yet how much of this money is allocated to go towards coastal erosion preservation is not stated (The Office of Public Works, 2019). While urgent situation such as storm flooding or general flooding due to rising sea levels are important to be managed, coastal erosion is a progressive process going on for decades, by the time significant visible changes are affecting local areas it will be too late to act and one can only carry out damage control and not preventive measures. A comprehensive framework does not only need to be established by the government alone, they need to work with experts in the field to provide effective rules and regulations for local authorities and tourism providers, as these are the ones being affected by change as well.

The measures taken in consideration in Ireland so far are much like the coastal types divided into hard and soft measures. Hard measures include sea walls, which are concrete structures to physically resistant waves from an area. Currently 350km of Irish coastline are protected by artificial sea walls (Devoy, 2011). However, sea walls are expensive to build and while many more areas could use them there is limited cash flow for them, therefore they are currently only protecting areas where the cost of their construction is less than the cost of any potential

property damage. Sea walls have also shown that they can have negative long-term impacts on the environment as they prohibit the natural deposition of sand and stones along the coast, which traditionally is the natural “help” to combat some aspects of erosion. Soft measures include beach replenishment, here sand is brought in from off shore dune structures and brought to the actively eroding parts of beaches, however since it does not actively prevent erosion it is mostly suited for areas that have low weather impact-based erosion (Silton & Grannis, 2010). The counties with the highest amount of total funding in 2007-2008 were Wexford (€1.3 million), Kerry (€1.09 million) and Waterford (€0.41 million) (European Commission, 2009). Measures undertaken were mainly hard measures such as building or strengthening of sea walls, which as mentioned may not be ideally suited. In 2020 Rosslare Strand was awarded €7 million in funding for further coastal protection and flood relief projects. In April 2021 Wexford County Council published the “Chief Executive’s Report on the Submissions and Observations County Development Plan 2021-2027” which mentioned the above awarded funding for erosion and flood works. The works for erosion will include the “*hold the line option to include rock revetment, rock groynes and beach nourishment*” (Wexford County Council, 2021, p. 63). More details on how exactly these measures will be carried out or in what time frame are not available.

Overall, however, there are no figures outlining in detail how much money is awarded to each region and it is also not specified what measures it was used for, as all schemes include the terminology “flood prevention/relief and coastal preservation”. This is further shown in a statement of the Minister for Public Expenditure and Reform, answering a question addressing availability for funding for east County Meath coastal erosion by TD Fergus O’Dowd, stating that the OPW Minor Flood Mitigation Works and Coastal Protection Scheme is responsible to provide funding to local authorities. The projects must cost less than €0.75 million each to qualify in order to undertake minor flood mitigation or coastal protection works or studies (Dáil Éireann, 2019). As previously assessed, the first meeting of the National Coastal Change Management Strategy Steering Group was in September 2020. While the previous paragraphs already highlighted that the knowledge about degradation coast lines was present since 1993 (Mulrennan), further research by Brooks, Nairn, Harris, Jeffrey and Crowe (2016) established that there are “substantial gaps in our knowledge” regarding coastal change due to impacts through climatic change and combined effects of local and global stressors. Local stressors, such as water quality changes, can be manipulated directly by management, while global stressors such as climate change cannot be halted by local actions (Brown, et al., 2013). This

leads to the assumption that areas like the east coastal of Ireland, which is not as badly affected by increasing storms due to climate change as the west coast, there may be a chance to combat the global stressors easier, therefore making it worthwhile to research into these possibilities.

According to the Irish the National Development Plan 2000-2006 the government was to invest total of €44 million to combat environmental impacts and coastal erosion, in a way that is beneficial to people living in those areas (Irish Government Publications, 1999). In October 2003 this plan was subject to a mid-term evaluation, the 300-page document outlines future division of money for environmental infrastructure but does not outline details as to how much is specially allocated for coastal preservations. Furthermore, there are no follow up statistics of how much money ended up being used for coastal erosion purposes. Murphy (2019) found that there are still immense gaps in understanding the nature, which is a key element to prevent erosion. The natural composition even within Ireland can vary from beach to beach (Murphy, 2019) and strengthens the argument to invest in research as well as the construction of coastal protection.

2.6.2 Coastal Preservation

Coastal erosion is a natural phenomenon that everyone must accept, however people, often without realising it, are aggravating the problem. They are unconsciously adding to it through simple activities such as walking on a sand dune, on surrounding grass land or on top of a cliff and can make nature's impacts even more severe. Other impacts that affect coastal landscapes include illegal camping, campfires and burning rubbish, as well as lack of parking. This was especially apparent in many regions around Ireland as tourists took domestic holidays in 2020/2021 due to the Coronavirus. Parking cars along dunes, in sand pockets and along cliff sides does not only affect the structural stability of those sections by cars moving over them, but the associated vibrations can affect particularly vulnerable species, such as birds and other wildlife who live in this habitat (National Transport Authority, 2020). Hard engineering structures to protect coastal areas such as seawalls, piers, and others, have usually been used to manage high tides and storm flooding as main development measures for coastal zones. However, these structures are expensive and actually aid erosion, possibly by the formation of rip currents within and around these structures (Phillips & Jones, 2006). In Auckland, New Zealand, a small town has come up with a new structure to combat their erosion. In self-initiative they designed hexagon shaped concrete blocks that interlock. They are similar to seebees in idea, but in execution they can be interlocked and build a wall like structure that still

is slightly flexible opposed to a normal concrete coastal wall defence (Mead, 2020). Evaluating the literature for Irish protection of cliffs the predominantly focus on all relevant literature is based on the Cliffs of Moher. In July 2019 Clare County Council has put a contract out for tender to come up with a strategy to find a solution as the cliffs and its centre “...*strains to be fit for purpose*” and are “...*now rather overwhelmed*” during peak times with visitor numbers projected to increase to almost two million by 2025 (Deegan, 2019, pp. 1-2). While the Cliffs of Moher are of great value for Ireland, all around the Irish coast cliffs are used for coasteering, climbing and other adventure tourism activities without any guidelines or rules for preservation or how to carry out those activities without adding damage. Considering the environmental management and sustainability for the Wild Atlantic Way published by Fáilte Ireland in 2015, they stated that some of the way passes through “...*highly sensitive environments*” and while “...*strict environmental protections*” are in place for some locations to ensure no harm is done to the environment (Fáilte Ireland, 2015, pp. 63-69), the report simply states that lower-level decision making by local authorities must comply with provisions in order to have access to funding from Fáilte Ireland for the further development of their location. However, it is not stated who is undertaking these legally requires assessments of new development and what guidelines local communities must follow if they do not avail of funding for this project. Looking at the tourism providers who are the focal point in this study, Action 38 in the environmental and substantiality plan solely outlines that they should promote responsible tourism practices and to be encouraged to pursue green certification for their business. Based on this one could argue that this should be required by all tourism providers that use the environment as co-creation to their tourism offering. Chapter four of this study elaborates on the certification situation in adventure tourism providers in Ireland.

The planning processes along coastal areas are also an important factor to consider. A study from NUI Galway was carried out to give an impression of how important it is to consider coastal risks in project planning. Here the rapid development of coastal areas showed to be in a parallel increase to the populations demand of building applications (Flannery, et al., 2014). Due to coastal areas being highly demanded by tourists, locals and businesses, therefore being highly beneficial to local economies, there is a need to control development planning due to its direct impact on the vulnerability of coastal communities. Planning decisions cannot be granted without considering the density of coastal communities, along with the rate of erosion on the respective coastline.

In order to not overcrowd coastal areas, not only from a coastal preservation point of view, but also from a host community aspect, local authorities should consider using the European Tourism Indicator System (ETIS) as previously outlined in the discussion about host communities living standard and satisfaction. ETIS enables sustainable tourism development, as well as offering option on how to manage social impacts related to tourism numbers in a host community (Foroni, et al., 2019). When applying ETIS not only will it indicate how much tourism a host community can endure but also can be an indirect indicator for environmental planning committees when making choices for coastal development. Overall, there seems to be a great need to consider long-term coastal developments, as current practices are inclined to focus on immediate socio-economic benefits rather than longer-term coastal management concerns.

2.6.3 Environmental Agencies available to guide Tourism Businesses

There are a multitude of environmental groups and organisations in Ireland which aim to preserve different aspects of the environment. No matter what the focus of these organisations, they all aim to keep Ireland's landscape as authentic and preserved as possible. One organisation tourism provider, as well as other businesses, frequently work with is the "Leave No Trace" initiative. Leave No Trace Ireland is a non-profit organisation providing research and education to everyone who uses the outdoors. They work with individuals and stakeholders in the outdoor industry to make recreational activities more sustainable, by raising awareness about issues impacting the environment (Kiely, 2020). The company offers membership programmes and seems to be the most commonly known organisation in Ireland, due to their widespread advertising.

Clean Coast (An Taisce) also seemingly well known, aims to protect Ireland's waterways, coastline and marine life through working with local communities. They organise beach clean ups and present the Clean Coast Award to beaches around Ireland, for excellent water quality and an effective beach management that safeguards the natural beach environment (Clean Coasts, 2020). While this award is a proud achievement for beaches and local communities, it solely focuses on pollution and not the overall coastal structure preservation. Another popular ecotourism-based organisation is "WILDSEA Europe", this is a network of ecotourism operators and destinations, showcasing on their website adventure tourism activities all over Europe. Ireland is represented by destinations Cork, Donegal, Kerry and Sligo. Founded in 2015, it is funded both privately and publicly through the European Union and other parties.

The award rating of member businesses is ranked from 1-5, only businesses ranking above 2 can be represented on the website (Wildsea Europe, 2020). However, the rating is based on a questionnaire filled out by the business who wants to be represented. This means and is stated on the website, that Wildsea Europe does not have the means to verify every business they represent. Therefore, making this “certification” unfortunately unreliable.

In 2009 Fáilte Ireland published a handbook on Ecotourism in Ireland. While this was a positive step it could have been considerably more useful to write a general business plan or environmental sustainability handbook, which can be applied by all tourism businesses in Ireland. Since the number of businesses labelling themselves to be “eco” in Ireland are limited, this would have been a worthwhile achievable objective. The handbook refers to the Green Hospitality Award certification, as well as the EU Flower Ecolabel as a help to raise sustainability standards and provide ways of marketing, rather than providing guidelines themselves.

Presumably the most prevalent Irish company engaging with sustainability in tourism is Ecotourism Ireland. This organisation focuses on training and certifying Irish tourism businesses in the responsible and sustainable tourism field. It originated from an initiative called the Greenbox Project, testing the training, certification, and product development in the ecotourism industry. The Ecotourism Ireland label is recognised by the Global Sustainable Tourism Council. While Ireland, with this label, was one of the first 12 countries to receive world recognition, it is limited to ecotourism businesses and cannot always be applied to other tourism businesses. However, in 2019 Rob Rankin, the founder and owner of Vagabond Tours, Ireland’s leading small group tour organiser, took over the ownership of Ecotourism Ireland. He rebranded the company to “Sustainable Travel Ireland”. While the company still uses the Global Sustainable Tourism Councils criteria to certify Irish tourism operators the focus of the certification includes “...*effective sustainability planning, maximizing social and economic benefits for the local community, enhancing cultural heritage, and reducing negative impacts to the environment*” (GSTC, 2020, p. 5). While these are noble ambitions and it is clear how the certification is awarded, it is not transparent if once a business is certified they undergo periodic checks to ensure the compliance with the certification regulations. Further, Vagabond on their website describe themselves as “Responsible Tourism” (Vagabond, 2020), yet, looking at the relevant literature there is a difference in definitions of ecotourism versus responsible tourism. This company seems to have Ireland’s nature’s best interest at heart, however within

the industry of certifications and business practices there is still a need for further transparency. A company cannot identify themselves as one label while also certifying other business as another label, it creates a conflict of interest. Transparency is not only valuable for businesses who want to obtain certifications, but also for the tourists who base their choices on these certifications.

A study undertaken in 2018 on travellers needs and demand for sustainability recognised that 32% of participants identified a significant obstacle while traveling, due to the lack of information and credible certification available on tourism providers. While the countries with the biggest problems were identified to be India, China and Japan, the argument for a more transparent and credible Irish certification still stands. The travellers further stated the lack of access on credible certification was a considerable barrier and a reason not to engage with tourism providers, more so than the extra cost associated with a genuine sustainable experience (Terrero, 2018). Tourism certification programs should provide businesses with an action plan for overall business improvement, these recommendations must be made on a neutral basis. While an external committee or governmental authority should include stakeholders to draw up management recommendations and ways to improve the tourism product, the tourism stakeholders should not focus on how their respective tourism offering can benefit directly from these regulations but take all aspects of the tourism industry in account. As outlined in the examples in this section current Irish tourism certification is often obtained through other tourism businesses or stakeholders who financially benefit from certifying other businesses in their industry, this is not as credible as an external certification body.

Some of the outdoors educational organisations Irish adventure tourism businesses work with include the Field Studies Council (FSC) and Nature Learn. Both aim to help people learn about the environment, which is important so every individual can make informed choices about how best to protect the environment (Field studies Council, 2020). Both work with schools and businesses to raise awareness and appreciation for the natural world (Nature Learn, 2020). There are many other similar organisations around Ireland, education about the protection of the environment is key and immensely important. The current curriculum in the junior cycle includes the topic “Environmental and Social Studies (ESS)”, however the syllabus outline refers to the environmental section to “People in their environment” including the impact of settlement on the environment, however it is not specified further to which extend it teaches environmental concerns. The geography syllabus includes a section for growing concern over

declining environmental quality in many regions, however aims towards Population, Settlement Patterns and Urbanisation, as per the syllabus structure overview, rather than the environmental changes due to climate change and other components. In the senior cycle syllabus, Geophagy includes “Human activities that impact on the operation of surface processes”. Taught in relation to mass movement processes, overgrazing, flood control measures and coastal processes and the impact of recreational pressures and defence work. While this shows the inclusion of coastal environmental education the extent to which the topic is covered is not specified and the section itself is only subsection 1.7 to core unit one (Department of Education, 2020). Therefore, there are six further topics to be covered in core section one based on human evolution, tectonic and rock cycles, as well as landform developments. Environmental education on its history, community developments and evolution are important however, one could argue the environmental syllabus should be expanded to preservation, sustainable living and local concerns, based on the school’s location. More on this discussion can be found in chapter five.

There are numerous other environmental awards and organisations in Ireland similar to the ones discussed above. While most of them are great starting points to reward businesses for their practices and verify efforts, the above examples illustrate the lack of regulations within these qualifications leading to a lack of authenticity and validity in sustainability and tourism certification in Ireland.

2.6.4 Lack of Enforcement

It is no secret that there is a lack of enforcement in Ireland regarding environmental regulations, a great example is the enforcement of said laws in waste disposal. In 2018 an investigation on waste disposal found scenes of “...*environmental destruction on an absolutely outrageous scale*” (Ryall, 2018, p. 2). However, there was no evidence of change after the investigation ended. The vice chair of the convention’s compliance committee stated: “*Sustained public pressure is needed if there’s going to be any meaningful action on waste at political level*” (O’Sullivan, 2018, pp. 1-2). The public was outraged for a while however, like with many issues the heat of the moment tends to die down and once this happened the relevant bodies seemingly did not see a need for change anymore. Environmental protection should not need to rely on the constant demand of the public. Politicians in power in each country have the responsibility to use tax money and other resources to enforce regulations and monitor the relevant law

enforcement parties. Lack of enforcement is evident on many beaches and coastal areas. The example now being presented is Strandhill in County Sligo. This location is known to be a lovely seaside resort and world class surfing location. While this location is categorised as “soft coastline” the erosion is not only threatening sand dunes, the beach and the promenade but also the sewage plant also located in part of the coastline (Ridley, 2019). The problem with the shape of this coast is it resembles a half moon meaning large amounts of water are constantly being washed in. This also occurs on a close by beach called Rosses Point. In 2012 around 500 meters of sand dunes were eroded and washed away in Strandhill due to the first increase in more severe winter storms. Locals were concerned and Fianna Fáil Senator Marc MacSharry, urged the Government to move quickly to ensure counteractive works are put in place. However, the extension of the concrete sea front protection was not justified due to the high cost and the planting of maram grass was recommended instead (McDonagh, 2021). While signage and fences were put up along the dunes, to prevent people from walking up and down and therefore contributing to the erosion problem, there is no enforcement and consequently the fence can be argued obsolete.

In a recent meeting of Sligo County Council, the message of the councillors was clear, rock armour as previously mentioned is not the answer and too costly, however any measures implemented need to be fully researched and will be expensive (Hayes, 2020). While this is a valid point, the question remains as to why between the years of 2012 and 2020 no research into other options of coastal erosion was done and why research is to start only now. Unfortunately, many other coastal areas around Ireland are in a similar predicament. If authorities lack the information on which measures are best, the least that could be done would be to ensure, through enforcement, people do not use fragile parts of the sand dunes and cliffs to help preserve the structures until a solution is found. Signs along fragile coastal areas are not enough to prevent the public from using them. Funding for enforcement in the form of area officers could be subsidised through the environmental agencies of the respective County Councils or, for example, organisations such as the Community Foundation for Ireland (TCFI, 2020). These organisations already have environmental protection or climate change programmes that could simply be expanded to include coastal preservation without having to set up new departments or organisations.

Briefly examining Europe, all coastal states are affected by coastal erosion to some extent. The Baltic States and Poland’s erosion is mainly related to the recent increased storms in the eastern

Baltic Sea, while in the eastern Gulf of Finland, similarly to Ireland, erosion is related to insufficient coastal protection and recreational infrastructure development (Centre for Climate Adaptation, 2019). France facilitates coastal preservation through their forestry authority who nourish landscapes and use whistles to move along vegetation trampling tourists and children playing in restricted areas (Kaps, 2018). Sweden's coastal management is mainly the domain of local governments. Private coastal property owner can initiate coastal protection measures, with local Councils acting as a coordinator for those affected (PRC/MRAG, 2009). However, general erosion without property endangerment is managed by the Ministry of the Environment and executed through the Swedish Agency for Marine and Water Management (SWAM), legally required to apply an ecosystem approach in all development plans (RISC, 2020). While every country needs to establish measures working best for them, especially within Europe coastal erosion patterns are comparable and Ireland could look to other countries for guidance.

2.7 Conclusion

Tourism is a great asset to a country, when managed in a way that includes the economic, social and environmental structures in the same regards. Tourism expenditure was estimated at €8.7 billion and provides approximately employment for 325,000 people (CSO, 2018). While the tourism numbers declined in 2020 due to the Coronavirus outbreak, it is highly likely that tourism will continue to thrive once the world has made it through these tough times, especially since adventure tourism activities are accessed by domestic individuals as well. Tourism development as such is often no different than other forms of development, it is always an initiator for some form of change. Therefore, much like tourism definitions it has a broad spectrum of ideologies, plans and strategies that vary. Most definitions agree that tourism includes the movement of people that reside in a place that is not their home for one night or more. Looking at the different definitions of sustainability, ecological tourism and appropriate measures, they range from a strong focal point of the natural environment, to ensuring tourist satisfaction, which often do not align with the same ideologies.

While most organisations that provide guidance on sustainability agree that the host community is an important part to make sustainability strategies work, they do not include these aspects in their definitions. This gives the impression that they may not be as important as they suggest and therefore businesses may be inclined to be lenient with their approaches to sustainability.

Adventure tourism activities come in many shapes and sizes, ranging from soft to hard adventure experiences. Nevertheless, all include the needs and wants of participants to take part in a meaningful experience. The perceived level of risk is always objective to the tourist. The literature established that Ireland is highly vulnerable to coastal decline. Firstly, due to it being an island and secondly due to its geographical location prone to weather impacts. Further, due to its coastal composition of hard coastal stone landscapes as well as the soft dune and grassland areas. Coastal erosion is not only posing a threat to the natural coastline but also the around 40% (about 1.9 million) of the Irish population living within 5 km of the coastline, of which 40,000 people live less than 100 metres from the nearest coastline (CSO, 2017). Undoubtedly based on the literature there is a lot of evidence that coastal erosion, is and has been an ongoing issue, whether the individual governments choose to grant money towards dealing with these issuers or if it is merely an afterthought. While erosion figures are often old and vary in the literature, they are most likely between 0.5-2m annually (Carter, 1991; European Commission, 2009), with worrying increasing trends in the annual water level with 3.3mm/year due to climate change (Murphy, 2019). Measures regarding coastal erosion and business structures that comply with preservation measures are desperately needed, as well as the enforcement of preventative measures to reduce the contribution of people's footfall on coastal structures.

The literature in this chapter was further reviewed to identify and outline the gap in the knowledge in the topic of coastal erosion in Ireland. There is a lack of research overall, outdated statistics and figures and a clear lack of funding in the area of coastal preservation. While sand dunes are the only structure that redeposit sand along shores, cliffs and agricultural land, as well as houses along the coast require action now before it is too late.

Finally, it was established that all adventure tourism activities rely on the environment as a cocreator to the experience. Many adventure tourists want thrill seeking experiences, while others simply care for a coastal walk or natural exploring. Nevertheless, there are no regulations for adventure tourism business on how to conduct themselves in a sustainable manner while undertaking these activities. Although regulations on coastal preservation and usage are needed, these should not negatively impact on adventure tourism businesses and need to apply to the general public who is also using the coastal landscape recreationally on their own time.

3.0 Chapter Three - Methodology

3.1 Introduction

The purpose of this research lies in a problem-oriented approach with an exploratory research method to review an array of questions and issues through appropriate research tools. Exploratory research is mostly conducted to solve a problem, which was not well researched before, therefore this approach is appropriate for the proposed research question, aims and objectives of this study.

To address the key research objectives, this research uses both qualitative and quantitative methods and secondary literature sources. Secondary literature sources include formally published works and primary literature sources are items produced by all levels of academics, industry publications and research as well as government publications (Saunders, et al., 2016). The research methodology for this study is conducted through a mixed methods approach. This approach and the triangulation of qualitative and quantitative data enabled the researcher to gain a better understanding of different aspects and opinions on the research topic.

The qualitative approach to research is generally not concerned with numbers, but rather with information in the form of words conveyed orally or in writing (Veal, 2018). This approach made it possible to gather a large amount of data of selected individuals on their behaviour, attitudes and opinions on the topic of coastal erosion in Ireland. Part of the qualitative approach are interviews, which are one of the most widely used methods for gaining qualitative information and likewise served as an appropriate tool in this study. This study focused on semi-structured interview, a guided conversation between the researcher and somebody who is considered an expert in the field of study or industry bringing beneficial insights, represented in this study by the adventure tourism business owners.

Quantitative methods on the other hand generally highlight the statistical, or numerical analysis of data collected through polls, questionnaires, and surveys (Muijs, 2010). This was greatly beneficial to the researcher in this study by using the most common form of quantitative research questionnaires. This enabled the researcher to collect standardised and comparable information from several people in the researched field, in this case both adventure tourist providers and tourists availing of their services. Questionnaires can be used to collect both quantitative and qualitative data, although one will not be able to get the level of detail in

qualitative responses to a questionnaire that the researcher could in an interview, this being the reason as to why the researcher carried out both interviews and questionnaire for the adventure tourism businesses. The questionnaires for business providers were sent out through email and the interviews conducted over the phone in a semi-structured interview style conversation. The questions included open and closed questions, multiple choice questions and scaling questions, to give participants the opportunity to elaborate their answers in different ways. One questionnaire was sent out to adventure tourism business providers in Ireland as the primary research demographic, while a second questionnaire was distributed to tourists who engage in adventure activities along Irish coastal areas in order to establish their differences and similarities in opinions towards coastal usage, erosion and protection. The emails and the introduction text to the questionnaires contained information for participants and informed consent.

The following sections in this chapter discuss the methodological tactics used in this research. It outlines the inclusion criteria, as well as the research strategy and design. Further, the research philosophy, methods and sampling techniques used as well as the research ethics, data analysing process and any limitations that this research was subject to.

3.2 Research Strategy and Design

This study took the form of new research in Ireland. The researcher had previously studied the effects of equine tourism activities on the dune landscape and this research served as an expansion of the topic. The effects of adventure tourism activities on coastal landscapes but also the emphasis on the attitudes and opinions of activity providers, as well as tourists were important to explore. Further, seeing as the coastal erosion research is limited on an Irish scale, and when conducted mostly linked to natural erosion and flooding, it was important to expand research in this area. Therefore, the research approach held with respect to this dissertation was an applied one, carried out through mixed methods to obtain data, which is needed to help solve the real-life problem of erosion.

The research paradigm followed in this thesis in a quantitative context is a positivist one, while the qualitative tools are based on ontological assumptions and humanistic approaches to give the needed depth into this topic. This descriptive research includes quantitative and qualitative methods. The quantitative data is represented through anonymous questionnaires to gather a

larger amount of data in order for it being generalisable. These were carried out through an online platform which enabled the researcher to evaluate the data quicker and reach the entire country's population of adventure tourism providers, who fulfilled the inclusion criteria. Further depth into the topic was gained through more detailed interviews with providers. The questionnaire data obtained from the tourists on the topic of coastal erosion was analysed in the same way. The researcher applied a non-probability sampling method as it was the most appropriate for this qualitative research. This method was ideally laid out to develop an understanding of this small and relatively under-researched topic (McCombes, 2019). The researcher ensured the research quality in the findings chapter through undertaking a resourceful literature review on the topic and choosing appropriate methods to evaluate the findings accordingly.

Furthermore, the researcher ensured to go about the research process in an ethical manner and sought approval from the Ethics Committee of IT Sligo, which was awarded for this research. It was also ensured the researcher had an objective view when analysing information from both the tourist providers and the tourist data sources.

3.3 Research Philosophy

Every research methodology should contain a suitable research philosophy. Guba and Lincoln, (1982) established the philosophical paradigm in a research paper is of highest importance, as it is the "*basic belief system that guides the investigation*". Collier (1994, p. 17) implied "*...the alternative to philosophy is not no philosophy, but bad philosophy*". This statement insinuates that when researchers have no set philosophy, they still go about life according to scientific, political, or other beliefs (Dobson, 2002). Therefore, it is best to have a set philosophical methodology approach rather than applying the most convenient approaches at random. The term research philosophy refers to a system of beliefs and assumptions about the development of knowledge (Chetty, 2016). However, it is at times mistaken for simply gathering information and documenting facts (Leedy & Ormrod, 2001, p. 157). Instead, it is the process of collecting, analysing, and interpreting data in order to understand a certain phenomenon (Leedy & Ormrod, 2001, p. 157). The process and understanding of knowledge therefore depend on the researcher's assumptions based on their perspective of the world (Holden & Lynch, 2004; Saunders, Lewis, & Thornhill, 2009). All research processes are similar in the way that it is a systematic approach to define a certain topic or fulfil a set objective through managing the

existing and new data and communicating the findings according to existing guidelines and coding mechanisms. These guidelines give researchers an indication of what to focus on in the research, how to execute the research (Williams, 2007). While researchers may have the same research aims the research process can vary regarding everyone's individual values, beliefs and methods. Plato believed that popular opinions edge people towards the wrong values. If everyone would strengthen their self-knowledge, they would not get pulled around by feelings (Maltoni, 2015). Yet research has shown that most people when presented with certain "facts" had similar opinions. However, interpretations varied across opinionated groups in different ways (Gaines, et al., 2007). Richard Shusterman believes "*Philosophy displays a variety of recognized literary genres: essays, dialogues, poems, memoirs, letters, journals, commentaries, investigations...*" (Hagberg & Jost, 2015, p. 7). This again highlights the vast amount of literature linked to philosophy, much like Wojciech (2013) highlighted in the previous paragraph. Hagberg & Jost (2015) further assumed philosophy may have originated as a way for humans to enjoy themselves through a literary outlet, while at the same time through their thinking leading them to explore and criticise certain topics.

This thesis focuses on factual peer reviewed journals, topical book publications and government reports, as these form the best base for an accurate research argument. This argument demonstrates the necessary changes that will have to occur to save Irish coastlines to further facilitate a high-quality adventure tourism experience. However, since the opinions of the tourists, but more so the tourism providers, are a crucial part in how to enable those preservative measures, this research contains a portion which is based on dialogs in the form of interviews. As established, these can be object to the researcher's interpretation, however the conversations and interviews were coded based on themes and therefore limit the researcher's ability to interpret them too abstractly.

3.3.1 Philosophical Ideas and Approaches

There are several philosophical approaches to suit different researchers aims, guidelines, morals and field of research. From Ontologies "study of being", and the process of humans acquiring knowledge, to Epistemology exploring all aspects of the validity, scope and methods of said acquired knowledge. Furthermore, Axiology identifying the value of the research, findings and research conduct. As with any approaches all paradigms have their merits and shortcomings, discussed in the following paragraphs to support the researcher's choice of approach. Someone's ontological assumptions determine their worldviews and the way they study a

research object (Wojciech, 2013). Philosophy not only affects the way one views and applies certain ethics, but how people understand the environment. Numerous researchers argued the ongoing global environmental crisis for example, is more than a crisis of legislation and economics but expands into philosophy (Stott 1998; Demeritt 2006; Stables 2010). The climate change crisis includes biodiversity loss and many other issues, due to the way humanity uses their tools to combat these problems (Hall, 2012). These tools do not only consist of measures and legislation but also the tools used for “*thinking, concepts and theories themselves*” (Holden & Fennell, 2012). Applied to this research, coastal erosion is proven to be a scientific fact. Consequently, this research focuses on exploring adventure tourism provider’s attitudes and willingness toward trying to eliminate or reduce erosion. This includes their methods to acquire knowledge about coastal erosion regarding to their respective locations and activities. Based on this knowledge, parties may be more or less likely to resist environmental protective change concerning their business operations.

Epistemology deals with assumptions about knowledge, what creates acceptable and legitimate knowledge, and how people can communicate knowledge to others (Burrell & Gareth, 1985). Epistemic stances include, pragmatic, positivistic, operationalist, referential, instrumental, empiricist, rationalist and realist approaches. Each of these stances represent a different form of knowledge created through research, how it is gathered and presented (Tennis, 2008). Discussions about knowledge creation have changed over the past years. Conventionally, research conducted to create knowledge or brought humanity closer to the “truth” was considered valid, reliable and generalisable. However, this only applied when the process of gathering this knowledge adhered to research standards already approved by evidential scientists’ methods (Belhassen & Caton, 2009). Later, foundations of knowledge were questioned and modified by the philosophical ideas brought on by interpretations of theorists such as Weber, Durkheim, and Marx, famous for their “alternative paradigms” (Belhassen & Caton, 2009). Their approaches included interpretivism (Schwandt, 2000, Gergen & Gergen, 2003, Bochner, 2005), pragmatism (Noddings 2005), feminism (Oleson 2005), critical theory (Kincheloe & McLaren, 2002, Ladson-Billings & Donnor, 2005), and deliberative democratic theory (Howe, 2003). All argue knowledge is a collectively constructed social product, created by a community of researchers restricted by certain norms and traditions. Many researchers established the roots of knowledge creation in tourism are hard to pin point. Therefore, the impact of tourism research on other literature is difficult to evaluate (Graburn & Jafari, 1991; Tribe, 1997; Leiper, 2000; Xiao & Smith, 2006; Harrison, 2007), leading to the belief it is not

possible to determine a single answer to the question of what founds knowledge creation and development in tourism. Nevertheless, Belhassen & Caton (2009) highlight the importance to further pursue the understandings of how knowledge unfolds, as epistemic studies about tourism have important political implications (Belhassen & Caton, 2009). Ontology may seem abstract at first, the relevance of epistemology is often more understandable. The complexity of tourism means different types of knowledge such as numerical, textual or visual data, different interpretations, as well as narratives and stories can be studied. All of those can be considered legitimate knowledge. It is up to the researcher which ones to focus on, and therefore different epistemology strategies may be applied in the research. In order to present robust findings in a research project, the different assumptions emerging from all available epistemological data sources need to be applied appropriately and in cohesion with the chosen methods. If a researcher has the positivist assumption objective facts give the best overview for scientific evidence, they are more likely to apply quantitative research methods. While their findings can be considered objective and generalisable, they often lack specific insight and depth into a topic. This especially applies in research fields with a need for change which can only come from different views of knowledge (Wojciech, 2013), making it difficult to gather new “ground breaking” data in fields such as tourism.

This leads researchers to axiology referring to the role of values and ethics within the research process (Biedenbach, 2016), establishing questions on how researchers deal with both their own values and those of the research participants. This is especially applicable in this study, while the researcher had predetermined knowledge about sustainability in tourism, it should not impact values and stances on the topic when dealing with the studied groups. However, through this pre-existing work experience in the industry the researcher knew how important said businesses are, not only for the tourism offering in Ireland, but for the family run enterprises who spent years to get their adventure tourism product to the point that it is at today. Considering the above this research portrays the providers views on impacts of erosion on their business, instead of solely focusing on the actual change of landscape due to coastal erosion processes, already confirmed through factual research. The same applied to the data obtained through the tourists representing the customers to the above businesses. People generally have taken part in coastal activities before, nevertheless their individual judgement on important aspects, obtained through the new data, was not predefined but guided by the researcher’s philosophy and paradigms.

3.3.2 Research Philosophies within the Research Process

The research philosophy reflects the writer's assumptions, building the foundation for the research strategy and process. Research philosophy traditionally has many branches depending on disciplines, within the scope of business and social science studies, there are four main research philosophies.

The pragmatic research philosophy only considers concepts as relevant if they support action intervention and constructive knowledge (Goldkuhl, 2012). Pragmatics identify there may be multiple realities suggesting that there is not one singular view point. Every individual based on their personal and professional experiences, here within the tourism industry, interpret the world in many different ways. Therefore, one point of view will not give the researcher the depth required in their data collection (Saunders, et al., 2012). Pragmatism is a problem-oriented philosophy, believing the best research methods are those helping to answer the research question most effectively. In social science research this often involves a mix of qualitative and quantitative methods to evaluate different aspects of a problem. Sometimes there is a need for researchers to adapt their philosophical assumptions as time goes on. The research question in a pragmatic research philosophy is seen to be the most important, as it determines the research philosophy structure. Pragmatists can combine both positivist and interpretivist positions according to the scope and nature of the research question (Saunders, et al., 2009). This can be used to observe how the quality of a product and various advertising strategies lead to increased satisfaction, applying a pragmatic approach, mixed methods would be appropriate, including both quantitative and qualitative studies (Chetty, 2016). This thesis has some similarities to the example above, as the quality of the adventure tourism product provided will change due to the environment long-term. Therefore, a multitude of research tools needed to be established, to portray a robust and factual representation of the studied adventure industry participants' attitudes.

A positivist approach, based on the idea science is the only way to learn about the truth, adapts a clear quantitative approach to research (Crossan, 2003). However, a post-positivist approach can be used for a qualitative perspective. Studies with a positivist approach are based only on facts and consider the world to be external and objective (Wilson, 2010). While this approach is applicable for the questionnaire results in this study, both sets of data coded according to common themes, the conclusion was not solely based on those alone. In positivist studies research findings are usually observable and quantifiable (Collins, 2010), applying to the data

generated through the questionnaire responses, yet this study aimed to explore personal attitudes. These attitudes unlike other positivist methodology approaches, highly structured and involving statistical tools to accurately measure quantitative outcomes (Chetty, 2016), a small amount of quantitative data displayed non quantifiable results, which due to their content and expressiveness were still of high value.

The realism research philosophy believes objects have an independent existence from human minds. Realism can be divided into two groups: direct and critical. Direct realism represents the world through personal human senses, what people see is what they understand (Saunders, et al., 2012). Direct realists emphasise changing the social world within the chosen participants life, therefore, use participant observation to gather data (Chetty, 2016). Critical realism argues human opinions on feelings and impressions of the world can be deceptive and tend to not represent the real world (Novikov & Novikov, 2013). Most researchers agree critical realism is more popular and appropriate than direct realist approach, as it presents a fuller picture while studying phenomena (Saunders, et al., 2009). Critical realists use qualitative methods like case studies and interviews (Sobh & Perry, 2006), aiming to collect, analyse, and interpret people's experiences, opinions and beliefs. Critical realism has a small role in this research, exploring tourism providers` attitudes towards coastal erosion and the changes it may bring for their business. However, the data collected aims to provide statistics of said attitudes and resilience towards necessary change, in order to provide better coastal usage guidelines. The second data set, based on tourists and their experiences along Irish coastal areas while engaging in adventure tourism activities, were critically evaluated based on their experiences, to create a more comprehensive picture.

When compared to the interpretivist approach, often explored by researchers aiming to analyse human emotions and social roles, direct realism philosophy likewise sees social phenomena being idea reliant and therefore need interpretivism to understand those concepts. A disadvantage of interpretivism is it leaving room for bias on the researcher`s part and some data not being generalisable due to the impact of personal values. The researcher`s prior explorations of sustainable coastal tourism practices could unconsciously affect the questions asked in the interviews. This philosophy is a qualitative based approach applied to gain a meaningful outcome as a research result (Rowlands, 2005). While every researcher may have some sort of bias, this thesis refrains from the approach due to it not being the most appropriate for this particular tourism topic.

The consensus in most literature is that there is no best research philosophy for business and social science-based research (Tsoukas & Knudsen, 2003). Social research traditionally was influenced by postpositivist philosophy, with the research goal being a systematic search for a scientific truth (Belhassen & Caton, 2009). Often the appropriate philosophy for subjects other than natural sciences is a positivist and interpretivist approach, along with a realist reflection. This research used a pragmatic and positivist approach with critical realism, due to the researcher's opinion and focal point evolving through the new emerging knowledge over time. These approaches were useful to gather common themes and display differences in attitudes critically and accurately. The quantitative research tools used come from a positivist paradigm, while the qualitative tools stem from the ontological assumptions and humanistic approaches to give the needed depth into this topic.

3.4 Research Methods

Every piece of research applies methods and philosophies according to its research needs. The question whether qualitative or quantitative data is best to explore a topic, or maybe a mixed method is chosen depends on the desires for data specifics of each researcher. Merits and drawbacks are discussed and applied to this thesis in the following paragraphs.

Quantitative research approaches and methods originate from the positivist paradigm. The positivist paradigm's main value is based on "*rationality, objectivity, prediction and control*" (Burns & Grove, 2006, p. 15). Researchers believe that "*all human behaviour is objective, purposeful, and measurable*" (Brink & Wood, 2001, p. 57). There are several quantitative research methods. In the correlational research method, the research looks at the differences between the two characteristics of a study group. According to Bold (2001) the purpose of this type of study is to establish whether two or more variables are related to each other. This aspect is visible in the comparison of the data gained from the adventure tourism providers and another data set from the tourist's perspective on coastal erosion in relation to adventure activities. Creswell (2002) also defined correlation as a statistical test to establish patterns for two variables (Williams, 2007). While there are two types of development design, cross-sectional and longitudinal, only cross-sectional study which compares two different groups within the same confinements (Leedy & Ormrod, 2001, p. 157) was partly applicable. Both groups had the data parameters to focus on coastal erosion in relation to adventure tourism activities, however from two different viewpoints.

Observational study method, where the researcher observes a particular aspect of human behaviour (Williams, 2007), would have been a viable source of data collection, yet due to the outlined limitations under section 3.7 not practicable. The advantages of questionnaires identified them as a useful tool, due to their chance of fast speed data collection when used in conjunction with data analysis software. The data in questionnaires can be anonymous and allows the researcher to generalise findings. In the research process anonymity in many cases leads to greater honesty when answering questions, and therefore makes the data valuable (Stewart-Keene, 2019). Under these circumstances the participants are merely a code or number, and the researcher is not able to link their answers back to the individual. Resulting from the above merits, questionnaires were applied as the quantitative research tool.

Qualitative research can often be associated with interpretivism. Generally, it is believed that a qualitative researcher must either adopt an interpretive approach that has an interesting aim of research and therefore is worth pursuing, or a pragmatist approach aiming to gather constructive knowledge to aid in future actions (Goldkuhl, 2012), the purpose of this research is to understand attitudes and approaches regarding the threat of coastal erosion and therefore takes the second approach, aiming to provide information for future actions. The philosophy of qualitative research is “*interpretive, humanistic, and naturalistic*” (Creswell, 1994, p. 54). The ontological assumption is that there is no single reality, but it includes multiple realities for any phenomenon (Speziale & Carpenter, 2003). There are several different methods to conduct qualitative research; however, Leedy and Ormrod (2001) as well as Creswell (1994) recommend a selection of five specific approaches similar in data collection techniques, only differentiated by the purpose of the study. In an ethnographic approach the researcher studies in the target participants’ environment to understand their goals, cultures, motivations, and themes that emerge. Ethnography originated in cultural anthropology where researchers immerse themselves within a culture, often for long periods of time (Dahles, 2015). This method is best suited if the researcher wants to gather knowledge through their experience in the environment and not by conducting structured interviews. While observing adventure tourism businesses during their operations could have been a different angle to the research, it was not a viable one due to lack of time and resources. One concern against this method was that if a researcher would observe business providers in their natural environment, they may adapt operation practices while being observed. Although this is a good approach to study specific aspects, it is not very generalisable and time consuming. This research was object to the experiences of participants however, the outcomes and approaches can vary based on

location, business size and therefore not generalisable meaning ethnography was not ideally suited. Researchers must also be aware of ethical concerns connected to this practice and ignore own experiences prior to their research, this may be a hindrance to accurate data collection (Huddle, 2018). Narrative research is positioned within the reformist research community (Polkinghorne, 2007) and is conducted through in-depth interviews, as well as studying documents that have a similar story, while examining them for common themes. Every individual story usually shows a larger life influence that shaped it (Sauro, 2015), this often can apply to adventure tourism providers path of business development. However, due to the nature of this research, where individual insights are important, but the aim was to explore overall attitudes, this was also not a viable option. Similarly, to the phenomenological method describing events, activities, or phenomenon. The purpose of this study and its in-depth interviews is “*to understand an experience from the participants point of view*” (Leedy & Ormrod, 2001, p. 157), through common themes. Based on those it is possible to gain suitable data collection. The difficulty with this approach however can be to establish the reliability and validity, sometimes making it difficult to present key findings (Opdenakker, 2006), data can also not be generalised in a way traditional academics would consider it to be useful.

The case study approach as stated by Leedy and Ormrod (2001, p. 149) attempts to learn “*more about a little known or poorly understood situation*”. It involves gaining a deep understanding through multiple types of data sources (Sauro, 2015). This approach makes it possible to gather a large amount of data of selected individuals on their behaviour, attitudes and opinions which were highly applicable for this research topic. Subsequently interviews are included in this approach, which are one of the most widely used methods for gaining qualitative information and were an appropriate tool to explore the attitudes of adventure tourism providers and tourist for this research. Zinkmund (2003) however, outlines one of the most considerable limitations, the information collection process takes much longer than other research options, and they typically relate to single projects so the results mostly cannot be generalised. After closely evaluating the benefits and drawback from each research method, interviews, more specifically semi-structured interviews, were chosen as the qualitative method tool for the data collection of the adventure tourism providers. The preparation of the questions with the assurance that each participant was asked the same identical set of questions, gave the researcher a uniform outline, not only while conducting the interview, but also while analysing the answerers. This type of interview guideline gives a structure, while remaining flexible, and lets participants express opinions that may not have come to light in a strictly structured interview.

3.5 Research Process, Data Analysis, and Inclusion Criteria

As a means of achieving the specified data collection, qualitative research was conducted through interviews with adventure tourism business providers from various disciplines. This was valuable for the study as it allowed the researcher to establish basic differences and similarities of business owners in the industry. Quantitative data was collected through questionnaires surveying business providers and tourists.

Briefly outlining the natural coastal assets included in this research included; Dunes, the frontal seaside (sand structures), the Grassland surrounding the beaches including but not limited to marram grass, salt marshes and agricultural livestock grass feed. Further, all Cliffs used for adventure tourism offerings such as karst limestone plateau, structures such as the Burren and Cliffs of Moher, tightly packed basalt columns, as well as flagstone structures such as the Giant's Causeway.

Coastal adventure tourism activities included were subject to their activities being all-natural resource-based tourism offerings and any tourism offering that combines physical activity or adventure, cultural exchange or interaction and engagement with nature. Nature-based tourism as per the World-Wide Fund for Nature (2015) based classification, is any type of tourism that relies on experiences directly related to natural attractions, adventure tourism, wildlife tourism and nature retreats. Therefore, this research also included the activities identified by Fáilte Ireland as "*soft adventure*", including but not limited to all activities along coastal areas inclusive of water sports, archaeology, nature observation, cycling, hiking and horse riding (Fáilte Ireland, 2013). Furthermore, including any tourism-based visitor centres directly located along coastal areas, catering as a basis for any of the above-named adventure activities.

3.5.1 Interviews with Activity Providers

The inclusion criteria for business providers for the questionnaires and interviews in this study were as follows. Coastal adventure tourism providers focused on businesses located in the Republic of Ireland. The business providers for the interviews were selected based on their knowledge, and expertise regarding the research topic, non-random, and conscious sampling. All coastal adventure tourism providers had sufficient and relevant work experience in the field of tourism along the coast. They had to be an established business with a minimum of one year or two summer seasons experience and had to be located along the coast offering one or more

tourism products taking place partially and/or fully on the beach, dunes, or cliff landscape. Out of the entire adventure tourism population in Ireland, a total of 10 business providers were selected for detailed interviews, on a basis which considered demographic areas and diversity in activities provided. Interviews were held during late June/early July 2020 with the owners of the adventure tourism activity businesses. The researcher contacted the participants initially and explained the nature and the scope of the study and briefly outlined the content of the interview questions. The interviews took place over the phone due to Covid-19 restrictions and lasted approximately 25-55 minutes depending on the participants insight. During the interviews notes were taken down and recorded in order to help the researcher to analyse the gathered data. During the interview, participants were free to express their views and own opinions on all matters. Before starting the interview, the participants were informed about their consent and anonymity. Then the informed consent form was read to them by the researcher to have the full context of it. Upon them agreeing to the content of the consent form (appendices H and I) the researcher made a note on the informed consent sheet. For every interview the relevant documentation was saved, complying with academic research guidelines.

For the ten interviews conducted a script of questions for the interviewee was written up, on which the respective answers of participants were recorded. The interview script consisted of 19 of the original 25 questions used for the business providers surveys. The questions were adapted in a way to serve the researcher with a semi-structured interview basis. Questions were asked in different formats including open, closed, and complex questions, this ensures participants do not stray too far from open ended questions (MacKay & Weinstein, 1998) and gives the researcher more ways to interpret the data. The questions were set up in a semi-structured way and to build on one another, to ensure ease of collecting answerers during the interview. Immediately after the phone interview ended, notes taken were documented to ensure a cohesive and accurate written record for the following data analysis. The researcher had sufficient time to record the responses in a detailed manner, further the note taking was simplified during the interview through the interview structure sheet, outlining each question and giving sufficient space to log as much information, notes and direct quotes in order to keep all notes clear and easy to transcribe. The interviews were not recorded due to the researcher's lack of equipment, facilities working from home due to Covid-19 restrictions, and due to this having to carry out the interviews over the phone. Further, due to privacy concerns voiced by interview participants beforehand, as well as fear of repercussions for the participants and their respective businesses. The researcher wanted to ensure that participant felt safe and comfortable

during the interview and could speak freely about any opinions and concerns. While not recording the interviews had the disadvantage of not having conversations stored word by word, the extensive and detailed notes taken during the interview, kindly facilitated timewise by all interview participants, the researcher was able to produce an accurate written record straight after each interview.

There are several methods to analyse gathered data. For the qualitative data analysis this study used content analysis for the interviews. The interview responses were coded through the accurate written records of the interview on an open coding basis to identify reoccurring words and phrases, followed by axial coding, which connects the relationships between the themes that emerged and with that highlighting the importance and validity of statements (Saldana, 2009). Examples of the open coding technique for the interviews are attached under appendix K.

3.5.2 Activity Provider Surveys

The quantitative research to support a broader understanding of what businesses attitudes and approaches towards coastal erosion are, were conducted through questionnaires. The questionnaire was set up through the online platform “google forms”. The survey was distributed to the remaining population of adventure tourism providers (198 businesses) along Irish coasts through their business email addresses and consisted of 25 questions constructed to build on each other for an easy-to-follow logical progression for the participants. While purposively selected and invited to partake in the survey based on their tourism businesses, sampling was self-selected, as they had no obligation to fill in the questionnaire and did so on a voluntary basis. The business providers selected for the interviews were not included in the survey, because the researcher felt that those who had already engaged in the interview may have some bias compared to others in completing the survey after their interview. The researcher was satisfied that their opinions had been captured in the interview data.

The questionnaire link was sent out including a detailed introduction into the research via email on the 10/07/2020 (see appendix J). The closing date for responses was set as the 15/10/2020, this gave sufficient time for businesses to respond, while also being acceptable for the researcher to then have enough time to evaluate all responses. The response rate of the adventure activity providers and businesses questionnaires was 32% (n=63). The questionnaires for both business providers and tourist were based on the same principles. The quantitative data

for both questionnaires were generated through google forms by providing generated tables, charts and graphs, prepared to be interpreted by the researcher. This highlighted frequency of answers, while also displaying individual responses, where requested, in any open-ended questions. The open-ended survey responses were coded on the same basis as the interviews, by frequency of keywords, phrases, and themes (open coding sample attached under appendix L).

3.5.3 Tourist Surveys

Tourists qualifying for inclusion were based on anyone who has ever taken part in an adventure tourism activity along the Irish coast and/or who lives in a coastal area and uses the natural coastline recreationally. Participants were informed through the introduction text of the questionnaire that the age for participation had to be 18 years or older to participate, as well as information on their consent and anonymity of the data collection.

The questionnaire designed for the tourists was also designed and set up through google forms and distributed in eight Irish tourism forums, twenty-three social media groups based on Irish tourism, the Wild Atlantic Way and adventure tourism in Ireland, as well as nine further externally run Irish tourism social media sites, which were asked to publish the questionnaire link to their followers. The questionnaire was distributed in said forums, groups, and sites (see detailed list in appendix G) allowing three weeks to gather the data. This represented a sufficient time frame, as Ireland was still in a Level-5 lockdown and many people were spending more time online. The researcher collected 247 responses over this time.

Much like the business provider survey, the tourist questionnaire included open and closed-ended questions, multiple choice and rating questions to give the participant engaging options, while maximising the researcher's ability to explore different opinions. The questionnaire had 15 questions designed to build on one another and phrased to enable the researcher to obtain the best possible data. The coding of the data through online generated charts and graphs, prepared by google forms was undertaken the same way as the business provider surveys, as well as the coding of open-ended survey responses (open coding sample attached under appendix L).

The detailed structures of the interviews and questionnaire mentioned in the above sections, as well as a list of contacted adventure tourism businesses can be found in the attached appendices C, D, E and F.

3.6 Research Limitations and Ethical Consideration

While this study was not subject to any major ethical issues, they can arise in every study. All interview participants confirmed their consent over the phone before the phone interviews were conducted. The researcher read out the consent form for the participants, for them to be fully aware of their consent. Both questionnaires included information about the consent and the requirement of being 18 years or older in order to participate in this study in an introduction text at the top of the questionnaire. This introduction text included the objectives of the study, while the participants were reassured that their answers will be treated as confidential, anonymous and used only for academic purposes and only for the purposes of this particular research. It further had the aim to reassure participants that their participation in the research is voluntary and that they can withdraw from it at any point and for any reason. Participants were not harmed or abused, either physically or psychologically, during the research and the researcher followed the ethical procedures of the institute.

As with every study, this research had certain limitations. The biggest limitations included the researcher's experience due to the Coronavirus (COVID-19). The Irish government had imposed a strict lockdown with steps to reopen, however most tourism businesses did not reopen until the end of June/July 2020, which was limiting in getting responses to set up interviews. After the short summer season, the country went back into a lockdown in October further limiting abilities to engage with business providers and tourists. The researcher's intention was to conduct in person interviews, as these are more personal and when carried out in locations the providers operate in, give the researcher a more comprehensive overview of operational environments. Research participants also tend to be more expressive when spoken to in person, however due to the pandemic all interviews had to be carried out over the phone. Unfortunately, some of the business identified to be part of the researched population had to close down their business permanently due to the pandemic, as discovered by the researcher when sending out the online questionnaires and 18 businesses email contacts were no longer available and on further investigation it turned out the businesses in question were closed for good. This was limiting in the sense that the survey population size was reduced.

Additional limitations included that some providers saw this research as a danger to their business. Even though they were assured that this research is not meant to harm their business, but to help sustain it for the future. While all participants were assured no negative consequences would emerge for their business operations based on this thesis and responses kept anonymous, the researcher experienced some hesitation from business owners.

Furthermore, the researcher had set out to survey tourists undertaking adventure tourism activities along Irish coastal locations in person, however due to the above outlined Covid-19 restrictions this was not possible, and an online survey was conducted instead. Finally, the limited amount of secondary research sources was an obstacle. Some literature on coastal erosion statistics and adventure tourism were outdated, while more recent research mostly focuses on specific locations rather than an Ireland wide approach or data. There is a significant gap in the existing literature on this topic in Ireland at present.

3.7 Conclusion

This chapter discussed the merits and limitations of various research methods and philosophies. The inclusion criteria for coastal adventure tourism providers, tourists, activities and landscapes outlined, and sampling based on non-probability methods being the most appropriate for this qualitative research. It was identified that the quantitative research tools used in this study come from a positivist paradigm, while the qualitative tools stem from the ontological assumptions and humanistic approaches to give the needed depth into this topic. Due to the limited amount of literature in this field as previously highlighted, it was established that there was a need for both qualitative and quantitative research data. After closely examining all available research methods including, interviews, questionnaires, observation and broader document analysis only two research tools were fitting for this research. Thus, semi-structured interviews with open and complex questions were chosen as the qualitative research method. Further, to gain quantitative data questionnaires were distributed to all available adventure tourism providers, qualified through the discussed inclusion criteria, across Ireland to get an even better insight into this topic. A second data set was obtained through a questionnaire distributed to people who previously engaged in coastal adventure activities in Ireland, to gain a further understanding of the tourist's views in addition to the tourism providers attitudes. To understand the data, it was analysed through open and axial coding to identify themes in order to link and compare them, as well as to pre-existing literature where applicable.

As with every study, this thesis was subject to certain limiting outside influences during the research process, including the Coronavirus pandemic. Ethical issues did not arise in this study but were sufficiently considered.

4.0 Chapter Four - Findings and Discussion

4.1 Introduction

This chapter summarises the findings of the primary research conducted through qualitative and quantitative research methods. It portrays the explored attitudes and approaches to sustainable coastal adventure tourism by adventure tourism providers and tourists. The findings also include any new concerns that emerged through the research by both coastal tourism activity providers and people who engaged in coastal activities. The questionnaire results were generated and visualised in graphics and charts using the online software provided through google forms, as this was the software used to conduct the questionnaires. All phone interview accurate written records were coded according to recurring themes and patterns. These qualitative and quantitative findings were discussed and linked in relation to the existing literature, as well as offering room for recommendations resulting from this study, which can be found in chapter 5.

This chapter firstly presents the profiles of the participants, moving into the analysis and discussion of the data collected through the qualitative and quantitative research tools, by presenting dominant themes. The graphs and statistics for this chapter can be found under appendices A and B.

4.2 Data Analysis Introduction

The qualitative data analysis was carried out on a thematic bases by identifying, analysing and interpreting reoccurring themes within the obtained data. The quantitative analysis was based on electronically produced graphs and charts, to understand the gathered data and link it to the participants' behaviours. Ensuring the participants anonymity was of importance in this study, as some business providers tend to be willing to speak about issues, however they do tend to be more honest and open if they know they will not be identifiable through the research study. Therefore, during both the interviews and the questionnaires anonymity was assured to all participants. In order to ensure this, participants were identified by their participant number:

Table 1 Interviewees - Profile of Participants

Participant	Coastal area used for offering
Participant 1	Sea and Cliff based adventure tourism provider
Participant 2	All coastal aspects-based adventure tourism provider
Participant 3	Sea based adventure tourism provider
Participant 4	Beach and Dune based adventure tourism provider
Participant 5	Beach based adventure tourism provider
Participant 6	Beach, Sea, Cliff and Lake based adventure tourism provider
Participant 7	Beach and Dune based adventure tourism provider
Participant 8	Beach and Sea based adventure tourism provider
Participant 9	Coastal based adventure tourism provider
Participant 10	Clifftop based adventure tourism provider

The participants had an average of eleven and a half years of experience in the adventure tourism industry. They were represented by an array of different activities including hill walking, surfing, kayaking, coasteering, stand up paddle boarding, and cliff jumping, and were located in different geographical locations in the Republic of Ireland.

4.2.1 Profile of Adventure Tourism Providers Survey Participants

Over 44% of participants had more than ten years of experience working in the tourism sector, while a further 27% had 5-9 years' experience. Therefore, the majority of participants had appropriate experience, not only in their respective field, but were also capable to identify coastal changes which occurred over the past few years. Four counties represented 46% percent of the overall response rate, suggesting a greater interest on the topic in these locations (Cork, Donegal, Mayo, Sligo). The top three activity providers included walking/hiking (36,5%), Kayaking (27%) and Nature Observation, as well as Surfing (both with 19%).

The coastal areas most used by the participants represented an almost even mixture of locations, identifying that these activities do in fact use all aspects of the coastal landscape. The beach was used by 22.2% for all their activity offering, 38.1% use it for some of the offering with the remaining 39.7% do not use any of the sand structures on the beach. The dunes and surrounding grasslands were used by 45.2% of adventure tourism providers for their activities and 41.9% of

participating business providers offer activities using the areas surrounding and the tops of sea cliffs (see appendices A and B for illustration in graph format).

Lastly, 85.7% identified that their love for nature and the outdoors was the main driver to open their respective businesses. A further 41.3% identified there was a gap in the market for their respective tourism offering/activity in their location. Other reasons included the desire to run their own social enterprise in the Irish tourism industry and the desire for independent income. The love for nature of business providers and with that the presumably openness to regulation that preserves the natural environment, should theoretically pave the way for an easy introduction of environmentally preserving operations in adventure businesses. However, based on the findings, outlined in the following sections 4.3.1 and 4.3.2, it seems to be not as straight forward. While the majority of providers love the environment, seemingly once it comes to investing money or time into sustainable practices one can see a clear divide in the providers who are genuine, and the ones who like the environments but perhaps not as much as they like their financial compensation.

4.2.2 Profile of the Tourist Survey Participants

The age demographic of participants was overall evenly distributed. The highest participation was evident in the age group of 45-54 years old (31.3%) closely followed by the 55-64-year-old demographic (26.8%). The ages 35 to 44 were represented by 16.7% and the 65 or above age group with 13%. The remaining 12.2% were made up of the ages 18 to 24 and 25 to 34. The most popular activities were walking/hiking, swimming, and nature observation. Closely followed by a bulk of activities, all with the same number of responses, kayaking, biking, horse riding, and sailing/boat tours. A third set of activities all represented by a close percentage amount, were surfing, rock climbing and yoga. Overall, each of these sets of activities had a mixture of soft and hard activities, as classified by the literature review, and therefore represent a good array of different grades of environmental impacts. The general consensus amongst participants is that 66% consider the possible environmental impacts when engaging in an adventure tourism activity. However, as the next section of this analysis shows, this does not apply for all activities, as participants have different perceptions of which activities are classified as “adventure”, compared to what the literature and this study classify as “adventure”. The analysis of the data of both Interviews of business providers and questionnaires of providers and tourists displayed the following five main themes.

- 1) “Involvement in Sustainable practices”, which discusses the participation and attitudes of providers and tourists regarding sustainable behaviour.
- 2) “Environmental certification, qualifications, and consumer costs”, debating the depth of sustainable involvement through investment in certifications, but also the added costs to businesses and the perception of activity pricing by tourists.
- 3) “Erosion and lack of Awareness– a widespread problem”, identifying the knowledge gap regarding sustainability and consideration for reducing impacts on the environment by the tourism industry and public.
- 4) “Local Authorities (Structural planning, fears and concerns)” highlighting other important infrastructural concerns of adventure tourism.
- 5) “Marketing and Overtourism” showing that advertising of tourism has a significant role to play in how adventure tourism is set up and communicated to the public.
- 6) “Miscellaneous” theme section, discussing topics which were not brought up often enough to be identified as a theme alone, however, were relevant enough to the topic to be included in this discussion.

4.3 Presentation of Themes

4.3.1 Involvement in Sustainable Practices

Much like the definition of sustainable tourism, with all its diverse subsection and industries, the environmental measures which can be undertaken by local authorities, businesses and the general public include an array of actions with different levels of involvement. As outlined in the literature review, there are certain companies and organisations whose focus is the preservation of the environment. However, as previously argued their business sense and monetary gain sometimes overshadow the actual environmental involvement in efforts to certify companies, therefore besides that there are a lot of other initiatives that can be taken. For example, the Leave No Trace programme does not require people to sign up, one could simply incorporate their ethics into their day to day lives, which makes it very convenient. Unfortunately, most of the actions that can be taken by the general public are limited to

collecting litter and ensuring to use dedicated walking pathways. Their ability to preserve the coastal landscape is limited to not using unmarked areas such as dunes and cliff walks at the moment.

The data obtained from the tourists and locals using Irish beaches recreationally and who partake in adventure tourism activities, displayed a split opinion on the matter. A total of 30% of participating tourists identified they do not consider the possible environmental impact of activities, following their statements with similar rationalisations to Interview participant 4 that *"If I was doing damage, I wouldn't do any activities"*. While this is a reasonable argument the literature and data show that more than 50% of the Irish population live within 15 km of the current coastline (European Commission, 2009), therefore if all these people plus seasonal tourists only were to go for a simple beach walk in a fragile area, it can very easily contribute to a high extent, never mind actual adventure activities. Popular walkways already seem to be at risk based on Business respondent 3's observation that *"Some of the cliff walk and dune path where people used to walk slipped away, it's dangerous now"* due to the entire coastal edge being uneven. Interview participant 7 stated that *"I honestly don't think we have much of an impact on the environment with our activities. We have even picked up other people's litter if we see any"*, while their participation in cleaning up litter is a great step to a cleaner environment, most participants seemed to have not made a connection between their coastal activities and coastal erosion. Tourist respondent 9 expressed that *"Unfortunately, I think in a few years our village could even be in trouble because the higher waves will take more land"*, showing that locals seem helpless in the battle against erosion.

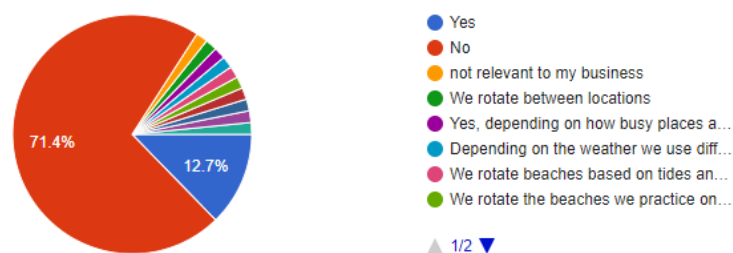
The active engagement of providers with 87% of participants supporting the conservation of their local landscape is done through beach clean ups, through involvement with the Leave no Trace or the Clean Coast program. Nevertheless, opinions seem drastically different when it comes to the question of how much responsibility adventure tourism providers have versus other parties in natural protection. While some providers are engaged as the above data shows and opinions such as interview participant 9's *"...most of the measure's providers can take don't cost money"*, seem fairly common, business respondent 7 added that there is *"...too little research on the topic overall and also on which activities impact the landscape the most and to what extent"*. While clean ups are positive involvement to keep coastal areas from being polluted, it does not address the issues around preserving coastal and beach structures. This is directly linked to the clean-up activities of tourists; it seems both members of the public and

businesses may not know of any other ways to help the coastal landscape. Unless beach clean ups are being integrated in businesses and tourist day to day activities, separately organised beach clean-up days, while environmentally useful, are simply another source of erosion for the natural environment. If people pick up litter as they go about their usual beach activities, they cause less erosion than an organised group of people who would not have been in the same location, at the same time otherwise, causing added stress to the environment.

Businesses, similarly, to the general public have limited resources to protect the coastal landscape. Interview participant 5 also commented that *“There is no real set of rules for sustainability or what to do as a provider”*. Adventure tourism providers generally operate in groups and use certain locations multiple times a day, their impact could be minimised through more awareness in their business operations. Framework suggestions for this can be found in chapter five. While several businesses displayed positive environmental engagement in their responses, there appears to be a lack of depth in the involvement similarly to the tourist’s engagement. This is symbolised, by example, through a lot of beach clean-up activities, yet this type of involvement unfortunately is only environmental preservation on a surface level. The graphic below shows that while some clean up engagement is present, 71.4% of businesses have not considered adapting their business operations to possibly limit coastal erosion.

Figure 3 Adapting Business Practices

Have you adapted your business operations due to coastal erosion? (For example, do you have to use different beach/coast access or had to change locations)



While the public clearly does not have the knowledge or means to stop coastal erosion, as this is mainly up to the government and their relevant authorities, much like in climate action every little helps.

It is important to acknowledge that natural erosion as previously outlined in the literature chapter, is on average 0.2–0.5 meter per year (Carter & Bartlett, 1990), but can rise to erosion of 0.5-2m. While human caused erosion is a smaller contributor to this, busy summer seasons,

increased mass tourism, as seen through travel companies the past few years, have been identified to weaken the coast and therefore contribute to natural erosion. Considering that all tourism campaigns for Ireland showcase the coastline as one of the highlights, advertisement has paved the way towards overtourism, which is discussed further based on the obtained data in the following theme 4.3.5 Marketing and Overtourism.

Still, 66% of the tourists identified that preservation is key and essential to the future and sustained tourism in coastal areas. One tourist respondent summarised the consensus of the above percentage of environmentally conscious participants fittingly, "*It is important to combine interests of recreational activities with environmental requirements in a sustainable way*". While the majority of tourists do agree that it is important to act responsibly and that everyone carries this responsibility, the arguments of participants who do not think they have an impact (30,7%) seem to stem from a lack of education on environmental habits, or due to a lack of public authorities measures to protect coastal landscapes, both of which are also discussed in detail in a following theme.

Overall, both the questionnaire and interview responses from adventure tourism providers identify the importance for businesses to run in an environmentally sustainable way, with 58.7% strongly agreeing to the statement. However, only 55.6% of providers have an environmental business policy they adhere to and is being enforced in daily operations. While this figure seems to be on par with the overall environmental engagement, looking at the interview responses of providers, 100% stated that they do not have an environmental policy. Interview participant 4 stated that while their business does not have an environmental policy, they are "*...highly involved in our sea front community*". This appears to be a theme amongst business providers, as everyone who did not have an environmental policy stated that they do not need one, basing this solely on their love for the environment. Although this may seem reasonable, a company tends to run more efficiently when regulations are set out in detail rather than loosely being followed and possibly forgotten over time. Furthermore, often knowing that a company has a set of environmental regulations can help the consumer make educated decisions on which provider to choose for their adventure activity. Thus, enhancing business image and with that a likely an increase in environmentally aware customers, such as the tourists who identified that coastal preservation is important to them.

One business mentioned that they report pollution incidences. This is great since unless authorities are being made aware of issues it is easily overlooked. Nevertheless, as discussed in the literature, the lack of environmental regulation enforcement by said authorities enables people to pollute and damage landscape in many areas without consequence. Another environmental concern emerged based on tourist respondent 34's comment, who also happened to work in the tourism industry previously, stating "*Often adventure tourism providers are the cause of impacts to wildlife along Irelands coast*". This is an interesting statement, as most commonly within an industry one would find businesses of the same kind sticking together and not blaming each other for problems. It seems much like in the tourist's responsibility perception regarding environmental protection, some people are really involved and conscious while others do not think their actions have any consequences. Furthermore, Interview participant 3 added that they had noticed "*Sadly only a small group of providers are truly passionate about the environment and not just in it for the money*". This is directly contradicting the earlier argument of business providers who did not need an environmental policy because they love the environment. This indicates that it would be worthwhile to implement environmental regulations through local authorities for business operations of adventure tourism providers, to ensure everyone is behaving in an environmentally conscious way, without negatively impacting on their operations or revenue. Additionally, regulations are an objective form of getting a level basis for environmental involvement. This is important as the data displayed people's opinions around the impacts of adventure tourism and the steps required to lessen these are varying and subjective. The same then can be applied to the general public to ensure everyone is aware on how to conduct themselves in coastal settings.

Other positive enforcement was displayed by business respondent 6 stating it is part of their daily business operations to tell customers who rent out equipment "*...to only stay on designated paths*". Both interview participants 5 and 10 aim to have small group sizes when booking, to minimise the impact of their activity per usage. Further only use designated pathways to reach coastal areas, cliffs and beaches needed for their offering, helping to minimise the impact as discussed by Nunes et al. (2020) previously, by concentrating footfall on the same paths. This is similar to other measures taken by participants, including the rotation of beaches, although this is mostly due to weather, tides and busyness of the localities, it is a positive measure to reduce stress on overcrowded or fragile coastal structures during invasive weather conditions or high demand based on the tourist season. Measures like these spread the impact of tourism and their activities and can help to balance a region's environmental stability (Sunlu, 2003), as

well as the host community's satisfaction, which as established in the literature by Foroni (2019) is key to have local environmental awareness and support in sustainable community developments. It has also been established that spreading tourism across more locations, most of which are less-known destinations, spreads the benefits of tourism to the whole community (OECD, 2020). Many hotels or attractions offer off-season deals to further spread the demand of tourism outside peak season, this mostly is due to financial reason to generate more revenue outside of peak times, however it also takes environmental stress away and spreads the associated impacts. The Netherlands released a document in 2019 called "*Destination Holland*" with the ambition that by 2030 every Dutch citizen will benefit from tourism. Part of this roadmap is to make the whole country attractive to visitors to reduce tourist congestions and negative environmental impacts in tourism hotspots (NBTC Holland, 2019). However, when wanting to spread the environmental impacts, while also gaining economic benefits local authorities must refrain from destroying natural landscape for new living spaces for locals just to expand tourism. As mentioned, numerous times the economic benefits should never outweigh host community satisfaction and environmental sustainability.

Lastly, business participant 10 stated in addition to their sustainable practices that "*We teach children at a local school about the environment and conservation in our own time*". This is a great initiative on their behalf since the business stated they have no financial gain of any kind from these actions. They rightfully believe that future generations are the key to make a difference in protecting the planet.

The overall emerging trend within this research analysis under this theme shows a positive attitude of businesses and tourists towards sustainable responsibility. However, it is apparent that both sides of participants either are very involved or not at all. While some see sustainability as an incentive for their businesses, as they use the environment as part of their product offering, therefore there is a conscious motivation for some to protect it, others suggest that the landscape has been there for centuries and will be available to them no matter what. This most likely stems from the fact that environmental care and sustainable practices are not a requirement. Requirements as per the Irish government only regulate accommodation and business offices not the way adventure tourism providers conduct themselves in the outdoors. Therefore, one could argue due to adventure tourism businesses requiring the environment for their offering they should at the very least have an environmental or sustainability policy in their business

plan. Consequently, the need for credible external regulation as per the reviewed literature needs to be considered. Recommendations and outlines on this matter are made in chapter five. There further seems to be a question if people who partake in all these different adventure activities should demand environmental consciousness when doing the activities. This would force businesses to adapt, however sadly only a limited amount of the population is environmentally conscious, and the rest does not care evident through, for example day to day single plastic usage and littering issues around the world. While Ireland's tourists seem to be on a good way with 66% being environmentally conscious, it is not yet enough to see a positive change in coastal landscapes.

4.3.2 Environmental Certification, Qualifications, and Consumer Costs

Certification and qualifications of businesses and professionals play a big role in most industries. On first sight it appears to be the same for tourism, however as established in the literature the hospitality sector has tight statutory regulation arrangements for the Regulation of Accommodation (Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media , 2020). While the protocol is titled "Regulation of the Tourism Sector", it only extends to the accommodation sector, excluding the rest of the tourism sector. Although tourism businesses such as adventure tourism operators are regulated through health and safety requirements and insurance policies, there are no mandatory environmental certifications for business set through the Irish Government.

Firstly, exploring the attitudes of adventure tourism businesses 58.7% of participants strongly agreed adventure tourism businesses must run in an environmentally sustainable manner, which is a rather low figure for an outdoor based activity sector. However, only half of the participants who identified this have an environmental policy as part of their business plan. Business respondent 63 of the survey stated they are currently drawing up their "*Environmental Policy and Action Plan*", as they had come to realise how important it is for their business values. Surprisingly none of the interviewed respondents had any environmental policies in their business plans, with participants 5 and 7 stating "*I don't see the need for it*" and "*Why, should I? I don't think it will add anything to my business*". Interview participant 2 used their lifelong involvement with the scouts as basis of their environmental ethics regarding their operations, yet this involvement is neither measurable in form of sustainable practices nor an indicator for environmentally conscious customers to base their decision on. Much like a further statement of business respondent 43 who is not thinking about implementing an environmental

sustainability plan, as their experience as an instructor in the adventure tourism field has taught them “...all about the environment” and “...this should be enough to operate in a sustainable and eco-friendly manner”. Again, this is not a measurable approach or a sustainability qualifying aspect for a business. It is questionable if this provider would be able to stand behind the practices of any of their potential staff, if they do not have the same background as this provider, how would they get the information on how to conduct themselves in an environmentally friendly way.

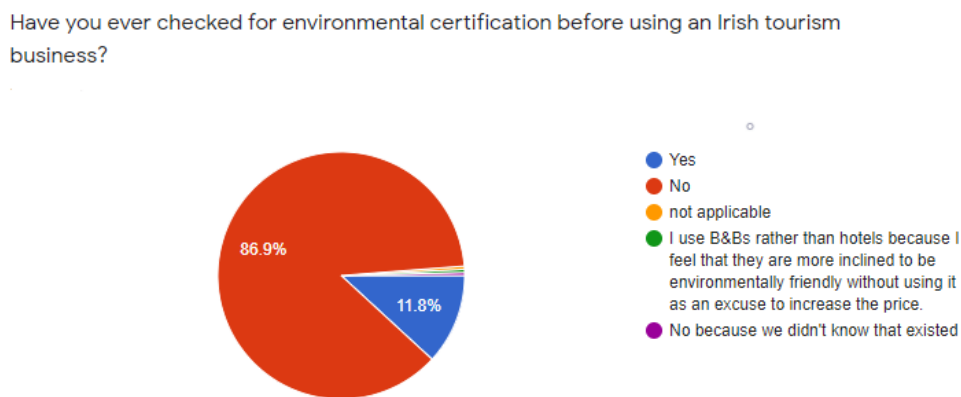
A better example of actual involvement is shown by the 46.7% of businesses who stated to be active members of programs such as “Clean Coast” or similar organisations, with a small 1.86% of these responses organising beach clean ups on their own initiative without having an active membership. Besides beach clean ups and partnering with Leave No Trace Ireland questionnaire responses included other local organisations businesses engage with. Business respondent 21 stated that in addition to practicing the Leave No Trace policy, they also “...educate people about the environment during our activities and lessons” based on their experience in the industry. Business participant 17 stated to have obtained the “*Green Innovation Award for Sustainability*” and another business respondent 46 is currently in application for the “*Tourism Ireland Sustainability Certification*”. Additionally, non-coastal protection organisation work is undertaken by one business who works with the UNESCO Dublin Bay Biosphere structure program. This is a five-year Conservation Programme for specific sites and species within certain locations. While this is not related to coastal erosion, it aims to fuel healthy development of coastal biospheres essential for coastal wildlife. The changes in sea and wildlife along coasts have been identified to be shifting by some interview participants, these are further discussed in detail in the following section 4.3.3 Erosion and Lack of Awareness– a widespread problem.

Overall, only 2 out of 10 interviewees were aware that there is environmental certification for their business. However, neither have obtained any qualification and Interview participant 5 stated that “...they are a waste of money”, with interview participant 1 claiming that “...certification only looks good on paper”. Similarly, interview participant 6 stated that an environmental certificate may enhance the customers’ viewpoint and may bring a benefit to the business, while participant 9 made it clear that in their opinion “*Customers don’t care at all*”. Two out of the ten interviewees listed many certifications that their business obtained, however none of them were environmental ones. All these certifications were related to their respective

activity and related activity sectors. This is interesting, as these businesses clearly see the value a certificate or additional qualification brings to their business, yet do not see the benefits of obtaining environmental ones.

Looking at the demand of tourists/customers for businesses to have environmental certifications or a business mission statement on environmental concerns, one third of tourists stated this would be something they look for in a business and would be willing to pay a higher price if they can be sure the adventure activity is carried out in a sustainable manner and to “...pay to offset my impact” as tourist respondent 97 stated. Yet, 86.9% of tourist respondents stated that they have never checked for certification.

Figure 4 Certification



Basing this indication on a food related study carried out in 2020 through a Eurobarometer public consultation showed that the consumer impact of sustainability claims can be significant. It revealed that consumers are willing to pay more for a product that they believe to be sustainable, with a total of 9 out of 10 consumers stating that protecting the environment was important to them when choosing products (Maher, 2021). There are no figures available for the tourism industry, however based on the responses in this study this may also be a trend for the coming years. On the other side of the argument were tourists who stated that they would like lower prices, like tourist respondent 143 “...more tourism attractions but overall, for lower prices”. This approach would not only mean businesses are making less money, therefore are able to employ less locals and not being able to reinvest in the local economy, but more importantly it would inevitably lead to higher rates of natural destruction.

Pricing for qualified businesses was a common argument by tourists, while some businesses may use certification as an excuse to drive up prices, most of the credible certification/qualification schemes do come with a deeper knowledge and understanding for

sustainable practices, consequently businesses may need to adapt practices accordingly in ways that cause them to have more expenses. This feeds into the argument, brought forward by one of the interview participants, that certification programmes often cost a lot of money. Because of that, there needs to be a system in place driven by the government to either substitute tourism businesses to be able to obtain credible environmental education and certification, without third party companies simply greenwashing businesses for their monetary gain. Then prices of adventure activities may be raised slightly to pay to offset impacts, but businesses would not be able to use the excuse of certification costs to push prices.

Others, much like tourist respondent 97, questioned “*why do environmentally sustainable holidays have to be more expensive*”. Why would they have to pick and choose what activities to do based on their environmental footprint, they should all be sustainable. This is another reason why credible mandatory certification in this area of tourism would be valuable. Overall, more than half of the tourists who partook in the questionnaire agreed that Ireland is already an incredibly expensive place for holidays. Comments such as the ones from tourist respondents 56 and 103 “*Many no longer have money for holidays in Ireland*” and “*Typical Ireland would look to rip of the customer rather than pass the increased charges to the appropriate authorities*”, are only some of the observations brought forward. Others argued that due to Covid-19 restrictions on travelling abroad, they are not able to afford any holiday because the domestic sector is so expensive. While this argument was mostly related to accommodation cost, one participant highlighted, activities are often pricey because many do not offer family tickets/discounts. However, Covid-19 has made multiple participants “*...much more mindful...*” of holidaying at home and its environmental benefits by not using air travel or using B&Bs rather than hotel chains, as tourists feel those are more inclined to be environmentally friendly, without using it as an excuse to increase the price.

While all the above efforts of business owners are honourable and most likely do come from a genuine concern for the environment, as discussed in the literature review, valid and evidence-based certification and the clarification of environmental policies is lacking and would be worth making mandatory. Trustworthy certification is only possible if it is overseen by authorities. Making a change in the industry and legislation for all other tourism areas would help businesses display their environmental efforts and helps customers choose according to sustainability if relevant to them. Certification would be a valuable return on investment for businesses, as the majority of businesses identified by having additional industry specific

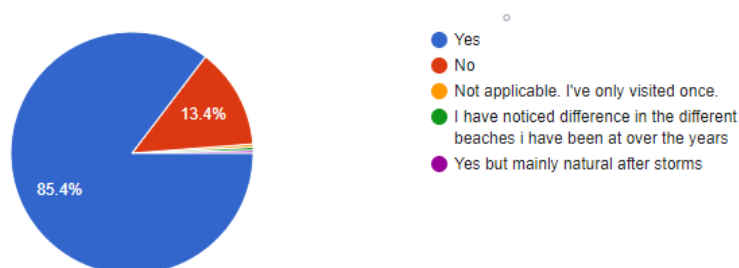
certification related to their respective activities. Besides the assurance for customers what the business stands for and how it cares for the environment, certification and qualifications help obtain new skill sets through the certification process, deliver experience and an opportunity for networking. It is important to note that if some activities are environmentally friendly and others are not, then the benefit of paying more for one over the other is insufficient to the overall environment.

4.3.3 Erosion and Lack of Awareness – A widespread Problem

The previous themes suggested that erosion, the environmental involvement and certifications pose difficulties. One of the most important steps towards fixing these issues is educating the public, businesses and authorities. *“Education of people is very important”*, this quote by business respondent 24 is similar to many others obtained through the primary research, embodying the core need to tackle coastal erosion. While anyone would most likely agree with this statement there is a lack of information on the topic available for people. The literature review on Irish authorities showed that the issue of coastal erosion has been pushed in the background and flood work prioritised. Though 79.4% of participants have identified that their geographical area has seen an increase in storms and their severity over the past 10-15 years, and multiple business providers identified that after more recent winter storms they can tell that the beaches, dunes and coastal grasslands are more impacted, they argued that the increase in people/tourists using the coast has likewise impacted its shape.

Figure 5 Erosion

On any prior visit to an Irish beach or coastal landscape have you ever noticed coastal erosion?



Furthermore, 90% of interview participants identified that their local coastal landscape has been changing more than it used to. Interview participant 8 identifying that *“...one of our access paths down to the beach was complete washed away 3 years ago...”* leaving them with problems to find a new access. Participant 9 however was of the opinion that *“All our local erosion is natural”*, whereas participant 4 identified local erosion to be linked to *“...many*

walkers on the dunes". Participant 5 stated that even over the past few weeks their beach has changed and *"The stones on the dunes in the front are gone but the back dunes seem higher than usual. I wonder is the current changing and with that the depositing different?"* While the minority of providers are convinced all present erosion is natural, the consensus seems to be that storms and recreational activities are a cause for local erosion, rain has impacted pathways accessing/along the coast according to Interview participant 6. Through this increased amount of rainwater pathways were washed out, now consisting of rocks and are much narrower, limiting access to the areas, as well as participant 6 elaborating that *"Anyone living by the coast can see every day what is happening in terms of coastal erosion"*. Interview participant 7 also expressed that *"There was serious damage done last winter along the beachfront"*, which seemed to be due to a combination of all factors storms, rain and people. Two business responses also mentioned that heavy rainfall has impacted their area. One due to rivers getting stronger leading from the mainland to the sea, and the other one similarly stating that *"the river flowing out to sea is eating away at the side of the dunes"*. Likewise, the increase in storm water level being to blame *"I think the waves have got higher and there is more water"*. This type of erosion can be linked to climate change, much like the increase in storms and their severity. A further survey participant, tourist 75, stated, *"Every day, I walk the beach in the winter there is always another piece of the cliff that has fallen in"*.

One participant had recently taken up swimming and was shocked to see the level of pollution from nearby coastal homes. Bins blowing over into the sea and possibly assisting erosion. Other observations by tourist respondent 133 highlight *"Mass wild camping in some tourist beauty locations is causing untold damage to the habitat and vegetation"*, it is eroding headlands by parking heavy vehicles along unmarked routes combined with people using fragile paths causing erosion and loss of habitat.

Two separate survey participant's mentioned vehicles other than cars impacting the dune landscape, *"A local SSSI, which are Sites of Special Scientific Interest has quad bikes churning up the land"* and Carrickfinn Beach in County Donegal has sand dune erosion due to four wheelers continuing to drive on old dune roads. Summarised well by tourist respondent 207 in a comment *"Without a doubt climate change is a big contributor to coastal erosion in Ireland, it is a worldwide issue and Ireland seems not able to solve this on its own"*, this is a great example that coastal erosion is a broad topic because it depends so much on the individual

locations, it is questionable why Ireland does not invest in research or get information and inspiration from other countries.

Considering the above observations, only 27.4% of business owners stated that they see erosion as an immediate danger to their tourism offering, as the Irish landscape offers enough space to rotate their activities in different locations based on daily weather and occupancy of places. While adventure tourism providers see the impact of coastal erosion, but do not qualify it as a limiting factor to their business operations just yet, it has not led to changes in their behaviour. Therefore, one could argue much like local authorities, tourism providers are too relaxed and consequently may underestimate future impacts and changes to their business operations. Nevertheless, the relaxed attitude of councils towards coastal erosion may be the very reason tourism providers are not concerned yet. This statement appears to be backed up further by the question if tourism businesses feel that their locations are overpopulated with tourism. Here 64.5% did not identify overpopulation to be a problem, however noteworthy is that in other sections of the questionnaire and interviews, discussed further under the remaining headings, some business providers did mention certain locations are very busy depending on the season, to the point where they have to resort to alternative locations.

Some of the changes due to erosion and weather identified by survey participants also included cliff erosion and unsafe pathways. Further, seven participants explicitly stated that there are more stones being “...*washed free or washed ashore*”, with larger amounts of sand shifting, going hand in hand with another statement that there is a lot less sand on the beach overall. It was similarly observed that local beach edges seem to be retreating, and an additional participant identified local sand dune erosion is caused by water forming to a stream/river leading from the mainland to the sea.

Tourist respondent 163 noted “...*massive coastal erosion*...” to the point where they are unable to teach at this location, as “...*the sand has disappeared under what used to be the cliffs*”. This is an important observation. While many people are of the opinion that beaches always change, which is accurate in regard to the changing of sand deposition, observing sand fully disappearing leaving rocks and cliffs behind is an occurrence that nature cannot fix. An interesting position one participant took was the observation that some adventure tourism providers in the industry frequently remove vegetation, rock and other debris in order to find new routes and therefore are another cause of negative impact on erosion and wildlife. Though

this may be the case, there are no regulations for businesses on how to secure new routes or access ways on public land, unless the area is under natural preservation protection. Although many have seen changes in landscape including erosion, when asked if the participants had thought about their business in relation to erosion, 53.2% stated that they had not and a further 9.7% were unsure. *"Ireland is an island founded on granite so hard to erode. People just need to be mindful of their impact on the soft environment and leave things as they find them"*. This comment from tourist survey participant 184 is not wrong, since a lot of Ireland's soil is made up of granite, depending on the region there is a vast variety of soil components such as mudstones, grits, and basalts. Other counties are mainly underlain by limestones or siltstones. Granites uncovered at the surface in Ireland include the Leinster and Galway Granites, which were formed below the surface of the earth but were brought to the surface either through erosion of the overlying material or due to the movement of faults (Geological Survey Ireland, 2021). Therefore, proving that granite can very well be affected by erosion. This highlights the need for further education on the topic of erosion. While the participant was right in suggesting that the entire Island of Ireland will not erode any time soon, there is an immediate threat to softer coastal areas and with that a threat to the businesses who are using these landscapes. The problem with erosion is that for centuries it was an insignificant amount of land lost to erosion, however as outlined in detail in the literature, it has increased rapidly through multiple influences to a point where some small coastal villages are threatened by the receding coastline. One of the suggestions made by business respondent 54 is to encourage and facilitate the *"Planting of maram [sic] grass"*, as it is key for a strong dune structure and therefore protective of coastal areas overall. They further suggested to get schools to engage with this, as it would be an educational and low-cost solution to a big problem. Although this is an excellent way to strengthen the natural habitat along coastal landscapes, unfortunately this is not the solution for all coastal erosion issues. As addressed in the literature through arguments of Weaver (2009) and Collins et al. (2007), there is a need for structural intervention. Likewise, a need for future regulations and their enforcement to ensure compliance with sustainable usage of the coast.

Some of the above observations of change by participants are classic examples of stronger waves eating away at the coast as explained through the literature by authors such as Walsh (2008). Tourist respondent 211 commented expressing their feeling very well *"Local people are generally very aware of coastal erosion"*. It was also suggested that locals could help to record erosion in some way. A coastal erosion outline or plan can look good on paper but because every coastline in Ireland is different from another, there is a need to tailor the

preservation works accordingly with the local knowledge. Sharing knowledge between local authorities, environmental groups and locals is all part of the educational conversation that needs to happen to slow down coastal erosion. While the above inclusion of climate change in the discussion around coastal erosion through human impact is significant, perhaps it is more important to outline that people cannot change the weather but can change their behaviour. The change in weather due to climate change may not be reversible, and any changes in behaviour in terms of emissions by global companies may take years. People have the opportunity to make a difference with immediate results to their local landscape. In the researcher's opinion, these personal behaviour changes are something that should be communicated with the public to encourage them, since many people within this research voiced feeling helpless and do not know what to do in order to help the environment.

Something pleasant the researcher observed was the amount of tourists who partook in the questionnaire survey who expressed their gratitude about being able to participate, as it opened their eyes about this topic. Comments from tourist respondents 58 and 47 "*Glad to have taken part, its genuinely made me think about coastal erosion and I hope to be more aware in the future*", and "*The act of completing this survey has heightened my awareness of this issue and I will definitely consider more sustainable tourism options on future travels*", were wonderful to see since awareness is the first step to education on a topic. Further, it was mentioned that people were aware of the negatives of tourism on the environment (such as littering), but never realised that they could or should be looking for an environmentally friendly holiday package (travel and activities). There may also be a big gap in the marketing for sustainable holiday packages, not only would it help credible sustainable businesses but also raise the awareness of all people, not just the environmentally conscious ones who end up booking it.

The above suggests that while business owners are aware of erosion some have yet to draw the connection of coastal erosion to their business practices and possible future consequences. All tourism businesses, who advertise their activities based on a natural location, impact coastal areas through said marketing by drawing more people to specific areas. Furthermore, the negative impacts of environmental use as well as social-cultural disturbances in destinations have been identified in the literature through authors such as Goodwin (2017) and Sarantakou (2019), causing the excessive presence of people in popular coastal areas and through that the intrusion to the natural habitat by trampling and introduction of invasive species along coasts. While providers may not see the direct link of their tourism offering in relation to negative

coastal changes, once outlined it becomes clear that they are all connected and therefore will all most likely be impacted by coastal erosion in the future.

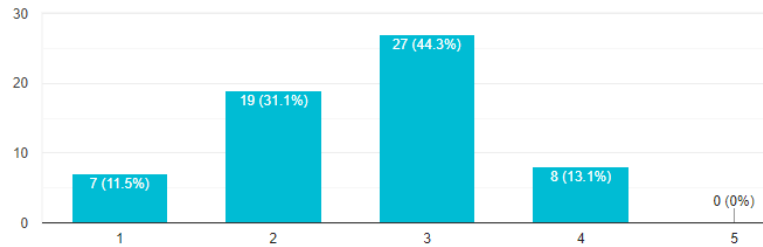
Education of both tourism activity providers and tourists is key to slow down coastal erosion as much as possible. Though natural erosion will persist, once the added human erosion is minimised and sustainable actions are found to slow down the natural erosion, Ireland's coastlines and its natural amenities would be in a good position for future generations.

4.3.4 Local Authorities (Structural Planning, Fears, and Concerns)

The previous sections highlighted the need for education and regulation, both of which include local authorities. "*Coastal erosion is at critical stage in Ireland, something needs to be done urgently we are losing valuable wildlife habitats /nesting sites*". This opinion by tourist respondent 53 is one of many similar ones stated when questionnaire and interview participants were asked about Ireland's local authorities' involvement with coastal erosion. However, as debated in the literature institutions like the Office of Public Works (OPW) and County Councils' main focus is flood prevention, as per the Governmental Publication "Irish Coastal Protection Strategy Study" (Department of Public Expenditure, 2021) and others discussed previously. Business providers who spoke on this topic during the interviews were hesitant to contemplate or acknowledge that they have a substantial effect on the environment they operate in, as well as speaking their mind on local preservation schemes through public authorities. Even though the researcher assured that the purpose of this research was not to harm or make business practices along the coast more challenging, but in fact to try and prevent this from happening, by recognising sustainability issues and generating conversation to both protect the coast and the tourism offering for the future. The anonymous survey participants, whether the business providers or the tourists, on the other hand had no issue of responding freely about their anger, dissatisfaction, and some recognition when it came to local authorities. Generally, business operators did not think that Council efforts regarding coastal erosion are enough.

Figure 6 Council efforts

Do you think the current efforts by your county council for coastal management are sufficient, please rank your opinion on from strongly disagree 1 to strongly agree 5?



Further, 44.3% of participants placed their impression in a neutral stance whether current measures are sufficient. The tourist participants all placed the County Councils to have high responsibilities when it comes to coastal preservation work, while local communities, the public, environmental groups, and tourism operators all were placed within the same lower category of responsibility. While some are hesitant to put the fault for lack of coastal preservation on the Councils, the overall trend toward environmental protection is demanded or seen as needed by many participants. Tourist participant 235 identified that any intervention must be considered “...*very carefully as building a wall in one place to stop erosion may mean there is greater erosion a couple of miles down the coast*”. While walls are only semi-ideal for many parts of the Irish coast, as established in by Siltan and Grannis (2010) the literature review, this comment is important because it shows that tourists and locals have a certain knowledge about preservation measures.

One observation by tourist participant 37 who identified to live in a busy tourist location criticised that the attitudes of councils may be not always ethical “*Money will sadly win the day, developers with hard cash seem to be above the concerns of impact. They may make a token gesture of concern but if means nothing in real damage terms*”. This implies that developers are the ones with immense negative impacts, however they would not be allowed to build structures unless the planning permission was approved by local authorities, therefore authorities are the ones condoning the negative contribution to coastal erosion. This links in with another comment by tourist respondent 159 stating, “*I think council councils are responsible for ensuring coastal activities are not causing environmental damage, i.e., coastal activities rules/planning permission etc.*”, further highlighting their awareness about natural impacts being greater on the coast overall, however the natural rate of erosion is heightened due to human impacts that “...*arguably cause more issues*”.

A further participant blamed poor investment and systems in place by the state to monitor and prevent coastal erosion, as one of the biggest issues and additionally business respondent 37 identified that seemingly “*Councils are responsible when notified of erosion*”. This however is arguably not a good system, as councils should carry out their own research along coastal landscapes to make sure it is preserved and not wait until being told about it by others. This individual used Portrane, in County Dublin as an example where a number of homes have been affected by coastal erosion in recent years and the council has been called to take responsibility for their lack of urgent action on the issue by locals. Bantry Bay was further identified by tourist participant 79 to be highly affected, it has seen “*Major coastal erosion and flooding this year there is an urgent need for mitigating solutions required by national government investment to protect Bantry*”. Bantry Bay is one of the deepest natural bays in Europe and sees an enormous displacement of water with each tide, these are only intensified by storm surges in winter and need to be addressed. Tourism operators however are overall concerned to see more council restrictions and interview participant 5 established that councils in their area seem to be “...*very relaxed*” and that there always is a need for them to do more. This is comparable to interview participant 7’s observation that councils should wake up because there is very little being done in terms of coastal erosion, even though it is an identified problem in their region. Additionally, a participant also mentioned that there is a substantial need for preservative coastal change but only if it is not restricting for businesses.

Tourist respondent 209 stated that “*I generally distrust and discount governmental agencies in this Arena. I trust individuals, landowners, nonprofits [sic] and independently owned businesses.*”. Although this seems to be a common theme, as mentioned above, there is a need for some form of accountability for local authorities, the government and its institutions who are the ones responsible for the infrastructure within the counties and its upkeep, this extends to coastal roads and the threat of erosion and flooding. Locals, businesses, and non-profit environmental groups are not able to facilitate coastal preservation works, therefore while they seem to be the ones who most care about the issues, they are not the ones making the decisions. However, while there is a high demand by both tourism operators and tourist for councils to finally address the issues of coastal erosion a total of 62.8% of business owners established fearing stricter council regulations and restrictions on which locations can be used for their respectful adventure tourism activity offer. This would limit their business operations not only in regard to location accessibility, but it could also affect how many businesses are allowed to operate per location. Besides the overall fear around restrictions of access to coastal areas, other

concerns include the option of two participants that bringing awareness to this topic may come with more harm than good and that the “...*council will just ban activities*” or restrict them, leading to the closure of adventure tourism businesses.

Furthermore, identified was the lack of research which examines the effects specifically caused by adventure tourism businesses versus the affects through the public using these areas recreationally. Due to this there could be some sort of resentment among tourism operators towards the public who are using the landscape anyway, and therefore limiting the operations of adventure tourism providers could be seen as unfair. A similar situation has occurred in Kerry, where Kerry County Council put an end to the growing problem of the public driving quad bikes, motor bikes and car racing on its well-known beaches (Lucey, 2005). However, the by-laws for this process also banned horses and with that severely restricts horse riding on most beaches. Still, most outlined coastal preservation procedures do focus on everyone who is using coastal landscapes and restriction and regulation enforcement will have to apply to every single individual person who is present at beaches and cliffs.

Business respondent 51 considered that tourism is a highly competitive industry with generally small margins. Therefore, tourism providers would be “...*stretched thin in order to tackle coastal issues in a meaningful way without real state support*”. Adding to this comment one of the questions asked was if the participants see a need or point in receiving funding in order to facilitate more environmentally conscious business operations. Here 36.5% of tourism operators viewed this as helpful and strongly agreed and another 30.2% agreed. Only 6.4% were leaning toward the opinion that it would not be beneficial, as the money may not be used for the right purpose. While participants see funding as a positive encouragement overall, interview participant 6 stated that while it would be an encouragement “*Funding would most likely be abused*”, as allegedly it is already happening with other tourism grants businesses can apply for. This is similar to interview participants 1 opinion that funding generally helps, especially small businesses, however only if they are being “...*monitored so businesses actually stick to it*”. Since there seems to be some doubt about the use of possible funding, it would be worth considering that any environmental funding for businesses is subject to them complying with the regulations set out in the relevant document. Further, making it a requirement by stating what percentage of the funding needs to be used towards the business’s environmental actions.

Two locations seemed to have other specific issues; a lot of oyster farming is taking place in one location. This is very controversial as big farms like these can have a significant effect on the natural habitat of the sea and along the shoreline. Not only does it throw off the biodiversity but farms like these often come with additional construction. Tourist respondent 42 identified that their local area has seen a “...*serious increase in invasive species and rainbow trout and predatory wildlife*” which can be detrimental to the local biodiversity. Besides the oyster farming an increase in salmon farming has also angered locals participating in this study. These farms all require facilities, which if not planned with coastal preservation in mind, adds to coastal erosion as well as the daily practices of these businesses.

An additional valid argument brought forward was that councils often do not know the areas as well as the adventure tourism operators or locals. This is where the fear stems from, once local authorities try to protect the coast, they may implement very drastic measures. This could be either due to them not knowing the area or not having enough background knowledge about the environment in the respective area, what erosion measures would be suitable, and opinions of locals likely will be overlooked.

Finally, an opinion shared by two of the interview participants is that “*I have no faith in the council*”. This may be due to local track records of the respective councils but can also be linked to the previous figures in the above text, relating to the lack of councils’ environmental involvement and their sustainable conduct. A significant number of participants both through the questionnaires and interviews expressed their concern for the impacts of building and construction being approved through local authorities in coastal areas. One participant argues that this force is impacting the coastal landscape more than adventure tourism businesses and the public who are using coastal areas. A more immediate threat to the landscape and associated with loss of natural habitat comes from “*badly coordinated planning decisions*” as per tourist respondent 17, while another participant acknowledged that in their coastal location there has been an increase in the building of new houses. These participants did not identify which planning decisions they refer to in detail, unlike a further participant who names their local County Council and criticises their planning and execution of the development of new pathways along the coast. Interview participant 7 was one of many who identified a different problem related to structures and works along coastlines. There seems to be an increasing problem with over parking at meeting points and car parks. Especially since the pandemic started and more people went on staycations in 2020/2021, Gardaí increasingly had to turn away visitors and

close beaches in locations in Cork, Dublin and Sligo due to over parking, illegal or dangerous parking and camping (Heaney & English, 2021). Interview participant 9 outlined the following about their local beach in Mayo which has seen huge erosion. *“The problem is our dunes are a small enough strip of sand and the waves come in from either side. In 2019 we had to relocate the car park because half of it eroded.”* While according to this participant the car park was too close to the sea it also was weakened by the number of cars who parked on the sides. Indicating this is a widespread problem in Ireland, this helps to understand some tourism operators’ frustrations with the public, but also the general public’s frustration with Councils calling for better infrastructure, while also calling for coastal preservation. It is evident car parking facilities are too small and therefore people park along beaches or coastal roads and thereby impact the environment negatively. Several participants mentioned *“Signs were put up to get people to be mindful”*, in areas but people do not adhere to them. Tourist respondent 28 stated that they believe adventure tourism has a secondary impact and there is overall a *“...greater need for car parks and infrastructure”*. Interestingly another tourist participant had conducted a study in 2000 on “Coastal Zone Policy” in Connemara and found that *“Tall industries in an area need to work together for sustainable development. People in Kilkerran Bay in Connemara still aren’t working together to this day to make things work for the environment and people’s livelihoods”*. The increased development and the concerns along coastal regions in terms of the environment is ongoing and according to public sources being monitored by environmental organisations, participants in the above study expressed their concern about the invasiveness of these developments in the natural coastal habitat.

Interview participant 4 stated that *“...there is a need for better community planning”* as they are located right on the edge of the coast. While this statement was not explicitly made towards coastal preservation, as stated in the literature, community planning in coastal communities is directly linked to coastal preservation. Interview participant 3 detailed that their County Council proactively promotes adventure tourism. Even though the promotion of adventure tourism is great for an area, it needs to be done with discretion, reasons as to why are further discussed in the next theme on Marketing and Overtourism.

As outlined in the literature chapter, local County Council’s involvement and knowledge in coastal protection is limited. Based on the data gathered, this seem to be picked up on by adventure tourism providers and tourists. Businesses and the public have acknowledged to some degree, that they contribute to the large impact on the environment, and this is condoned by

councils giving indirect permission by not acting to offset the impacts or not trying to manage them. Likewise, some participants identified a lack of research in coastal erosion and protection, to determine effects the industry has on the coastal landscape, this as well is apparent through the reviewed literature. Due to this many tourism businesses are frightened of rash and harsh restrictions put in place to save the coastal landscape, while overlooking the people using the landscape as their offering to secure their livelihood or the public who uses it recreationally. Furthermore, while businesses would appreciate funding to help them implement more environmentally sustainable practices and possibly additional qualifications in the area, much like certification, funding processes must be better monitored and more importantly continuously checked. If policies are put in place on coastal pathways, or other areas it should not interfere with the day-to-day life. While some of the literature suggested that there are certain areas in Ireland which are already in “evacuation” mode or relocating houses along the coast, it seems there is a discrepancy as to how severe certain areas view coastal erosion. Though some areas see more erosions and therefore take precautions, with the amount of planning permissions along coastal areas through having a certain buffer towards the coast, some infrastructure and commercial real estate seems to be newly built along coastal areas.

Additionally, there is a relationship between growth in community and impact on the coastal landscape and therefore planning decisions need to be made carefully. The existing structures such as car parks or walkways need to be maintained, otherwise the public will use alternative parts of the coastline to park or walk on. Once more, all this is only helpful if the regulations on environmental protection for the public and business are being enforced. Just because some areas may not see significant amounts of erosion it is evident that there still is erosion. Therefore, undertaking any significant building projects need to be planned with the next 10-50 years in mind when the small amounts of erosion start to add up. Money should not be the main objective in granting planning permissions, it should be considered both from an economic standpoint but from an environmental point. Both tourists and tourism operators clearly called for more action to preserve the coastline, since they are the ones witnessing coastal erosion first hand.

Most importantly highlighted by all tourism operators was that adventure tourism as a subindustry is looking for more recognition from local “*powers*”. Although, no participant was willing to name exact authorities, the consensus was that providers want their input valued and to be heard when it comes to decisions such as ones relating to coastal preservation.

Summarised by interview participant 7's statement *"It is down to local authorities and the governments to work it out together with the locals"* while also stating that in order to work together coastal preservation must be initiated through authorities first.

4.3.5 Marketing and Overtourism

An unexpected theme emerging from the primary research relates to tourism marketing and its consequences. Overall, 64.5% of survey participants identified that they do not think their local area is overpopulated with tourism. However, at the same time almost every participant stated that their area tends to get very busy during the summer month leading to *"...chaotic traffic conditions in the town"* according to Interview participant 4. Yet, both in the questionnaire and interview responses comments were made specifically criticising marketing techniques. A total of 40% of survey participants attribute the higher footfall of people in coastal areas to marketing. Although not overpopulated seen from an annual point, providers have stated that summer seasons are massively impacted by the amount of people in those areas. This is evident not only through parking situations and level of business, but also due to increased incentives for visitors to come.

Business respondent 29 stated, the Wild Atlantic Way marketing has made a quiet local beach a tourism hotspot. According to them up until recently one would rarely encounter another person when going for a walk, now *"...there can be as many as 100 people per hour"*. While these exact figures have not been confirmed through research, it is similar to other locations along the Wild Atlantic Way which saw a comparable increase in visitors, such as Bundoran in County Donegal, whose influx in visitors was described as *"The town is mental"* by local journalist Smyth (2019) referencing the increase in demand for the local tourist office. The research further showed, since the Wild Atlantic Way branding was launched, 14 million people looked up the destinations along it online and although there are no exact figures to show the increase of visitors in each region as a direct result of the Wild Atlantic Way, since its launch in 2014, the overseas tourism figures have been increasing significantly each year. Interview participant 8 outlined that the main issue with the Wild Atlantic Way is that from an infrastructural point it was *"...not thought out and left small locations and villages around the country struggling."* Although some County Councils advertise their beaches and coastal walks the issue of over parking, littering and people trampling natural pathways, as well as affecting the stability of dunes, even when fenced off for walkers, is not being addressed through enforcement. Often locations advertise their blue flag beaches and local amenities, at the same

time some beaches regularly get shut down over the summer due to environmental threats such as sewage issues, for example Mullaghmore in County Sligo. While marketing is crucial to advertise Ireland as a desirable destination, benefiting communities economically without question, there needs to be a balance to keep coastal landscapes and towns desirable. The tourists who participated outlined similar observations and experiences. One identifying themselves as a travel agent who has been bringing people to Ireland for years, identified from seeing first hand that all the big tourist sites are threatened by overtourism; *“The Cliffs, New Grange, Slieve League, The Ring of Kerry and Dingle, so much depends on tourism, but overuse threatens longevity”*. This devastating insight from a person actively involved in bringing tourists to Ireland, since their job depends on the tourism industry while also seeing how badly the natural environment is affected by overtourism and the lack of prevention work by authorities.

Tourist respondent 137 stated that Northern Ireland has an institution called “National Trust”, who are supposedly a conservation body, however they are apparently promoting high volumes of pedestrians at sites such as the Giants Causeway and Carrick-A-Rede, as well as *“...high volumes of cars on the sand at Portstewart”*. Upon investigating the organisation, the researcher found that this is a charity, working closely with “The Greater London Authority” (National Trust, 2021) and other communities. While one of their focuses is based on planting trees, the work with authorities could possibly be the driver for their advertisement of locations. Nevertheless, there seems to be a divide in their company ethics and their actions. This could possibly be one of the reasons the Republic of Ireland has similar marketing strategies. A factor that may have not been present previously has been observed to be the Covid-19 pandemic, leading to more people using local beaches and coastal landscapes to relax, meet and exercise. In this context especially tourist participant 216 established *“Unfortunately, many are not sensitive to the damage caused by increased traffic on sand dunes, removal of sand and stones, not cleaning after dogs”*. They further expressed their worry for the dunes, nor being confident the marram grass will recover sufficiently to protect dunes from eroding. The consensus amongst participants was that the responsibility cannot fall on local communities to pick up rubbish after visitors, and they have no options to facilitate actual coastal preservation mechanism by themselves.

Further, business participant 61 commented on the relation of marketing with an increase in footfall, agreed that visitors need to be attracted with discretion. Ideally the marketing of Ireland

and coastal communities should focus on attracting “...*those with real appetite for nature...*” and therefore try avoiding mass tourism. “*Sightseers/coach tours have much greater impacts as they concentrate on smaller footprints*” was further highlighted. One direct impact of adventure tourism observed near Doolin, is that while cliff climbers initially only left tracks on the base of cliffs and polished some handholds, eventually the whole cliff collapsed. This cliff most likely was weakened by winter storms over years, yet if it had been assessed to ensure it is a suitable place to carry out cliff climbing it may have been able to be preserved.

The above is in line with the findings from the literature and advertisements. In those the main pull factor aligns with the tourists push factors, the need to partake in an adventure activity when endeavouring on a holiday in Ireland. Ireland is known as an outdoor adventure holiday destination, however when the negative tourist impacts outweigh the benefits there is a need for change. A destination cannot be sustainably marketed if there is no plan on how to develop the infrastructure, community, and natural preservation.

The main issue of marketing is that natural erosion cannot be controlled, but the human impact can be, therefore presents one of the main reasons to attract visitors with discretion. While some providers and tourists previously commented that there is very little point in worrying about people trampling on the dunes and its marram grass, when winter storms destroy more of the beach every year, this is no reason not to try and manage the human impact. Just because winter storms are perhaps more detrimental in a shorter period of time and therefore the impacts are more visible, it does not mean human erosion and with that the adventure tourism erosion should be ignored. All negative aspects need to be addressed in order to facilitate coastal preservation in the long run. Much like local authorities, marketing needs to be focused on strategic thinking. Locations cannot simply employ “Temporary Beach Wardens” as advertised by Sligo County Council and other coastal areas (Sligo County Council, 2021), between June-August and hope for the best the rest of the year in terms of illegal parking, camping, crowds destroying dunes and so on. Authorities have the power to reduce the human impact and manage the natural erosion to the best of their abilities, combined with more conscious marketing and educational campaigns and programmes, coastal erosion rates have a chance to slow down. Interview participant 10 summarised the marketing concerns fittingly, stating that “*Of course we want as much business and customers as possible, but over the years I have realized that you need discretion when attracting them*”. Ireland should monetise the natural beauty of coastal areas but do so with foresight to ensure continued success and preservation.

4.3.6 Miscellaneous Themes

This section represents statements that did not occur often enough to identify them as overall themes. While some of the themes are not directly linked to coastal erosion, they are linked to the development and understanding of coastal areas overall, therefore the researcher felt it was important to include these topics. They highlight a better understanding of the issues of concern to the people, who are fundamental to implement change in order to try and minimise erosion. The first theme discusses Insurance for activity providers' and the challenges this brings for them. Insurance is a requirement for running an adventure tourism business, due to the risk element activities bring with them. The second miscellaneous theme debates adventure activity prices, customers always wanting cheaper prices, linking in with arguments made by participants to attract the right customer through appropriate marketing.

One business owner spoke about the experience of recently closing their doors, after 13 years of running a business in the adventure tourism industry. While the final straw for this provider was Covid-19, the business previously struggled with insurance. Adventure tourism activities come with a risk therefore, insurances can be expensive. While only one questionnaire reply touched on this subject it emerged a few more times in the interviews. Likewise, through one of the tourists who seemingly had experience in the industry, who identified that as the country moved out of Covid-19 the tourism industry is placing immense pressure on small communities across Ireland to provide staycations. While these are great for people to get out and for the domestic economy, the impact of this consistent and prolonged stress on the land has negative environmental consequences if not properly managed, evident as mentioned previously seen in the most popular tourist destination around the country over the past years.

The insurance issues for tourism operators, emerged further through the questionnaire response and an additional 20% of the interview participants made a very important note that it is an issue to be addressed. This topic arose after the researcher had asked if business providers would find funding for adventure tourism businesses to facilitate more environmentally sustainable practices useful. Although Interview Participant 3 always welcomes funding for small businesses, they identified that insurance costs are soaring every year and many providers struggle with this cost even with funding. Interview Participant 2 gave an example of a fellow adventure tourism activity provider with an insurance rate of €10,000 per year. This activity business is run by only two people who do not have the capacity and ability to generate this

much income per year. Therefore, some providers cannot even cover the insurance cost, never mind have an income to live off.

Another much debated theme was linked to the researcher's question about activity prices. Participants were asked if they believe that people would be willing to pay more for a sustainable activity. Whereas the questionnaire responses showed a neutral opinion slightly leaning towards the answer "no", the responses in the interviews were collectively uniform. The most used phrase by business respondents was "*Price is King*". A total of 70% of interview participants agreed customers do not care about how environmentally friendly an activity is. This reasoning, according to the interview businesses, can be due to a multitude of reasons. Some are day trippers who are not from the area and therefore not specifically concerned with environmental impacts, others simply want to cross a certain activity off their bucket list. Other providers are of the opinion certain businesses simply do not care and take large groups bookings, here the revenue is valued above sustainability. This approach is certainly visible in many other industries not just tourism. Other adventure tourism providers agreed that an activity could cost five Euro and people would still try and get a cheaper price. The remaining percentage of providers gave certain people the benefit of the doubt. Stating that for a small amount of already environmentally conscious people, how the activity is conducted, is important and these few select people would be happy to pay a higher price to be confident in getting a sustainable activity experience. However, after acknowledging these people they identified that overall, a higher price would definitely not be paid by visitors. The only other response to differ was one provider who mostly works with schools, these tend to have a small budget and it would be difficult to raise prices.

Tourists had split options on the price matter. Although some are happy to pay a higher price for a guaranteed low impact activity, some were questioning how this can be ensured. The bigger part of the participants did not see a need for higher prices as in their opinion the prices in Ireland are already high. While higher activity prices do not automatically ensure the protection of the environment, if providers dedicate themselves to this aim and ensure a certain percentage of this money goes towards the environment, customers and tourists may be inclined to pay more as seen in this research. However, the business and the movement of the money must be transparent and overseen in order to ensure it is being used for preservation, much like in the argument around environmental funding for businesses, spot checks and clear payment documentations are key

Marketing and attracting the right visitors and tourists to Ireland is also linked to the money dispute. Generally, people do not want to pay more for a sustainable experience, however if marketing focuses on attracting the right kind of environmentally conscious overseas tourists, it may work in the tourism industry's favour. Looking at any adventure tourism providers who engage with schools by providing activities or engaging in educational aspects, if there was a slightly higher budget calculated for said schools through the government either in the education sector or in the environmental sector, to substitute low impact school activities, this may have a positive effect on the environment. While it is not possible to stop erosion, the overall aim through measures and collaborative planning should be to slow it down so future generations can enjoy the coastline with its biodiversity, amenities, and no endangered coastal housing.

4.4 Conclusion

The above findings suggest that even though some businesses are already taking care of the environment and are trying to minimise their impacts, there is still room for improvement and a clear need for government regulations. Some adventure tourism providers are going above and beyond and label themselves to be “...*guardians of the environment*” like business respondent 48, others do not see themselves responsible for any of the issues around coastal preservation, while simultaneously not wanting council involvement due to their fear of radical restrictions. There is a substantial need for authorities and business providers to work together and establish guidelines or business practices which suit both sides, since both business providers and tourists have expressed their concern for restrictions. Unfortunately, in environmental preservation there is no one-size fits all solution and multiple factors are to be considered.

A notable issue within adventure tourism businesses is the lack of environmental certification. Much like the tourism industry's guidelines certification is voluntary and most importantly not regulated. While some providers pride themselves on their ethical treatment and business practices regarding the environment, they do not think certification is significant and since it is not mandatory in order to run an adventure business, they do not consider getting credit for their involvement and the assurance on sustainability for customers. However, certification for aspects of their respective activity was obtained by the majority of participants, therefore they acknowledge the value of certification overall but are not willing to extend this to the

environment. Once speaking to the researcher about the issue, most interviewees realised that their local environment in general had changed in regard to the overall habitat. Besides the storm impacts along coastal structures, flooding was identified causing bigger streams flowing from access points from the mainland into the sea and therefore eating way on coastal structures. Furthermore, the increase in activities and visitors along coastal landscapes, combined with outdated infrastructures leading to additional erosion. Many examples of washed away pathways, severe dune erosion or an increase of rocks along coastlines, were only some of the examples brought forward, all raising the need for local erosion measure options to be discussed.

Further, matters identified by providers contributing towards coastal erosion included marketing of certain areas and the overall marketing of Ireland. While all businesses agreed on the need for marketing through governmental agencies, they criticised the way it is carried out. The focus should be placed on attracting less mass tourism and more conscious tourists who appreciate sustainable tourism and are willing to pay for the products the industry includes. Based on the finding in this chapter the researcher predicts a high possibility for guidelines and restrictions in the future for adventure tourism providers conduct, therefore a need for industry stakeholders to create guidelines including everyone's needs is apparent. If authorities and coastal preservation measures do not consider the communities, businesses, and locals as well as the tourists, it would not only endanger the livelihood of business owners but also impact the adventure tourism sector enormously. Many local building projects also seemed to add to people's dismay and due to the lack of coastal erosion preservation initiative of local councils, participants expressed feeling helpless and fearing harsh restrictions.

Besides the environmental issues, insurance costs in the adventure tourism industry are rising and posing a great challenge for business around the country, as well as discussions around activity pricing, which could be used for environmental preservation. It is important to realise that sustainable environmental preservation and management is not trying to fix the damage, it is about retaining current coastal structures, preventing, and minimising future impacts.

5.0 Chapter Five - Conclusion and Recommendations

5.1 Introduction

Considering the relevant findings from the primary research, which were evidently linked to the relevant literature presented, this chapter concludes the analysed data through a discussion and appropriate recommendations. In line with the initial aims for this research the data gathered displayed emerging themes through exploring the attitudes and opinions of adventure tourism providers towards coastal erosion, while the literature review critically examined national policies on coastal erosion. Tourists' perspectives on adventure tourism activities in Ireland were further explored. The research suggests there are a number of tourists and businesses who are environmentally aware, yet the participation in actively protecting the coastal landscapes is negligible. This is due to multiple reasons, lack of education, lack of enforcement and regulations specifying a few of them.

The evaluation of existing guidelines on sustainability for adventure tourism businesses, showed that many aspects of the tourism industry are quite unregulated regarding their environmental conduct. A lack of certification, guidelines and regulations have led to an industry filled by greenwashed certificates and unreliable business practices, which need to be addressed by responsible authorities to facilitate a sustainable future. The assessment of the data gathered through both primary and secondary research, was the basis for the following recommendations. This section further presents two sustainable frameworks for adventure tourism businesses and one for tourists. Further, a table geared towards policy makers with an overview of tasks recommended and their priority for the tourism industry, and lastly a section on recommended future studies. The outlines, checklists and task tables were based on the current existing gap of relevant recommendations in the industry. They focus on people's behavioural change to improve environmental circumstances, rather than the general business operations relating to waste management, heating, and others, which are the main focus of current frameworks.

All recommendations were based on realistic measures and practices, which ultimately could benefit the Irish coastal tourism landscape.

5.2 Recommendations for Policy makers, Tourism Industry Bodies and Tourists

Based on the findings of this study there are several responses to current difficulties within the industry recommended by the researcher. Firstly, enforcement of coastal preservation measures. This does not only refer to the overall need for regulations and guidelines, on how people and businesses should conduct themselves using the coastal landscape. It also refers to the enforcement of those measures, implemented on some beaches and coastal walks through erosion fences or restricted access areas, but are not being adhered to by the public and some adventure tourism providers. This would be an opportunity to create jobs by hiring beach wardens keeping an eye on off limit areas, much like examples from France discussed previously, so people do not further impact weak dune or coastal structures. This could also help with over parking, illegal dumping and other social and environmental disturbances. During main seasons, depending on the size of location, two to five wardens could be hired per beach, off season the amount can be reduced, or a beach warden rotation system adapted. These individuals could also help clean up any plastic or debris, left behind or washed ashore. Alternatively, councils could put bins at car parks and beach wardens are responsible for their emptying. These jobs could help to keep weak coastal structures from further being impacted through too much human usage, help clean beaches and bring local employment. Councils should also consider that erosion has been a proven factor for over ten years but barely anything was done about it. This may be due to financial reasons or the lack of education on environmental habitats, but the need for a proactive preservation approach is certain. No more time should be wasted, the public must hold their councils/government accountable and demand coastal and environmental protection for future generations. However, it became apparent that the majority of participants do not trust local councils, which may be the reason they are not more outspoken about this issue. Concluding from the literature review and findings, any policies implemented need to include discussions with the local community and the tourism providers, as well as business owners, planners or developers in the region. The government should likewise consider implementing relevant school education on environmental issues based on geographical locations of schools. As reviewed in the literature, current subject's relation to geography or biology lacks this form of education, curtail for future generations to understand how to behave in natural environments, why it is important and what each individual can do to contribute in a positive way.

It would additionally be recommended to rethink the current marketing strategies of Councils, Tourism Ireland and Fáilte Ireland, as they are interlinked. Certainly, a destination needs to be marketed however, more focus on a wider range of locations is needed. For example, the Wild Atlantic Way campaign was a great success, yet it was so popular that the infrastructure in smaller areas was not able to cope with the amount of people. There should be more consideration about infrastructure before advertising. As discussed throughout this thesis, there needs to be a balance between local authorities planning and development and the consideration of local communities regarding social and environmental impacts. This also includes marketing. Once this has been considered the marketing could also shift to advertise quieter off-season holidays, since relaxation is one of the pull factors for nature holidays in Ireland. April, May, September and October should all be included in campaigns and tend to have cheaper accommodation prices than during summer. This could take environmental pressure away from peak seasons. Another option is developing new tourism destinations, taking pressure away from hotspots by creating new visitor centres around existing cultural attractions and offer activities in less visited areas. Of course, this again needs to be done with the right development considerations but could be a source of local income and offer domestic tourists new alternatives.

Two out of the ten interviewees listed multiple certifications they obtained, however none of them were environmentally based. All certifications were related to their respective activity. While the value of certification clearly is acknowledged by some, environmental ones seem to be associated with little benefits compared to activity certification. Therefore, the recommendation and need to make environmental certification credible is an important one. This should be done and overseen by relevant government departments or possible government regulated subcontractors and not by private parties who own tourism businesses themselves, as carried out by some currently. Certification should not be a money maker for whoever grants them but should ensure a uniform level of environmental sustainability across the tourism sector.

Through the research amongst tourists, the willingness to pay to offset the impacts discussed in the previous chapter was apparent. A way that this could be implemented would be by applying a small percentage tax to support the environment at all Hotels, B&B, Adventure Centres, and other tourism related businesses. While this should not be used to drive up the prices, it would be worth considering as a way to offset impacts and help fund businesses to implement more

sustainable procedures. Usage tax is welcomed in Portugal where surf tourists pay for environmental protection of the Algarve (Pintassiglo, et al., 2015). A different way to implement this without a general tax, could be a concept like the “Slovenian River Pass”. This pass mentioned by an interview participant is designed for people who use the waterways recreationally and facilitates them getting on/off in different places to distribute impact and pay for usage of environment (Baumann, 2016). This could be adapted to Ireland in a way where each county or region may have a “tourism pass”. This pass could give access to several natural sights by paying for it once, including a tourism offset charge, making it easy for people to buy and use for multiple attractions. This approach includes a lot of teamwork and communication between stakeholders but could be worthwhile for the future. People may also be more likely to agree to pay to offset their natural impacts this way. Instead of connecting regions the possibly to create a pass per activity or landscape used would be an option, i.e., paying for beach facility/amenities usage or paying for all surf activities.

Lastly, an overall recommendation or consideration for the whole tourism industry would be to try and facilitate more inclusivity. As mentioned in the study earlier there are institutions such as the European Network for Accessible Tourism (ENAT) who offer a comprehensive list of inclusive locations and adventure activities, to make European tourism destinations accessible to all travellers (ENAT, 2020). Visitor centres and all newly built tourism structures should always consider this. Not just regarding access to sites but for people to be able to partake in coastal walks in a wheel chair or have cycle path wide enough for adaptive bicycles. There are a few tourism providers in Ireland who offer surfing and horse riding for disabled people and based on the research these are easy enough to offer without changing too much of their actual offering or with too much cost. The riding stable for example, only had to build a ramp that people could access to get on the horse rather than mounting from the ground. There were no additional expenses for the business, since the suitable quiet horses required for people with special needs are generally already owned, as they are being used for beginner riders as well. While many activities may not be carried out in the same way as they would be by people who have no disabilities, it would be nice to have a little more inclusivity in the industry, whether it be through infrastructure of paths and building access or through a more adapted version of an adventure activity, to give others the chance to partake to a certain extent and make everyone feel included.

5.2.1 Recommended Frameworks for Businesses and Tourists

Sustainable Framework and Declaration for Adventure Tourism Businesses

Frameworks such as the North Carolina “Sustainable Tourism Practices Checklist” (2007), the Hawaii Ecotourism outline (2018) discussed previously, as well as Fáilte Ireland’s Ecotourism Handbook (2009), display good structures but are more so based on business operations and management than behaviour and ethics. The below framework was created through this research and applies to adventure tourism businesses’ behaviours, a general version for tourism businesses was also created and can be found under Appendix M. This framework could be used either as the starting point for any new business who wants to have a focus on sustainability in tourism or can be used for existing businesses to check which aspects are currently missing from their sustainability section in their business plan. The framework, or one similar to it, should ideally be a compulsory document required by policy makers for any tourism business using the natural landscape or business buildings operating in coastal landscapes. In addition to a framework, tourism businesses should display a sustainability commitment statement, ideally presented in both the business plan and on the website. A basic example could look as follows;

Sustainability Commitment Statement

_____ (Business Name) _____ promotes environmental sustainability in our community. We are committed to protect, preserve, and enhance natural resources by adhering to the following sustainability principles:

Conduct in the Environment

- Only use designated pathways permitted through the local Council, ideally gravel or concrete rather than sand based. Staff must be well-informed on local area restrictions and detailed plans of said paths available for customers.
- Do not use fragile areas showing signs of erosion, commit to a location rotation system for activities.
- Do not launch kayaks, surf boards, stand up paddle boards from fragile locations.
- Activity Risk Assessments should include an environmental section.
- Book small group sizes, limiting the environmental impact per usage. Offer discounts for off season booking.
- Ensure interactions with wildlife during activities are at a safe respectful distance, and do not intrude on or damage living spaces.
- Leave underwater flora and fauna intact, touch nothing and take nothing away.

- As part of the pre-activity instructions incorporate explanations of the vulnerability of coastal areas and how to behave.
- Choose locations for activities within walking distance to limit car usage.
- Note and report any new erosion, littering, wild camping, etc. to local authorities.
- Ideally do not offer motorised water sport activities, as they damage the underwater flora and fauna and pollute water and air.
- Commit to Irish environmental organisations conduct practices and ensure to behave accordingly.

General Business Operations

- Create an environmental plan based on local stakeholders' and environmental authorities' recommendations that fits your business. Include economic, social and environmental impacts for sustainable development.
- Use renewable energy sources for electric and water heating (solar, wind, or geothermal). Further, conduct a waste audit/assessment and implement recycling methods.
- Use rechargeable batteries for any equipment required during the activity (headlights for climbing, exploring caves by kayak etc.).
- Use preventative maintenance on equipment to reduce risk of replacement and donate obsolete or unwanted equipment to charity.
- Choose to buy outdoor equipment from environmentally and socially responsible suppliers.
- Attract the right customer by adapting marketing strategies to appeal to sustainable travellers rather than mass tourists. Their expenditure can help with economic aims in your business plan.
- Obtain environmental or sustainable tourism certification, review providers carefully beforehand to avoid greenwashed certifications. Ensure your claims of environmental practices are transparent and verifiable by customers and/or third-party entities.
- Develop partnerships and participate in local environmental and community organisations.
- Provide environmental education materials and information on local biodiversity and conservation efforts customers on your website.

- Review practices regularly. Environmental measures change continuously, therefore your sustainability outline should also be revised.

Besides the above framework a checklist for adventure tourism businesses who want to apply for environmental certification was created. Required documentations and certification processes are subject to each individual certification authority, however if a business focused on obtaining and providing the below items it would be in a good position to get certified.

5.2.2 Sustainability Certification Checklist/Audit

The below section outlines different steps and procedures on how to gather relevant documentation for businesses to have a comprehensive catalogue of documents to apply for sustainable certification. Ideally the below should be required for any existing or possibly new sustainability certification, however, is not yet required by policy makers. The national government needs to implement regulations and the below could be used for this, further any tourism body such as Fáilte Ireland should use models like the below to ensure coastal preservation. The researcher recommends the below for any tourism business in order to have a uniform standard within the tourism industry. Both sections are new outlines/matrix based on the data gathered in this research. The sections “*Before applying for Certification*” and “*After applying for Certification*” are largely advice for businesses. While the section “*During the Certification process*” also applies to businesses, it can also serve as an outline for auditors who are certifying the businesses.

The chapter goes on to also recommend a matrix chart for different standards of certification. While all the actions recommended in this chapter are desirable, tourism providers can choose a relevant certification award in the below matrix chart based on their business type and resources (bronze, silver or gold standard).

Before applying for Certification

- Develop clear environmental sustainability aims, objectives and commitment statements which should include;
 - Company details (business type, registration number, etc.)
 - Insurances and Risk Assessments (including environmental risk assessments)
 - Details on activities offered (type of activity, what it entails, equipment details)

- Environmental training obtained for business owner and staff, as well as any activity sector certifications obtained.
 - User and access rights for key resources, including land and water, to be documented where applicable, or public access details to locations.
 - Locations for activities and state of erosion, including statement on business conduct in each location to minimise impact.
 - Sample outline of the activity process, behaviour of tourists and staff in the environment from arrival to the end of activity.
- Providing example of where the business incorporated sustainability into all economic, social, and environmental aspects of the business plan.
 - Illustrate all relevant SMART goals for business operations. The environmental goals should include;
 - Sustainable development of your business
 - Environmental ambitions and efforts
 - Contribution to local preservation
 - All business operations are adapted to the requirements of the respective certification organisation and documentation of materials and sub-contractors' compliance available.
 - Comprise a folder of all required documentation to have on hand while applying, and for possible audit spot checks in the future.

During the Certification process

- The above mentioned environmental SMART goals should focus on:
 - Specific - Sustainability goals should define the actions that will be taken and how this will add value to your business. It should be based on existing environmental culture, as well as development goals (i.e. basing your plans on the commitment to safeguard the environment for future generations).
 - Measurable – Goals need to be clearly measurable and evidently documented, this is important for any certification process. These measurement units however may differ from each objective, therefore, ensure this section includes a comprehensive overview of all (one example: Reuse or recycle 70% of old activity equipment by 2023 would be measured differently than your goal to reduce emissions through the use of company vehicles by 50% in the next two years).

- Attainable - When setting achievable goals as a business it is possible to identify previously overlooked opportunities or resources, which can help with your overall environment sustainability (i.e. joining a local environmentally minded group, and insight learned through this can help with your sustainable business plan).
- Relevant – Goals should have a direct connection to business operations and objectives, this will ensure your business generates capital and utilises sustainability value. Focus on choosing environmental causes local to you, and the locations you operate in (i.e. help plant marram grass at local beaches or stop using non-bio cleaning chemicals for activity equipment).
- Timely - Define the period over which benefits will be realised. Ensure short-term goals do not put too much stress on the business, guaranteeing timelines are realistic. Any long-term goals must be reviewed, a certification may be up to standard now, however the environmental sector changes quickly and therefore any long-term goals must consider these changes. (i.e. Stop ordering from unsustainable equipment suppliers by September 2022).
- Create an Environmental Management Policy, outlining the commitments that your business has agreed to in relation to management, control of its environmental impacts, and how these will be achieved.
- Generate an Environmental Manual, this should include your SMART goals, scope of the business and its environmental policies and objectives, as well as monitoring procedures and lines of responsibility.

This section can differ depending on the exact certification the business applies for and is highly subject to the certifying authority. However, for the purpose of this research, the below chart was created as an example on how new certification could be sectioned.

Table 2. Certification Award Standards

Certification Award Conditions/Requirements	Bronze Standard	Silver Standard	Gold Standard
Commitment to adhere to all “ <i>General Business Operations</i> ” and “ <i>Conduct in the Environment</i> ” actions recommended in the above framework.	✓	✓	✓
Company details (Business type, registration number, etc.)	✓	✓	✓
Insurances and Risk Assessments (including environmental risk assessments)	✓	✓	✓
Business Plan with key examples (economic, social, environmental) where sustainability was incorporated.	✓	✓	✓
Details on activities offered (type of activity, what it entails, equipment details).	✓	✓	✓
Details of right of ways and access to key resources, (land and water).	✓	✓	✓
Locations for activities and state of erosion.	✓	✓	✓
Actions taken at local coastlines to minimise erosion during activities.	✓	✓	✓
Sample outline of the activity process, behaviour of tourists and staff in the environment.	✓	✓	✓
Review processes every 6 month and whenever operational changes occur.	✓	✓	✓
Display certification on site and website.	✓	✓	✓
Environmental training obtained for business owner.	✓	✓	✓
Creation of a sustainability commitment statement.		✓	✓
Environmental SMART Goals.		✓	✓
Environmental training obtained for staff.		✓	✓
Proof and details of any other activity sector certifications obtained.		✓	✓
Commitment to actively engage in other Environmental educational courses.			✓
Review sub-contractors working procedures to conform with Environmental Policy.			✓
Report on sustainability performance regularly.			✓
Generate an Environmental Management Policy.			✓
Generate an Environmental Manual.			✓

After certification has been awarded

- Display certification on site and update policy statement.
- Display certification on the website along with the sustainability commitment statement.
- Review processes every 6 month and whenever operational changes occur. Distribute the document to all staff after each change.
- Ensure to re-apply for certification where necessary.
- Actively engage in online courses, further education, certificates, training courses, self-study, or internships.
- Any sub-contractors working with your business should conform with your Environmental Policy. If this is not required by the obtained certification, this is worthwhile considering.
- Report on sustainability performance regularly.

5.2.3 Basic Recommendations for Tourists partaking in Adventure Tourism

The recommendations are divided into three sections, depending on the level of willingness of individuals to make a positive change on the environment. This is based on the research outcome, which displayed some very involved tourists and some who did not necessarily care. It is important to note that education on sustainability is one of the most important aspect and the first step towards awareness.

During the primary research many people stated wanting to minimise their impacts on coastal landscapes but do not know how, showing that willingness is given but not the necessary knowledge. Therefore, education is the foundation recommendation for everyone. Ideally this outline should be published in order to show people how to conduct themselves in the environment. It should be included in any existing programs such as Leave no Trace, Clean Coast and others. Further, it could be presented in a simpler format at any coastal locations, or beach wardens who are responsible for people's behaviour can also take this as a basis for when to intervene with people's behaviour.

Table 3. Overview Recommended Changes for Tourists

<p>Low Level of Willingness to make a change (Not necessarily willing to change their habits to facilitate sustainability)</p>
<p>Actions recommended</p> <ul style="list-style-type: none"> • Do not litter. • Stick to designated pathways and parking facilities. • Respect heritage places/coastal monuments, leave what you find. • Choose staycations over holidays abroad (support local economy and avoid airplane pollution). • Avoid mass tourism such as cruise ships and coach tours, since these have a higher impact on fragile locations.
<p>Medium Level of Willingness to make a change (The willingness to be sustainable is there, but not the most important factor to these individuals)</p>
<p>Actions recommended</p> <p>Steps as per the “Low” section plus:</p> <ul style="list-style-type: none"> • Take home pieces of litter each time you visit the coast. • Support real local economy (do not buy mass produced souvenirs, shop for authentic local artwork or keepsakes). • Visit coastal towns off season, this can make holidays more enjoyable and distributes environmental impact. • Use an eco-friendly booking site for local accommodation.
<p>High Level of Willingness to make a change (Sustainability is very important to these individuals)</p>
<p>Actions recommended</p> <p>Steps as per the previous two sections plus:</p> <ul style="list-style-type: none"> • Before booking with an adventure tourism provider, carry out some basic research. Enquire about their company’s environmental practices and how they help to protect and support the local landscape. • Where possible, choose the least invasive form of transport to get to tourism locations (public transport instead of cars/cars instead of airplanes). • Support (local) businesses who are actively working to be more sustainable. • Choose a destination that values sustainability.

5.2.4 Recommended Future Studies

The study highlighted a number of researchable aspects that could be pursued further through future research. Firstly, an observational study of the actual behaviour of the adventure tourism providers and tourists would be useful in getting a more accurate representation of how the coastal areas are being used. This should also include the observation of the level of enforcement in those areas, as well as possibly measurements to better the understanding of the severity of the impacts of adventure tourism business versus the impacts of the general public. Furthermore, it would be beneficial to broaden the topic to health of coastal ecosystems. While the coastal structure is one important element in coastal erosion, this would give insight in how much the ecosystems are affected, how this has impacted the wildlife on land and in the sea as their habitat disappears and changes.

Another approach for future research would be to explore the trend of the parallel increase in coastal community expansion and the endangerment of coastal landscapes. Based on the theme of planning permissions, which unexpectedly emerged through this research, this could be useful to establish how people living in those communities feel about the expansion of developments.

Lastly, worth a consideration for future research would be some of the negativity the researcher encountered on the social media platforms used to distribute the tourist survey, mostly on Facebook. While there was an overwhelming positive reaction and encouragement by people on these platforms regarding this environmental study, there was a negative attitude displayed towards research in general. Comments such as “*What are your academic intentions and credits*”, “*Surveys are only good for the students doing it*” and “*Surveys aren’t helping the environment*” were disheartening, as research is the basis for change. Without research there would be no medicine, no nobel prize winners, no marketing, no food hygiene standard and one could go on forever with this list. This is why it was astonishing to see people react so negatively towards research aiming to be helpful and hopefully make a positive impact on the environment. Most importantly to add, the survey was voluntary, no one was forced to fill in the questionnaire, why bother leaving such negativity when it doesn’t have to concern individuals in the first place? Are these people possibly annoyed with the number of surveys they see online, are they “keyboard warriors” who are bored, or is there a negative shift towards research projects because the public is not seeing results? To recommend future research on these people’s negative opinions would be ironic, therefore the recommendation would be to possibly

conduct research amongst research students on the negativity or obstacles that they have encountered over the years and explore if there has been an increase in negativity towards research and possibly develop a theory as to why.

5.2.5 Key Recommendations – Quick View

Table 4. Overview and Urgency of Recommendations

Recommendation	Priority Level
1. Creation of a detailed sustainability plan for Irish coastal communities and tourism development. This can be based on international best practice to begin with, however ideally needs be adapted to Irish weather, soil and locations.	Emergency
2. Revisiting existing coastal erosion measures (such as erosion walls, bulk heads) and developing better systems in locations where these measures have proven not to be effective over the past 2-5 years.	Urgent
3. Enforcement of existing coastal preservation measures, where already applicable, and creation of enforcement strategies through recommendation based on sustainability plans.	Urgent
4. Education and training for government staff, as well as tourism providers who use nature for their activity, not only on best practice when it comes to coastal erosion prevention measure, but also which are the best solutions for the Irish landscape.	Important
5. Create credible environmental certification through regulations, ensure greenwashed certificates are taken off the market and ensure that certifications are beneficial for businesses.	Important
6. Education campaigns for the public and future programs for educational facilities such as school on the topic of coastal erosion.	Moderate

5.3 Conclusion

It is without doubt that a ban or severe restrictions of adventure tourism providers along the coasts is in no way advised. Not only would strict measures take away people's livelihood, but it has the potential of reducing tourism severely, making it clear that easy and inclusive guidelines and regulations which do not interfere with business operations are called for. As outlined in this chapter there are multiple advised guidelines for both businesses and tourists. All recommended actions are easy to implement and based on the willingness of the individuals and business owners can be strict or simple changes, both of which would make a good step into a more sustainable future for coastlines. Education on the topic of coastal erosion is key for all relevant parties. Additionally, future research in various aspects of related topics would be valuable to get a deeper understanding of other industry factors. This includes the identified gap in Ireland's research to evaluate, which coastal erosion prevention measures are suitable, based on geographical location and activity levels, in order to facilitate a long-term coastal erosion prevention system. The outlined frameworks for both tourist and business providers could be used as a basis for guideline development on the matter.

6.0 Bibliography

References

Department of Communications, Climate Action and Environment, 2019. *Irish Geological Research*. [Online] Available at: <https://www.gsi.ie/en-ie/geoscience-topics/natural-hazards/Pages/Coastal-Erosion.aspx> [Accessed 10 January 2020].

Department of Tourism, 2021. *Government of Ireland*. [Online] Available at: <https://www.gov.ie/en/publication/c0cd3-sustainable-tourism-working-group-report/> [Accessed 20 October 2021].

Bacon, M., 2012. *Pragmatism: An introduction*. 1 ed. Cambridge: MA: Polity.

Balas, M., 2016. *ECO LABELS IN TOURISM – CAN THEY BE TRUSTED?*, Eberswalde: Academy of Sciences Eberswalde (HNE).

Baumann, U., 2016. *Fluss- und Bergwandern, Slio Tips*. [Online] Available at: <https://silo.tips/download/fluss-und-bergwandern> [Accessed 20 August 2021].

Belhassen, Y. & Caton, K., 2009. ADVANCING UNDERSTANDINGS: A Linguistic Approach to Tourism Epistemology. *Annals of Tourism Research*, 2(36), pp. 335-352.

Bello, D. C. & Etzel, M. J., 1985. The rate of novelty in pleasure travel experiences. *Journal of Travel Research*, 24(1), pp. 20-26.

Bennett, K. & Zuelke, E., 1999. *The effects of recreation on birds: a literature review*. DE 1977 ed. Smyrna: Delaware Natural Heritage Program.

Bhat, A., 2017. *Global VP - Sales and Marketing*. [Online] Available at: <https://www.questionpro.com/blog/what-is-research/> [Accessed 3 February 2020].

Biedenbach, T., 2016. The Open Secret of Values: The Roles of Values and Axiology in Project Research. *Project Management Journal*, 3(47), pp. 139-155.

Blair, O., 2018. 8 holiday destinations at risk of being ruined by tourism. *Country Living*, 18 July.

Blangy, S. & Wood, M., 1993. *Developing and implementing ecotourism guidelines for wildlands and neighboring communities*. 1 ed. North Bennington: The Ecotourism Society.

Bochner, A., 2005. Perspective 4: Interpretive and Narrative. *Introduction to the Philosophies of Research and Criticism in Education and the Social Sciences*, 1(1), pp. 65-67.

Breiling, M. & Charamza, P., 1999. The Impact of Global Warming on Winter Tourism and Skiing: A Regionalised Model for Austrian Snow Conditions. *Regional Environmental Change*, 1(1), pp. 4-14.

Brink, P. & Wood, M., 2001, p. 57. *Basic Steps in Planning Nursing Research: From Question to Proposal*. 1 ed. Massachusetts: Jones & Bartlett Learning.

Brown, Saunders, Possingham & Richardson, 2013. Managing for Interactions between Local and Global Stressors of Ecosystems. *PLoS ONE*, 8(6).

Bruch, M., 2012. *Horse-based Tourism in Iceland – An Analysis of the Travel Motivation of Equestrian Tourists*. Hamburg: Anchor.

- Bryant, A., 2009. Grounded theory and pragmatism: The curious case of Anselm Strauss. *Qualitative Social Research*, 2(10).
- Buckley, R., 2012. Rush as a key motivation in skilled adventure tourism: Resolving the risk recreation paradox. *Tourism Management*, 33(4), pp. 961-970.
- Buckley, R., 2018. Private conservation funding from wildlife tourism enterprises in sub-Saharan Africa: Conservation marketing beliefs and practices. *Biological Conservation*, 1(218), pp. 57-63.
- Buckley, R., Shakeela, A. & Guitart, D., 2014. Adventure tourism and local livelihoods. *Annals of Tourism Research*, Volume 46, pp. 163-165.
- Bureau of Land Management, 2011. *U.S. DEPARTMENT OF THE INTERIOR - St. Anthony Sand Dunes*. [Online] Available at: <https://www.blm.gov/visit/st-anthony-sand-dunes> [Accessed 26 November 2018].
- Burns, N. & Grove, S., 2006, p. 15. *Understanding Nursing Research: Building an Evidence-based Practice*. 4 ed. Philadelphia: Saunders Elsevier.
- Burrell, G. & Gareth, M., 1985. *Sociological Paradigms and Organisational Analysis : Elements of the Sociology of Corporate Life*. 2 ed. Abingdon: Routledge.
- Canteiroa, M., Córdova-Tapiab, F. & Brazeiro, A., 2018. Tourism impact assessment: A tool to evaluate the environmental impacts of touristic activities in Natural Protected Areas. *Tourism Management Perspectives*, Volume 28, pp. 220-227.
- Carter, E., 1994. *Ecotourism a sustainable option?*. 2 ed. Chichester: Wiley.
- Carter, R., 1991. Climate Change: Studies on the Implications for Ireland. *Department of the Environment*, 1(a), p. 125–171.
- Carter, R. & Bartlett, D., 1990. Coastal erosion in northeast Ireland—Part 1: sand beaches, dunes and river mouths. *Irish Geography*, 1(23), pp. 1-16.
- Casanovas Pla, J. A., 2015. *Equestrian tourism in Europe*, Barcelona: Euquus.
- Cater, C. I., 2006. Playing with risk? participant perceptions of risk and management implications in adventure tourism. *Tourism Management*, 27(2), pp. 317-325.
- Cater, E., 1993. Ecotourism in the third world: problems for sustainable tourism development. *Tourism Management*, 14(2), pp. 85-90.
- CBI Ministry for Foreign Affairs, 2020. The Market Potential. *CBI by Molgo and ETFI*, 7 January.
- CBI Ministry of Foreign Affairs, 2019. *What is the demand for outbound tourism on the European market?*. [Online] Available at: <https://www.cbi.eu/market-information/tourism/trade-statistics/> [Accessed 27 November 2019].
- Ceballos-Lascuráin, H., 1993. Ecotourism a world wide phenomenon. *Ecotourism: a guide for planners and managers*, Volume 2, pp. 12-14.
- Center for Sustainable Tourism , 2007. *SUSTAINABLE TOURISM PRACTICES CHECKLIST* , North Carolina: East Carolina University's Office of Engagement, Innovation and Economic.
- Centre for Climate Adaptation, 2019. *Europe's coastal erosion in a changing climate*, Rotterdam: Climate Change Post.

- Charmaz, K., 2014. *Constructing grounded theory*. 2 ed. London: SAGE.
- Cheng, M., D. E., Darcy, S. & Redfern, K., 2018. A tri-method approach to a review of adventure tourism literature: Bibliometric analysis, content analysis, and a quantitative systematic literature review. *Journal of Hospitality and Tourism Research*, 42(6), pp. 997-1019.
- Chetty, P., 2016. Choosing an appropriate research philosophy. *PG*, 25 August, p. 105.
- Chouhan, N., Vig, H. & Deshmukh, R., 2019. *Adventure Tourism Market Outlook - 2026*, Singapore: Allied Market Research.
- Clean Coasts, 2020. *Clean Coasts*. [Online] Available at: <https://cleancoasts.org/> [Accessed 14 January 2021].
- Collier, A., 1994. *Critical realism: an introduction to the philosophy of Roy Bhaskar*. 2 ed. London: Verso.
- Collins, E., May, S., Cheney, G. & Roper, J., 2007. *The Debate over Corporate Social Responsibility*. 1 ed. Oxford: Oxford University Press.
- Collins, H., 2010. Creative Research: The Theory and Practice of Research for the Creative Industries. *AVA Publications*, Volume 1, p. 38.
- Corradi, A., 2017. *The Unsustainability of Mass Tourism*, Providence: Brown Political Review.
- CREST, 2003. *Center for Responsible Travel*. [Online] Available at: <https://www.responsibletravel.org/> [Accessed 5th October 2018].
- Creswell, J. W., 1994, p. 54. *Research design: Qualitative and quantitative approaches*. 1st ed. Thousand Oaks, CA: SAGE Publications.
- Crossan, F., 2003. Research philosophy: Towards an understanding. *Nurse Researcher*, 11 August, pp. 46-55.
- CSO, 2017. *Press Statement Census 2016 Results Profile 2 - Population Distribution and Movements*. [Online] Available at: <https://www.cso.ie/en/csolatestnews/pressreleases/2017pressreleases/presstatementcensus2016resultsprofile2-populationdistributionandmovements/#:~:text=Coastal%20Living,metres%20from%20the%20nearest%20coastline.> [Accessed February 18 2021].
- CSO, 2018. *TOURISM FACTS 2016*, Dublin: Failte Ireland.
- CSO, 2019. *Central Statistics Office*. [Online] Available at: <https://www.cso.ie/en/statistics/tourismandtravel/> [Accessed 16 September 2020].
- Dahles, H., 2015. *Ethnography in tourism*, na: Encyclopedia of Tourism.
- Dáil Éireann, 2019. *Houses of the Oireachtas*. [Online] Available at: <https://www.oireachtas.ie/en/debates/question/2019-01-15/273/> [Accessed 10 November 2020].
- Davenport, J. & Davenport, J. L., 2006. The impact of tourism and personal leisure transport on coastal environments: A review. *Estuarine, Coastal and Shelf Science*, 67(1-2), pp. 280-292.
- Dean, C., 1993. Horses of Coast Islands, A Regional Symbol, Harm the Environment. *The New York Times*, 27 July, pp. 1-4.

Deegan, G., 2019. Clare council offering €300k to consultants who can come up with Cliffs of Moher 'masterplan'. *The Journal*, 18 July.

DELG, 2001. *Coastal Zone Management. Spatial Planning Unit*, Dublin: Department of the Environment and Local Government.

Department of Education, 2020. *JUNIOR AND LEAVING CERTIFICATE GEOGRAPHY SYLLABUS*, Dublin: Department of Education.

Department of Public Expenditure, 2021. [Online] Available at: <https://www.gov.ie/en/publication/eed0fb-irish-coastal-protection-strategy-study-icpss/>

Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media , 2020. *gov.ie*. [Online] Available at: <https://www.gov.ie/en/policy-information/552b9f-regulation-of-the-tourism-sector/> [Accessed 19 January 2020].

Dept. Housing, Local Government and Heritage, 2020. *Gov.ie*. [Online] Available at: <https://www.gov.ie/en/press-release/7b418-national-coastal-change-management-strategy-steering-group-meets-for-first-time/#:~:text=National%20Coastal%20Change%20Management%20Strategy%20Steering%20Group%20meets%20for%20first%20time,-From%20Department%20of&> [Accessed 15 September 2020].

Devoy, R., 2008. *Coastal Vulnerability and the Implications of Sea-Level Rise for Ireland*, Cork: Marine Institute STAFF .

Devoy, R., 2011. *Best International Practice for Ireland's Coastal and Marine Governance. Irish Coastal Network.*, Cork: University College Cork.

Dobson, P., 2002. Critical realism and information systems research: why bother with philosophy?. *Information Research*, 2(7).

Dodds & Joppe, 2005. *CSR in the Tourism Industry? The Status of and Potential for Certification, Codes of Conduct and Guidelines*, s.l.: Study prepared for the CSR Practice Foreign Investment Advisory Service Investment Climate Department.

Dodds, R., 2001. *Sustaining Tourism - Tourism Accreditation and Certification*. [Online] Available at: <https://sustainabletourism.net/sustainable-tourism/sustainable-tourism-resource/tourism-accreditation-and-certification/> [Accessed 11 December 2020].

Doherty, B., 2019. *Outsider - Ecotourism Ireland and Vagabond Tours Team Up to Promote Sustainable Tourism in Ireland*. [Online] Available at: <https://outsider.ie/latest/ecotourism-ireland-and-vagabond-tours/> [Accessed 13 January 2021].

Dowling, R., 2014. Global Geotourism – An Emerging Form of Sustainable Tourism. *Czech Journal of Tourism*, 2(2), pp. 1-34.

Dowling, R. a. D. N., 2018. *Geotourism: Definition, characteristics and international perspectives*, s.l.: Edith Cowan University.

DPMG, 2018. OPW funding is provided for coastal erosion measures. *Dublin People Media Group*, 24 October.

Dubsky, K. et al., 2018. *Coastal Character, Biodiversity and Marine Spatial Planning* , Dublin: Department of Civil, Structural, and Environmental Engineering, Museum Building.

Dunford, J., 2008. Adventure tourism - Europe. *Travel & Tourism Analyst*, 11(8), pp. 1-47.

Eagles, P., McCool, S. & Haynes, C., 2002. *Turismo sostenible en áreas protegidas: directrices de planificación y gestión*. s.l.:Organización Mundial del Turismo .

Ecorys, 2013. *Trade Sustainability Impact Assessment in support of negotiations of a DCFTA between the EU and Tunisia*, Rotterdam: Ecorys.

Edwards, P., Sutton, A. & Coyled, G., 2013. Investing in nature: Restoring coastal habitat blue infrastructure and green job creation. *Marine Policy*, 38(12), pp. 65-71.

Éire-Ildánach, 2016. *Culture 2025 - Éire Ildánach*, Dublin: Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

ENAT, 2020. *European Network for Accessible Tourism*. [Online] Available at: https://www.accessibletourism.org/?i=enat.en.mission_statement [Accessed 20 July 2021].

ETIS, 2020. *European Tourism Indicators System for sustainable destination management*. [Online] Available at: https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators_en [Accessed 22 October 2020].

European Commission, 2009. *The economics of climate change adaptation in EU coastal areas*, Brussels: European Commission - Policy Research Corporation.

European Commission, 2011. *Corporate social responsibility & Responsible business conduct*, Brussels: European Commission - Internal Market, Industry, Entrepreneurship and SMEs.

European Commission, 2019. *European Tourism Indicators System for sustainable destination management*. [Online] Available at: https://ec.europa.eu/growth/sectors/tourism/offer/sustainable/indicators_en [Accessed 14 August 2021].

Evans, R., Sigurðardóttir, I. & Helgadóttir, G., 2015. *A Good Practice Guide to Equine Tourism*, Klepp stasjon: The Riding Native Nordic Breeds Project.

Fáilte Ireland, 2013. <https://www.failteireland.ie/In-Your-Sector/Activities/Get-Out-There-Adventure-Tourism-Conference-2013.aspx>. Dublin, 4th, Get Out There Adventure Tourism Forum.

Fáilte Ireland, 2014. *ADVENTURE Travel - What is Adventure Travel?*, Dublin: Fáilte Ireland.

Fáilte Ireland, 2015. *Wild Atlantic Way Operational Programme 2015-2019*, Dublin : Fáilte Ireland.

Fáilte Ireland, 2019. *Key Tourism Facts 2018*, Dublin: Fáilte Ireland.

Fáilte Ireland, 2020. *Tourism Facts and Figures 2019*, Dublin: RESEARCH UNIT, Fáilte Ireland.

Fáilte Ireland, 2020. *Wild Atlantic Way brand guidelines*. [Online] Available at: <https://www.failteireland.ie/Wild-Atlantic-Way/Wild-Atlantic-Way-Brand-Guidelines.aspx> [Accessed 15 June 2021].

Fáilte Ireland, 2021. *Key Tourism Facts 2019*. [Online] Available at: <https://www.tourismireland.com/Press-Releases/2021/July/Targeting-luxury-and-outdoor-adventure-tourism-bus> [Accessed 12 August 2021].

FáilteIreland, 2012. *A Tourism Toolkit for Irelands Cultural Experiences*, Dublin: Fáilte Ireland Offices.

Field studies Council, 2020. *Field studies Council*. [Online] Available at: <https://www.field-studies-council.org/about-us/> [Accessed 15 January 2021].

- FITE, 2017. *An economic and cultural reality*, s.l.: European Horse Network .
- Flannery, W., Lynch, K. & Ó Cinnéide, M., 2014. *Consideration of coastal risk in the Irish spatial planning process*, NUI Galway: Elsevier.
- Fluker, M. & Turner, L. W., 2000. Needs, Motivations and expectations of a commercial whitewater rafting experience. *Journal of Travel Research*, Volume 38, pp. 380-389.
- Font, X., Elgammal, I. & Lamond, I., 2017. Greenhushing: the deliberate under communicating of sustainability practices by tourism businesses. *Journal of Sustainable Tourism*, 25(7), pp. 1007-1023.
- Froni, I., Modica, P. & Zenga, M., 2019. Residents' Satisfaction with Tourism and the European Tourism Indicator System in South Sardinia. *Stakeholder Management in Tourism Destinations*, 11(8), p. 2234.
- Frey, B., 1985. *Umwelt Oekonomie [Engl.: Environmental Economics]*. 2. ed. California : Vandenhoeck & Ruprecht.
- Gaines, B. et al., 2007. Same Facts, Different Interpretations: Partisan Motivation and Opinion on Iraq. *The Journal of Politics*, 21 November, 4(69), pp. 20-31.
- Gale, R., 1972. *From sit-in to hike-in: a comparison of the civil rights and environmental movements. Social Behaviour, Natural Resources and the Environment*. 1 ed. New York: Harper and Row.
- Geological Survey Ireland, 2021. *Geological Survey Ireland*. [Online] Available at: <https://www.gsi.ie/en-ie/education/rocks-minerals-and-gems/Pages/Rock-types.aspx>
- Gergen, K. & Gergen, M., 2003. *Social Construction: A Reader*. 2 ed. London: SAGE.
- Gibson, P. G. N., 2014. *Constructive and Destructive Interference*, Connecticut: College of Liberal Arts and Sciences; National Science Foundation, Research Corporation, and the University of Connecticut.
- Gnoth, J., 1997. Tourism motivation and expectation formation. *Annals of Tourism Research*, 24(2), pp. 283-304.
- Goldkuhl, G., 2012. Pragmatism vs interpretivism in qualitative information systems research. *European Journal of Information Systems*, 10(54).
- Gómez, M. & Belén, M., 2005. Weather, climate and tourism a geographical perspective. *Annals of Tourism Research*, 32(3), pp. 571-591.
- Gomez, T., 2019. *WHAT IS RESPONSIBLE TOURISM AND WHY IS IT IMPORTANT?*. [Online] Available at: <https://broganabroad.com/what-is-responsible-tourism/> [Accessed 10 November 2020].
- Goodwin, H., 2017. *The Challenge of Overtourism*, s.l.: Responsible tourism partnership.
- Graburn, H. & Jafari, J., 1991. Introduction: Tourism social science. *Annals of Tourism Research*, 1(18), pp. 1-11.
- Griffin, B., 2019. Sustainable Tourism: Statements. *Dáil Éireann debate - Thursday, 13 Jun 2019*, 983(6).
- GSTC, 2020. *GSTC Industry Criteria for Tour Operators*. [Online] Available at: <https://www.gstccouncil.org/gstc-criteria/gstc-industry-criteria-for-tour-operators/> [Accessed 13 January 2021].

- Guba, E. G. & Lincoln, Y. S., 1982. Epistemological and methodological bases of naturalistic inquiry.. *ECTJ*, 30(4), pp. 233-252.
- Hagberg, G. & Jost, W., 2015. *A Companion to the Philosophy of Literature*. 1 ed. Hoboken, New Jersey: John Wiley & Sons.
- Hall, M., 2012. *The natural science ontology of environment - The Routledge Handbook of Tourism and the Environment*. 2 ed. Oxon: Routledge Handbooks.
- Hardy, A., Beeton, R. & Pearson, L., 2002. Sustainable Tourism: An Overview of the Concept and its Position in Relation to Conceptualisations of Tourism. *Journal of Sustainable Tourism*, 1(10), pp. 475-496.
- Harper, D., 2001. *Etymonline dictionary*. [Online] Available at: <https://www.etymonline.com/word/sustainable> [Accessed 21 October 2020].
- Harrison, D., 2007. Towards Developing a Framework for Analysing Tourism Phenomena: A Discussion. *Current Issues in Tourism*, 1(10), pp. 61-85.
- Hawaii Ecotourism Association, 2018. *Sustainable Tourism Certification Checklist*, Honolulu: Hawaii Ecotourism Association.
- Hayes, C., 2020. Major challenge of coastal erosion facing the island. *oceanfm*, 10 March.
- Heaney, S. & English, E., 2021. *Irish Examiner*. [Online] Available at: <https://www.irishexaminer.com/news/munster/arid-40312790.html> [Accessed 21 August 2020].
- Helgadóttir, G., 2008. Horse-based Tourism: Community, Quality and Disinterest in Economic Value. *Scandinavian Journal of Hospitality and Tourism*, Volume 8(2), pp. Pages 105-121.
- Henry, M., 2020. *Gov.ie - Department of Transport, Tourism and Sport*. [Online] Available at: <https://www.gov.ie/en/organisation-information/f2e9f1-failte-ireland/#:~:text=Put%20simply%2C%20Tourism%20Ireland%20focuses,on%20the%20island%20of%20Ireland.> [Accessed 07 July 2020].
- Heron, J. & Reason, P., 1997. A Participatory Inquiry Paradigm. *SAGE Journals*, 3(3), pp. 274-294.
- Holden, A. & Fennell, D., 2012. *The Routledge Handbook of Tourism and the Environment*. 1 ed. New York: Routledge.
- Holden, M. T. & Lynch, P., 2004. Choosing the Appropriate Methodology: Understanding Research Philosophy. *The Marketing Review*, 4(4), pp. 347-409.
- Howe, K., 2003. *Closing Methodological Divides: Toward Democratic Educational Research*, London: Routledge and Kegan Paul.
- Huddle, J., 2018. *Advantages & Disadvantages of Ethnographic Research*, s.l.: Classroom Leaf Group Education Ltd.
- Hudson, S., 2003. *Sport and Adventure Tourism*. 1st ed. New York: The Haworth Hospitality Press.
- Hunter, C., 1997. SUSTAINABLE TOURISM AS AN ADAPTIVE PARADIGM. *Annals of Tourism Research*, 4(24), pp. 850-867.
- Hylgaard, T. & Liddle, M., 1981. The Effect of Human Trampling on a Sand Dune Ecosystem Dominated by *Empetrum nigrum*. *Journal of Applied Ecology*, Vol. 18(No. 2), pp. pp. 559-569.

IAAT, 2018. *Representative Body for Adventure Tourism Launched – Adventure Tourism Sector Worth €1.2 billion to Economy*, Dublin: Ireland's Association for Adventure Tourism.

IAAT, 2020. *IAAT Ireland Association for Adventure Tourism*. [Online] Available at: <https://iaat.ie/membership-requirements/> [Accessed 28 December 2020].

Institute of Public Health, 2020. *Ageing and Public Health – an overview of key statistics in Ireland and Northern Ireland*, Dublin: The Institute of Public Health.

Irish Food Board, 2020. *Bord Bia*. [Online] Available at: <https://www.bordbia.ie/about/> [Accessed 16 February 2021].

Irish Government Publications, 1999. *National Development Plan 2000-2006*, Dublin: THE STATIONERY OFFICE.

Irish Statute Book, 1963. *COAST PROTECTION ACT, 1963.*. Dublin, Irish Statute Book.

Irish Statute Book, 2004. *S.I. No. 199/2004 - European Communities (General Product Safety) Regulations 2004*, Dublin: Statutory Instruments Ionstraimí Reachúla.

ITIC, 2018. *An Industry Strategy for Growth to 2025*, Dublin: Irish Tourism Industry Confederation (ITIC).

Kaps, B., 2018. Mit Strandhafer und Trillerpfeife gegen den Bodenverlust. *Deutschlandfunk*, 21 August.

Kavanagh, B., 2016. *The economic importance of Ireland's thoroughbred horse industry*, Dublin: GoRacing.

Kelly, P., 2020. *Gov.ie - Department of Transport, Tourism and Sport*. [Online] Available at: <https://www.gov.ie/en/policy/3fcc3a-tourism/> [Accessed 10 July 2020].

Kiely, M., 2020. *Leave No Trace Ireland*. [Online] Available at: <https://www.leavenotraceireland.org/people/maura-kiely/> [Accessed 12 January 2021].

Kincheloe, J. & McLaren, P., 2002. Rethinking Critical Theory and Qualitative Research. *The Landscape of Qualitative Research: Theories and Issues*, pp. 433-488.

Kiper, T., 2013. *Role of Ecotourism in Sustainable Development*. 1 ed. Turkey: Namik Kemal University, Faculty of Fine Arts, Design and Architect, Department of Landscape.

König, U. & Abegg, B., 1997. Impacts of Climate Change on Winter Tourism in the Swiss Alps. *Journal of Sustainable Tourism*, 5(1), pp. 46-57.

Kunkel, K. e. a., 2013. *Monitoring and understanding trends in extreme storms: State of knowledge*, North Carolina: Bulletin of the American Meteorological Society.

Ladson-Billings, G. & Donnor, J., 2005. *The Moral Activist Role of Critical Race Theory Scholarship*, Thousand Oaks, CA: Sage.

Landsberg, J., Logan, B. & Shorthouse, D., 1999. *Horse riding in urban conservation areas: Reviewing scientific evidence to guide management*. 1st ed. Lyneham: CSIRO Wildlife and Ecology in Canberra.

Laura & Russ - The Path less Pedaled, 2013. *The Path less Pedaled*. [Online] Available at: <http://www.pathlesspedaled.com/2013/02/17/what-is-bicycle-tourism/> [Accessed 27 November 2019].

- Leedy, P. & Ormrod, J., 2001, p. 157. *Practical Research: Planning and Design*. 7 ed. Upper Saddle River, NJ and Thousand Oaks, CA: Merrill Prentice Hall and SAGE Publications.
- Leiper, N., 2000. An emerging discipline. *Annals of Tourism Research*, 3(27), pp. 805-809.
- Lithgowac, D. et al., 2019. Exploring the co-occurrence between coastal squeeze and coastal tourism in a changing climate and its consequences. *Tourism Management*, Volume 74, pp. 43-54.
- Littlejohn, S. & Foss, K., 2009. *Encyclopedia of Communication Theory*. 1 ed. Thousand Oaks: SAGE Publications.
- Liu, Z., 2010. Sustainable Tourism Development: A Critique. *Journal of Sustainable Tourism*, 11(6), pp. 459-475.
- Lucey, A., 2005. *Quad bikes, motorcycles and horses facing beaches ban*, Dublin: Independent.
- Lumley, I., 2020. *An Taisce - Origin Green needs to be put out to grass*. [Online] Available at: <https://www.antaisce.org/news/origin-green-needs-to-be-put-out-to-grass> [Accessed 28 July 2021].
- Lund-Durlacher, D., 2013. *Corporate Social Responsibility in Tourism*. 1 ed. Heidelberg: Springer.
- Lyle, A., 2018. What is Kayaking? Equipment, Best Season, Top Spots. *Explore-share - Guided Adventure Everywhere*, 30 July, p. 2.
- Lynch, P., 2013. *Ireland's Fractal Coastline*. [Online] Available at: <https://thatsmaths.com/2013/12/12/irelands-fractal-coastline/> [Accessed 1 September 2021].
- MacKay, I. & Weinstein, K., 1998. *Asking Questions*. 1st ed. Cambridge: CIPD Publishing.
- Maddison, D., 2001. In Search of Warmer Climates?. The Impact of Climate Change on Flows of British Tourists. *Climatic Change*, 1(49), pp. 193-208.
- Maher, E., 2021. *Mason Hayes & Curran LLP*. [Online] Available at: <https://www.mhc.ie/latest/insights/how-green-is-my-food-greenwashing-claims-in-the-food-sector> [Accessed 28 July 2021].
- Maltoni, V., 2015. *Plato's Four Big Ideas for a More Fulfilled Life*. [Online] Available at: <https://www.conversationagent.com/2015/07/a-more-fulfilled-life.html> [Accessed 30 March 2020].
- Marquis, C., Toffel, M. & Zhou, Y., 2016. Scrutiny, Norms, and Selective Disclosure: A Global Study of Greenwashing. *Organization Science*, 27(2), pp. 233-504.
- Mbaiwa, J., 2005. The Problems and Prospects of Sustainable Tourism Development in the Okavango Delta, Botswana. *Journal of Sustainable Tourism*, 13(3), pp. 38-45.
- McCombes, S., 2019. *An introduction to sampling methods*. [Online] Available at: <https://www.scribbr.com/methodology/sampling-methods/#:~:text=A%20sample%20is%20a%20subset%20of%20individuals%20from%20a%20larger%20population.&text=Probability%20sampling%20means%20that%20every%20member%20of%20the%20target%20population, stratified%20sampl> [Accessed 16 September 2020].
- McDonagh, M., 2021. Section of sand dunes at Strandhill eroded by last year's storms. *The Irish Times*, 11 April.
- McGrath, M., 2020. *Minister McGrath launches Review of the National Development Plan*, Dublin: The Minister for Public Expenditure and Reform.

- McKenna, J., Carter, R. & Bartlett, D., 1992. Coast erosion in north-east Ireland - Part 2: cliffs and shore platforms. *Irish Geography*, 1(25), p. 111–128.
- Mckercher, B., 2012. *Cultural Tourism: The Partnership Between Tourism and Cultural Heritage*. New York: Routledge.
- Mead, T., 2020. *Tiny West Coast town fights back against coastal erosion with clever concrete invention*, Auckland: 1news.
- Middleton, V., 2015. *The Tourism Society*. [Online] Available at: <http://www.tourismsociety.org/page/88/tourism-definitions.htm> [Accessed 10 November 201].
- Mihalic, T., 2016. Sustainable-responsible tourism discourse – Towards ‘responsustable’ tourism. *Journal of Cleaner Production*, 111(B), pp. 461-470.
- Milano, C., Cheer, J. & Novelli, M., 2019. *Overtourism: Excesses, Discontents and Measures in Travel and Tourism*. 1 ed. Boston: CABI.
- Mitlin, D., 1992. A Guide to the Literature, Environment and Urbanization. *Sustainable Development*, 4(11), pp. 111-124 .
- Morris, C., 2017. *Plan for horses on beaches ‘overkill’*, Dunedin: Otago Daily Times.
- Muijs, D., 2010. *Doing Quantitative Research in Education with SPSS*. 2nd ed. London: SAGE Publications.
- Mulrennan, M., 1993. Changes since the Nineteenth Century to the Estuary-Barrier Complexes of North County Dublin. *Irish Geography* , 1(26), pp. 1-13.
- Munster, I., 2019. Dáil Éireann debate - Thursday, 13 Jun 2019. *Sustainable Tourism: Statements*, 983(6).
- Murdoch, J., 1993. Sustainable Rural Development: Towards a Research Agenda. *Geoforum*, 1(24), pp. 225-241 .
- Murphy, J., 2014. *Coastal erosion around Ireland and engineering solutions*, Cork: Engineers Journal.
- Murphy, J., 2019. *Cork County on the Rise: ‘To combat erosion we must understand nature’*, Cork: SFI Research Centre for Energy, Climate and Marine Innovation.
- Myers, A., 2019. *Greenwashing*, Salem: Salem Press Encyclopedia.
- National Transport Authority, 2020. *NATURA IMPACT REPORT* , Dublin: CAAS Ltd..
- National Trust, 2021. *National Trust*. [Online] Available at: <https://www.nationaltrust.org.uk/our-cause> [Accessed 21 July 2021].
- Nature Learn, 2020. *Nature Learn*. [Online] Available at: <https://www.naturelearn.com/about.html> [Accessed 15 January 2021].
- NBTC Holland, 2019. *Perspective 2030 - Destination the Netherlands*, The Hague: NBTC Holland Marketing.
- Newsome, D., Milewski, A., Phillips, N. & Annear, R., 2010. Effects of Horse Riding on National Parks and Other Natural Ecosystems in Australia: Implications for Management. *Journal of Ecotourism*, 1(1), pp. Pages 52-74.

- NOAA, 2016. *What is Climate - Earth System Research Laboratory*, Boulder: National Oceanic & Atmospheric Administration.
- Noddings, N., 2005. Perspective 2: Pragmatism. *Introduction to the Philosophies of Research and Criticism in Education and the Social Sciences*, pp. 57-60.
- Norman, M., 2016. *Coastal Care*. [Online] Available at: <http://coastalcare.org/educate/sand-dunes/> [Accessed 12 November 2018].
- North West Coaststeering, 2019. *North West Coaststeering*. [Online] Available at: <http://www.northwestcoaststeering.com/> [Accessed 13 January 2020].
- Northland Regional Council, 2016. *Why protect our sand dunes?*. [Online] Available at: <https://www.nrc.govt.nz/environment/coast/coastcare/sand-dunes/> [Accessed 4 January 2021].
- Novikov, A. & Novikov, D., 2013. *Research Methodology: From Philosophy of Science to Research Design*. 2 ed. Boca Raton, Florida: CRC Press.
- Nunes, L., Raposo, M. & Gomes, C., 2020. *The Impact of Tourism Activity on Coastal Biodiversity: A Case Study at Praia da Cova Redonda*, Évora: Environments - Journal.
- OECD, 2018. *OECD Tourism Trends and Policies*, Paris: OECD Publishing.
- OECD, 2020. *Organisation for Economic Cooperation and Development (OECD) - Tourism Trends and Policies 2020*, Chapter 3, Paris: OECD.
- Oleson, V., 2005. Early Millennial Feminist Qualitative Research: Challenges and Contours. *The Handbook of Qualitative Research*, pp. 235-278.
- Opendakker, R., 2006. Advantages and Disadvantages of Four Interview Techniques in Qualitative Research. *Qualitative Social Research*, 4(7).
- OPW & RPS, 2014. *Irish Coastal Protection Strategy Study Phase 5 - North West Coast; Work Packages 2, 3 & 4A - Appendix 4- Erosion Mapping*, Dublin: Office of Public Works Engineering Services.
- O'Sullivan, K., 2018. Lack of enforcement of environmental laws 'a national scandal'. *The Irish Times*, 16 July.
- Parker, Zutshi & Bardo, 2010. *Online corporate social responsibility communication by Australian SMEs: a framework for website analysis*. Maribor, 23rd Bled eConference.
- Patel, D., 2017. 11 Environmental Causes Gen Z Is Passionate About. *Forbes*, 4 October.
- Pețan, C., 2008. THE IMPORTANCE OF CERTIFICATION SCHEMES IN SUSTAINABLE DEVELOPMENT OF TOURISM. *Annals of the University of Oradea, Economic Science Series*, 17(2), pp. 340-343.
- Peterson, N., Hull, V., Mertig, A. & Liu, J., 2008. Evaluating household-level relationship between environmental views and outdoor recreation: The Teton Valley case. *Leisure Sciences*, 1(30), pp. 293-305.
- Phillips, M. & Jones, A., 2006. Erosion and tourism infrastructure in the coastal zone: Problems, consequences and management. *Tourism Management*, 27(3), pp. 517-524.

- Phillips, N. & Newsome, D., 2001. Understanding the impacts of recreation in Australian protected areas: Quantifying damage caused by horse riding in D'Entrecasteaux National Park, Western Australia. *Pacific Conservation Biology*, 7(4), pp. 256 - 273.
- Pickering, C. M., 2010. Ten Factors that Affect the Severity of Environmental Impacts of Visitors in Protected Areas. *AMBIO*, 39(1), p. pp 70–77.
- Pintassiglo, P., Pinto, P. & Frank, F., 2015. Environmental awareness of surf tourists: A case study in the Algarve. *Journal of Spatial and Organizational Dynamic*, 3(2).
- Polkinghorne, D., 2007. Validity Issues in Narrative Research. *Qualitative Inquiry*, 4(13), pp. 471-486.
- Pololikashvili, Z., 2018. 'Overtourism'? *Understanding and Managing Urban Tourism Growth beyond Perceptions*, Madrid, Spain: World Tourism Organization (UNWTO).
- Polovitz-Nickersona, N., Jorgensona, J. & Boleyb, B. B., 2016. Are sustainable tourists a higher spending market?. *Sciencedirect*, Volume Volume 54, pp. 170-177.
- Pomfret, G., 2019. Conceptualising family adventure tourist motives, experiences and benefits. *Journal of Outdoor Recreation and Tourism*, Volume 28(Article 100267), pp. 26-42.
- Ponting, J., 2009. Projecting Paradise: The Surf Media and the Hermeneutic Circle in Surfing Tourism. *Tourism Analysis*, 14(2), pp. 175-185.
- PRC/MRAG, 2009. *FINAL REPORT "THE ECONOMICS OF CLIMATE CHANGE ADAPTATION IN EU COASTAL AREAS"*. [Online] Available at: HTTPS://EC.EUROPA.EU/MARITIMEAFFAIRS/SITES/MARITIMEAFFAIRS/FILES/DOCS/BODY/SWEDEN_C_LIMATE_CHANGE_EN.PDF [Accessed 15 August 2020].
- Racing Tours Ireland, 2017. *Racing Tours Ireland*. [Online] Available at: <https://www.racingtoursireland.com/> [Accessed 22 November 2018].
- Radio Kerry News, 2018. OPW approves funding for coastal erosion study in Tralee Bay. *Radio Kerry News*, 5 June.
- Rees, L., 2019. *AWE365*. [Online] Available at: <https://awe365.com/europe-kayak-holidays-23-best-european-kayaking-destinations/> [Accessed 13 January 2020].
- Reis, P. & Jorge, J. P., 2012. *Surf tourism: segmentation by motivation and destination choice*, Peniche: Proceedings of the 2nd International Conference on Tourism Recreation.
- Ridley, C., 2019. *Strandhill And Its Coastal Erosion Problem*. [Online] Available at: <https://www.sligotown.net/strandhills-coastal-erosion-problem.shtml/> [Accessed 18 January 2021].
- RISC, 2020. *Coastal Management EU*. [Online] Available at: <https://coastal-management.eu/governance/sweden> [Accessed 14 August 2021].
- Robertson, H., 2010. *The Preventive Methods of Beach Erosion*, s.l.: Summer Ventures in Science and Mathematics.
- Rose, H. & Gordon, Y., 2005. *West of Ireland*. 1st ed. Galway: Premier Guides Ltd. .
- Rowlands, B., 2005. Grounded in Practice: Using Interpretive Research to Build Theory. *The Electronic Journal of Business Research Methodology*, 3(1), pp. 81-92.
- Runting, R., Lovelock, C., Beyer, H. & Rhodes, J., 2017. Costs and opportunities of preserving coastal wetlands under sea level rise. *Conservation Letters*, 1(10), pp. 49-57.

- Ryall, Á., 2018. Lack of enforcement of environmental laws 'a national scandal'. *The Irish Times*, 16 July.
- Saldana, 2008. *An Introduction to Codes and Coding*. [Online] Available at: https://www.sagepub.com/sites/default/files/upm-binaries/24614_01_Saldana_Ch_01.pdf [Accessed 11 February 2019].
- Saldana, J., 2009. *The Coding Manual for Qualitative Researchers*, Thousand Oaks, California: Sage.
- Samuelsen, R., 2017. *A place undiscovered*, Tórshavn: The Faroe Islands.
- Sarantakou, E., 2019. Non-Institutionalized Forms of Tourism Accommodation and Overtourism Impacts on the Landscape: The Case of Santorini, Greece. *Tourism Planning & Development*, 4(16), pp. 411-433.
- Saunders, M., Lewis, P. & Thornhill, A., 2009. *Understanding research philosophy and approaches to theory development*. 8 ed. Birmingham: Pearson Education.
- Saunders, M., Lewis, P. & Thornhill, A., 2012. *Research Methods for Business Students*. 6 ed. Harlow, United Kingdom: Pearson Education Limited.
- Saunders, M., Lewis, P. & Thornhill, A., 2016. *Research Methods for Business Students*. 7th ed. Essex: Pearson Education Limited.
- Sauro, J., 2015. 5 TYPES OF QUALITATIVE METHODS. *Measuring U*, 13 October.
- Schianetz, K., Lockington, D. & Kavanagh, L., 2009. Concepts and Tools for Comprehensive Sustainability Assessments for Tourism Destinations: A Comparative Review. *Journal of Sustainable Tourism*, 15(4), pp. 369-389.
- Schwandt, T., Bochner, A. & Gergen, M. K., 2000. Three Epistemological Stances for Qualitative Inquiry: Interpretivism, Hermeneutics, and Social Constructionism. *The Handbook of Qualitative Research*, 2(30), pp. 189-213.
- Scott, D. & Lemieux, C., 2010. Weather and Climate Information for Tourism. *Procedia Environmental Sciences*, Volume Volume 1, pp. 146-183.
- Scott, D. & McBoyle, G., 2001. Using a Modified Tourism Climate Index to Examine the Implications of Climate Change for Climate as a Natural Resource for Tourism. *Proceedings of the First International Workshop on Climate, Tourism and Recreation, International Society of Biometeorology*, 1(5), pp. 69-89.
- Seguel, B., 2019. *The Impact of Tourism on Wilderness Areas*, Stourbridge, UK: ACS Distance Education.
- Sheragy, K., 2019. *Pros & Cons of Qualitative & Quantitative Research*. [Online] Available at: <https://classroom.synonym.com/pros-cons-qualitative-quantitative-research-8179604.html> [Accessed 28 January 2019].
- Shoemaker, S., 1989. Segmentation of the senior pleasure travel market. *Journal of Travel Research*, III(27), pp. 14-21.
- Silton, A. & Grannis, J., 2010. *Stemming the Tide: How Local Governments Can Manage Rising Flood Risks*, Georgetown: Georgetown Climate Center.

- Sligo County Council, 2021. *Sligo Co. Co.* [Online] Available at: <https://www.sligococo.ie/jobvacancies/> [Accessed 21 October 2021].
- Smith, K., 1993. The Influence of Weather and Climate on Recreation and Tourism. *Royal Meteorological Society*, Volume 48, pp. 398-404.
- Smith, V. & Font, X., 2014. Volunteer tourism, greenwashing and understanding responsible marketing using market signalling theory. *Journal of Sustainable Tourism*, 22(6), pp. 942-963.
- Sobh, R. & Perry, C., 2006. Research design and data analysis in realism research. *European Journal of Marketing*, 11/12(40), pp. 1194-1209.
- Socio-Economic Survey of Recreational Fishing in Europe (RECFISH), 2007. *Social, economical and environmental importance of recreational angling*, Barcelona: Prepared by: European Anglers' Alliance, EAA: Brussels.
- Speziale, H. & Carpenter, D., 2003. *Qualitative Research in Nursing: Advancing the Humanistic Imperative*. 3 ed. New York: Lippincott Williams & Wilkins.
- Stainton, H., 2019. *Sustainable tourism explained: What, why and where*. Staffordshire, tourism teacher.
- Stanton, D., 2021. *National Coastal Change Management Strategy Steering Group*. [Online] Available at: <http://stanton.ie/2021/10/19/national-coastal-change-management-strategy-steering-group/> [Accessed 10 November 2021].
- Stewart-Keene, S., 2019. *The benefits of collecting anonymous data*. [Online] Available at: <https://www.mentimeter.com/blog/transparency-at-work/the-benefits-of-collecting-anonymous-data> [Accessed 25 February 2021].
- Sunlu, U., 2003. Environmental impacts of tourism. In: C. D. & G. L., eds. *Local resources and global trades: Environments and agriculture in the Mediterranean region*. Bari: CIHEAM, pp. pages 263-270.
- SurferToday, 2016. *SurferToday*. [Online] Available at: <https://www.surfertoday.com/surfing/what-is-stand-up-paddleboarding-sup> [Accessed 27 November 2019].
- Swarbrooke, J., Beard, C., Leckie, S. & Pomfret, G., 2003. *Adventure Tourism. The New Frontier*. 1st ed. Oxford:: Butterworth-Heinemann.
- Swarbrooke, J., Beard, C., Leckie, S. & Pomfret, G., 2007. *Adventure Tourism - The new frontier*. 4th ed. Oxford: Butterworth-Heinemann.
- Tallon, S., 2017. *Destination Spike Island*, Cork: Walker Consortium.
- Tanabe-Uechi & Naomie Wojciech, M., 2013. *Idioms of Ontology : A Phenomenological Study of Whitman*. reprint ed. Cambridge: Cambridge Scholars Publishing.
- TCFI, 2020. *Community Foundation for Ireland*. [Online] Available at: <https://www.communityfoundation.ie/impacts/climate-action> [Accessed 18 February 2021].
- Tennis, J., 2008. Epistemology, Theory, and Methodology; Toward a Classification, Metatheory, and Research Framework. *Knowledge Organization*, 2(32), pp. 102-112.
- Terrero, R., 2018. *Stats: 87% Of Travelers Want To Travel Sustainably*, Massachusetts: Travel Agent Central.

- Thapa, B., 2010. The mediation effect of outdoor recreation participation on environmental attitude behaviour correspondence. *The Journal of Environmental Education*, 41(3), pp. 133-150.
- The British Horse Society Scotland , 2003. *Scottish Outdoor Access Code - A guide to responsible horse riding in North Ayrshire*, North Ayrshire: The British Horse Society Scotland .
- The Cape Town Declaration, 2002. *International Conference on Responsible Tourism in Destinations*. Cape Town, Cape Town Declaration.
- The Irish Times, 2006. Revenue from equestrian tourism expected to rise. *The Irish Times*, 12 August.
- The Office of Public Works, 2019. *gov.ie*. [Online] Available at: <https://www.gov.ie/en/policy-information/8047e7-study-of-flood-risk-in-ireland/> [Accessed 10 November 2020].
- Theodori, G., Luloff, A. & Willits, F., 1998. The association of outdoor recreation and environmental concern: Reexamining the Dunlap-Heffernan thesis. *Rural Sociology*, Volume 63, pp. 94-108.
- Timonen, V., Foley, G. & Conlon, C., 2018. Challenges When Using Grounded Theory: A Pragmatic Introduction to Doing GT Research. *International Journal of Qualitative Methods*, 1(17).
- Tourism Ireland, 2020. *Island of Ireland Overseas Tourism Performance*, Dublin: Tourism Ireland.
- Tourism Ireland, 2020. *Tourism Ireland's #FillYourHeartWithIreland social campaign*. [Online] Available at: <https://www.tourismireland.com/Marketing/Marketing-Highlights/Marketing-Catalogue/FillYourHeartWithIreland-social-campaign> [Accessed 15 June 2021].
- Tourism NI Industry Development, 2018. *NI Business Info*. [Online] Available at: <https://www.nibusinessinfo.co.uk/content/activities-and-nature-based-tourism> [Accessed 25 November 2019].
- Tribe, J., 1997. The Indiscipline of Tourism. *Annals of Tourism Research*, 3(24), pp. 638-657.
- Tsoukas, H. & Knudsen, C., 2003. Knudsen, C. (2003) 'Pluralism, scientific progress, and the structure of organization theory', in Pluralism, scientific progress, and the structure of organization theory - The Oxford Handbook of Organization Theory: Meta-Theoretical Perspectives. *Oxford University Press*, Volume 34, pp. 262-286.
- Tucker, H., 2001. Tourists and troglodytes: Negotiating for Sustainability. *Annals of Tourism Research*, 28(4), pp. 868-891.
- U.S. Department of the Interior , 2016. *Coastal Change Hazards: Hurricanes and Extreme Storms*. [Online] Available at: <https://coastal.er.usgs.gov/hurricanes/coastal-change/dune-erosion.php> [Accessed 4 November 2018].
- UNEP & UNWTO, 2002. *Making Tourism More Sustainable - A Guide for Policy Makers*, Madrid: World Tourism Organisation.
- UNEP & UNWTO, 2005. *Making Tourism More Sustainable - A Guide for Policy Makers*, Madrid, p.11-12: UNEP and UNWTO.
- UNESCO, 1981. *Ecological Sciences for Sustainable Development*. [Online] Available at: <http://www.unesco.org/new/en/natural-sciences/environment/ecological-sciences/biosphere-reserves/europe-north-america/ireland/dublin-bay/> [Accessed 15 September 2020].
- United Nations World Tourism Organization., 2008. *Definitions Committee on Tourism and Competitiveness (CTC)*, Madrid: United Nations World Tourism Organization.

- UNWTO & ATTA, 2014. *Global report on adventure tourism*, Madrid, Spain: World Tourism Organisation (UNWTO).
- UNWTO, 2010. *UNWTO Statistics Guidelines - Annual Report*, s.l.: World Tourism Organisation.
- UNWTO, 2014. *Global Report on Adventure Tourism*, Madrid: World Tourism Organization (UNWTO).
- Vagabond, 2020. *Vagabond Tours of Ireland*. [Online] Available at: <https://vagabondtoursofireland.com/responsible-tourism-ireland> [Accessed 13 January 2021].
- Veal, A. J., 2018. *Research Methods for Leisure and Tourism*. 5th ed. Harlow: Pearson Education Limited.
- Wall, G., 1997. Is Ecotourism Sustainable?. *Environmental Management*, 21(4), pp. 483-491.
- Wall, G. & Badke, C., 1994. Tourism and Climate Change: An International Perspective. *Journal of Sustainable Tourism*, Volume 2, pp. 193-203.
- Walsh, 2008. *E-amit*. [Online] Available at: <https://www.e-xamit.ie/tutorial.php?id=15582> [Accessed 4 January 2021].
- Watson, A., Niccolucci, M. & Williams, D., 1993. *Hikers and recreational stock users: predicting and managing recreation conflicts in three wilderness*. 1st ed. Ogden: USDA For. Serv., Intermountain Research Station.
- Weaver, D. B., 2009. *Sustainable Tourism: Theory and Practice*. 3 ed. London: Routledge.
- Wehrheim, H., 2019. *MEASURES TO BE TAKEN TO PRESERVE DUNES AND MINIMISE EROSION RELATED TO EQUINE TOURISM INDUSTRY*, Sligo: Unpublished.
- Weiler, B. & Hall, C. M., 1992. Adventure, Sport and Health Tourism.. *Special interest tourism*, III(82), pp. pp.141-158.
- Wexford County Council, 2021. *Chief Executive's Report on the Submissions and Observations Received on the Draft Wexford County Development Plan 2021-2027*, Wexford: Wexford County Council.
- Wildsea Europe, 2020. *Wildsea Europe - Brings you the best marine ecotourism experiences in Europe*. [Online] Available at: <https://www.wildsea.eu/about-us/rating-criteria> [Accessed 14 January 2021].
- Wilkins, D., 2018. Town leaders call for daytime horse riding ban on Exmouth beach. *Exmount Journal*, 25 May.
- Williams, C., 2007. Research Methods. *Journal of Business & Economics Research*, 5(3).
- Wilson, J., 2010. A Guide to Doing Your Research Project. *Essentials of Business Research*, Issue 495, p. 316.
- Wilson, S., Sagewan-Alli, I. & Calatayud, A., 2014. *The Ecotourism Industry in the Caribbean - A Value Chain Analysis*, Washington : Inter-American Development Bank, Capital Markets and Financial Institutions Division.
- Wing Sun Tung, V. & Brent, R., 2011. Exploring the essence of memorable tourism experiences. *Annals of Tourism Research*, 38(4), pp. 1367-1386.

Wojciech, M., 2013. *Idioms of Ontology : A Phenomenological Study of Whitman*. Cambridge: Cambridge Scholars Publishing.

World Tourism Organization , 2019. *Walking Tourism – Promoting Regional Development*, Madrid: (UNWTO).

World Tourism Organisation, 2002. *Voluntary Initiatives for Sustainable Tourism World Tourism Organization*, Madrid: WTO.

World Travel & Tourism Council, 2018. *How can destinations spread demand?*. [Online] Available at: <https://worldtraveltourismcouncil.medium.com/how-can-destinations-spread-demand-e31d2ecd5c1d> [Accessed 22 October 2020].

WWF-Pacific, 2015. *Nature-based Marine Tourism in the Coral Triangle - Exploring the potential for low-impact, high-value Nature-based Marine and Coastal Tourism*, Fiji: WWF-Pacific & Australian Aid .

Xiao, H. & Smith, S., 2006. The Use of Tourism Knowledge: Research Propositions. *Annals of Tourism Research*, 2(34), pp. 310-331.

Zikmund, W., 2003. *Business Research Methods*. 7 ed. Thomson: South-Western.

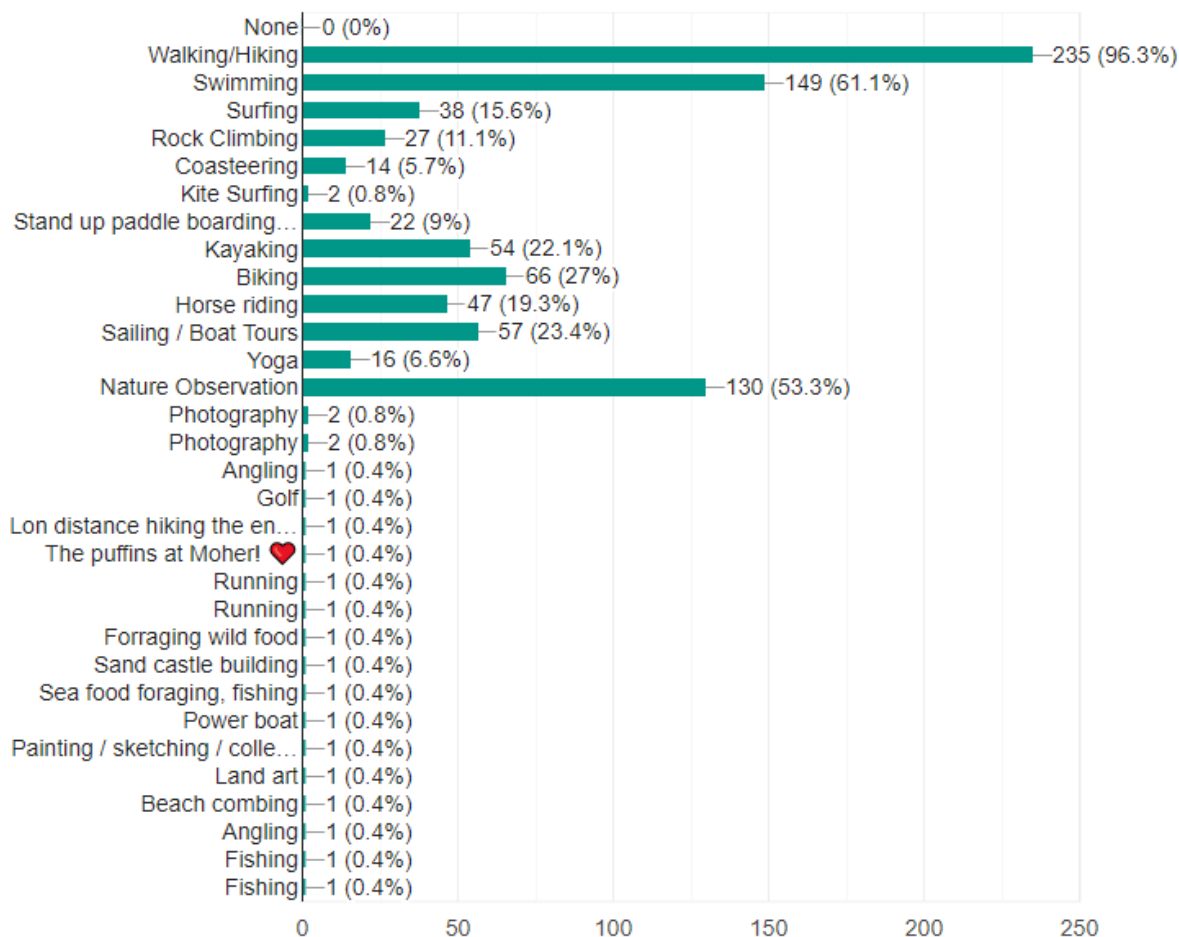
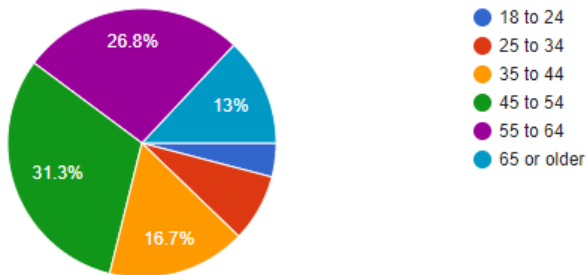
7.0 Appendix

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Appendix A - Graphs Tourism Questionnaire Results

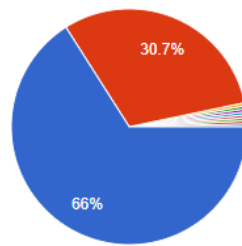
What age demographic do you fit in?

246 responses



When choosing an adventure tourism activity do you think about its possible impact on the environment?

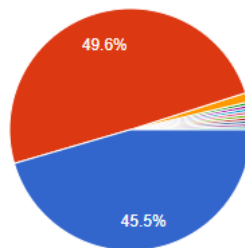
244 responses



- Yes
 - No
 - I think it's possible to minimize but not...
 - I probably only consider the obvious t...
 - Not sure what's meant by adventure t...
 - If it did damage I wouldn't do it
 - We really just walk and enjoy the view...
 - sometimes
- ▲ 1/2 ▼

Do you consider environmental sustainability when booking a holiday?

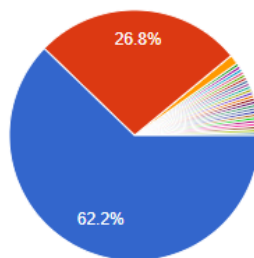
244 responses



- Yes
 - No
 - Sometimes
 - Yes, though other family members on...
 - To some extent
 - sometimes
 - Not always :-/
 - I live in the States but own a home in...
- ▲ 1/2 ▼

Are you willing to pay a higher price for an environmentally sustainable holiday?

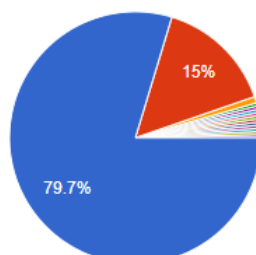
246 responses



- Yes
 - No
 - Maybe
 - Maybe
 - depends - I personally cannot afford t...
 - Possibly depends how much higher a...
 - Maybe a small tax if it goes back into t...
 - If the attraction is worth it I would, bee...
- ▲ 1/4 ▼

Would you be willing to pay a higher price for activities, which are guaranteed to be carried out in an environmentally sustainable manner, in order to minimise their possible contribution to coastal erosion?

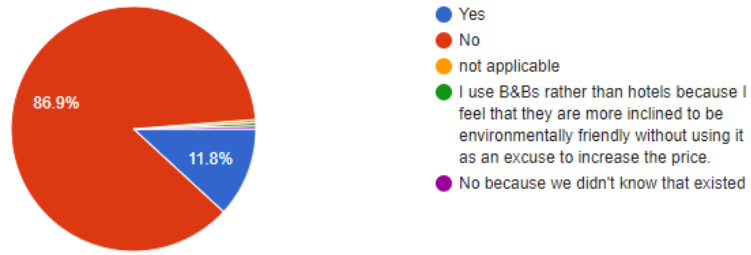
246 responses



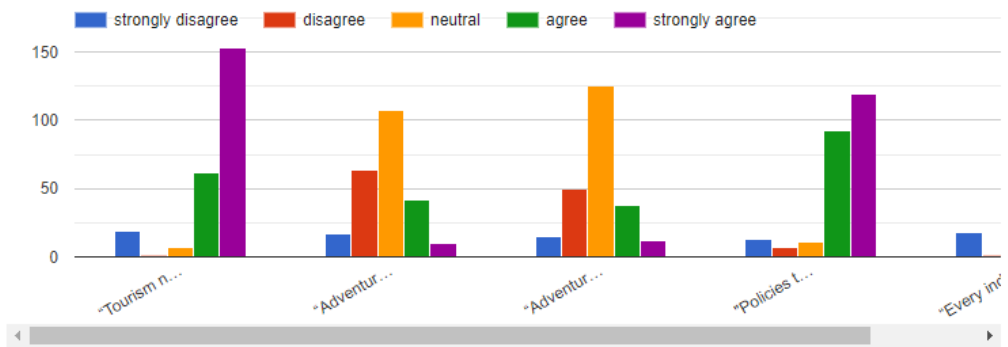
- Yes
 - No
 - Maybe
 - See above
 - If some activities ARE environmentally...
 - As above
 - Only if I'm explained how that's going t...
 - See above
- ▲ 1/2 ▼

Have you ever checked for environmental certification before using an Irish tourism business?

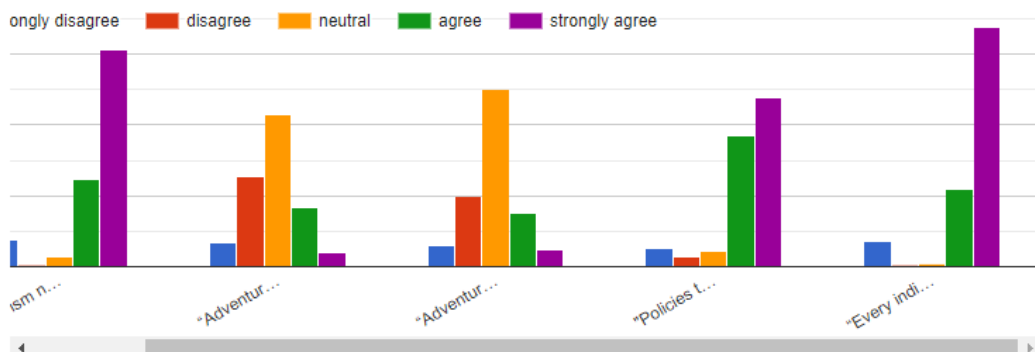
245 responses



Please state, by ticking the relevant box, the extent to which you agree with each of the following statements.

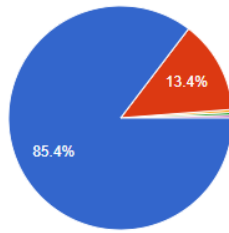


Please state, by ticking the relevant box, the extent to which you agree with each of the following statements.



On any prior visit to an Irish beach or coastal landscape have you ever noticed coastal erosion?

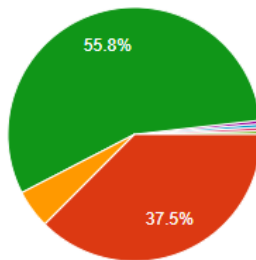
246 responses



- Yes
- No
- Not applicable. I've only visited once.
- I have noticed difference in the different beaches i have been at over the years
- Yes but mainly natural after storms

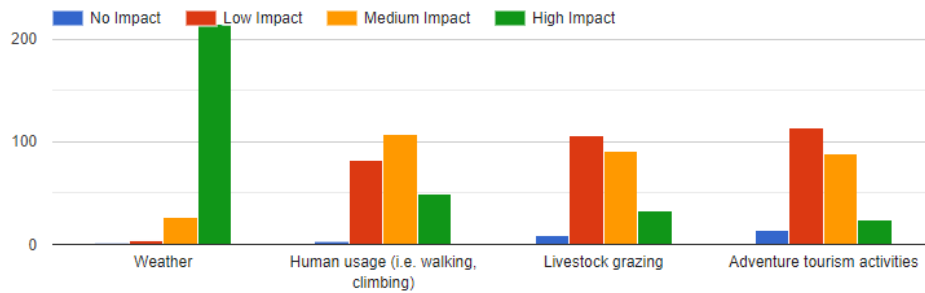
If yes, why do you think this erosion occurred?

224 responses



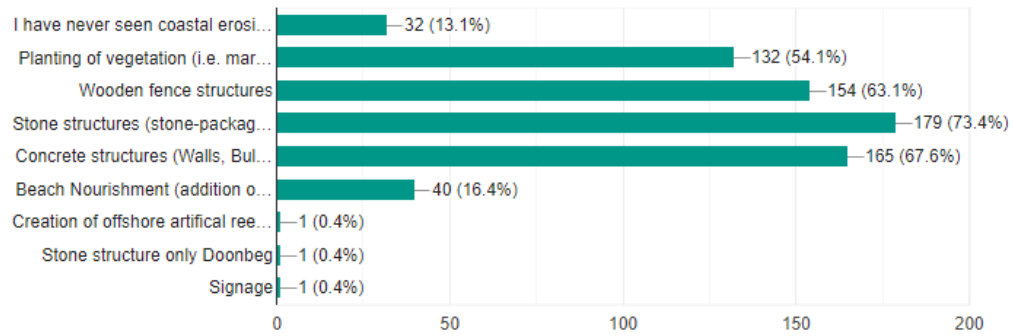
- I don't know
- Natural Erosion (due to Wind, Rain, Storms)
- Erosion through usage (i.e. people walking/climbing, animals walking thro...
- Both, natural and usage
- Businesses using sand from cost
- Not applicable
- Removal of stones pebbles
- Development

Which factor do you believe are mostly responsible for coastal erosion in Ireland? Please evaluate the level of impact on the environment.



Have you ever seen any of the following coastal erosion prevention measures? Select all that apply.

244 responses

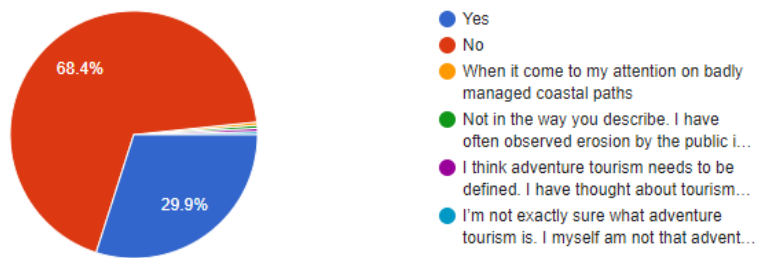


Who should take primary responsibility for preventing coastal erosion? Please rank the institutions responsibility?



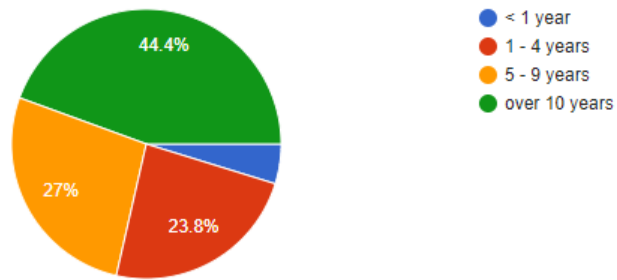
Before completing this survey, have you ever thought about adventure tourism activities in relation to coastal erosion?

244 responses

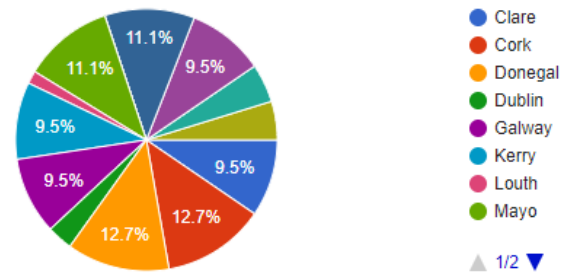


Appendix B - Graphs Business Providers Questionnaire Results

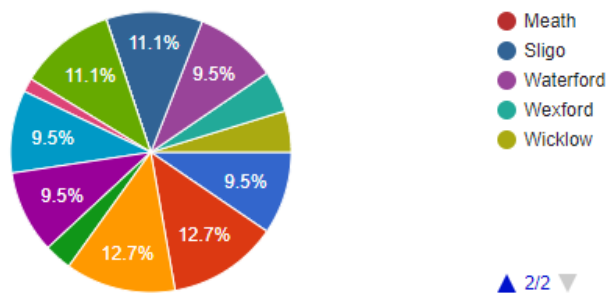
How long have you been an adventure tourism provider?



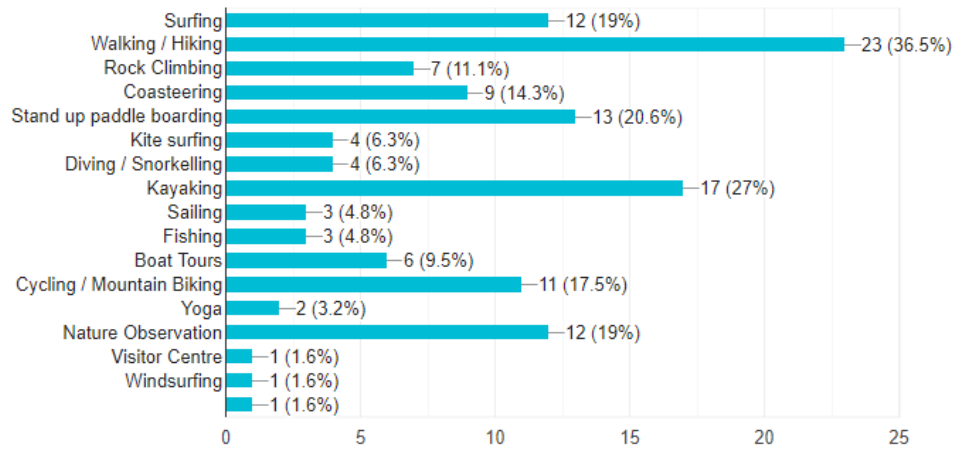
What coastal county is your adventure tourism business located in?



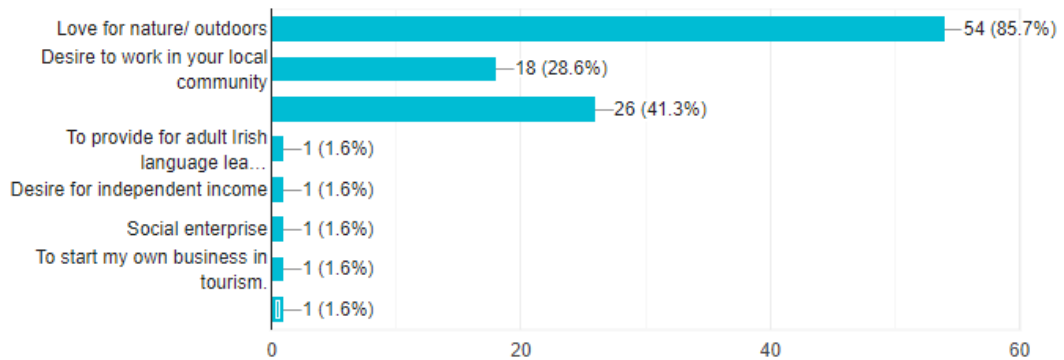
What coastal county is your adventure tourism business located in?



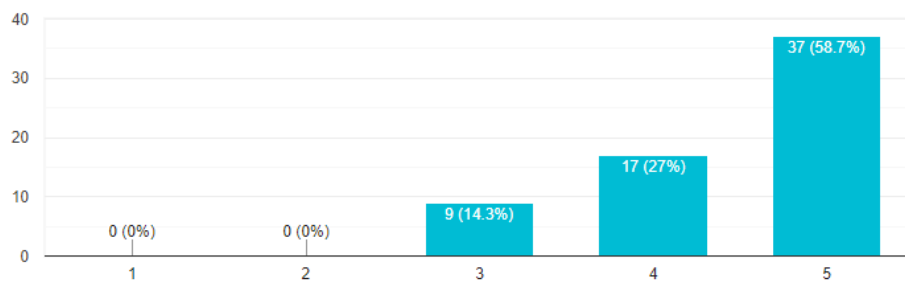
What type of adventure tourism activity/activities do you offer along the coast? (You can select multiple answers if applicable).



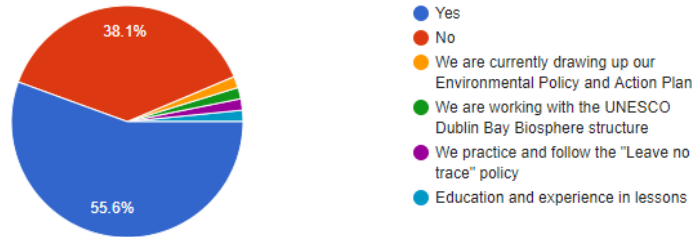
What was the driving force that made you start your business?



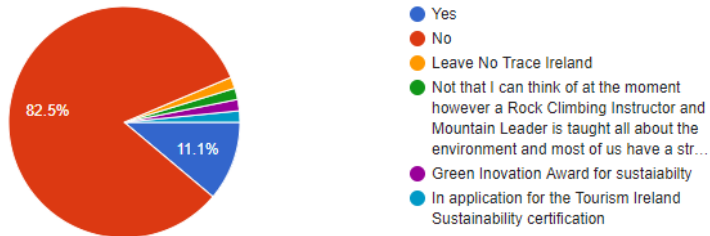
Do you feel it is important that adventure tourism businesses run in an environmentally sustainable manner? Please rank your opinion on from strongly disagree 1 to strongly agree 5.



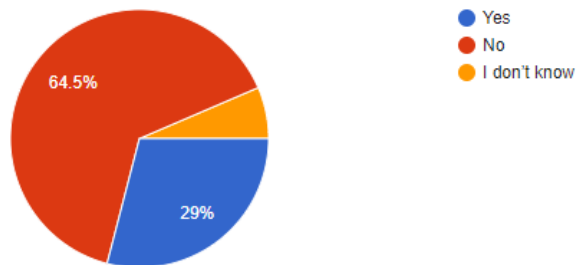
Do you have an environmental policy which you adhere to?



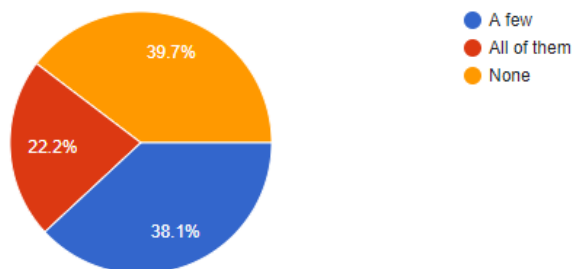
Have you obtained any environmental certificates (for example: Sustainable Tourism Ireland, Business Tourism Certification ISO14001, or other)?



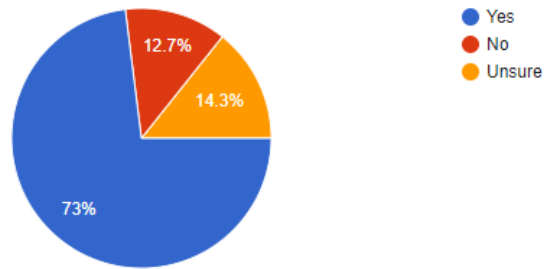
Do you think the areas you operate in are overpopulated with tourism?



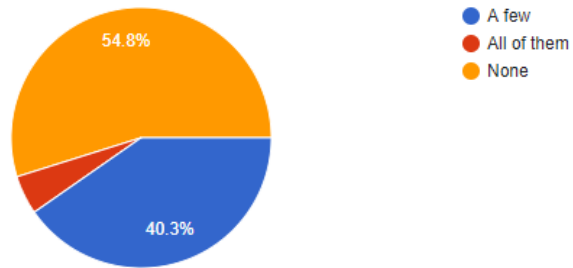
How many of your activities take part on the beach (on the sand)?



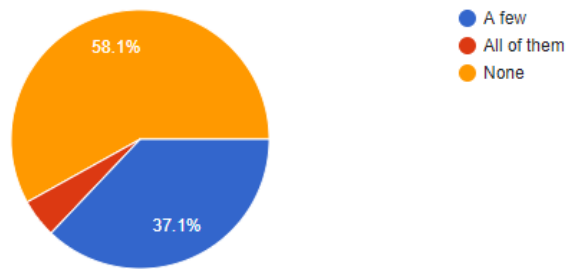
Have you seen a change in your local beaches/cliff landscape in the last 10-15 years (for example increase in dune and/or cliff erosion)?



How many of your activities take part in/on dunes and the surrounding grasslands?



How many of your activities take part along/on top of the sea cliffs?



If you have seen a change in your local coastal landscape please briefly outline the changes:

More erosion of the rocks along the coast

Dune erosion

Last August there were periods of very heavy rainfall. This resulted in new waterfalls appearing along the Cliffs of Moher and minor rockfall and landslide from the cliffs

Higher footfall leading to erosion of plant life

In the particular area in which we operate coastal erosion has not been a major problem to date. The more immediate threats to the coastal landscape and associated natural habitats come from badly co-ordinated planning decisions, e.g. new housing developments immediately adjacent to vulnerable natural habitats.

a lot less sand on the beach

More plastics on beaches

Erosion of sand dunes

If you have seen a change in your local coastal landscape please briefly outline the changes:

development of pathways by Fingal County Council

Cliff erosion. Pathways unsafe.

erosion

Dumping

Coastal erosion in all areas

There are much more people in tourist hotspots. You only have to look at Sliabh Liag in Donegal. I grew up going there and you would rarely meet a soul. Now with the introduction of the Wild Atlantic Way, Social media etc you could meet 100 people there in an hour

One of the beach beaches for teaching Kitesurfing called Grange in Fethard on Sea has had massive coastal erosion. We can no longer teach there as the sand had disappeared under what used to be the cliffs

If you have seen a change in your local coastal landscape please briefly outline the changes:

Blue rock side retreating

Erosion of cliff features from storms

more due to coastal erosion

Lots of new houses ,

Natural erosion of the dunes and cliffs caused by winter storms

The sand dunes are being washed away and build up in other places more so than they used to.

some fallen earth after storms

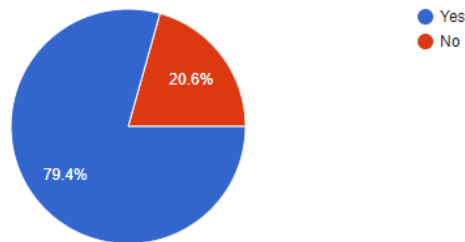
Not many dunes in our area, roads go straight on to beach.

Sand dune erosion and also a lot of water forming a stream/river from the main land to the sea.

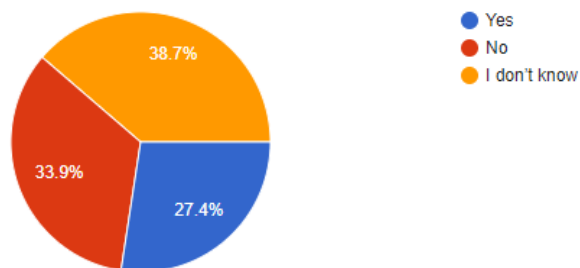
If you have seen a change in your local coastal landscape please briefly outline the changes:

Natural erosion of the dunes and cliffs caused by winter storms
The sand dunes are being washed away and build up in other places more so than they used to.
some fallen earth after storms
Not many dunes in our area, roads go straight on to beach.
Sand dune erosion and also a lot of water forming a stream/river from the main land to the sea.
Storms are hitting much harder and you can see rocks and big amounts of sand move.
Beaches always change but after winter you can tell they are definitely more impacted by the storms.
Seems there are much more stones either being washed in or the sand around them is being washed away.
Storms seem to have a bigger impact in recent times

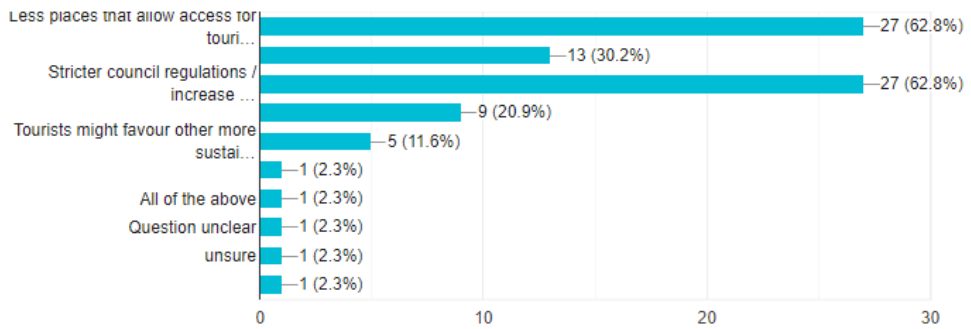
Has your geographical area seen a change in climate with stronger and more regular winter storms?



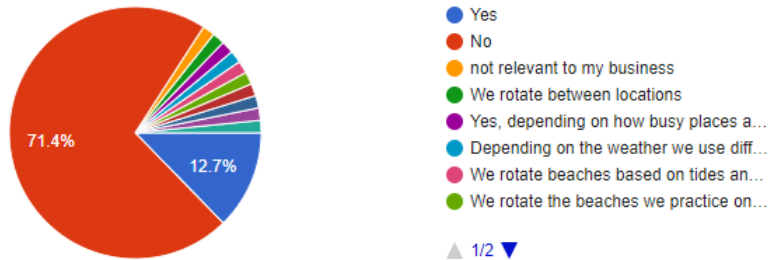
Do you think your tourism offering could be endangered if the coastal landscape keeps eroding at the current speed?



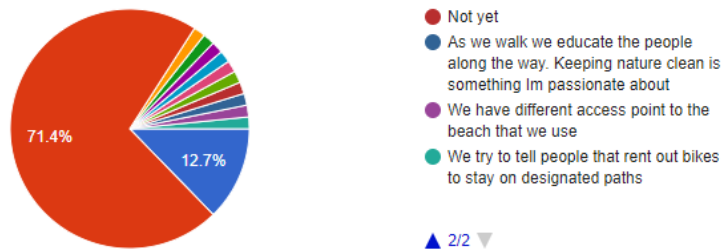
If yes, in what way do you think could it affect your business operations (you can select multiple answers if required)?



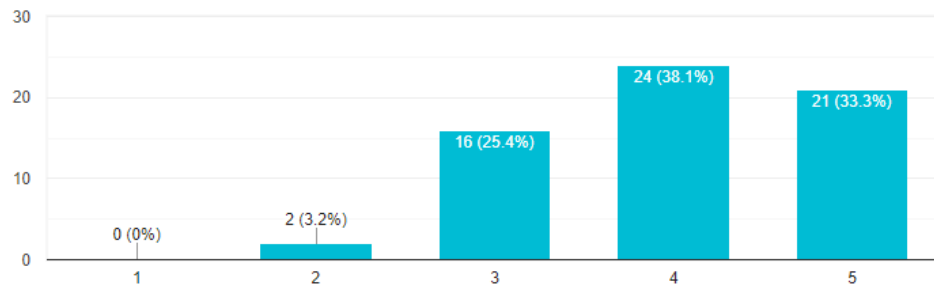
Have you adapted your business operations due to coastal erosion? (For example, do you have to use different beach/coast access or had to change locations)



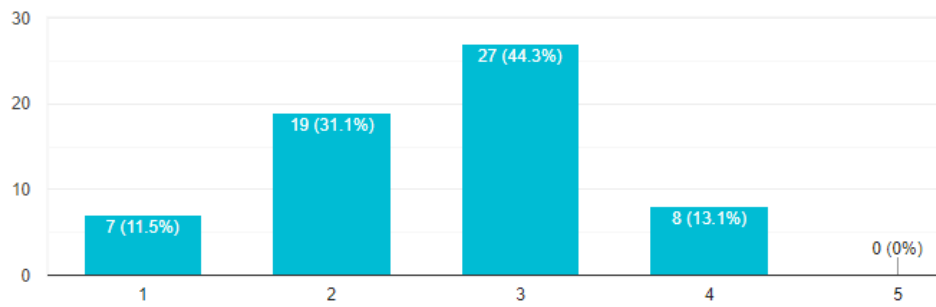
Have you adapted your business operations due to coastal erosion? (For example, do you have to use different beach/coast access or had to change locations)



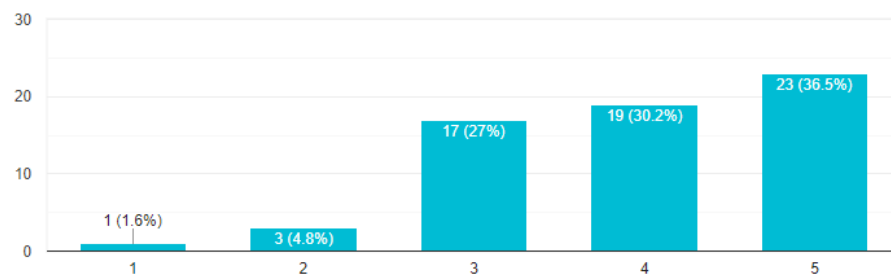
Do you feel there is a need for local Councils to implement coastal erosion prevention measures to sustain adventure tourism, please rank your opinion on from strongly disagree 1 to strongly agree 5?



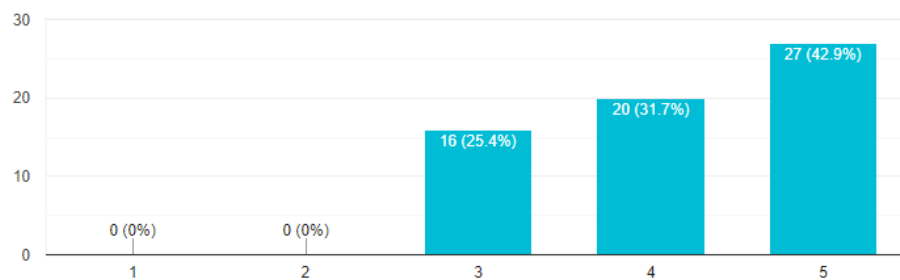
Do you think the current efforts by your county council for coastal management are sufficient, please rank your opinion on from strongly disagree 1 to strongly agree 5?



Should tourism businesses receive funding in order to be able to work in an environmentally sustainable manner, please rank your opinion on from strongly disagree 1 to strongly agree 5?



Do you consider adventure tourism providers to have an important role in coastal preservation, please rank your opinion on from strongly disagree 1 to strongly agree 5?



Is your business involved in supporting the conservation of your local landscape, and if so, explain your involvement? (Example beach clean-up)

No
No.
Beach clean ups
Yes - I'm an advanced Leave No Trace trainer who delivers courses county wide.
Beach clean up, leave no trace policy.
clean ups
Operating Leave No Trace practices; Environmental education
tidy towns
Beach cleans

Is your business involved in supporting the conservation of your local landscape, and if so, explain your involvement? (Example beach clean-up)

We are registered as the Local Clean Coasts group in our area and also take part in an Taisce's Spring Clean as well as other community organised clean up's.
Unesco Dublin Bay Biosphere promotion within the community
Harbour clean up
Constantly educating people and doing clean up on and off shore.
Beach clean-ups, volunteering with Burren Beo Trust & yearly donations
Beach clean up and teaching Leave No Trace policies
Yes beach clean up
Yes, we promote (pre covid19) car sharing to minimise pollution and over parking at meeting points. Encourage the leave no trace policy. What you bring with you you bring home with you

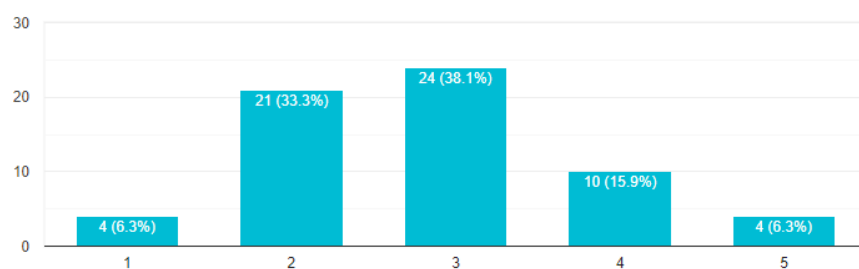
Is your business involved in supporting the conservation of your local landscape, and if so, explain your involvement? (Example beach clean-up)

- We have worked with clean coasts for 10years, organised with new ross sea scouts for none accessible beaches with use of our boat to transfer litter
- Promotion of conservation of the marine environment
- Clean-up, reporting of waste / pollution incidents etc
- Weekly beach cleans
- Coastwatch ,Marine Inst Explorers Programme,Seal Santurary
- Organise and do beach cleanups
- We always collect the rubbish we find when at the beach, we educate people on why this is important.
- beach cleaning
- none

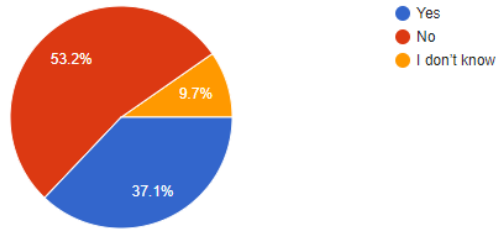
Is your business involved in supporting the conservation of your local landscape, and if so, explain your involvement? (Example beach clean-up)

- none
- Beach clean up, Litter pick up along some of the trails.
- We clean up removing plastic regularly.
- Yes we do regular beach clean ups and teach children at a local school about the environment and conservation.
- Clean coast
- Leave no trace!
- We are only 3 people in this organisation but we do try and organize beach clean ups at least once very summer.
- No but we consciously clean up when we come across litter

Do you think customers are willing to pay a higher price for adventure tourism activities to ensure those businesses operate in an environmentally sustainable manner, please rank your opinion on from strongly disagree 1 to strongly agree 5?



Before completing this survey, had you ever thought about coastal erosion in connection to your business?



Do you have any final thoughts on this survey that you would like to share in relation to this topic?

None.

No.

Adventure tourism providers are often the cause of impacts to wildlife along Ireland's coastal areas, most notably those that climb on sea stacks frequently impact wild life. Such tourism providers frequently remove vegetation, rock and other debris to climb new routes. There is a dearth of research that has investigated or considered the attitudes of Adventure tourism providers to these impacts along Ireland's western coast.

These responses may not be entirely relevant to this research: we work in an area that has been less drastically affected by coastal erosion and adventure activities form only a minor part of our tourism offering. I would note, in relation to tourism providers' role in coastal conservation, that tourism is a highly competitive industry with small margins and tourism providers, while not looking to shirk their responsibilities, would be stretched to tackle these issues in any meaningful way on their own without real State support. This has never been more true than this year, given the challenges presented by COVID.

I think broadening the topic to the health of coastal eco-systems may be helpful

Do you have any final thoughts on this survey that you would like to share in relation to this topic?

Visitors need to be attracted with discretion, to encourage those with a real appetite for nature, and omit those who are on local mass bucket list trips

My local coast is limestone rock, so erosion is not a local issue for me

Adventure needs more recognition and respect from the powers that be .

Best wishes on the rest of your studies!

I would be interested to see the results of your research

The coastline is a very dynamic part of our landscape, always changing, so in a way we are always adapting to these changes. The issue with climate change is probably the rate of these changes. Most of the measures providers can take don't cost money - it's important that we care about and act as guardians of our environment. I'm filling this out as a former provider, as I've just closed my business in the last month after 13 great years. Worth bearing in mind that if I was in business as usual, there wouldn't be the remotest chance I'd have time to fill in questionnaires in peak season - ie July / August - so worth bearing that in mind in terms of the number of responses you get back. All the best with it, Ali

Do you have any final thoughts on this survey that you would like to share in relation to this topic?

We always clean up the rubbish we come across while out and make sure no one leaves anything behind. ▲

We always manage our trips responsibly with the environment in consideration and sometimes do walk around local areas with staff to clean up. My fear is that bringing awareness to this topic the council will ban activities or restrict them to certain areas that can possibly lead to the shutting down of businesses.

As far as the dunes go I think marram grass is key and needs to be planted more. If schools can get children on a day out to help with this it would be educational, safe, low cost and a very effective solution to a big problem!

Councils might be too drastic banning certain activities or access ways, there needs to be a solution that fits everyone.

no

We do not use the sand dunes, however we need access to the cliffs from the grasslands for our activities.

Most of our activities are water based so we use harbours mostly not much beach access. ▼

Appendix C - Tourism Questionnaire

1. What age demographic do you fit in under?
 - a. 18 to 24
 - b. 25 to 34
 - c. 35 to 44
 - d. 45 to 54
 - e. 55 to 64
 - f. 65 or older

2. What recreational activities have you taken part in along the coast (select multiple if applicable)?
 - a. Walking/Hiking
 - b. Swimming
 - c. Surfing
 - d. Rock Climbing
 - e. Coasteering
 - f. Kite Surfing
 - g. Stand up paddle boarding
 - h. Kayaking
 - i. Biking
 - j. Sailing / Boat Tours
 - k. Yoga
 - l. Nature Observation
 - m. Other

3. Do you consider sustainability when booking a holiday?
 - a. Yes
 - b. No
 - c. Other

4. Are you willing to pay a higher price for a sustainable holiday (including Transport, Accommodation)?
 - a. Yes
 - b. No
 - c. Other

5. When choosing an adventure tourism activity do you think about its possible impact on the environment?
 - a. Yes
 - b. No
 - c. Other

6. Would you be willing to pay a higher price for activities which are guaranteed to be carried out in a sustainable manner?
- Yes
 - No
 - Other
7. Have you ever checked for environmental certification before using a tourism business?
- Yes
 - No
 - Other
8. Please state your level of agreement with the following statement from strongly disagree 1 to strongly agree 5.
“Tourism needs to be developed in harmony with the natural and cultural environment”
9. Please state your level of agreement with the following statement from strongly disagree 1 to strongly agree 5.
“Adventure tourism activities have a negative impact on the natural environment”
10. Please state your level of agreement with the following statement from strongly disagree 1 to strongly agree 5.
“Adventure tourism activities have a positive impact on the natural environment”
11. On any prior visit to an Irish beach or costal landscape have you ever noticed coastal erosion?
- Yes
 - No
 - Other
12. If yes, why do you think this erosion occurred?
- Natural Erosion (due to Wind, Rain, Storms)
 - Erosion through usage (i.e. people walking, climbing)
 - Other
13. Have you seen any coastal erosion prevention measures on an Irish beach before?
- Yes
 - No
 - Other

14. If you have seen coastal erosion measure in an Irish location before, please specify what kind of measure.
15. Do you feel there is a need for authorities to implement coastal erosion prevention measures, please rank your opinion on from strongly disagree 1 to strongly agree 5?
16. Before completing this survey, have you ever thought about adventure tourism activities in relation to coastal erosion?
- a. Yes b. No c. Other
17. Do you have any final thoughts on this topic?

Appendix D - Business Provider Questionnaire

1. How long have you been an adventure tourism provider?

< 1 year

1 - 4 years

5 - 9 years

over 10 years

2. What coastal county is your adventure tourism business located in? (*drop down answers*)

Clare

Kerry

Waterford

Cork

Louth

Wexford

Donegal

Mayo

Wicklow

Dublin

Meath

Galway

Sligo

3. What type of adventure tourism activity/activities do you offer along the coast? (You can select multiple answers if applicable).

Surfing

Rock Climbing

Walking / Hiking

Stand up paddle boarding

Coasteering

Kitesurfing

Diving / Snorkelling

Cycling / Mountain Biking

Kayaking

Yoga

Sailing

Nature Observations

Fishing

Visitor Centre

Boat Tours

Other, please specify:

4. What was the driving force that made you start your business?

Love for nature/ outdoors

Desire to work in your local community

Gap in the market for your particular offering

Other, please specify:

5. Do you feel it is important that adventure tourism businesses run in an environmentally sustainable manner? Please rank your opinion on from strongly disagree 1 to strongly agree 5.

strongly disagree 1 2 3 4 5 strongly agree

6. Do you have an environmental policy which you adhere to?

Yes

No

7. If so, do all staff operate according to the policy?

Yes

No

8. Have you obtained any environmental certificates (for example: Sustainable Tourism Ireland, Business Tourism Certification ISO14001, or other)?

Yes

No

Other:

9. Do you think the areas you operate in are overpopulated with tourism?

Yes

No

I don't know

10. How many of your activities take part on the beach (on the sand)?

None

A few

All of them

11. How many of your activities take part in/on dunes and the surrounding grasslands?

None

A few

All of them

12. How many of your activities take part along/on top of the sea cliffs?

None

A few

All of them

13. Have you seen a change in your local beaches/cliff landscape in the last 10-15 years (for example increase in dune and/or cliff erosion)?

Yes

No

Unsure

If yes, please briefly outline the changes:

14. Has your geographical area seen a change in climate with stronger and more regular winter storms?

Yes

No

Unsure

If yes, please briefly outline the changes:

15. Do you think your tourism offering could be endangered if the coastal landscape keeps eroding at the current speed?

Yes

No

I don't know

16. If yes, in what way do you think could it affect your business operations?

- Less places that allow access for tourism activities
- Health and safety risks due to erosion
- Stricter council regulations /increase in mandatory licences to operate as a business
- Having to raise the prices to substitute the environmental usage
- Tourists might favour other more sustainable businesses in the future

- Other, please specify:

17. Have you adapted your business operations due to coastal erosion? (For example, do you have to use different beach/coast access or had to change locations)

Yes

No

Other:

18. Do you feel there is a need for local Councils to implement coastal erosion prevention measures to sustain adventure tourism, please rank your opinion on from strongly disagree 1 to strongly agree 5?

strongly disagree 1 2 3 4 5 strongly agree

19. Do you think the current efforts by your county council for coastal management are sufficient, please rank your opinion on from strongly disagree 1 to strongly agree 5?

strongly disagree 1 2 3 4 5 strongly agree

20. Should tourism businesses receive funding in order to be able to work in an environmentally sustainable manner, please rank your opinion on from strongly disagree 1 to strongly agree 5?

strongly disagree 1 2 3 4 5 strongly agree

21. Do you consider adventure tourism providers to have an important role in coastal preservation, please rank your opinion on from strongly disagree 1 to strongly agree 5?

strongly disagree 1 2 3 4 5 strongly agree

22. Is your business involved in supporting the conservation of your local landscape, and if so, explain your involvement? (Example beach clean-up)

23. Do you think customers are willing to pay a higher price for adventure tourism activities to ensure those businesses operate in an environmentally sustainable manner, please rank your opinion on from strongly disagree 1 to strongly agree 5?

strongly disagree 1 2 3 4 5 strongly agree

24. Before completing this survey, had you ever thought about coastal erosion in connection to your business?

Yes

No

I don't know

25. Do you have any final thoughts on this survey that you would like to share in relation to this topic?

26. Please provide your email address (only the researcher will know who has taken part in the survey and your contribution will be kept anonymous!)

Appendix E - Interview Outline

1. How long have you been an adventure tourism provider?
2. What type of adventure tourism activity/activities do you offer along the coast?
3. What was the driving force that made you start your business?
4. Do you think that adventure tourism impacts on the environment in any way?
5. Do you have an environmental policy which you adhere to?
6. If you do have an environmental policy do you ensure that all staff operate according to the policy?
7. Is your business involved in supporting the conservation of your local landscape, and if so, explain your involvement? (Example beach clean-up)
8. Are you aware of any environmental certificates that adventure tourism providers can seek to be awarded?
9. Have you obtained any environmental certificates (for example: Sustainable Tourism Ireland, Business Tourism Certification ISO14001, or other)?
 - 9.a) If not, have you applied or the intention to do so?
 9. b) Do you think they add value to your business proposition
10. Do you think the areas you operate in are overpopulated with tourism?
11. Do you use the beach/dunes/grassland/sea cliff as part of your business offering?
12. How many of your activities take part on the beach, how many take place in/on dunes and the surrounding grasslands and how many take part along/on top of the sea cliffs?

13. Have you seen a change in your local beaches/cliff landscape in the last 10-15 years (increase in dune and/or cliff erosions) or has your geographical area seen a change in climate with stronger and more regular winter storms? Is anything being done to off-set this in your region?

14. Do you think your tourism offering could be endangered if the coastal landscape keeps eroding at the current speed? If yes, in what way do you think could it affect your business operations? Are you putting measures in place to allow for these changes/mitigate against them?

15. Have you adapted your business operations due to coastal erosion? (For example, do you have to use different beach/coast access or had to change locations)

16. Do you feel there is a need for local Councils to implement coastal erosion prevention measures to sustain adventure tourism? Further, do you think the current efforts by your county council for coastal management are sufficient?

Appendix F - List of Businesses contacted (censored for
anonymity)

	Tourism Business Name	Location	Activity	Email
1		Clare	Surfing	enquiries@.ie
2		Clare	Fishing	info@.ie
3		Clare	SUP	enquiries@.ie
4		Clare	Surfing	info@.com
5		Clare	Kayak	@gmail.com
6		Clare	Boat tour	info@.com
7		Clare	VC	info@.ie
8		Clare	Scuba Diving	office@.info
9		Clare	Sightseeing	info@.ie
10		Clare	Sightseeing	info@.ie
11		Clare	Boat tour	info@.com
12		Clare	Sightseeing	info@.ie
13		Clare	Fishing	@gmail.com
14		Clare	Various	info@.com
15		Clare	Surfing	@gmail.com
16		Clare	Surfing	info@.com
17		Clare	Walking	tourism@.ie
18		Clare	Various	info@.ie
19		Clare	Various	info@.com
20		Clare	Kayak	@gmail.com
21		Clare	Surfing	surf@.ie
22		Clare	Surfing	@gmail.com
23		Clare	various	info@.ie
24		Clare	Cycling	info@.ie
25		Clare	Surfing	info@.com
1		Cork	Various	info@.ie
2		Cork	Various	info@.com
3		Cork	Kayak	info@.com
4		Cork	Boat tour	Info@.com
5		Cork	Sightseeing	info@.com
6		Cork	Surfing	@gmail.com
7		Cork	Sightseeing	bookings@.ie
8		Cork	Cablecar	@gmail.com
9		Cork	Walking	@eircom.net
10		Cork	Boat tour	info@.com
11		Cork	Various	info@.ie
12		Cork	Surfing	info@.com

13		Cork	Various	info@[redacted].com
14		Cork	Various	info@[redacted].ie
15		Cork	Surfing	info@[redacted].com
16		Cork	Surfing	info@[redacted].com
17		Cork	Sightseeing	[redacted]@eircom.net
18		Cork	Scuba Diving	[redacted]@gmail.com
19		Cork	Various	info@[redacted].com
20		Cork	walking	info@[redacted].ie
21		Cork	Various	info@[redacted].ie
22		Cork	VC	admin@[redacted].ie
23		Cork	Surfing	[redacted]@gmail.com
24		Cork	Boat tour	[redacted]@.ie
25		Cork	Cycling	info@[redacted].com
26		Cork	Various	[redacted]@gmail.com
1		Donegal	walking	info@[redacted].ie
2		Donegal	Surfing	[redacted]@.net
3		Donegal	Various	[redacted]@gmail.com
4		Donegal	Bodyboard	[redacted]@gmail.com
5		Donegal	Surfing	info@[redacted].com
6		Donegal	Boat tour	[redacted]@[redacted].com
7		Donegal	Scuba Diving	[redacted]@gmail.com
8		Donegal	Various	info@[redacted].net
9		Donegal	Climbing	info@[redacted].ie
10		Donegal	Kitesurfing	info@[redacted].ie
11		Donegal	Kayak	info@[redacted].com
12		Donegal	Kayak	[redacted]@hotmail.com
13		Donegal	Surfing	[redacted]@gmail.com
14		Donegal	Surfing	info@[redacted].com
15		Donegal	Various	info@[redacted].com
16		Donegal	Surfing	[redacted]@eircom.net
17		Donegal	Various	[redacted]@gmail.com
18		Donegal	Various	info@[redacted].ie
19		Donegal	Surfing	[redacted]@gmail.com
20		Donegal	Surfing	info@[redacted].com
21		Donegal	Walking	[redacted]@gmail.com
22		Donegal	Various	[redacted]@.ie
23		Donegal	Kayak	[redacted]@gmail.com

24		Donegal	Surfing	@gmail.com
25		Donegal	Surfing	info@.com
26		Donegal	Walking	info@.com
27		Donegal	Surfing	info@.org
28		Donegal	Surfing	info@.ie
29		Donegal	Climbing	@gmail.com
30		Donegal	Walking	info@.ie
31		Donegal	Cycling	@.com
32		Donegal	Various	@.com
33		Donegal	Kayak	hello@.co.uk
34		Donegal	Surfing	@gmail.com
35		Donegal	Various	info@.ie
36		Donegal	Sightseeing	@gmail.com
1		Dublin	Cycling	info@.ie
2		Dublin	Kitesurfing	@gmail.com
3		Dublin	Various	info@.ie
4		Dublin	Various	sales@.ie
5		Dublin	Various	@.ie
6		Dublin	Walking	info@.com
7		Dublin	Various	info@.ie
8		Dublin	Various	@gmail.com
9		Dublin	Kitesurfing	info@.ie
10		Dublin	Walking	@.com
11		Dublin	Kayak	info@.ie
12		Dublin	Various	info@.ie
1		Galway	Various	info@.com
2		Galway	Various	info@.ie
3		Galway	Boat tour	info@.ie
4		Galway	Yoga	@.com
5		Galway	Various	info@.com
6		Galway	Various	info@.com
7		Galway	Various	info@.com
8		Galway	Scuba Diving	contact@.info
9		Galway	Various	info@.com
10		Galway	Kayak	@.ie
11		Galway	Various	@gmail.com
12		Galway	Kayak	info@.com
13		Galway	Walking	info@.com
14		Galway	Various	info@.ie

15		Galway	Tour	oysters@[redacted].com
16		Galway	Various	[redacted].ie@gmail.com
17		Galway	Kitesurfing	lessons@[redacted].com
18		Galway	Various	info@[redacted].com
19		Galway	Scuba Diving	info@[redacted].com
20		Galway	Walking	[redacted]@gmail.com
21		Galway	Scuba Diving	[redacted]@eircom.net
22		Galway	Walking	[redacted]@gmail.com
1		Kerry	Various	[redacted]@yahoo.ie
2		Kerry	Surfing	[redacted]@gmail.com
3		Kerry	Various	info@[redacted].com
4		Kerry	Climbing	[redacted]@[redacted].com
5		Kerry	Boat tour	info@[redacted].ie
6		Kerry	Walking	[redacted]@eircom.net
7		Kerry	Various	info@[redacted].ie
8		Kerry	Various	[redacted]@gmail.com
9		Kerry	Surfing	info@[redacted].com
10		Kerry	Various	info@[redacted].com
11		Kerry	Walking	[redacted]@[redacted].ie
12		Kerry	Various	[redacted]@gmail.com
13		Kerry	Scuba Diving	[redacted]@gmail.com
14		Kerry	Various	info@[redacted].ie
15		Kerry	Various	info@[redacted].ie
16		Kerry	Surfing	[redacted]@gmail.com
17		Kerry	Various	info@[redacted].com
18		Kerry	Surfing	surf@[redacted].ie
19		Kerry	Various	info@[redacted].com
20		Kerry	Various	[redacted]@gmail.com
21		Kerry	Surfing	info@[redacted].com
22		Kerry	Surfing	info@[redacted].com
23		Kerry	Various	info@[redacted].ie
24		Kerry	Various	info@[redacted].ie
25		Kerry	Kayak	[redacted]@gmail.com
26		Kerry	Various	[redacted]@gmail.com
1		Leitrim	Scuba Diving	info@[redacted].ie
1		Louth	Various	info@[redacted].com
2		Louth	Various	info@[redacted].ie

3		Louth	Various	info@[redacted].com
4		Louth	Various	info@[redacted].ie
5		Louth	Golf	[redacted]@[redacted].ie
1		Mayo	Kitesurfing	[redacted]@[redacted].ie
2		Mayo	Kayak	[redacted]@[redacted].com
3		Mayo	Various	info@[redacted].ie
4		Mayo	Various	info@[redacted].ie
5		Mayo	Kayak	[redacted]@[redacted].ie
6		Mayo	Surfing	info@[redacted].com
7		Mayo	Surfing	hello@[redacted].com
8		Mayo	Various	info@[redacted].com
9		Mayo	Various	info@[redacted].com
10		Mayo	Walking	info@[redacted].com
11		Mayo	Various	info@[redacted].com
12		Mayo	Kitesurfing	info@[redacted].com
13		Mayo	Various	bookings@[redacted].ie
14		Mayo	Kayak	[redacted]@gmail.com
15		Mayo	SUP	info@[redacted].ie
16		Mayo	Biking	[redacted]@gmail.com
17		Mayo	Surfing	info@[redacted].com
18		Mayo	Various	info@[redacted].com
19		Mayo	Various	info@[redacted].com
20		Mayo	Various	adventures@[redacted].ie
1		Sligo	Surfing	[redacted]@gmail.com
2		Sligo	Surfing	info@[redacted].com
3		Sligo	Surfing	[redacted]@gmail.com
4		Sligo	Climbing	[redacted]@gmail.com
5		Sligo	Various	[redacted]@yahoo.ie
6		Sligo	Diving	info@[redacted].com
7		Sligo	Coasteering	[redacted]@gmail.com
8		Sligo	Surfing	info@[redacted].com
9		Sligo	Scuba Diving	mail@[redacted].ie
10		Sligo	Surfing	[redacted]@gmail.com
11		Sligo	Walking	[redacted]@gmail.com
12		Sligo	SUP	[redacted]@gmail.com
13		Sligo	Kayak	info@[redacted].com
14		Sligo	Surfing	info@[redacted].com
15		Sligo	Surfing	[redacted]@gmail.com
16		Sligo	Surfing	[redacted]@gmail.com
17		Sligo	SUP	info@[redacted].ie

18		Sligo	Surfing	info@[redacted].ie
19		Sligo	Kayak	info@[redacted].ie
20		Sligo	Various	info@[redacted].com
21		Sligo	Various	info@[redacted].ie
22		Sligo	Sailing	info@[redacted].com
23		Sligo	Various	info@[redacted].com
1		Waterford	Various	info@[redacted].ie
2		Waterford	Scuba Diving	[redacted]@gmail.com
3		Waterford	Surfing	surf@[redacted].com
4		Waterford	VC	info@[redacted].com
5		Waterford	Various	info@[redacted].com
6		Waterford	Surfing	info@[redacted].com
7		Waterford	Surfing	[redacted]@gmail.com
8		Waterford	Various	info@[redacted].ie
9		Waterford	Kayak	info@[redacted].com
10		Waterford	Sightseeing	[redacted]@[redacted].com
11		Waterford	Various	info@[redacted].com / info@[redacted].com
12		Waterford	Surfing	info@[redacted].com
13		Waterford	Surfing	info@[redacted].com
1		Wexford	Various	[redacted]@eircom.net [redacted]@redacted.ie
2		Wexford	Various	[redacted]@[redacted].ie
3		Wexford	Kitesurfing	info@[redacted].ie
4		Wexford	Various	info@[redacted].com
5		Wexford	Surfing	info@[redacted].com
6		Wexford	Kayak	[redacted]@gmail.com
1		Wicklow	Kitesurfing	info@[redacted].com
2		Wicklow	Sightseeing	[redacted]@gmail.com
3		Wicklow	Surfing	info@[redacted].com
4		Wicklow	Cycling	info@[redacted].ie
5		Wicklow	Diving	info@[redacted].ie
6		Wicklow	Various	[redacted]@gmail.com
7		Wicklow	Various	[redacted]@hotmail.com

Appendix G - List of Social media groups used to distribute Tourist
Questionnaire

Tourism Forums on the Internet to post link
https://community.ireland.com/
https://www.tripadvisor.ie/ShowForum-g186591-i88-Ireland.html
https://community.ricksteves.com/travel-forum/ireland
https://www.fodors.com/community/tags/ireland/
https://deirdremcglone.com/deirdres-diary/lets-talk-tourism/
https://ireland.activeboard.com/
https://www.lonelyplanet.com/thorntree/forums/europe-uk-ireland/topics/wild-atlantic-way
https://adventurebikerider.com/forum/viewtopic.php?f=20&t=45819&sid=88df38397581ca05e36a848fc19ece1f
Facebook - Groups posted the link in and Tourism sites (asked to publish)
Beauty of Ireland
Camping & Adventure Ireland
Cliff and Coastal Walks of Ireland
Experience Ireland
Friends of Ireland Of A Thousand Welcomes
Hiking Ireland
Ireland
Ireland Holidays and Staycations
IRELAND OF THE RURAL.
Ireland Road Trips
Ireland Travels
Ireland travel advice and information
Ireland's Natural Beauty
My Heart is in Ireland
My Ireland Adventure IÆ
The real West of Ireland travel tips
Tourism in Ireland
Travel Tips Ireland
Unspoiled Northwest Ireland Group
Wild Atlantic Way
Wild Atlantic Way Discovery Points
Wild Camping Ireland
Wild Swimming - Ireland
Adventure Sligo
Discover Ireland
Exploring Ireland
Ireland Loves
Ireland's Association for Adventure Tourism
Places To See In Ireland Before You Die
Sligo Tourism
Tourism Ireland & Visit Ireland

Appendix H - Informed Consent Information for Questionnaires

My name is Helen Wehrheim (S00150430@mail.itsligo.ie), I am a postgraduate research student at the Institute of Technology Sligo. This survey aims to explore attitudes and approaches of adventure tourism providers to sustainable coastal adventure tourism. This research is intended to help to sustain Ireland as a desirable adventure tourism destination without causing harm to adventure tourism businesses.

This questionnaire will take approximately 15 minutes to complete.

By completing this questionnaire, you agree that the gathered data can be used as academic research. All data will always be treated confidentially. Only the researcher will have access to all information provided by participants and anonymity is assured for all participants. Your participation in this study is entirely voluntary and you can withdraw at any time. You are free to omit any question.

Thank you for taking the time to complete this survey.

INFORMED CONSENT FORM

Attitudes and approaches towards sustainable coastal adventure tourism

Please read this consent document carefully before you decide to participate in this study.

Purpose of the research study:

The purpose of this study is to explore the attitudes and approaches to sustainable coastal adventure tourism, as well as its potential operational impacts on adventure tourism businesses.

What you will be asked to do in the study:

You will be asked approximately 15 questions, all of which simply require your own personal opinion. You will be asked if and how your business operations have been affected by coastal erosion, what measures you see as appropriate or are already being applied. You will also be asked your opinion as to what the coming years will likely hold for how your business will operate in terms of environmental sustainability.

Time required:

25 minutes approx.

Risks and Benefits:

The risks of the study are negligible. The potential benefits of the study include minimising coastal erosion caused by adventure tourism, as well as possibly advancing existing guidelines on sustainability to ensure Ireland can continue to be the desirable adventure tourism destination that it is today. This study will incorporate the attitudes of adventure tourism providers to ensure their businesses will not be impacted negatively. There is no incentive for participating; therefore, you will not be adversely affected in any way if you choose not to participate.

Confidentiality:

Your identity will be kept confidential to the extent provided by law, only the researcher (Helen Wehrheim) will know that you have participated. When the study is completed and the data has been analysed, the list of participants will be destroyed. Your name will not be used in any report or publication.

Voluntary participation:

Your participation in this study is completely voluntary. Should you at any stage of the research process want to withdraw and decide to discontinue participation, any information already collected will be discarded. There is no penalty for choosing not to participate.

Right to withdraw from the study:

You have the right to withdraw from the study at any time without consequences or penalty.

Appendix I - Informed consent form for Interviews

Research Topic: Exploring attitudes and approaches to sustainable coastal adventure tourism

Consent to take part in this research;

- I _____ voluntarily agree to participate in this research study.
- I understand that even if I agree to participate now, I can withdraw at any time or refuse to answer any question without any consequences of any kind.
- I understand that I can withdraw permission to use data from my interview within two weeks after the interview, in which case the material will be deleted.
- I have had the purpose and nature of the study explained to me and I have had the opportunity to ask questions about the study.
- I understand that participation involves talking about my business and its working processes
- I understand that I will not benefit directly from participating in this research.
- I agree to my interview being audio-recorded.
- I understand that all information I provide for this study will be treated confidentially.
- I understand that in any report on the results of this research my identity will remain anonymous. This will be done by changing my name and disguising any details of my interview, which may reveal my identity or the identity of people I speak about.
- I understand that disguised extracts from my interview may be quoted in the dissertation
- I understand that signed consent forms and original audio recordings will be retained in the researcher's possession until 30th June 2022.
- I understand that a transcript of my interview in which all identifying information has been removed will be retained for two years.
- I understand that under freedom of information legalisation I am entitled to access the information I have provided at any time while it is in storage as specified above.
- I understand that I am free to contact any of the people involved in the research to seek further clarification and information.

Helen Wehrheim, S00150430@mail.itsligo.ie (Academic supervisor Dr. Carol Moran, Department of Marketing, Tourism & Sport moran.carol@itsligo.ie).

Signature of researcher; I believe the participant is giving informed consent to participate in this study

_____ Date _____

Signature of research participant _____ Date _____

Appendix J - Email sent to Business Providers (including General Information)

To whom it may concern,

My name is Helen Wehrheim, I am a postgraduate research student at the Institute of Technology Sligo. This survey aims to explore attitudes and approaches of adventure tourism providers to sustainable coastal adventure tourism. This research is intended to help to sustain Ireland as a desirable adventure tourism destination without causing harm to adventure tourism businesses.

Since you are one of the adventure tourism providers that offers coastal activities, I would be grateful if you could complete this this questionnaire, it will approximately take 10 minutes.

By completing this questionnaire, you agree that the gathered data can be used as academic research. All data will always be treated confidentially. Only the researcher will have access to all information provided by participants and anonymity is assured for all participants. Your participation in this study is entirely voluntary and you can withdraw at any time. You are free to omit any question.

Please click to following link to complete the survey:

https://docs.google.com/forms/d/e/1FAIpQLSfbrHzb5_TY4gIUun_BRNkW68Z3IrPWmEEed_G8wwn8IGBYZPIQ/viewform?usp=sf_link

Thank you for taking the time to complete this survey and feel free to contact me if you have any questions. You can email me on S00150430@mail.itsligo.ie or call me on 089 257 2406.

Kind regards,

Helen Wehrheim

This Institute of Technology research is supervised by Dr. Carol Moran, Lecturer, Department of Marketing, Tourism & Sport. Any queries, please contact: moran.carol@itsligo.ie

Appendix K - Coding example Interviews

	A	B	C	D	E	F	G	H	I	J
	Interview data: main points									
	Interview 1	Interview 2	Interview 3	Interview 4	Interview 5	Interview 6	Interview 7	Interview 8	Interview 9	
Question 1 (Years)	4	8	4	8	5	26	6	30	7	
Question 2	Kajaking, Coasteering, Walking	Sea Kayaking	Kajaking, Walking	Surfing	Surfing	Horse riding	Surfing	Surfing, Kajaking, Climbing, Abseiling, Hillwalking, Cliff Jumping, Canoeing	Surfing	
Question 3	Freelance & Love for outdoors	25 years of coaching	Pilot community project, successful funding	Love for surfing/outdoors	Love the outdoors	Making my passion my job.	enjoyment of surfing and the ocean.	Love being outside	Making my passion my	
Question 4 (Y or N)	Yes, everything has an impact.	Yes, venues overused	No, try to do very low impact	Yes, I suppose	It can, I think most providers are aware	Yes, depending on the activity it can be more or less impactful.	Im not sure	Maybe	A lot of erosion is from the general public. Educator for everyone to ensure the population behaves differ.	
Question 5	No, cleaning up by myself sometimes	No	No	No, but we are involved in the sea front community	No, but trying to be mindful	No, but try to stay on pathways in dunes etc.	No	No	No	
Question 6	No	No	No	No	No	No	No	No	No	
Question 7	No, only looks good on paper.	No	Wild Sea Europe	No	No	Part of Clean coast (on Tasse)	We do the odd beach clean up	Field Studies Council (FSC)	Beach clean ups with it leave no trace program but members of my associa	No
Question 8 (Y or N)	No.	No	No	Could certificate	Yes Im aware, but some are a waste of time and money	No	No	Yes	Not really	
Question 9	No.	Leader, Environmental Community and local Government, In scouts	No	No	No	No, Maybe, if any, enhance some businesses because of customers view points	No	No	No, customers dont ca	
Question 10	Private places Overtourism in summer worst for hill walking	Council will build a patoon on a river but nothing on beaches	Not so much up here	Yes, in summer! We operate in a very popular area	In summer yes!	No, the beach we use is dangerous for swimming so there are too many people around.	I dont think so	Only in summer	Yes, depending on the loca we use. Some can be very others are somewhat bu	
Question 11	Bit of all.	Bit of all	Beach & Dunes	Beach	Beach	Beaches, (very dunes, All on beach.	Beach	Bit of all	Beach	
Question 12	N/A	N/A	Beach & Dunes	Beach	Beach	All on beach.	All on the Beach	Bit of all	Beach	

Appendix L - Coding example Questionnaires/Theme Development

Pollution **Feedback** **Climate change effects** **Stones of** **Tourism effects** **Building**

Questionnaire analysis

- Over 43% have more than 10 years' experience
- 11-12% highest response rate in county (Sligo, Mayo, Donegal, Cork)
- Activity responses
- 73% seen change in local beach landscape; changes include:
 - The sand dunes are being washed away and build up in other places more so than they used to.
 - Seems there are much more stones either being washed in or the sand around them is being washed away.
 - development of pathways by Fingal County Council
 - Last August there were periods of very heavy rainfall. This resulted in new waterfalls appearing along the cliffs of Moher and minor rockfall and landslide from the cliffs
 - Lots of new houses
 - Coastal erosion in all areas a lot less sand on the beach
 - There are much more people in tourist hotspots. You only have to look at Slalah Lag in Donegal, I grew up going there and you would rarely meet a soul. Now with the introduction of the Wild Atlantic Way, Social media etc you could meet 100 people there in an hour
 - erosion
 - One of the beach beaches for teaching Kitesurfing called Grange in Fethard on Sea has had massive coastal erosion. We can no longer teach there as the sand had disappeared under what used to be the cliffs
 - some fallen earth after storms
 - more due to coastal erosion
 - Erosion of sand dunes
 - Not many dunes in our area, roads go straight on to beach.
 - Blue rock slide retreating
 - Beaches always change but after winter you can tell they are definitely more impacted by the storms.
 - Dune erosion
 - More plastics on beaches
 - Natural erosion of the dunes and cliffs caused by winter storms
 - Erosion of cliff features from storms
 - Storms seem to have a bigger impact in recent times
 - More erosion of the rocks along the coast
 - Dumping
 - Cliff erosion. Pathways unsafe.
 - Storms are hitting much harder and you can see rocks and big amounts of sand move.

Pollution **Feedback** **Climate change effects** **Stones of** **Tourism effects** **Building**

Themes

1) Cost / Price

2) Council's (includes access car-parks etc.)

3) Over-tourism

4) Awareness / Education

5) Priorities over impacts

Themes

1) Involvement in Sustainable Practices * include what tourists are doing

2) Little Environment / Certification

3) Erosion a wide spread Problem

4) Fear + Concern (Council's)

5) Planning + Building Permission

6) Marketing

7) Misc

Appendix M - General Framework for Tourism Businesses

Conduct in the environment

- Map out all local access routes, ensure only designated pathways are used. Train staff to ensure they are well-informed on local area restrictions setting a good example. Choose existing path to coastal areas and ensure using pathways with gravel or concrete rather than sand based.
- Consider small group sizes, limiting the environmental impact per usage.
- If all day activities include breaks, supply bins and ensure customers take home their litter. Only sit down for breaks in designated areas.
- Ensure interactions with wildlife are at a safe respectful distance, and do not intrude or damage living spaces.
- Protect sensitive areas, such as wetlands, cliffs and dunes. Do not use areas which seem fragile or show signs of erosion.
- Explain the vulnerability of coastal areas to create a basis for protecting the landscape. Customers will hopefully take this information home and consider it in the future.
- Report littering, wild camping, etc. to local authorities. Note and report any new erosion at locations you use for activities. While councils should monitor coastal landscapes themselves to some extent, often the public or businesses are the engine for change in an area.
- Where possible, work with local authorities to establish policies that protect endangered flora and fauna.

General Business Operations

- Create a sustainability model/plan that works for your business. While the overall objectives of sustainable business practices apply to all, some procedures need to be adapted to every individual business. If the plan is not adaptable it will create stress in the workplace and make sustainability harder to achieve.
- Remember sustainable tourism development incorporates economic, social and environmental impacts.
- Business workplaces should use renewable energy sources for electric and water heating such as solar, wind, or geothermal. Further, conduct a waste audit/assessment and implement recycling methods.
- Use rechargeable batteries for any equipment require during the activity (headlights for climbing, exploring caves by kayak etc.).

- Use preventative maintenance on equipment to reduce risk of replacement and donate obsolete or unwanted equipment to charity.
- Choose to buy outdoor equipment from environmentally and socially responsible suppliers.
- Attract the right customer by adapting marketing strategies to appeal to sustainable travellers rather than mass tourists. These have been proven to spend more money, which can help with economic aims in your business plan.
- Develop partnerships with local environmental and community organizations.
- Participate in local environmental and conservation, either through monetary contributions or volunteering.
- Provide environmental education materials and information on local biodiversity and conservation efforts to staff and customers.
- Review your practices regularly. Environmental measures change continuously, therefore your sustainability outline should also be revised.
- Ensure you do not greenwash your business operation, whether through marketing or conscious practices.

Certification, Networking, Training

- Create an environmental plan based on local stakeholders' and environmental authorities' recommendations. Research and establish which environmental values are appropriate for your business.
- Participate in environmental or sustainable tourism certification programs, however review them carefully beforehand to avoid greenwashed certifications. Credible certification is key for customer trust and ethical environmental procedures.
- Ensure your claims of environmental practices are transparent and verifiable by customers and/or third-party entities.
- Be open to feedback from customers and staff on possible further sustainable practices.
- Help educate other businesses in your industry about sustainability, by speaking at events and providing examples of your own businesses. Visa vera be open to learn from others.

Appendix N - Work Timeline

Start Date	Finish Date	Tasks	Days
01/11/2019	15/03/2020	Reading relevant literature (ongoing)	136
25/11/2019	28/11/2019	Update timeline (ongoing)	(ongoing)
28/11/2019	23/12/2019	Inclusion criteria	26
02/12/2019	28/02/2020	Methodology outline; exploring possible strategies	89
02/12/2019	13/12/2019	Design research questions based on proposed Aims and Objectives	12
09/12/2019	30/03/2020	Writing literature review (ongoing)	113
19/12/2019	19/01/2020	Re-write and submit proposal	32
19/12/2019	29/03/2020	Starting write up of Methodology (Tools and methods)	102
20/02/2020	07/03/2020	Considerations for Ethics section	17
24/03/2020	29/03/2020	Methodology (Philosophical Framework)	6
15/04/2020	30/04/2020	Design Questionnaire and Interview structure for providers as well as informed consent forms	30
05/05/2020	05/05/2020	Document conferred by Ethics committee	1
22/05/2020	02/06/2020	Covid19 paperwork regarding interview safety and risk assessments	11
24/06/2020	24/06/2020	Ethics committee approval	1
09/06/2020	12/07/2020	Conducting interviews with adventure tourism businesses	33
10/07/2020	13/07/2020	Send out Questionnaires & gathering responses	3
14/07/2020	31/08/2020	Reduced thesis work capacity due to full-time work commitments during the summer	50
01/09/2020	01/09/2020	Reduced Thesis work capacity from this date due to new role in Job	N/A
07/09/2020	07/09/2020	New semester update and review of work with supervisor	1
15/09/2020	15/10/2020	Further editing Chapter 2 & 3 after review	45
15/10/2020	15/10/2020	Closing date for Questionnaire Submissions	1
19/10/2020	27/10/2020	Generating graphs, statistics and figures from questionnaire answers	9
01/11/2020	30/11/2020	Conduct more Interviews if needed	N/A
03/11/2020	03/11/2020	Phone update with Supervisor	1
08/11/2020	17/12/2020	Start coding Questionnaire responses and Interviews	39
07/12/2020	07/12/2020	Phone update with Supervisor	1
15/12/2020	28/12/2020	Editing Literature review	8

07/11/2020	21/01/2021	Write up and link of Findings for Questionnaires and Interviews	67
22/01/2021	22/01/2021	Chapter 4 send to supervisor	1
02/02/2021	13/03/2021	Edit chapter 4 after supervisor review	39
15/03/2021	15/03/2021	Supervisor & researcher discussion, identified need for second set of data	1
04/03/2021	31/03/2021	Reediting chapter 3 & 4	27
03/03/2021	09/03/2021	Designing questionnaire for tourist to get a second data set	6
15/03/2021	04/05/2021	Covid extension submission to approval	20
11/03/2021	11/03/2021	Pilot distribution of questionnaire	1
12/03/2021	12/03/2021	Approval of Supervisor to distribute tourist questionnaire	1
13/03/2021	31/03/2021	Distributing questionnaire, until closing date for responses	18
01/04/2021	27/04/2021	Coding the results of second data set, tourist questionnaires	28
28/04/2021	25/05/2021	Combining second data set in chapter 4	27
28/05/2021	18/06/2021	Review of chapters 1-4 by supervisor	21
21/06/2021		Write up Recommendations & Conclusion as well as work on notes supervisor gave after review	18
07/09/2021	07/09/2021	Phone call with supervisor after summer break, update on progress	1
08/09/2021	15/09/2021	Small changes in chapter 5	7
16/09/2021	11/10/2021	Get document Reviewed by supervisor	28
12/10/2021	11/11/2021	Cut words & edit after supervisor review and including appendix	29
28/10/2021	28/10/2021	Update phone call with supervisor	1
11/11/2021	16/11/2021	Send to supervisor for final review	5
17/11/2021	03/12/2021	Changes to document	16
24/11/2021	24/11/2021	Phone call with supervisor	1
01/12/2021	01/12/2021	Supervisor signed Document	2
01/12/2021	05/12/2021	Final check & formatting	5
06/12/2021	06/12/2021	Submit document to Research office	1

Appendix O - Covid Documentation for Interviews

Off Campus Activities Hazard Identification and Risk Assessment

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Off Campus Activity	
Category	Type of Off campus activity
Category 1	Students working off campus, unsupervised, to conduct research etc. ✓
Category 2	Students working off campus with direct supervision by IT Sligo Staff e.g. classes in a local pool, beach, archaology dig, cultural visits, visits to business premises, river sampling, site surveys etc and returning to campus the same day.
Category 3	Students working off campus with direct supervision by an academic and requiring an overnight stay in Ireland e.g. archaology dig, cultural visits, visits to business premises, river sampling, site surveys, adventure sports etc.
Category 4	Students working off campus with direct supervision by an academic and requiring foreign travel
Completed Forms to be left with Function Secretary	
Hazard Identification and Risk Assessment Please complete Section 1 and 2	
Name of activity	Postgraduate surveys and interviews
Name of Programme or Other for which the activity applies	Postgraduate degree
Date of Activity	From June 2020 to October 2020 – exact dates are flexible depending on Covid19 restriction easing
Location (s) of where the Activity takes place	Bandon, County Donegal Enniscrone, Sperrill, Mullaghlin on, County Sligo Westport, County Mayo
Give brief overview of what the activity entails	1. Travel to and from interviews 2. Conducting interviews while adhering to social distancing guidelines as per the Governments recommendations
Signature of Person in charge	Helen Weirhahn 30/05/2020
Signature of Head of Department	
What is the Staff to Student Ratio for Category 2, 3 and 4 Activities	N/A
Is a Certificate of Medical Fitness required for participants taking part in the Off Campus Activity (Yes or No)	No
Is parental consent Required for young persons under 18 who will be taking part in Category 3 or 4 Activities (Yes or No)	No

Off Campus Activities Hazard Identification and Risk Assessment

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Section 1		General Hazards - These Hazards would be expected on any Off Campus Activity		Risk Level (Low, Med or High)
Hazard Type	Who May be Harmed	Control Measures and Precautions that will be implemented by the person in charge to mitigate Risk. (Tick ✓ if that apply and put in 'N/A' for those that do not)	Control Measures and Precautions that will be implemented by the person in charge to mitigate Risk. (Tick ✓ if that apply and put in 'N/A' for those that do not)	Risk Level (Low, Med or High)
Inadequate planning and organisation	Students and IT Sligo Staff Members	<input checked="" type="checkbox"/> The activity has been approved by the Head of Function or Departmental Manager <input checked="" type="checkbox"/> Staff are aware of their roles and responsibilities prior to their departure <input checked="" type="checkbox"/> Staff will brief the students of the details of the activities, the potential hazards and the controls which will be necessary <input checked="" type="checkbox"/> Parental consent will be sought for students under 18 for category 3 and 4 activities <input checked="" type="checkbox"/> A list of student names, details of the activity, transport type has been left with the Head of Function administrator prior to departure.	<input checked="" type="checkbox"/> The person in charge of the Off Campus Activity shall ensure Departmental Manager <input checked="" type="checkbox"/> Staff are aware of their roles and responsibilities prior to their departure <input checked="" type="checkbox"/> Staff will brief the students of the details of the activities, the potential hazards and the controls which will be necessary <input checked="" type="checkbox"/> Parental consent will be sought for students under 18 for category 3 and 4 activities <input checked="" type="checkbox"/> A list of student names, details of the activity, transport type has been left with the Head of Function administrator prior to departure.	L
Inadequate staff training, qualifications and supervision	Students and IT Sligo Staff Members	<input checked="" type="checkbox"/> All staff are appropriately trained, experienced and qualified to competently fulfil their leadership roles and responsibilities <input checked="" type="checkbox"/> Based on the activity being undertaken and the potential risks highlighted, the person must decide on the appropriate level of supervisor required. A graduate higher risk activities such as e.g mountain climbing, river sampling, adventure sports, site surveys a ratio of 2:30 is recommended	<input checked="" type="checkbox"/> All staff are appropriately trained, experienced and qualified to competently fulfil their leadership roles and responsibilities <input checked="" type="checkbox"/> Based on the activity being undertaken and the potential risks highlighted, the person must decide on the appropriate level of supervisor required. A graduate higher risk activities such as e.g mountain climbing, river sampling, adventure sports, site surveys a ratio of 2:30 is recommended	L
Transport Own Car Other, Transport Accidents	Students, IT Sligo staff and members of the Public	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Where possible public transport and transport hire should be used for off campus activities that are not in walking distance of the campus <input checked="" type="checkbox"/> Staff and students using their own transport must ensure their car is in compliance with legislation in terms of roadworthiness and they must ensure they have the appropriate insurance in place	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> Where possible public transport and transport hire should be used for off campus activities that are not in walking distance of the campus <input checked="" type="checkbox"/> Staff and students using their own transport must ensure their car is in compliance with legislation in terms of roadworthiness and they must ensure they have the appropriate insurance in place	N/A
Exposure to adverse effects of weather	Students and IT Sligo Staff	<input checked="" type="checkbox"/> All possible weather conditions are considered beforehand. They shall ensure that the students are aware of appropriate clothing and equipment required (j.c. hat, sun cream, rain gear, walking boots etc) <input checked="" type="checkbox"/> The person in charge will obtain daily weather forecast and adjust plans accordingly <input checked="" type="checkbox"/> Specialist personal protective clothing and equipment will be made available to group members when appropriate [Note: available PPE will be]	<input checked="" type="checkbox"/> All possible weather conditions are considered beforehand. They shall ensure that the students are aware of appropriate clothing and equipment required (j.c. hat, sun cream, rain gear, walking boots etc) <input checked="" type="checkbox"/> The person in charge will obtain daily weather forecast and adjust plans accordingly <input checked="" type="checkbox"/> Specialist personal protective clothing and equipment will be made available to group members when appropriate [Note: available PPE will be]	L
Emergencies, Burns, Injury	Students, staff and members of the Public	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> The person in charge will plan and make provisions for students who do not bring suitable kit/Note: the requirements will be communicated to the student in advance of any away <input checked="" type="checkbox"/> The person in charge will make himself/herself familiar with the IT Sligo Accident investigation and reporting procedure. <input checked="" type="checkbox"/> The person in charge shall carry a charged phone with credit. [both student and staff member will carry their own phones and will be responsible for their credit]	<input checked="" type="checkbox"/> N/A <input checked="" type="checkbox"/> The person in charge will plan and make provisions for students who do not bring suitable kit/Note: the requirements will be communicated to the student in advance of any away <input checked="" type="checkbox"/> The person in charge will make himself/herself familiar with the IT Sligo Accident investigation and reporting procedure. <input checked="" type="checkbox"/> The person in charge shall carry a charged phone with credit. [both student and staff member will carry their own phones and will be responsible for their credit]	L

Off Campus Activities Hazard Identification and Risk Assessment

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Section 1		General Hazards - These Hazards would be expected on any Off Campus Activity		Risk Level (Low, Med or High)
Hazard Type	Who May Be Harmed	Control Measures and Precautions that will be implemented by the person in charge to minimise Risk. (Tick ✓ as they apply and put in N/A for those that do not)		
Special medical, behavioural needs of vulnerable groups, e.g. persons with disabilities, pregnant persons, persons with medical conditions	Students, staff and members of the Public	The person in charge of the Off Campus Activity shall ensure		
		For remote locations where there may be a poor mobile signal the person in charge needs to establish an alternative way to communicate with the Emergency Services. (Note: a remote check in and check out of the site-based activities will be used with a designated person)	1	
		The person in charge should have all emergency contact numbers with them and the person in charge will have instructions regarding what to do in an emergency	1	
		The person in charge should have basic First Aid kits for Cat 2, 3 and 4 Activities	1	
		The person in charge should bring with them a complete first aid kit and survival kit on Cat 2, 3 and 4 Activities	1	
		The person in charge will brief students regarding emergency procedures	1	
		The person in charge will prepare a contingency plan in the event of an accident or breakdown (inc. safety of group, and planned means of onward travel or return home)	1	
		The person in charge will fill out an "Accident/Incident Report Form" when they return to campus	1	
		The person in charge will obtain up to date information regarding special/medical needs of all group members (the student) prior to departure	1	
		The person in charge will seek advice will be taken from campus nurse or doctor if appropriate	1	
Special medical, behavioural needs of vulnerable groups, e.g. persons with disabilities, pregnant persons, persons with medical conditions	Students, staff and members of the Public	Person will be reminded to bring personal medication if required	N/A	
		The programme/itinerary will be arranged with due regard to the mobility and special needs of all members of the group (dynamic assessment for each trip)	N/A	
		Students will be briefed to eat/drink sensibly and to have sufficient sleep	1	
		Sufficient supervision will be sufficient and appropriate to manage the group safely	N/A	
Misbehaviour / Misconduct	Students, staff and members of the Public	Students will be briefed regarding conduct/behaviour required as per the IT Siligo student charter	N/A	
		Any incidents which occur should be reported to the NCO by the person in charge on their return	N/A	

Off Campus Activities Hazard Identification and Risk Assessment

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Section 2 Activity Specific Hazards which have not been identified in Section 1		The Person in Charge must identify the Hazards specific to the activity they have organised and the necessary control measures they will implement to control that hazard. <i>Examples of activities which require a specific Risk Assessment include water based activities, river sampling, travel to foreign countries, cooking, anthropology, etc.</i>		Risk Level (Low, Med or High)
Hazard Type	Who May be Harmed	Control Measures and Precautions that will be implemented by the person in charge to minimise Risk.		
Covid19	Student, and members of the public	Student will above notes taken or any recording devices at their home. All equipment will be sanitised prior to storage with the student using appropriate PPE.	L	
Covid19	Student, and members of the public	Student will utilise appropriate PPE when onsite and maintain social distancing from interviewees.	L	
Covid19	Student, and members of the public	The student will utilise sanitizer to disinfect their hands and will wash their hands before and after the interview.	L	
Covid19	Student, and members of the public	The student will monitor themselves for symptoms of Covid19 and if suspected, they will immediately take appropriate action (e.g. self- isolation) in line with government advice.	L	

Off Campus Activities Hazard Identification and Risk Assessment

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The following documents were consulted for the preparation of this Health and Safety Risk Assessment:

Source	Document/Policy/Guidance
IT Sligo	Off Campus Activities Procedure No. SA001/170
IT Sligo	Reporting and Investigation of Accidents and Incidents at IT Sligo Procedure No: SAF003/172
IT Sligo	Assessing Health and Safety of Student Projects Procedure No: SAF007/176
Chartered Institute of Ecology and Environmental Management (CIEEM)	Advice on Covid-19 and Undertaking Site-based Ecological Work (31 st March 2020)
Government of Ireland	Latest updates on Covid-19 (14 th April 2020)
HSA	COVID 19 – Advice for Employers
WHO	Getting your workplace ready for Covid-19 (3 March 2020)