Just a Drop in the Ocean

A dive tour operator's perspective on contributing factors for environmental change in coastal zones. The case of Moalboal.

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Abstract

Title: Just a Drop in the Ocean
- *A dive tour operator’s perspective on contributing factors for environmental change in coastal zones. The case of Moalboal.*

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Research question: What do dive tour operators perceive to be contributing factors for environmental change in coastal zones?

Purpose: The aspiration is that the study will advance the understanding of factors impacting coastal zones in order to support achievements for Agenda 2030, Goal 14, Life Below Water. The purpose of the field study is therefore to investigate what aspects impact coastal zones through the case of the coastal zones in Moalboal. The study’s perspective is from workers within dive tour operations.

Method: The study was conducted through a qualitative strategy and an inductive approach. The empirical data was collected through semi-structured interviews with dive tour operators. Additionally, observations were used to add further insight into the phenomenon.

Conclusion: This study concluded that dive tour operators have similar perceptions of the impacts on the environment, however, the degree to which each participant mentioned each factor varied. The research resulted in eleven factors that contribute to environmental change in the coastal zones in Moalboal. The conclusion ends by highlighting that environmental change is an important aspect that concerns the dive tour operators.

Keywords: Coastal tourism, coastal zones, environmental change, dive tour operators, Moalboal.
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Definitions of Terminology

Agenda 2030 - 17 Sustainable Development Goals that are set for all countries to contribute to prosperity for everyone while considering the well-being of the planet. These goals are to be achieved by the year 2030 (United Nations Development Program, n.d).

Archipelago - A collection of small islands or an area in the ocean where there are many small islands (Cambridge Dictionary, n.d.a).

Destination - The geographical place someone is going to that includes features such as attractions, accommodations, and restaurants (Framke, 2002).

Dynamite fishing - A destructive fishing technique that includes the usage of explosives and poisons to catch fish (Kitikiro & Mahenge, 2016).

Ocean Health Index - A framework for determining the ocean's health and ability to provide, incorporating food, cultural and social values, and employment opportunities based on people's expectations of a healthy ocean (Ocean Health Index, n.d).

Overfishing - The decrease of fish due to humans excessively catching them. Decreasing the average size of the fish as time goes by and making it possible for other species to become more numerous (Fetersen, 1903).

SDG - Sustainable Development Goals.

SDG Goal 14, Life Below Water - One of the goals from Agenda 2030. It concerns the preservation and sustainable utilization of the oceans and their marine resources (United Nations, n.d).

Sediment - Small and soft pieces of solid materials that have fallen to the bottom of a liquid, for instance, the ocean. Often compared to wet powder (Cambridge Dictionary, n.d.b).
Silt - Sand or soil which is transported by running water and located at ocean openings or within river bends (Cambridge Dictionary, n.d.c).

Stakeholders - The individual or group's connection to an organization which can affect its achievement. This includes members within the organization, suppliers, governments, customers, and community members (Freeman, 1984).

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1. Introduction

In the studies introduction chapter, background information is provided on the theme of coastal tourism and the research's study area is presented, namely the Philippines. A problem discussion is further presented, covering aspects that are creating a case study for the destination Moalboal, Philippines. Following, the research purpose and the research question are presented, composing the fundamental aspect of the research. Lastly, the delimitations of the study are explained.

1.1 Background

Coastal tourism consists of leisure activities such as snorkeling, boating, and diving, as well as other activities along coasts which are land-based (United Nations World Tourism Organization, 2020). Coastal tourism is a sector that started in the 18th century when there was a growing emphasis on beaches and waterfronts, meaning sea, sun, and sand resources (Weerasekara & Amarawickrama, 2016). Coastal tourism is therefore a form of nature-based tourism which depends on the environment and natural resources during the provision of services (The Worldwatch Institute, 2005). It can be seen that ocean-related activities are desirable as the natural resources they provide are attractive and on people's itineraries (European Commission, 2021). Ocean-related activities often take place in coastal zones (Huang, 2022).

Coastal zones encompass a physical area that is not truly conceivable. It is described like this due to the movement of the ocean. The ocean acts as a constant moving variable in contact with land which is impacted by external factors such as high tide, low tide, and drought. This movement makes it hard to determine a single coastline as the spatial location (Pallickal Devasia, 2019). However, it is important to note that the area of a coastal zone does consist of what in general is considered the coastline, as well as the ocean in close proximity to it (Fema, n.d). In relation to coastal tourism, coastal zones consist of the spatial location where tourist-related endeavors are practiced (Huang, 2022).
In addition, since there are multiple coastal zones on, for example, island destinations, coastal tourism can be seen as a strong industry since the local environment is a resource which tourism on islands is dependent on (Jafaar & Maideen, 2012). The United Nations (n.d) highlights that small island economies are dependent on tourism, as well as fisheries, as it can stand for more than half of the GDP (Gross Domestic Product). Considering the geographical aspect of archipelagic nature, island destinations often create multiple possibilities for services within the coastal tourism industry (Tegar & Gurning, 2018). Due to the rich biodiversity, environmental resources, and remote geographical position of island destinations, it is not uncommon that they exude attractiveness and an extent of enticement, exoticism, and exclusivity compared to the tourists’ initial locality (Hampton & Jeyacheya, 2013).

An island nation that could be seen as exuding attractiveness and exoticism is the Philippines. Many tourists travel to the Philippines due to the immaculate coastal areas of pristine beaches and biodiversity (Lonely planet, n.d). The Philippines consists of an archipelago with over 7,000 islands (Republic of the Philippines, n.d). Additionally, approximately 35% of the world's coral reefs are situated in the waters around the Philippine islands (Union of Concerned Scientists, n.d). The Philippine climate is characterized as tropical and maritime, through strong humidity, heavy rainfall, and high temperature (Pagasa, n.d). The islands in the Philippines provide many tourism opportunities, in 2020 the country was declared by the World Travel Awards as Asias’ foremost destination in two aspects, as a beach destination and as a dive destination (Republic of the Philippines DOT, 2020).

The tourism industries in the Philippines have seen changes throughout the years which can be seen between the years 2018 and 2019 when visitor arrivals to the Philippines increased by 1,092,446 people (Department Of Tourism, 2020). Changes could further be visible in 2021 as the TDGVA (Tourism Direct Gross Value Added) increased. However, in 2021, inbound tourism expenditure registered a large decline whereas domestic tourism expenditure recorded the highest percentage it had ever seen (Philippine Statistics Authority, 2022). The withdrawal of foreign tourists can be seen as an effect of the international travel restrictions from other countries as well as the country’s own implementation of travel restrictions due to the COVID-19 pandemic (PwC Philippines, 2020). Although, in the years before the restrictions, the
recorded growth in tourism showed an increase in the popularity of tourists. Generally, inbound travels for holidays and leisure were commonly spent on islands such as Cebu (Caynila, Luna & Millal, 2022). Previous research expresses “the intense biodiversity beneath the country's coastal waters attracts large numbers of tourists interested in exploring this rainforest of the ocean. As a result, dive tourism has become a major driver for economic and social development in many parts of the Philippines such as Cebu, (...)” (Lucas & Kirit, 2009, p. 480-481).

The island of Cebu belongs to the region of Central Visayas which is located in the center of the Philippine archipelago (The Philippines, n.d). Cebu is an island whose environment consists of abundant natural and touristic attractions. For example, waterfalls, resorts, and white beaches (Abocejo, 2015). The ocean around Cebu is a habitat for a lot of species, for instance, whale sharks, coral reefs, and shoals of pelagic species. Ultimately, the island of Cebu has many attractions that are attractive to tourists (Santos, n.d). However, for this research, the case of Moalboal, a primarily coastal destination on the island of Cebu will be studied. Moalboal is a municipality located on a southwest peninsula of the island of Cebu, two-three hours' drive from Cebu City and the airport of Mactan (Travelingcebu, n.d). Moalboal encompasses a 26.6km long coastline and has been recognized as one of the top three island dive destinations in Cebu (Lucas & Kirit, 2009). Moalboal’s coastal zones accommodate leisure activities along the beaches as well as snorkeling, diving, and island hopping tours (Diola, Perpetcho, Graciosa, Pantanosas, Montecillo, Flores, Violanda, Otadoy & Dy, 2021).

1.2 Problem Discussion

Baldacchino (2013) highlights that islands as tourist destinations are utilized as the most widespread and frequent branding strategy. Thus, it is not odd that tourist destinations such as islands have become important within tourism industries (Weaver, 2017). Although island destinations are attractive they are also equipped with much vulnerability and face a lot of challenges, for example, sensitivity towards man-made and natural disasters or ecosystems’ frailty (Ridderstaat & Nijkamp, 2016). Since island tourism has been studied by many scholars (Weaver, 2017; Parra-López & Martínez-González, 2018; McLeod, Dodds & Butler, 2021) it indicates an interest in
further studies regarding challenges for island destinations. In the review by Parra-López and Martínez-González (2018) it is proclaimed that previous authors show a strong concern regarding the tourism development on islands in connection to sustainability due to the diverse consequences that tourism can create.

In connection to previous studies’ concerns, research proclaims that the tourism industry on the island of Cebu is regarded with caution as it without difficulty could be exposed to environmental damage from, for example, human activities (Abocejo, 2015). A reason for this thesis approach is that coastal zones encompass much biodiversity and ecosystems which contribute to many benefits for populations (Environmentchange, n.d). It should be of importance to facilitate a deeper understanding of factors that contribute to environmental change in coastal zones since biodiversity and ecosystems could be influenced by environmental change. Which further could impact the benefits for populations. Even though some studies have been made on the island of Cebu (Parras, Fe Portigo & White, 1998; Paguntalan, Jakosalem, Pedregosa & Gadiana, 2004; Montenegro, Diola & Remedio, 2005) there is a noted gap in the research about coastal tourism's impacts on coastal zones on the island, especially the research on the destination Moalboal. The limited access to information concerning this perspective is a reason in itself for the approach of the thesis.

Furthermore, due to recent events such as the COVID-19 pandemic and the typhoon Odette; which struck the Philippines on the 16th of December 2021 (United Nations High Commissioner for Refugees, n.d), the tourism industries on the island declined, therein the coastal tourism industries as well (Ecarma, 2022). For instance, the Cebu Provincial Tourism Office presented a report where approximately 200 tourism operations had obtained damages of significant proportions, and this was only a month after the typhoon (Erram, 2022). The typhoon struck the region just as the industry was gradually returning after the COVID-19 restrictions (Fernandez-Brojan, Udtohan & Burgos Jr., 2021). Due to these external events, it should be deemed important to investigate the implications for coastal zones since the events might have caused effects in the coastal zones other than employment and property loss, for instance, effects on the environment and marine life.
Employment opportunities through tourism can be seen within coastal zones as visitors to coastal destinations are willing to pay more to utilize the coastal zones' resources than residents (Dixon, Oh & Draper, 2012). According to literature, the choice of a coastal tourism destination is dependent on five criteria in coastal zones. Their water quality, safety, amount of litter, facilities, and scenery (Anfuso, Bolivar-Anillo, Sánchez Moreno, Villate Daza & López Daza, 2018). In the case of Moalboal, these would be aspects that make tourists decide to go there or not. Although, it can be seen as contradictory that, for example, the amount of litter affects the decision to go. Research indicates that the tourism industry is partly responsible for the waste that ends up in the ocean as an increase in waste is seen in places with larger tourism flows (Kanhai, Asmath & Gobin, 2022). With the reopening of tourism and travel in the Philippines, Moalboal should be investigated since sudden adjustments in tourism flow could highlight aspects that contribute to the state of coastal zones. Meaning, different factors might be seen by the thesis interviewees, the dive tour operators, as there had been ‘a relieving pressure’ during the restrictions (Arnaldo, 2021) which means differences in the coastal environment might be easier detected.

Furthermore, the Philippines has proclaimed to the United Nations that “increasing involvement and awareness among stakeholders on their critical role as stewards of the coastal and marine resources” (Philippines, 2017, p.1) are an important strategy for the country. This indicates that the country believes stakeholders, which could also be dive tour operators, are part of tackling concerns for coastal zones and the oceans. Therefore it is of interest to understand what their perspective is.

A goal that the Philippines have acknowledged is SDG 14 and the country emphasizes the issue of marine pollution, such as marine plastics and microplastics, in connection to the coasts (Philippines, 2017). Since the Philippines' main attractive pull is the oceans surrounding their islands (Lonely planet, n.d) and the tourism industry being one of the major contributors to the economy in the Philippines (Philippine Consulate General Guangzhou, n.d), there is a need for investigating potential factors that could affect coastal zones, and thereby SDG 14. Due to this goal and the problems it concerns are seen as of practical importance for the country, it should be considered an implication for this thesis.
1.3 Purpose and Research Aim

The aspiration is that the study will advance the understanding of factors impacting coastal zones in order to support achievements for Agenda 2030, Goal 14, Life Below Water. The purpose of the field study is therefore to investigate what aspects impact coastal zones through the case of the coastal zones in Moalboal. The study’s perspective is from workers within dive tour operations.

1.4 Research Question

The study will answer the following question:

- What do dive tour operators perceive to be contributing factors for environmental change in coastal zones?

1.5 Delimitations

The thesis had multiple set limitations and the predominant limitation was temporal. Due to the time when the data could be gathered was limited, the research became limited as well. The total time for when the thesis should be completed was ten weeks. Therefore, the time limit to gather data was five weeks, since time needed to be set aside in order to present and analyze the data.

The spatial resources were another limitation while conducting this thesis. With the time limitation and financial resources at hand, it became apparent that it would be insufficient to study the entirety of the Philippines. While restricting the thesis to Cebu, the restriction was further done through a case study on the city of Moalboal. Moalboal was selected as the data-gathering spatial area since it is deemed a popular tourist destination for coastal purposes.

The perspective of dive tour operators was chosen as a delimitation since investigating from a larger perspective would acquire further time and resources. It was also decided to narrow the perspective since a larger perspective would be too vast and could impact the thesis’ focus, making it too broad.
2. Methodology

The following chapter will introduce the methodology utilized during the thesis. The thesis is conducted through a case study. The methodology was qualitative with an inductive approach. Collecting data was done through semi-structured interviews and participant observation. Multistage sampling was used to select the participants. The collected data was managed by recording the interviews and transcribing them. The empirical data was further understood by thematically analyzing and interpreting it. The participants of the research were anonymous. The reliability, validity, and ethical considerations are closing the methodological chapter.

2.1 Inductive Approach

An inductive approach aims to understand a phenomenon through exploring information gathered at a site in order to understand general patterns. Meaning the inductive approach starting point is from the empirical data. Through the general patterns, the inductive approach aspires to be involved in a generalization of theory development (Smith, 2017). Qualitative studies are generally associated with an inductive approach (Bell, Bryman & Harley, 2019). Brotherton (2015) claims that using induction, in general, is more appropriate if it concerns a unique or new topic. Since the factors that are influencing the coastal zones on the destination Moalboal have yet to be fully studied, collecting empirical data first was the most beneficial approach for this research. The theoretical aspects that were presented in the literature review became clear after the empirical data was collected. Hence, an inductive method was used since the qualitative interviews were not framed to suit a certain theory but rather inspired by existing topics regarding coastal tourism.

2.2 Qualitative Approach

A qualitative approach was chosen for the research paper as it focuses on words being analyzed rather than collecting numbers. It was also chosen as it is suitable for case studies. A qualitative approach also has fewer guidelines and directions that need to be followed as well as the data gathered is seen through the eyes of the research’s
participants (Bell, Bryman & Harley, 2019). As destinations can be experienced differently depending on the individual, the open narrative of the qualitative approach was suitable for this thesis in order to not limit the research further. Due to the inductive approach and qualitative approach, the study had the flexibility to develop naturally depending on the participants' answers.

Two main resource methods used within qualitative data are interviews and observation. Since words can describe more than numbers (Denscombe, 2014), the researchers used in-depth interviews to gather as much information as possible about dive tour operators' perspectives on the phenomenon. Observations were used since objects and actions themselves cannot attribute meaning if they are not interpreted by someone (Bell, Bryman & Harley, 2019). Therefore, body language, tone, and the surrounding area were continuously analyzed by the researchers to create a better understanding of the surroundings and situations. A more detailed description of how interviews and observations were implemented in the research is presented in section 2.4.1 and section 2.4.2.

2.3 Case Study

Within qualitative studies, case studies are commonly used. Case studies' main characteristic is that it focuses on one particular example to demonstrate the general outlook of the phenomenon investigated (Denscombe, 2014). The attention of a case study is that of examining the setting (Bell, Bryman & Harley, 2019) and gaining insight by making an in-depth analysis of the example in connection to the phenomenon (Denscombe, 2014). An in-depth case usually needs more emphasis on details (Bell, Bryman & Harley, 2019). Therefore, an exploratory approach was also taken. An exploratory approach indicates that the development of the phenomenon is looked upon and described more thoroughly than just a description (Smith, 2017). The research was conducted by analyzing the case of Moalboal. As the research aimed to explain the phenomenon of what factors are affecting environmental change in coastal zones, it was deemed more beneficial to solely focus on the case of Moalboal to gain in-depth insights into the general aspects to determine key aspects. As there was a need for details to explain the phenomenon, the time limit was also a determining factor for the case study as to deliver appropriate and well-defined information rather
than indistinct information. The case study was also done to facilitate an understanding of the factors on coastal zones on a deeper level.

2.4 Data Collection

It can be argued that there are three main research methods within the qualitative approach, namely; interviews, documents, and observations (Denscombe, 2014). The main qualitative research method used for this research were interviews and observations. Interviews and observations were used in the research to create an in-depth analysis of the phenomenon. Following the interview method, the observation method, and the selection process is explained.

2.4.1 Interview Method

The interview method used in this research was semi-structured interviews, or as otherwise known; in-depth interviews (Smith, 2017). Semi-structured interviews indicate that the interviewer has a set list of questions prepared, however, there is a notion of flexibility to it. The order and other topics occurring can change depending on the interviewee's answers. The focus is on letting the interviewee speak freely and open-ended, elaborating on the points they feel need emphasis (Denscombe, 2014).

An interview guide was used to create the main structure of the interview. The interview guide is presented in Appendix 1. The interview questions were inspired by the previous knowledge that the researcher had regarding coastal tourism. If an answer needed clarification or development, the researchers asked a follow-up question. These were individual to the situation and interview. The research opted for the interviews to be held at the participant’s choice of location as to not influence the participant’s answer due to external factors (Tracy, 2020).

The interviewees had to answer several questions regarding different tourism and environmental aspects such as tourism flow, tourist effect on the environment, and the individual's perception of what has to be done to prevent environmental damage. More basic information about the company and the individual was also asked to get an understanding of the interviewee's qualifications. The interviews varied in length,
ranging from 15 to 40 minutes, depending on how much the interviewee developed their answers.

The interviews were held with workers in dive tour operations. These interviewees were chosen because they are in close contact with the visiting tourist, the local population, and the studied area: the coastal zone. The dive tour operators could therefore offer a legitimate view of what factors could be affecting the coastal zones since they were connected to multiple parties and could firsthand see the factors that contribute to the state of the destination Moalboal.

2.4.2 Participation Observation

In order to obtain an in-depth understanding of the phenomenon, participation observations have been applied. Participant observations involve the researcher immersing themself into the setting of the field for a long time period and observing the surrounding (Bell, Bryman & Harley, 2019). Participant observations were conducted as fieldwork observations, meaning that the observed field is looked upon in its natural state, unmodified by any form (Denscombe, 2014). During the creation of the thesis, participant observations were utilized as a means to observe the surroundings where the dive tour operators were present. The surrounding was examined to see if there were any visual implications of possible factors that could impact the state of the coastal zones. It was also utilized to see if the aspects the interviewees mentioned could be seen firsthand.

2.4.3 Selection and Selection Process

The data for this research was collected through multistage sampling. Meaning that one sample is further distinguished into another sample, which continues until the sample is precise enough to conduct a satisfactory study (Levy & Lemeshow, 2008). Multistage sampling in this research was defined by two selection processes: stratified random sampling and purposive selection.

Firstly, stratified random sampling indicates that the study's population is categorized into subgroups. Further, the required number of participants is chosen as random samples from the subgroups. However, the random sample must have something in
common and be relevant and significant to the phenomenon (Denscombe, 2014). In this research, the subgroups were categorized within the city of Moalboal by coastal tourism companies and further into dive tour operators. Dive tour operators were chosen due to their relevance to the phenomenon and the large extent of existing operations in the city. When the sample was narrowed to dive tour operators, the approach was to email and visit different dive tour operators in hopes of gaining contact with informants. The researchers actively went into different operations in the coastal zones to gather interview participants.

Secondly, purposive selection was implemented. Purposive selection is the connection of the participants to the research field. Criteria had to be met to be able to answer the research question (Bell, Bryman & Harley, 2019). When the sample was decided to be dive tour operators and a first contact was established, the criteria for being eligible as a participant were based on four factors. The four factors participants had to fulfill were:

1. Be a resident of Moalboal
2. Work within a dive tour operation
3. Work in connection to coastal zones
4. Be able to speak and understand the English language

The final number of participants gained from the selection process was ten interviewees.

2.5 Data Management

While conducting data, different aspects can be considered on how to handle information and how to facilitate the understanding and remembrance of the data. Following the anonymity of participants is explained as well as how the interviews were treated through recording and transcribing them.

2.5.1 Anonymity

It is expressed that it is important for participants in research to be anonymous as privacy is something many people value. By being anonymous people can feel more comfortable opening up as they cannot be held accountable for anything that is being said. Thus, it is also important to give the respondent a genuine opportunity to
withdraw whenever they want (Bell, Bryman & Harley, 2019). While conducting the empirical data for this research, information about the possibility to refuse to answer any question or to withdraw from the interview was given before starting the interview. To make the respondents comfortable, the researchers decided to make all participants anonymous and give them pseudonyms. Further, the names of the participants and their companies did not contribute any value to the academic research of the paper since no specific brand or agency was examined.

2.5.2 Recording of Interviews

It is important to remember the information provided and a way of doing so is by voice recording the interview and taking notes during the interview (Kvale, 2007). For this research, these two methods were used. However, notes were only taken by one researcher and it was done to write down keywords and times when the interviewee said some extra beneficial information that the researchers wanted to listen closer to after the interview ended.

Recording the interviews facilitates the memorization of conversation, however, by solely voice recording some information can be lost. Lost information involves body language as well as the social setting of the interview (Kvale, 2007; Denscombe, 2014). Recordings were also done to avoid errors by solely taking notes and relying on memory, so answers would not get distorted or falsely interpreted (Bell, Bryman & Harley, 2019). In this research, the interviews were voice recorded for the spoken information to be gathered. The entire interview was recorded and later transcribed, for the researchers to be able to fully understand the interviewee's perception. Additionally, voice recordings were done to be able to listen closely again and reflect on what the interviewee was saying but also how they are saying it, to reflect upon if an underlying meaning was present. To further support the spoken information, observations were done to remember social settings and create a fuller picture of the information that could not be preserved through audio.

2.5.3 Transcription

Transcriptions provide researchers with more tangible data, facilitating analysis as written words are easier to understand than voice recordings. For understanding the
underlying meaning of spoken words, the transcription has to be made quite extensively, preferably entirely (Denscombe, 2014), to not miss any important meaning of the participant’s perception. A decision that has to be made is on how detailed the transcription is supposed to be, for instance, if repetitive words such as “mh” and similar words should be included (Kvale, 2007).

In order to avoid any misunderstandings or missing any important parts, the researchers themselves were transcribing all interviews entirely. Meaning that no part was left out so the researchers could see everything as it was said and further sorted out the most relevant information while producing the empirical data. However, as the researchers do not feel like the repetitive words, such as “eh”, contribute to the overall meaning of the spoken words, these were left out in the transcription. Pauses, laughter, sighing, and other forms of non-spoken responses were added to the parts where they contributed to the meaning, for instance, if the participant was hesitant to answer a question as that could indicate uncertainty. Filtrations and reflections could already be made during the transcription, facilitating the categorization and finding of relevant information while writing the empirical data section.

### 2.6 Data Analysis

An interpretation has to be made to add value to the collected data in order to be able to analyze it. For analyzing the data, it is easier to categorize the different notions into different themes, this is done through a thematic analysis. Following a description is done of how this research has been using thematic analysis and interpretations to analyze the empirical findings.

#### 2.6.1 Thematic Analysis

Thematic analysis refers to the method of identifying and managing patterns across the collected data into themes. The focus is on the meaning of the data which can result in common topics being expressed which further develops into a theme of the research. In an inductive approach, the themes emerge from the empirical findings (Braun & Clarke, 2012). Bell, Bryman, and Harley (2019) explain that a theme broadly consists of (i) a common category of the collected data, (ii) is relevant to the research phenomenon, (iii) constructed through identified codes, and (iv) facilitates a
theoretical understanding of the collected data. Thematic analysis is a flexible method that can be used to examine the deeper meaning of a phenomenon as well as systematically analyzing it (Braun & Clarke, 2012).

While conducting the empirical data, the researchers have utilized thematic analysis by consistently seeing patterns between the participants' answers and thereafter continuously categorizing the empirical data into different themes. This was done throughout the data collection process. By continuously analyzing the participants' answers, the themes evolved through the common mentionings which resulted in the presented themes in chapters five and six. As the themes evolved, the theoretical application could be considered which further developed the depth of the analysis. However, in order to understand the different patterns and themes, an interpretation has been done of the empirical findings.

2.6.2 Interpretation

A notion of verstehen (‘understand’ in German) has to be considered while interpreting collected data to understand the social settings and social actions of people (Bell, Bryman & Harley, 2019). Focusing the interpretation on making the phenomenon understandable rather than explaining it as a universal truth (Denscombe, 2014). The researchers were continuously interpreting the collected data throughout the data collection process, resulting in a deeper understanding of the topic while still examining it. This resulted in new perspectives being visible which led to a development in the focus of the research. The collected data was further presented and interpreted alongside the theoretical framework in the categorized chapters that evolved through the thematic analysis, namely chapters five and six.

Since the qualitative approach largely includes the involvement of the researchers (Denscombe, 2014), and is liberal and allows researchers to freely interpret the participant’s answers, it cannot be guaranteed that the interpretations are fully objective (Bryman, Carle & Nilsson, 1997). The interpretation was therefore an important factor for the analysis since the empirical findings are in need of a reflective and critical interpretation to have meaning. Therefore, the researchers were examining the collected data and took a stand while presenting and analyzing the empirical data.
The result of taking a stand contributed to a more thorough analysis, creating connection, depth, and meaning to the participants' answers.

2.7 Reliability and Validity

The relevance of reliability and validity within qualitative research has been debated, however, they are meaningful criteria for determining the quality of the research (Bell, Bryman & Harley, 2019). Reliability of research refers to the degree to which the research can get similar conclusions if it was conducted again, either by the same researcher or someone else (Smith, 2017). In qualitative research, it is hard to fully replicate a research due to its subjective nature since researchers tend to almost become a part of the data collection technique. By presenting the research method and decisions taken, reliability is created through transparency as it is showing the reader the details that led to the conclusions (Denscombe, 2014).

As the qualitative approach of semi-structured interviews was utilized, the reliability of replication decreased. However, since the researchers presented the interview guide and the selection process, a somewhat similar interview could be held as the main questions with similar participants could be done again, even though societal changes could happen. However, a critical point is that with societal changes, perceptions can change which can influence the answers of the participants. Nevertheless, the same type of participants can be asked in the same natural surroundings.

Validity usually refers to measurements, which in qualitative research is limited. Validity thus refers to if the research is actually measuring the chosen concept or not (Bell, Bryman & Harley, 2019). Therefore, validity determines if conducted data and its reasoning is logical, realistic, generates deeper insights within the field that is studied, and further concludes valid arguments (Smith, 2017). To create validity, the researchers have been examining the collected data thoroughly, investigating the accuracy of the participant's answers to the phenomenon. Even though the reliability of replication decreased due to the semi-structured interviews, the validity increased as the participants mentioned similar things that could be themed into accurate categories without adjusting the interview guide. Further, since all the interviews were recorded, it increases the validity as the interviews could be listened to again. However, to
increase the validity, more interviews would be needed as a broader generalization could then be made.

2.8 Ethical Considerations

Considering ethics within tourism research is essential as it contributes to the overall quality of the research as well as forms trustworthiness. This is done by considering the well-being of the participant while conducting the research (Smith, 2017). An ethical perspective indicates that four main aspects are considered, namely:

1. The consent of participants: Implying that the information the participant gives is being provided voluntarily (Smith, 2017). Consent was asked before conducting and recording the interviews, and the participants always had the option to quit the interview if they wanted.

2. Information being provided: Entailing that enough information about the research is given so the participant can decide if they want to participate or not (Smith, 2017). Before accumulating interviews, the researchers presented a summary of the topic and what was to expect during the interview.

3. Privacy of the participant: Meaning that private information about the participant is not presented as well as respecting their boundaries and wish to not present information they find sensitive or not want to present (Bell, Bryman & Harley, 2019). During the initial contact, information about the participant being anonymous was presented. More on this aspect can be read in 2.5.1 Anonymity.

4. No misleading information is presented: Indicating that the researchers are honest in their collection and presentation of data and are representing them truthfully and with respect (Denscombe, 2014). When presenting the collected data, the thematic analysis and the interpretation were done thoroughly as to not misinterpret the participant's perceptions. The presentation of information was further reexamined to ensure its rightful representation.
3. Literature Review

The following chapter presents an accumulated description from previous scholars. The literature is based on themes that presented themselves to the authors during the findings of the empirical data; presented in chapters five and six. In this chapter an explanation is given regarding global reach and information sharing through social media regarding tourism destinations. Environmental impacts are also examined from two perspectives; nature affecting nature as well as human interaction affecting nature. Lastly, implications from the COVID-19 pandemic regarding the environment are presented.

3.1 Expansion of Tourists’ Reach and Implications on Destinations

Globalization can be defined as the process of stronger collaborations between social, economic, and political associations on a global scale. It, among other factors, involves the development of international transportation, corporations, and the spread of products and cultures (Chiu, Zhang & Ding, 2020). Globalization involves the constant growth and development of societies with the human being the leading part of the expansion (Rakhimov & Rakhimova, 2021).

With globalization, benefits and difficulties occur. With the facilitation of global reach, tourism companies are encouraged to develop new attractions and improve products to increase the local economy (Chiu, Zhang & Ding, 2020). However, these developments can cause harm to natural resources. The link between globalization and environmental transformation is not clear, nevertheless, they are connected. Globalization has led to increased curiosity about other countries' natural resources which makes them more valuable than before (Christoff & Eckersley, 2013). The increase in interest results in pressure on nature which further enlarges the pressure on biodiversity as well (Zhu, Zhan & Li, 2020). The rapid growth contributes to an imbalance of the natural flow, making tourism a contributing part of economic growth but also in environmental degradation (Alola, Eluwole, Lasisi & Alola, 2021).
As much as tourism contributes to environmental degradation, tourism can also be utilized as a factor for investments in maintaining natural resources (Zhu, Zhan & Li, 2020). Investments in natural resources can enhance and diversify tourism products and create new employment opportunities which are possible due to the increase in global reach. Due to globalization, third-world countries are becoming tourist destinations which result in investments from foreigners in the local economy. These third-world destinations are becoming increasingly popular because of the development of global connections between countries and the improvement of technological measures. Through the increase in technology and people's participation in experience sharing, tourist arrivals are increasing, resulting in more tourists in a variety of places around the world (Chiu, Zhang & Ding, 2020).

3.2 Social Media's Implications on Destinations

Information gathering before a trip is commonly used by individuals. The primary source for information gathering is often social media where photos and videos are shared immensely throughout the world (Lange-Faria & Elliot, 2012). Through the increase in use of social networks, influences on people's perceptions are also increasing. The expansion of the visibility of the destination through social media can create a challenge for the sites as the continuous perceptions of people are contributing to the image of the destination. The image that people see of the destination is further contributing to wanted experiences at the site, creating a consumption of the destination before arriving (Lund, Cohen & Scarles, 2018).

Since shared experiences contribute to the destination image, tourists can be seen as co-creators of the destination (Lange-Faria & Elliot, 2012; Lund, Cohen & Scarles, 2018). As previously mentioned, before traveling, people look at previous travels to gather information and inspiration in order to determine if the destination is desirable for them or not. Hence, the post-travel experience is the information that is seen. Depending on the experience, the photographs and information given will describe if the individual liked or disliked the experience, further creating the destination image (Tham, Mair & Croy, 2020). Research has shown that blogs and other social networks are contributors to the perception that people have before going to a destination. This creates a must for the site to meet the desired experience by supplying services that
differentiate them from other destinations (Lange-Faria & Elliot, 2012). Thus, destinations can be seen as the adoption of people’s perceptions and exchange of experiences in order to fulfill their desires (Lund, Cohen & Scarles, 2018).

It can be seen that social media is affecting the destination through tourist co-creation. Through the constant spread of information, expectations are increasing, making it much harder for destinations to succeed in making the tourist satisfied (Buhalis & Law, 2008). Previously, much of tourist experiences were spread through word-of-mouth (WOM) between friends and associates. Since the development of social media, WOM is possible even between people who do not know each other nor have interacted in any way before and with people from all over the world. Resulting in a wider information channel where knowledge is transferred between borders (Buhalis & Law, 2008; Lange-Faria & Elliot, 2012)

The new form of WOM is called electronic word-of-mouth (eWOM), which, among others, refers to the previously mentioned blogs and photographs posted online (Lange-Faria & Elliot, 2012). It is argued that eWOM has more influence on people's perceptions and wishes than common WOM because of the expansion of knowledge, shared experiences, and easiness to find relevant information. Through the eWOM, resources are being enhanced and expressed in matters that the individual can relate to and identify with. Thus, destinations are adjusting to fulfill perceptions but also delivering experiences that people can feel emotionally connected to (Lund, Cohen & Scarles, 2018).

3.3 Nature Affecting Nature

Coastal zones are impacted by climate change, which is a fundamental issue surrounding environmental change. The increase of climate change is creating consequences for ecosystems, erosions, and enlarges the possibility of typhoons and floods (Perez, Amadore & Feir, 1999). This means that natural disasters are becoming more frequent and further resulting in large impacts on natural resources and coastal communities (Diola et al., 2021).
The increased frequency of typhoons has resulted in flooding becoming a larger problem as the amount of rain goes beyond the usual volume. Flooding further has led to higher coastal tides which contribute to the deformation of the topography and pollution of the water (Israel & Briones, 2012). The strong current of flooding increases the accumulated waste in coastal zones which results in waste appearing even though it may have been dropped elsewhere (Israel & Briones, 2012; Woodruff, Irish & Camargo, 2013). Further, typhoons and flooding can contribute to the decrease of silt and sediments, making the affected areas shallower than they were before the natural disaster happened (Israel & Briones, 2012). The shallow areas result in seagrass decreasing, which is a struggle as seagrass is a vital contributor to the water quality and many species feed on it (Diola et al., 2021). As these natural disasters happen more frequently, they will constantly affect the ocean and therefore also its biodiversity, reducing the viability of the ecosystem (Habibullah, Din, Tan & Zahid, 2022).

Additionally, due to the impacts on the topography of the ocean, the coral reefs are affected as they begin to bleach (Israel & Briones, 2012) due to the lack of sunlight needed for photosynthesis (Diola et al., 2021). The decline in living corals also results in a reduction of biodiversity as many species use the corals as living places and to seek protection from other animals (Israel & Briones, 2012). The loss of coral reefs and topography is often seen as very distressing, however, it is also argued that if the natural resources are given time, a recovery can generally be seen (Woodruff, Irish & Camargo, 2013).

3.4 Human Interaction Affecting Nature

Previous research shows that human activities leave environmental impacts (Rouphael & Inglis, 2001; Marafa, 2008; Meyer & Holland, 2008). In fact, the impact of human behavior on natural resources and the environment has long been a subject worth exploring. Some of the man-made actions that concern the environment are, for example, pollution, the development of coastal zones, and the industry-driven decline of ecosystems (Nash, van Putten, Alexander, Bettiol, Cvitanovic, Farmery, Flies, Ison, Kelly, Mackay, Murray, Norris, Robinson, Scott, Ward & Vince, 2022).
Degradation of ecosystems can, for example, happen through different species being exterminated or collected to such a degree that it is hard for the species to recuperate (Tyagi, Garg & Paudel, 2014). An example can be coral reefs, damage to them can occur when humans are imposing on biodiversity through, for example, touching. It is also evident that coral reefs' proliferation can to some degree be dependent on how many humans are visiting them. Meaning, the damage that corals sustain is interlinked with the number of visitors who pass through the area, either by walking on them or kicking them with their fins while diving (Rouphael & Inglis, 1997; Rouphael & Inglis, 2001). This makes the coastal tourism industry rather important to monitor and manage accordingly so as to not advance an industry-driven degradation of the ecosystem. However, it is a relatively minor amount of the damage that is derived from divers. It is the combined effects from operations that contribute with similar pressure, for example, snorkeling, that over a longer period of time are affecting the coral reefs (Meyer & Holland, 2008).

Pollution can refer to both air pollution, and solid waste created by human operations. Solid waste is waste that is generated and disposed of by humans. One example of a study made by Serrona, Yu, and Camarin (2022) found that there is an increase in waste creation when there is a higher surge of visitors to a place. Meaning that if an environment, an area, attracts tourists there will be more waste created in that location.

Coastal development is another factor that impacts coastal zones through human operations. The advancing infrastructure in island destinations' coastal zones can heighten vulnerabilities, especially if also provoked by consequences caused by climate change (Diola et al., 2021), or by uncontrolled tourist operations (Graci, 2013). The research done by Diola et al. (2021) shows that tourists contribute with much increased pressure on the locals and the local environment. Another study also highlights that economic development has a connection to biodiversity loss (Habibullah et al., 2022). The author also proclaims that stakeholders of a destination often indulge in activities with the aim to increase revenue and prosperity, although these activities are often at biodiversity's expense. On the other hand, stakeholders' actions might differ depending on their values. Research conducted by Vespestad and Mehmetoglu (2010) shows that humans are indoctrinated with values that set them apart from each other. For example, it is possible to distinguish between tourists from
different countries when they are consuming nature-based experiences. However, it is also possible to characterize people with one another due to cultural values.

One type of stakeholder which impacts coastal zones is governments. Some characteristics of governments have been found in association with healthier marine environments, and they are effectiveness and durability. Governments consisting of these characteristics tend to have a lower degree of societal issues such as corruption, civil strife, or poverty (Halpern, Frazier, Afflerbach, O’Hara, Katona, Stewart Lowndes, Jiang, Pacheco, Scarborough & Polsenberg, 2017). Halpern et al. (2017) also showcased that countries that have started to decrease the extraction of natural resources such as fishing, seaweed, and corals have gained a higher status from the ocean health index.

3.5 Environmental Implications due to COVID-19

COVID-19 as a research subject is a rather new perspective as it was not until recently that the pandemic occurred. Despite this, there are already many articles concerning it on various topics (Google Scholar, 2022). This literature review's focus is on the environmental impacts the pandemic contributes to. The pandemic impacted people's mobility as governments around the world restricted movements through various travel bans and lockdowns. These restrictions contributed to lesser water, and air pollution, both through the decrease in visitors to places as well as industrial stoppage (Rume & Islam, 2020). Another implication on the environment due to COVID-19 is waste pollution. Due to an increase in clinical necessities, such as face masks, face shields, and gloves, which most were based on a one-time usage, solid waste grew during the pandemic. There was also an increase in medical waste (Farhan Bashir, MA & Shahzad, 2020; Rume & Islam, 2020).

In another sense, there were some positive implications from the COVID-19 pandemic. In some countries wildlife re-asserted themselves in previously occupied areas (Kumar, Kumar, Jain, Deovanshi, Lepcha, Das, Bauddh & Srivastava, 2021). Including the oceanic biodiversity. However, in some regions the pandemic was the indirect cause of wildlife deterioration. In the case of fish biodiversity in coastal zones, the community had an impact as it in some instances was a matter of ‘food on the
table’ or not. The chance that the pandemic increased unregulated fishing activities that were left unreported was also high (Bennett, Finkbeiner, Ban, Belhabib, Jupiter, Kittinger, Mangubhai, Scholtens, Gill & Christie, 2020).

Fishing left unregulated can lead to overfishing. The activity of overfishing can consequently affect the environment. Especially the biodiversity in the ocean and the specific coastal zones. The sudden decrease in biodiversity, such as fishes, can for instance lead to inadequate biological maturation (Burnett, 2014). A few years before the COVID-19 pandemic Halpern et al. (2017) found that the oceans' health was increasing as countries were not overfishing, nor underfishing. Indicating that the environment is in need of fishing activities, but only to a certain degree.
4. Presentation of Participants

Chapter four includes a presentation of the ten participants. The participants are working in various positions within dive tour operations in Moalboal. All the participants are referred to by pseudonym names.

Paul works as a divemaster in a company situated in Moalboal and has been working in the diving industry for 25 years, since 1997.

David works with educating other dive shops’ instructors, his position is labeled as course director. He has worked in the diving industry since 2009, thus being in the industry for 13 years.

Jack has been in the diving industry since 1997 which means he has worked with diving for 25 years. His position right now is manager and instructor in a dive shop.

William is the owner of a local company situated in Moalboal, he has had his dive shop since 1980. Even though he has been an owner for 42 years he left teaching to other employees a couple of years ago.

Bill works as an instructor and is also the owner of the company. He has worked in Moalboal since 2018 meaning he has been here for four years.

Hector has recently been employed in Moalboal, he has worked as an instructor in the destination for four months.

Marty is the manager of the dive operations in a company. He has worked in this field for five years, since 2017.

Isaac is the CEO and an instructor for the company that he is working in. He started working in the diving industry in 1992, resulting in 30 years of experience.
Christian works as a manager for the dive shop. His work experience in Moalboal reaches back to 2019 making it three years, however, he has been working in the diving industry for many years before that as well.

Trevor has previously been working as a dive instructor but is currently the manager of the dive shop and does not instruct anymore. He has been working in the diving industry since 1991, making his life experience in the field 31 years.
5. Contingent Cause on the Environment

Following are the results of the findings in combination with the researcher's interpretation and connection to the literature review. The contingent causes for environmental change are made clear. These consist of socially constructed aspects, institutional constructed aspects as well as how different time aspects have led to a different environment; including COVID-19.

5.1 Socially Constructed Impacts on Coastal Zones

The interviews resulted in the interviewees describing what tourists are expecting and demanding to experience during their stay. Eight out of ten respondents agree that there are needs to be met and that most of them concern what the guests would come to see in the environment during the experience of snorkeling or diving. For example, Jack expresses “(...) before you had the social media or the internet and you went somewhere and you had no expectations (...)”. This consensus can be aligned with what Lund, Cohen, and Scarles (2018) say about how tourists' pre-travel are affecting the experiences by creating demands that the destination has to live up to.

Two respondents focused on the scenic aspect of the coastal zones. Hector and Isaac mention the visual aspects of the environment concerning the corals, plastic, and litter in the ocean. However, the focus from other interviewees is on the demand of what species to see during excursions. Even though David proclaims that “our guests, we, know they are living things which means they can move, we can’t capture them” when he talks about what tourists demand during the excursions. He believes it is not really a problem since there is existing knowledge about certain species and that they cannot be guaranteed. On the other hand, Paul is one among the interviewees that mention that tourists often come with the demand to see marine life. He imitates tourists saying “I want to look at crab faces, I want to look at turtles, I want to look at sardines”.

Due to the interviewees' answers, it can be seen that the perception of demand differs depending on the approach that the dive tour operator has. Meaning, if they have a
more relaxed approach regarding meeting expectations or if they make more effort to fulfill the desires of the tourists. Connecting back to Buhalis and Law (2008) who proclaim that tourists are hard to satisfy, which can be seen from their demands on the destination and nature. However, the demands are not completely unjustified from the tourists as natural resources are a large attraction for visitors and therefore want to experience it to the fullest, as Christoff and Eckersley (2013) mentioned.

Within the eight respondents that agree upon needing to meet expectations, the sardines of Moalboal are mentioned in a majority of the interviews. Christian states to the researchers that “if Moalboal wouldn’t have the sardines anymore, I don’t think so much people would come here”. Although, another common aspect of the interviews is that the sardines are moving around more than before which makes meeting tourists' expectations harder since they cannot walk down from shore anymore to find them. Luck is presented as a notion by two of the interviewees in regards to meeting expectations concerning the sardine shoals. Although, most dive tour operators mention that they have changed their operations in order to make the success rate of seeing the sardine shoals higher. Bill tells the researchers, “of course we choose the dive spots according to the day so the tourist can see as much as possible”.

It can be argued that the sardine shoals of Moalboal are the main attraction factor for the destination due to the exposure it receives from tour operators as well as other tourists through social media. This has led to a change within the coastal tourism industry as the perception of tourists can be argued to be of importance for the dive tour operators in order to differentiate them from other destinations, just as Lange-Faria and Elliot (2012) proclaim. Due to the frequent visitation to the sardines, it can be argued that the coastal tourism in Moalboal contributes to the decline of ecosystems since it constantly puts pressure on the site which can impact the behavior of the biodiversity. This is concurrent with what Nash et al. (2022) mentions of the effects industries can have on ecosystems. The impact on the biodiversity can further be strengthened as the interviews show that the majority of the dive tour operators have changed their operations to going by boat to try and see the sardines, a few even mention sending their dive masters into the water first to scout out their whereabouts. Implying more measures are taken to fulfill expectations but therefore also adds more pressure to the ecosystem.
In accordance with the change in operations, Christian says that they as dive tour operators try to meet the demand and expectations so that the tourists spread the word that they have a higher success rate when it comes to meeting the demands of tourists. Within the diving industry recommendations are important. Marty highlights Tripadvisor and Google reviews as tools that generate tourism flow as well as tools that create expectations. During the interviews, a majority of the interviewees highlighted social media's impact in regards to tourists’ demands and expectations. Jack expressed having to present the perfect picture as well as tourists not feeling that the surroundings in real life did justice to the ones online. “Since we have social media I think expectations are much higher” (Jack). Trevor also mentions that social media such as Facebook, and even other types of media such as dive magazines, influence the tourist's demand and where they choose to travel.

Online presence is deemed important due to its widespread to customers and the representation it creates. Tourists as co-creators of a destination are recognized by both Lange-Faria and Elliot (2012) and Lund, Cohen, and Scarles (2018) which can be seen as sharing experiences are contributing to the ‘perfect picture’ that Jack expresses is one of the desired images. Social media's influence on tourists can be argued to be one of the pressures that coastal zones experience in presenting the desired image. As Chiu, Zhang, and Ding (2020) express, the increase in technologies, such as social media, results in a larger tourism flow. The eWOM can be discussed to connect with Diola et al. (2021) recognition that the larger volume of tourists contributes to an increase in environmental consequences on the coastal zones.

In connection to eWOM, the interviewees are concerned that negative coverage from social media will impact Moalboal and tourists' choices to come there. For example, Marty asks rhetorically, “(...) if it was being spoken actively on social media about negative impacts [on the environment] then who is gonna come here?”. Showcasing that the dive tour operators feel pressure from tourists and their interactions on social media. Furthermore, Jack claims pictures and videos on social media makes it so that “you have basically been everywhere and seen everything, and it [the reality] never matches the imagination” which arguably makes the excursions more demanding since they need to deliver according to the assumptions the tourist has. This is aligned with Tham, Mair, and Croy (2020) mentioning that if assumptions are met, the
destination will be liked and talked about well. Meanwhile, if the expectations are not met, the destination will be disliked and not mentioned at all or not talked well about.

5.2 Institutionally Constructed Impacts on Coastal Zones

Isaac mentions that Moalboal can receive negative social recognition if it is not managed well. This includes the cleanliness at site. Many of the interviewees mention the local waste management in connection to cleanliness. Marty explains that sometimes, even if beach clean-ups are organized, there is a possibility that the waste is left in piles for a few days which heightens the chances of it flowing out into the coastal zones again. The researchers have observed that there are many signs along coasts where cleaning up after oneself is encouraged. Garbage bins are often present at these signs as well, however, garbage bins are rarely present at the beach. Arguably, this can showcase that institutional management of waste disposal is crucial for a destination to be deemed attractive and be sustained long-term. Further, indicating that prevention of waste is a starting point, however, the final step to full prevention is not thoroughly established yet.

For instance, David proclaims that the burning facilities in the Philippines need development, otherwise the waste will end up in the ocean sooner or later. Christian also mentions that many facilities make big piles of garbage that either blow away in storms and into nature or gets burned without the right filters, creating pollution instead. “They burn rubber, they burn plastic, they burn everything including their garbage and you smell it” (Christian). However, he also mentions that there is a sort of waste disposal system but it is not well developed yet and still creates a lot of pollution, harming the natural balance.

Halpern et al. (2017) showcases that if governments are effective and durable in their operations, healthier coastal zones can be achieved. Thus, it can be argued that Moalboal needs to enhance the waste management in order to facilitate better environmental conditions. Contradicting to effective government operations, Diola et al. (2021) claims that coastal development can lead to disruption, however, the interviewees proclaim that if the management is done properly it does not necessarily have to be disruptive but rather contribute to a sustained coastal zone. Multiple
interviewees agree that the waste management system has to be developed in order to reduce littering.

Another aspect that has to be further developed is the implementation for environmental viability. Multiple of the interviewees enlighten the researchers that environmental fees in coastal zones have been implemented. These environmental fees have to be paid by tourists when visiting different coastal zones. In Moalboal there are, for example, one for Panagsama beach, one for Savedra, and one for Pescador Island. Observations conclude that if tourists pay for the environmental fee in the coastal zone of Panagsama beach they are not obliged to pay for the one in the Savedra coastal zone. During the interviews, Isaac and Paul mention that environmental fees are paid by every tourist for every visit. “When we take the students in the sea with the boat, we need to pay every time 100 pesos per head per day, everytime” (Isaac). Christian contributes to the aspect of environmental fees by adding “in most dive spots there is a sort of money fee, in some places it is very high and in some places it is a little bit lower. (...) The only thing is that the criticism of the diveshops is ‘okay but what do you do for it?’ and we [dive shop operators] don’t see so much [being done]”. Isaac also mentions that a change cannot be seen, indicating that even though environmental fees are paid by tourists, improvements are not seen.

The environmental fees showcase an attempt of the government to sustain the natural resources at site. As argued by Zhu, Zhan, and Li (2020) tourists’ investments can result in maintaining natural resources. However, since the investments of environmental fees do not result in visible improvements it can be argued that further efforts of implementation have to be showcased in order to sustain the natural resources. Meaning that the money gathered from environmental fees should result in visible differences for them to be considered applicable for Moalboal’s coastal zones conservation.

In the case of Moalboal, environmental fees and waste management can be argued to be implementations that are not fully established to fulfill their part in coastal conservation. As Halpern et al. (2017) argues that an effective and durable government is needed for that, the interviewees proclaim that it is not the case for the Philippines as regulations are often contradicting. Trevor mentions that “you are always in a
position where whatever, what you are doing, you are violating some kind law”. Further, Trevor proclaims that the Philippines are good at establishing protective laws but the implementation is not consistent. Christian agrees and states that there are enough regulations but that the maintenance of them needs improvement. Indicating that the government tries to be effective through the implementation of regulations but they are not delivering the intended outcome. Meanwhile presenting too many regulations could be argued to harm the effectiveness and thereby contradict its supposed outcome.

5.3 Tourism Flows Implication on Coastal Zones

Even though improvements need to be done, it can be seen that the coastal zones of Cebu island have improved over the years. Trevor mentions that when tourists started coming to the island of Cebu for coastal tourism they were met by blasts and loud noises under the water from locals who were dynamite fishing. After a few years, dynamite fishing was starting to disappear since many got work in tourism instead. The interviewees mention that dynamite fishing does still exist, however, it does not exist in tourist areas anymore. Similarly, Trevor explains how turtles were much more endangered before, but because of tourists who want to see the turtles they are not being hunted as much anymore. This directs coastal tourism to be a positive influence on coastal zones as the natural resources are less pursued. Further, this can be argued to be an effect of tourists as co-creators of a destination since the biodiversity is attractive to them which influences the presented image shown online to other tourists.

Biodiversity can be affected by different factors, another factor that the interviewees mentioned is the COVID-19 pandemic. It can be seen that during the COVID-19 pandemic, restrictions led to that destinations lost attractiveness which resulted in impacts on the coral reef. Jack mentions that the ocean received less impact because of the few tourist visits to the site. The decline in tourist visits facilitated the rehabilitation of the corals. Marty explains that due to the inactivity of diving and snorkeling for the two years of the pandemic, the corals are now “magnificent”. “(...) if you go in the ocean, if you go diving, take for example in Pescador island, the corals were magnificent, absolutely pristine. They had recovered very quickly in the two years” (Marty). Trevor agrees with the statement and says that “(...) two years into the
pandemic we go there, after a year of not diving there, just to check out the reef and the coral reef is sooo beautiful. Just in two years of nobody going there, nobody diving there, so beautiful, the corals were fat and big and really nice”, referring to Pescador island as the diving spot they went to.

It can be seen that during the COVID-19 pandemic, the interviewees saw an improvement in the quality of coral reefs, arguably, because of the decrease in tourist visits. Indicating that a relief of the pressure mitigated a positive impact on the corals in the coastal zones. These findings can be connected to Rouphael and Inglis's studies in 1997 and 2001 about increased damage due to large human visits.

On the other hand, the interviewees are all agreeing that coastal tourists are positive influences due to their visitations bringing people work and income. The restrictions during the COVID-19 pandemic made it clear for the dive tour operators how the biodiversity, such as fish, suffered from the increase in fishing due to the lack of tourists in the coastal zones. Which would, under normal circumstances, generate income. The increase in fishing can be argued to be due to the coastal community of Moalboal needing to provide income or food for themselves. Similarly, Bennett et al. (2020) also argues that these factors are considerable when talking about biodiversity loss during the COVID-19 pandemic.
6. Definite Cause on the Environment

Following are the results of the findings in combination with the researcher’s interpretation and connection to the literature review. The definite causes for environmental change are made clear. These consist of overfishing due to fewer visitors, behaviors at site from tourists and operations, littering and the effect of waste, as well as the typhoons’ impact on coastal zones.

6.1 Overfishing’s Effect in Coastal Zones

The COVID-19 pandemic displayed a recovery on the corals due to the little activity of tourists. However, there were not only positive aspects of the pandemic. Christian proclaims that:

“I think that most people in the Philippines would say that the covid pandemic was not good for the fish in the Philippines. I think the soft corals and the seagrass and the turtles, turtles not always, and the bigger mammals like whale sharks and so, they did better. But, the amount of fish pulled out of the ocean out of necessity in the last two years is messy. Everybody who didn’t have anything to do or a job anymore went fishing”. - Christian

Eight out of ten interviewees stated that during the COVID-19 pandemic the local population went to fishing as there were no tourists coming. “(...) nobody had any income here. Because everybody depends on the tourism industry”, Jack explains. William further expresses that “there are so many local people here that are working in a dive shop or in a hotel but because they were closed, they [tourists] ran out and [locals] do not have their job anymore”. Since the majority of locals lost their profession and thereby turned to fishing it had a big impact on the biodiversity. A lot of fish got pulled out of the ocean since locals had to “(...) feed their families, they had to do what they could (...) they caught big fish, sometimes it was small fish. But no one is really monitoring it, no one is really policing it and therefore there is an impact”,
Marty says. “The fishing boats know when the guards go home, yeah, so they move out before they come and they move in after they go” (Christian). Christian also mentions that there is a political sense where promises are made to guarantee votes, often on the behalf of nature. Meaning, the environment is cut short because of the people's dependence on it since if people are not allowed to go fishing anymore, they will vote for someone else.

Due to this notion, it can be argued that the government did not monitor the fishing activities that occurred during the COVID-19 pandemic as it could influence their position in the next election. On the other hand, it could be argued that the fishing was not monitored due to the social impact the COVID-19 pandemic ensued. Bennett et al. (2020) mentions the possibility of unregulated fishing increasing during the pandemic which the findings portray to be accurate. It can further be argued that fishing is not always considered harmful since it facilitates balancing the ecosystem. However, Halpern et al. (2017) also argues that fishing has to be done moderately, meaning that some fishing is needed but should not be left unmonitored as that can cause unbalance.

The result of the decrease in certain fishes has also resulted in other species increasing. Marty expresses a growth in a certain destructive species [crown-of-thorns starfish], which is increasing due to other fish that would eat them has been caught by humans. This notion can be related to the findings by Kumar et al. (2021) which pointed to species asserting themselves in previously occupied areas. Since the crown-of-thorns starfish is usually not part of the food chain system in the coastal zone it intervenes with the natural balance of the ocean, creating damage to the coral reef and other species. Additionally, Paul states that the sardines that have been on the coast of Moalboal for many years “(...) are going out to the other side because of the predator you know, the big tunas”. The increase in destructive species derived from overfishing can be connected to studies where the research proclaims that if certain species are decreasing to a larger degree, it results in difficulties in reproduction of that species. Leaving other species to take over and create damage (Rouphael & Inglis, 1997; Rouphael & Inglis, 2001; Burnett, 2014).

Overall, multiple interviewees mention that there is less fish nowadays and Christian mentions that it is partly because of overfishing but also due to more pollution, more
tourists in the Philippines, and also more waste. He says, dramatically, that “I am afraid that in ten years there is nothing to see underneath the water, so if you want to go diving, do it now”. Highlighting the concerns that are happening in the coastal zones. Therefore, it can be discussed that multiple factors are contributing to the development of the coastal zones, however, dive tour operators in Moalboal are still wanting tourist visits. Trevor explains that “Tourists are coming back, so many people get their jobs back”, which he believes results in a smaller number of fishermen since people are getting their work in the tourism industry back.

6.2 Coastal Tourism’s Impacts on Coastal Zones

The researchers observed a large degree of tourists in Moalboal. However, the majority of tourists only stay at a destination for one to four days, enough time to experience main attractions such as swimming with the sardine shoals, island hopping, and whale shark watching. “That is probably about 70% of the answers [tourists get on things to do] although there are other things to do” (Marty). There are even tours offered from other cities, where the main attractions can all be done within one day. One interviewee mentions that there is pressure on the coastal attractions in Moalboal which he believes needs to be reduced. Studies by Alola et al. (2021) and Diola et al. (2021) explain that growth in tourist visits to a specific site results in greater damage, which can be argued to be the case for Moalboal. Further, Meyer and Holland (2008) argue that it is the combined effects of operations taking place over a long period of time that contributes to environmental impacts in coastal zones. From the findings, it is possible to argue that the short stays, with high visitation numbers, can be deemed a factor for pressure at site. This since the tourism flow is constant and is seemingly not decreasing.

According to Paul, the most practiced activity by local tourists is island hopping and snorkeling which can create damage in the ocean since many do not know how to swim. Paul witnesses that “I see several times that they [local tourists] are stepping into the corals there at Pescador Island”. Apart from stepping on corals, tourists also seem to be touching the corals. Hector is one of the interviewees that see tourists touching corals. William further expands on this aspect, “touching, breaking, even writing their names on the corals. Oh there are cases like that.”, indicating that it is
not every tourist that participates in these types of actions. This is somewhat strengthened by David who says “I do believe they don't touch that much. Sometimes I think they can touch those corals and things (...)

The effects on corals due to human activity can be linked to Rouphael and Inglis's studies from 1997 and 2001, where the degradation happened through walking and kicking on corals. The findings present that this is still the case in coastal tourism since multiple interviews mentioned these aspects. Further, Halpern et al. (2017) proclaims that a country's marine environment is better if natural resources are left untouched, indicating that the cases the interviewees are talking about do not contribute to the health of the coastal zones.

Further, Bill mentions that the distance to the animals has to be considered. He proclaims that “sometimes people will be very happy, they are very excited to come here so they don't think about keep a distance”, implying that tourists sometimes get too close to the wildlife without realizing it. Trevor complements by saying that one solely should not touch anything in the water. Both examples imply that human activity also has an influence on other marine life than solely corals. This is, again, supporting the statement of Halpern et al. (2017) that natural resources should be left alone regardless of what type of biodiversity it is. It can be argued that tour operators should be more cautious during their provision of service so tourists are more aware of the consequences their behavior can have since Graci (2013) suggests that uncontrolled touristic operations can increase the vulnerability of the environment.

However, tourists are not the only ones contributing to damage to natural resources. Multiple interviewees mention that tour operations sometimes also contribute. Marty mentions island hopping and says “(...) you have boats that take these people island hopping and they aren't as cautious as they could be when it comes to the anchors”.

Additionally, three more interviewees are concerned about the anchor drops that occur in connection to island hopping. They indicate that anchor drops damage the reefs that are located by the islands. For example, a praxis that island hopping boats often use is:
“They throw the anchor into the reef, and then we have the snorkelers in the water and the guide just floating with the current. And then they [island hopping boat operators] have to follow them with the boat but instead of starting the engine, which is the procedure, a small boat, just pull up the anchor, make the calls and then throw far away and pull it back so it [the anchor] is like clawing the reef”.
- Trevor

This praxis can indicate that there needs to be a change in operation during island hopping tours in order to leave smaller ‘footprints’ on the reefs. Especially since previous research states that kicking hurts the reefs (Rouphael and Inglis, 1997; Rouphael and Inglis, 2001) whereas anchors cover a larger area, as well as being thrown in with more force, which arguably would implicate more damage. Three interviewees proclaim that anchoring has to stop and that buoys should be used instead. However, Marty also proclaims that not all boats use them and that “the island hopping boats can’t always use the buoys or choose not to use the buoys so they drop anchors which can damage the corals”. Indicating that there may not be enough buoys or they may not be situated in appropriate distance to the islands. The researchers themselves could not see many buoys which to some degree can be argued to confirm why the island hopping boats are not using them. Meyer and Holland (2008) mention that it is combined effects that affect the coral reefs majorly, indicating that since a large number of island hopping boats are using anchor drops instead of buoys, the damage is seen to a much larger extent.

Another issue that can occur with coastal tours is that biodiversity can be altered to fulfill the aforementioned visitor's demands. Bill mentions that “they [tourists] are demanding” and that they want to see something special “(...) so it is our [dive tour operators’] responsibility or our goal [to show them]”. Trevor mentions that island hopping boats are sometimes carrying turtles up from the ocean since the tourists want to see them. This in order to present the turtles better and let tourists touch them. Additionally, Bill explains that “I know some people are skeptical about the whale sharks in Oslob and all these kinds of things because they know they feed them (...)”. Meaning that since the whale sharks are fed they are always around the same place.
However, Bill also makes it clear that even though tourists want to see the sardine shoals in Moalboal they do not feed them in order to show them to the tourists.

From earlier presented findings (see 5.1) it is known that dive tour operators seek to adjust their services in order to be able to show tourists the sardines. However, from Bill's statement one can argue that there is a line that tour operators in Moalboal do not want to cross; feeding the animals to present them. Which is a positive impact since the sardines are an important and valuable natural resource that attracts tourists. Connecting to Christoff and Eckersley (2013) who imply that natural resources are key factors for visitors. On the other hand, since measures sometimes are taken to extensive levels, it could be argued to be a way to increase the tour operator's revenue since if they, for example, can present exotic animals they might get a better tip. This notion can further be supported by Habibullah et al. (2022) findings that stakeholders of destinations might indulge in activities at biodiversity's expense if it leads to increased revenue.

6.3 Littering and its Affecting Factors

Natural resources and the scenery in coastal zones are valuable assets, Anfuso et al. (2018) highlight that these are some factors that make coastal tourists choose their travel destination. Nevertheless, tourists and their behaviors affect the coastal zones when they are at the chosen destination, which all of the interviewees mention. A common theme that the majority of interviewees mention is littering. Marty declares it as “the biggest impact comes from obviously the obvious things like trash. Trash that may be coming from the beach, trash that is maybe coming from areas where tourists conjugate”. Hector also makes the observation that you can see a lot of trash on the beach. This is also confirmed by the researchers as trash could be seen within the coastal zones.

Serrona, Yu, and Camarin (2022) express that there is more trash visible where a large number of visitors are, which can be argued to be the reason why trash can be frequently seen in Moalboal’s coastal zones. The findings in the previous paragraph can further be supported by Kanhai, Asmath, and Gobin (2022) who also proclaim that tourism industries are more prone to contribute to littering in the ocean. Jack and Isaac
also share the meaning of much trash being visible, Isaac assesses that “since we have more tourists I think we have more garbage”.

Contradicting the notion that more tourists equal more trash, Bill and David direct more attention toward the locals in regards to littering impacting the environment. Trevor also shares the same meaning to a degree, he discusses that many local tourists are coming from the city or other parts of the Philippines to Moalboal and that their culture in general does not concern waste management. It has only been in recent years that the people started “developing some consciousness” (Trevor) surrounding waste management. Observations have shown that locals to a certain degree are conscious about where the trash goes and are aware of their surroundings and are collecting garbage that they find while on tours. The notion of common values within a cultural setting can be argued to impact to which degree littering is done. Since the findings present that it has not been a common practice for locals of the Philippines to consider proper waste disposal, it can be discussed that it has to do with previous generations’ values. Which is strengthened by Vespestad and Mehmetoglu (2010) who indicate that cultural values are affecting people's behavior. Many interviewees also share the perception that culture can affect the degree of knowledge people have regarding environmental consequences. Paul laughs while he declares that “it [cleaning up] depends, some tourists with, you know, awareness of garbage collection. Some, they don’t care about that”.

On the other hand, Hector expresses that “a lot of Philippine people clean up at the coast and beach that I can see, but not tourists”. However, eight out of the ten interviewees demonstrate a common notion that tourists are cleaning up after themselves. William and Christian are two of the interviewees that see tourists cleaning up after themselves. However, they do make a distinction between European tourists and East Asian tourists when talking about it, saying their effort of cleaning up differs. “Some people do not even know that they are doing something wrong because then it would not be done”, Jack expresses, indicating that environmental impacts may not be largely considered in one's culture. Thus, the distinction that the interviewees present highlights a difference in perceptions. Vespestad and Mehmetoglu (2010) imply that stakeholders’ actions can vary depending on their common values, thereby it would not be farfetched to argue that their perceptions do as well.
Bill explains that it has been some time since he saw tourists collecting garbage due to the tourism not really being back to what it was before the COVID-19 pandemic. Although, he remembers “(...) some people walking around, picking up some things, trying to incentivize some kids, ‘okay pick up the garbage I give you a shake or a coca cola’ or something like that”. This intention from tourists can be argued to be a way to establish more environmentally friendly common values in the coastal zone. In connection to establishing improved values, Meyer and Holland (2008) express that it is important to manage coastal tourism industries with an environmental perspective. Thus, if coastal tourists are influencing others about waste handling it can be argued to result in a healthier coastal tourism industry.

Multiple interviewees were concerned about the impacts of the COVID-19 pandemic. The notion of overuse of single-use plastic was presented in the interviews. David proclaims that much plastic can be taken away as it is used for everything. “Everything is packed in plastic and if you buy a roll of cookies, all cookies are separately packed. If you buy a bag of candy, every candy is separately packed”, Christian says. Highlighting the overuse of plastic and also the lack of a proper waste disposal system which leads to the plastic ending up in nature instead. It can be argued that much of the plastics that end up in the ocean comes from single-use products. Farhan Bashir, MA, and Shahzad (2020) and Rume and Islam (2020) demonstrated that the COVID-19 pandemic did not facilitate the decrease in plastic usage as many products are single-packed and for one-time use.

The combined amount of plastic that is used for clinical protection as well as the already excessive amount of plastic used in common products indicates that the coastal zones of Moalboal did not have a chance to recuperate even though tourists, who usually contribute to more trash (Serrona, Yu & Camarin, 2022), were not there. Meaning that waste is largely produced by tourists, but the COVID-19 pandemic showed that much waste was also produced by locals. On the other hand, it can be argued that the waste that is seen as a result of the COVID-19 pandemic can be inherited from other locations as well since Moalboal was affected by a typhoon during the pandemic. This can be supported by the findings from Israel and Briones (2012) as well as Woodruff, Irish, and Camargo (2013), where waste in coastal zones can be seen because of environmental change, for example, floodings.
6.4 Typhoons Effect in Coastal Zones

The COVID-19 pandemic had large impacts on the coastal zones. However, natural disasters are also a contributing factor to change that can happen to the environment as presented by Perez, Amadore, and Feir (1999). Typhoons were mentioned by all the interviewees as having a large impact on the coastal environment. The recent typhoon of December 2021 was discussed thoroughly by all the interviewees. Israel and Briones (2012) say that typhoons, and the following flood, have increased which is confirmed by the interviewees. The interviewees mention that usually, the typhoons go beyond the island of Cebu, however, Christian mentions that in the past years, an increase in the frequency and strength has been seen on the typhoons. He assumes partly due to climate change. “They are higher class, so it makes them leaving more disruption (...)” (Christian).

Habibullah et al. (2022) explains that the viability of the ecosystems can decline due to the increased frequency of natural disasters, which can be the result for Moalboal as well since the increase in frequency has already been visible at the destination. It can be argued that if the frequency of typhoons continues, Moalboal can have issues with higher tides, a disruption of the topography, and a decrease in silt and sediments, which are recurring results of typhoons that Israel and Briones (2012) mention. The change in the natural resources can further be argued to impact the attraction of the destination, leading to less tourist visits. Highlighting that every typhoon occurring has an impact on the environment's ecosystem and viability, which has been proven again by the typhoon in December 2021.

David declares that the strong typhoon of December 2021 contributed to much damage on the coral reef and that a lot of changes have occurred to it. Four additional interviewees agree on that aspect and it is further mentioned that Pescador island was extremely hard hit. The damage can be explained using Israel and Briones (2012) and Diola et al. (2021) research that impacts on the topography of coastal zones exposes the threat of coral bleaching easier. Due to this threat, the typhoon that left a big impact on Pescador island could be argued to have a lasting effect on biodiversity since bleaching means that corals are put under immense stress. This pressure can arguably expose the species that are using the corals as a hiding place for predators,
which can be connected to what Israel and Briones (2012) declare about corals being used as protection. Another view of the damage that occurred to Moalboals’ coastal zones due to the typhoon was that parts of the reefs were broken.

Isaac expresses that corals take between five and fifteen years till they grow back to their original state after being broken. David discloses that a recovery on the coral reef can slowly be seen. This is in line with what Woodruff, Irish, and Camargo (2013) found; that given time it is possible to see a recovery of the natural resources. Trevor also proclaims that the recovery from the typhoon is seen, however, in order to see turtles and healthier corals, one has to go deeper. Trevor highlights that after the typhoon the reef was broken and there was a lot of seagrass on the bottom, further explaining that it will take a long time till it recovers and is fully rebuilt. Diola et al. (2021) mentions that seagrass is vital for coastal zones both in terms of quality of water and being nutrition for multiple species. The impacts of the typhoon can therefore be argued to leave coastal zones with more environmental impacts than just disrupting seagrass, instead it affects a lot of species and biodiversity in the coastal zones. Which could create damage to the health of the coastal zones as there needs to be a balance of species for the ecosystem to thrive (Halpern et al., 2017).
7. Discussion

In the following chapter, a discussion is made based on the empirical findings and the analysis. The chapter discusses the connection different factors have on environmental change in coastal zones and the impact it has on communities. It further makes a connection between environmental changes, social changes, and economical changes.

As can be seen in this research, the findings have presented themselves through categories which indicate that different notions and factors are impacting coastal zones. It is important to note that within the phenomenon of environmental change, there are perceivably various variables in play which affect coastal zones. However, due to numerous variables, there is a complexity surrounding the phenomenon. Thus, to better understand which these components are and their interrelation, it should be of importance for coastal destinations and their stakeholders. Alola, Eluwole, Lasisi, and Alola (2021) have previously highlighted that tourism industries are contributing to environmental degradation, meaning a form of change. Meanwhile, Zhu, Shan, and Li (2020) highlighted tourism’s opportunity to enforce environmental change in a positive manner. The components that can be seen in this study are aligned with both these types of views, indicating that coastal zones are impacted in both negative and positive ways by tourism. However, within the diving industry, tourists are not the sole contributing factor to the environmental change that can be seen.

This study shows that coastal zones are under immense pressure from various activities, both man-made and natural. Jafaar and Maideen (2013) make the connection that island destinations, and the tourism therein, are dependent on the local environment. The findings in this thesis strengthen this claim as dependency on the local environment is perceived through the concerns that coastal tourism employees express. For example, regarding the visible litter in the environment and the degradation of corals, meaning the environment and its presentation, is important for the industry. It could be discussed that the visual aspect is becoming more of a determining factor as social media is a growing phenomenon in society. Thereby, a destination and its tourism flow can either increase or decrease depending on how it is positioned through social media. Literature by Lund, Cohen, and Scarles (2018)
presents social media as a component that impacts a destination through accumulated perceptions. The findings in this thesis contribute to the same point of view, showcasing a perceived connection between changes in coastal zones through the presentation in social media and the pre-consumption from tourists.

On another note, unexpected events can be seen as another contributor to change in destinations, the findings speak of COVID-19 as a contributor to change for both the environment and tourism flow. As could be seen from previous literature by Rume and Islam (2020) and Bennett et al. (2020) the worldwide event, and its restrictions, assured both negative and positive changes in the environment. The findings in this thesis contribute to similar conclusions. The hypothesis by Bennett et al. (2020); that unregulated fishing activities will possibly increase with the COVID-19 pandemic is shown to be legitimate by this research. A consequence for Moalboal became that the local population went to fishing as a result of the restriction in place due to the COVID-19 pandemic. It is perceived to be due to the loss of tourists since people need to support themselves. Therefore, it can further be discussed that overfishing is a consequence of the decrease in tourism flow.

The fact that overfishing became a consequence from the lack of tourists indicates a dependency in the destination. Meaning that the society in the coastal zones are dependent on tourism. Due to the perceptions of an increase in fishing activities as a result of the decrease of tourists, it is possible to make the connection that societal changes in coastal zones contribute to environmental changes. The change in society is presented as employment loss in the findings, whereas the outcome is presented as a heightened loss of biodiversity. Indicating an interrelation between societal and environmental impacts. This research therefore points to coastal zones being vulnerable not only to factors that impact their environment directly, but also vulnerable to changes in society. The case of Moalboal could be discussed as an example of other coastal island destinations. Other destinations that share similar characteristics to Moalboal, meaning accommodating multiple coastal zones and showing a dependency towards tourism, can be probable to share similar environmental outcomes as a result of such societal changes.
The findings indicate that overfishing could occur since there were not sufficient resources in the society, and not enough support from the government, for example, financial support. In the view of this, it is possible to discuss that if the island destinations are able to retain either longer stays or more tourism flow, the economic situation might differ. For example, Chiu, Zhang, and Ding (2020) mention that tourists invest in local economies, and destinations could therefore retain more investments if tourists either stayed longer at the site or there were more tourists visiting. Although, it could be discussed that an increase in tourism flow and duration should be formulated in a manner that does not strengthen the dependency on tourism. Therefore, another option could be to provide the same services but increase the price and consequently the revenue. This could imply that a community does not need to turn to fishing in order to acquire food. However, more research needs to be done on the connection between tourism dependency and overfishing in coastal zones on island destinations to prove if they are largely interrelated or not.

One way to incorporate sustainable operations while still obtaining economic growth could be discussed to be the environmental fees that were presented in the findings. Since operations would still be able to provide services while considering the environment, it can be discussed to be a viable way of combining economic growth and sustainable thinking. However, the problem that occurs in Moalboal is that results of preservation are not seen which is leading to environmental fees losing their meaning. If destinations are able to increase the tourism flow it would indicate an increase in revenue from environmental fees as well, although the problem still exists. The responsible party should focus on showcasing the aspects which are and have been implemented due to the revenue collected from environmental fees in order to increase the understanding and trust in what peoples’ payments actually go towards. This can generate better societal impacts and lead to continuous collaboration between stakeholders and responsible parties.

Furthermore, environmental fees could be seen as a beginning of incorporating more consideration regarding environmental impacts which could reach out to a larger audience. Meaning more consciousness can be created and therefore more regulations from management, for example, the municipality and government, could be implemented. Meaning if a larger amount of people are concerned with changes in the
environment then this would indicate changes through social aspects as well. Consequently, since tourists are seen as co-creators of destinations (Lange-Faria & Elliot, 2012; Lund, Cohen & Scarles, 2018) this would indicate that tourists can contribute to changes in society through taking environmental aspects into consideration.

From this study, it is possible to deduce that the findings are connected to what has been presented in the past by numerous literature. An illustration of this is how tourism employees within the coastal sector, diverse diving employees, perceive trash to be present at the case destination and the areas where tourists conjugate. This is in line with studies from both Serrona, Yu, and Camarin (2022) and Kanhai, Asmath, and Gobin (2022). This research does however also indicate that there is a perceived willingness from tourists to reduce waste in coastal zones. In addition, findings indicate that environmental change in coastal zones occurs due to the development, or non-development, of waste management systems. There is a perceived need for improvements in waste management in Moalboal. Highlighting the importance of better strategies and conditions for proper disposal from responsible stakeholders such as the municipality and government. Since the findings show it is not implemented efficiently. Governing bodies that show efficiency can show decreased social issues as well as healthier marine environments (Halpern et al., 2017), indicating coastal zones could benefit from a more efficient waste management both environmentally and socially. In addition, tourists conjugate in coastal zones which show an absence of litter (Anfuso et al., 2018) therefore it could imply that through the improvement of the waste management systems governing bodies could advance economic benefits in the destination as well.

As discussed, the findings present waste as one example that tourists create which is affecting the environment negatively. However, the findings have also shown that due to the increase in tourism in Moalboal, some other negative aspects on the environment have decreased. These include dynamite fishing and the hunting of turtles. Meaning that the ocean in coastal zones could be perceived as better after tourism increased. The result of dynamite fishing disappearing from the coastal zones can be discussed to have been a relief for the ocean. Especially since theory indicates that unregulated fishing could be harmful (Burnett, 2014; Halpern et al., 2017).
However, it can be discussed if the decrease in these operations is absolute, or if it still occurs but not in the touristic areas. This should be a concern for further studies as it can indicate to what degree the coastal tourism industry has facilitated less harmful operations for the environment or if the location has just shifted.

On the other hand, it can be discussed that the impact on the ocean solely has shifted because the coastal tourism industry increased. Both theory (Rouphael & Inglis, 2001; Graci, 2013; Diola et al., 2021) and findings presented in this thesis indicate that there is an impact from both tourism operations and tourists on the environment. These impacts include, for instance, stepping on corals and anchoring. In a way, the impact that coastal tourism and its practitioners contribute to has shaped the environment of coastal zones in Moalboal. Environmental changes can further be connected to economic and societal changes. This hypothesis can be supported by the literature by Habibullah et al. (2022) which connects economic development and biodiversity loss, and by Lucas and Kirit (2009) who proclaims dive tourism as an enforcer of social development.

Conversely, a factor that the findings show not to be directly affected by tourism industries is typhoons. For example, even though tourists were absent, typhoon Odette occurred and impacted the environment of Moalboal. However, it is possible to discuss that the occurrence and strength of typhoons can be seen as an indirect effect of climate change. The case of Moalboal showcases that stronger typhoons impact the local population, which can be discussed to create hardships as much damage occurs during typhoons. Leading to large social and economical problems, for example, in order to restore the community and their properties. Previous literature from Perez, Amadore, and Feir (1999) and Diola et al. (2021) proclaim that climate change advances natural disasters such as typhoons. Therefore, tourism industries could indirectly be affecting typhoons as the global reach is contributing to more movement of people (Chiu, Zhang & Ding, 2018). On the other hand, climate change is not something that is singularly affected by one industry but by the accumulated effect from multiple industries, making it difficult to pinpoint the tourism industry as the main reason for typhoons increasing strength.
Nevertheless, more sustainable utilization from industries could imply that climate change will decrease, resulting in not as extreme activities, for example, not as extreme typhoons. It can be seen in the findings and previous literature (Israel & Briones, 2012; Woodruff, Irish & Camargo, 2013) that natural disasters such as typhoons make more trash apparent in coastal zones. Therefore, it can again be emphasized that proper waste management is necessary, as to not spread more litter around. This shows the previous statement; that many aspects are connected and impact environmental change in coastal zones, to be accurate. Although the degree they impact, and to which degree they can be handled, varies.
8. Conclusion

In the following chapter, the research question is answered through a bulletin, showcasing the contributing factors to environmental change in a concluded manner. Suggestions on implementations of the research are also presented. Further, two limitations and three future considerations for further studies are presented.

The research aimed to detect what factors dive tour operators perceive to be contributing factors for environmental change in coastal zones. The research has found that dive tour operators believe that the coastal zones of Moalboal are affected by a variety of different factors. The factors are mentioned to different degrees which indicates that they all contribute to environmental change but vary in visibility. The eleven factors that the participants highlighted were:

- Overfishing
- Typhoons
- Social media influence on visitors' demand
- The lack in local development of waste management
- The lack of results from environmental fees
- Coastal tourism decreasing hunting of biodiversity
- Decrease in tourism flow during COVID-19
- Tourists’ contact with biodiversity
- Anchoring
- Operations aim to deliver experiences
- Littering

With the knowledge of the contributing factors which impact coastal zones in Moalboal, an understanding can be facilitated toward implementations or considerations that need to be taken into account when managing island destinations’ coastal zones. The Philippines can utilize these results to support further development in order to reach the Sustainable Development Goal 14; Life Below Water. Implementations can, for example, be made to: (i) improve the waste management systems to reduce litter in coastal zones, (ii) reform coastal tourism operations’
anchoring habits to prevent damage to coral reefs, as well as (iii) regulate and monitor unregulated fishing in order to make the biodiversity thrive again. To conclude, the researchers wish to end with once again quoting one of the respondents, highlighting dive tour operators' concern for the environmental change that is happening: “I am afraid that in ten years there is nothing to see underneath the water, so if you want to go diving, do it now” (Christian).

8.1 Limitations and Future Considerations for Further Studies

A limitation that could be seen was the number of interviews conducted. With more interviews, the validity could be strengthened as well as a deeper understanding of what factors are the most accurate could be created. The reason for the shortcoming in interviews was due to the time limit of the research. Another aspect that has to be considered for the shortcoming is the season when the researchers conducted the thesis in, which was the tourist high season, resulting in busy schedules of the dive tour operators. Further studies could receive more precise answers by dedicating more time to the conduction of the research as well as visiting the site during a different season when it is not as busy. Future studies could also focus on a larger area. Such as the entire island of Cebu. This could showcase common characteristics throughout coastal zones and the environmental change that is taking place.

Another limitation that the study faced was achieving a more in-depth view of the government's involvement whereas environmental change is concerned. This limitation occurred since the interviews did not have much opportunity to develop on this topic since answers were cut short and the researchers did not feel that they wanted to pressure the interviewees on topics they seemed uncomfortable answering. Further studies could therefore benefit from investigating more of a governmental perspective where implementations of environmental regulations are explored.
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Appendix 1

1. How do you think tourists affect the ocean and coast?
2. Do you see any negative environmental impacts from tourists?
3. Have you seen tourists cleaning up after themselves while visiting the coast?
4. Have you seen environmental change on the coast and marine life? Can you give some examples of what changes you have seen? When? What? Where?
5. What do you think has to be done in order to prevent damage to the environment?
6. How do you experience the tourist high season?
7. How do you experience the tourist low season?
8. What differences, if any, did you see in the environment during the pandemic compared to now?
9. Is there anything in particular you think visitors should take into account when visiting Moalboal?

Some smaller questions:

10. What is your company’s main service?
11. Do you feel like your company has to meet expectations from tourists?
12. Are you a domestically owned corporation?
13. What is your occupation/working position?
14. How long have you been working in this field?

Lastly, would you like to add something? Is there something you want to say or that we missed?