# **The Great Australian Debate**

A case of The Great Barrier Reef and how the public and tourism value is constructed within the public debate



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By Danny Salling Hansen Supervisor: Dianne Dredge Submission Date: 2<sup>nd</sup> of January 2018 Number of keystrokes: 188.820

## Abstract

The purpose of this paper is to explore how the public value of the Great Barrier Reef are being constructed within the public discourse and in relation to Indian energy conglomerate Adani, while furthermore examining the government's role in constructing the tourism value of Great Barrier Reef within the public debate. Within recent years the Great Barrier Reef have become heavily impacted by the global climate change, leading to large parts of the reef surface being destroyed through coral bleaching. Although global warming pose a major threat to the Great Barrier Reef, the iconic world heritage site is furthermore vulnerable to domestic impacts such as water pollution, dredging, oil spills and coastal development from the surrounding coalmining industry. This paper aims to contribute to the field of valuation studies and tourism research, laying out the exploration of how public valuing in practice may be examined and understood. The empirical data used in this paper where gathered through a systematic methodological process, leading to the use of qualitative content analysis of official documents and collecting secondary data in the form of online articles from various news media and organisations. Based on theoretical considerations from previous research within valuation studies and tourism research, five registers of valuing is distilled from the empirical material, leading to an explorative study of the public valuation process of The Great Barrier within the Adani debate and the examination of how public values may be conflicting or interrelated. By applying the empirical data to the analytical discussion, this paper seeks to explore the role of the government within the process of how the tourism value of the Great Barrier Reef is constructed, aiming to investigate the government interest and agendas. Furthermore the paper seeks to examine in what ways the government may influence how the tourism value of the Great Barrier Reef is constructed within the public discourse, while in addition explore what that may be silenced within the public debate, examining the governments alleged hidden agendas. With tourism being one of many actors within the Great Barrier Reef landscape, this paper will not address tourism as a whole but rather focuses on the public – and tourism value of The Great Barrier Reef and how those values are constructed within the public discourse.

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# **1. Introduction**

#### **1.1 Introduction**

The Great Barrier Reef have a long history of being considered the greatest, most astonishing and majestic coral reef on the planet, and it is considered to be one of the seven natural wonders of the world. With its complex and precious marine ecosystem the Great Barrier Reef is considered a national and global asset and it shares a long history with Australia and its Traditional Owners, while historically being strongly valued by Australians and international communities. Tourism related to the Great Barrier Reef has for many years been one of the prime industries in Queensland and have strongly benefitted Australia and the country's growth due to its many thousands of jobs created in relation to the Reef and the \$billons contributed to the Australian economy. However within the last couple of years massive coral bleaching has destroyed large parts of the Great Barrier Reef due to impacts of global warming, water pollution and dredging. As an effect a global public debate have evolved with Australians and the international community demanding action by the Australian state and federal governments to save the Reef from extinction and hinder the environmental impacts that may strongly influence the Great Barrier Reef tourism industry and the local communities living in and around its catchment. The public debate has stressed concerns over the potential devastating threat of the proposed Carmichael coalmine by Indian energy conglomerate the Adani Group. A mega mine that according to scientists will with its enormous CO2 emission and further risk of water pollution be the last blow to the survival of the Reef. Further public concern have evolved due to the governments alleged ties to the Adani Group and its support for the controversial Carmichael mine, only enhanced by the government's supposedly influence in UNESCO's decision to not place the Reef on the organisations 'in danger' list. With tourism only being one of many actors that operate within the landscape of the Great Barrier Reef, this paper do not seek to address tourism within the Reef as a whole, but instead aims to explore and examine the public discourse concerning the Reef and how the public – and tourism value are being constructed within the public discourse.

#### **1.2 Motivation for this paper**

After living six months in Australia as a part of the Master in Tourism programme and additionally being able to travel around the country while experiencing the Great Barrier Reef first hand, the motivation for this paper were originally created. By diving and snorkelling at numerous locations in the Great Barrier Reef provided the researcher with an impression of a coral reef, which in some areas seemed still to thrive, though in other places were clearly affected by heavy coral bleaching and lack of aquatic life. Aware of the public debate that had been present in recent years, it motivated the researcher to further examine the public discourse concerning the Great Barrier Reef and the role of government in its conservation, while also seeking to explore how the Adani Group were fitting into this debate. This topic were furthermore inspired by views of Hannam & Knox (2010) arguing that in order to start a research project, one should select a topic that is of significant interest to the researcher and additionally a topic that will be able to sustain that interest over longer periods of time. In addition, the researcher maintains a personal, thus political interest in environmental conservation, which additionally motivated the selection of this research topic In order to further examine the public debate concerning the Great Barrier Reef and how the public value and tourism value were constructed within the debate, it lead to field of valuation studies which ultimately along with tourism research, would guide the research for this paper.

#### **1.3 Research questions and aims**

The research question that will be investigated in this paper is:

What are the complexities of how the value of the Great Barrier Reef is constructed within the public debate? An exploration of the value of The Reef and the influence of Adani.

The research aims are:

- How is the public value of the Great Barrier Reef constructed within the Adani debate?
- What is the government's role in constructing the tourism value of the Great Barrier Reef within the public debate and what is being silenced?

#### 1.4 Setting the scene

In order for the reader to familiarise with essential geographical areas and recurring themes and organisations, the following will provide an introduction to some of the key mentions that are referenced throughout this paper.

#### **1.4.1 The Great Barrier Reef**

The Great Barrier Reef (referenced here after only as GBR or The Reef) located along the coast of the state of Queensland, Australia, is the largest living structure in the world and spans over a distance of 2300 kilometres. The GBR contains the largest coral reef system on the planet and the landscape of the reef supports various industries such as tourism, commercial fishing, aquaculture and agriculture (Grech et al, 2016). *The GBR maintains an economic, social and icon asset value of \$56 billion, supports 64.000 jobs and contributes \$6.4 billion to the Australian economy* (Deloitte, 2017b, p. 5). The GBR is considered a national and global icon and is appointed a world heritage area by UNESCO as well as being considered one of the Seven Natural Wonders of the World (Deloitte, 2017b).

#### 1.4.2 Queensland

Queensland is the second largest state in Australia and the third most populated state in the country (Deloitte 2017b). The state capital and largest city is Brisbane and the state is located in the north-eastern part of Australia, between The Northern Territory and New South Wales. Due to the states warm and tropical climate, tourism is one of the major industries along with mining operations such as coal. The current state premier is Anna Palaszczuk from the Australian Labor Party.

#### **1.4.3 Turnbull Government**

The current prime minister of Australia is Malcolm Turnbull from the Australian Liberal Party. He was elected in 2015 after succeeding former Prime Minister Tony Abbott (von Strokirch, 2016). Upon getting elected into office the Turnbull Government promised strategic action against the climate change and especially the environmental threat to the GBR. However since his election,

Malcolm Turnbull and his government have faced heavy criticism, with both media and the public accusing the government for not keeping their campaign promises (von Strokirch, 2016).

### 1.4.4 Adani Mining Group Australia

Adani Mining Group Australia (here after referenced as Adani) is a sub-company of the multinational energy corporation the Adani Group based in India, founded and operated by Gautam Adani. Adani are the company behind the proposed Carmichael coalmine, which would become Australia's largest coal mine though the project have received extreme criticism due to the mine's potential impact on the GBR, the environment and human health. (Get Up, 2017) The Adani Group has additionally faced several criminal accusations in India for environmental destruction and human health issues.

# 2. Methodology

#### **2.1 Methodology introduction**

This chapter will introduce the methodological considerations made by the researcher and furthermore explain how and why the research methods were chosen for the development of this paper. The research principles of taking on a phronetic and an interpretive approach will be discussed. Furthermore the use of qualitative methods, more specifically qualitative content analysis will be presented while also discussing the use of other secondary data sources. The empirical data included in this paper data will be discussed, presenting the use of online articles from journalists and researchers while also describing the use of online user comments within numerous online articles. Second to last the fieldwork and alternative research approaches will be discussed, followed by presenting the use of the data-categorization tool coding and a thematic analysis in order for the researcher to examine the data collected. Lastly within this chapter the researcher presents the limitations and implications related to the development of this paper.

#### **2.2 Phronetic research**

As seen in relation to the motivations of the research that inspired the creation of this paper, Flyvbjerg (2006) states:

"The primary purpose of phronetic social science is not to develop theory, but to contribute to society's practical rationality in elucidating where we are, where we want to go, and what is desirable according to diverse sets of values and interests."

Flyvbjerg, 2006, p. 39

This statement by Flyvbjerg is to be seen in relation to this paper, by which the researcher seeks to both investigate and furthermore understand the complexity of the valuation and valuing processes of GBR and how the government is entangled within this debate. In addition to the aforementioned statement by Flyvbjerg (2006), he furthermore argue that the concept of phronetic research is to *"to serve as eyes and ears in efforts to understand the present and deliberate about the future"* (Flyvbjerg, 2006, p. 42). In order to research this topic within one of many aspects within tourism research, the researcher seeks to take on the attentive role as proposed by Flyvbjerg, which thereby inspired the phronetic approach applied in this paper. Flyvbjerg (2006) argues that researchers within social science should differentiate between favouring one of two different types of research: the epistemic model and the phonetic model. While the epistemic model is considered to hold its ideal place in the natural science and furthermore seeks to discover theories and laws that will direct social action (Flyvbjerg, 2006), this research favours the phronetic model. In contrast to the epistemic model and its often use in natural science by which natural scientists aims to discover theories which govern natural phenomena, the researcher does not pursue the attempt to determine theories that will govern as law to solve problems. Instead the researcher acknowledges the social nature of this research topic within tourism and therefore wish to apply a phronetic model due to the very approach not attempting to be predictive in its nature. As mentioned previously in this paper, the researcher does not seek to provide solutions to either climate change problems or the management of the GBR, but instead aims to demonstrate the complexity as well as the importance of this particular research field to the readers.

With this paper following the path of a phronetic model, additionally the research may arguably relate to the aspects of a Grounded Theory approach and some of the significant elements that the approach is build upon.

"Grounded theory begins with inductive data, invokes iterative strategies of going back and forth between data and analysis, uses comparative methods, and keeps you interacting and involving with your data and emerging analysis [...] stated simply grounded theory methods consist of systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories from the data themselves."

Charmaz, 2014, p. 2

The above definition may arguably highlight the concept of what principles of thought grounded theory is build upon, however the theory more so consist of three theoretical tools, more specifically *sampling, constant comparison and coding,* to which the researcher is able to use in order to successfully apply the approach in practice (Bryant & Charmaz, 2011). Firstly theoretical sampling resembles the idea of using theoretical considerations in order to direct the selection of a particular case study while also guiding the selection of potential research areas that may be valuable to examine (Bryman, 2012; Veal, 2011). Secondly by performing a constant comparison

between emerging notions and the data collected while taking into mind the theoretical considerations, various topics that may be essential for a further analysis will be recognized (Charmaz, 2014). Lastly according to Bryman (2012), coding maintain one of the most significant elements in grounded theory, due to coding being a valuable tool in order for the researcher to determine which topics that will be interesting to examine in a further analysis, through the categorization of labels of interest. However although the aforementioned tools have been significant in performing this research, the research approach used in this paper may also be opposing to the one of a more characteristic grounded theory approach. Although the researcher was making use of theoretical considerations to select the topic in this paper, performing a constant comparison of valuable notions emerging from the data examined and using coding as a tool for analysing the empirical material, the research approach performed still differs significantly to the one of grounded theory. One of the major reasons is that it was not the aim for this paper to develop a fixed theory upon reaching the conclusion of the research, but rather, as mentioned above, to provide considerations and attempt to cast light on the complexity that is the public valuation of the GBR. Furthermore, as being highlighted by Bryant & Charmaz (2011) and Bryman (2012) when applying a grounded theory approach, the use of the approach should be performed strictly without any form of personal opinion or bias by the researcher, which in this paper the researcher is not innocent of. This is something that is acknowledged by the researcher. While the tools presented in the grounded theory approach were useful throughout the research process, it can be concluded that the this paper together with the motivation for the research, have been inspired mostly by the phronetic research philosophy and the approach of such.

#### 2.3 Interpretive approach

Although this paper is focused on the basis of following a phronetic research philosophy as detailed above, the research furthermore takes on an interpretive approach by which Veal (2011) define *"interpretive approaches to research place reliance on people providing their own explanations of their situation or behaviour. The interpretive researcher tries to 'get inside' the minds of the subjects and see the world from their point of view"* (Veal, 2011, p. 32). The data collected for this research needs to be viewed through the same lens as argued by Veal, due to the empirical data used in this paper focuses on the opinions and insights from individuals and

documents. Therefore the researcher acknowledges a reliance on other people and their views of the GBR and the role of governments, more specifically including insights from e.g. locals, journalists, NGOs, experts etc., in order to ultimately critical discuss the material collected later in the analysis chapter.

Charmaz (2010, in Hansen et al., 2014) argue that *"all data is constructed whether by a specific researcher or by other individuals and that they can, in principle, all serve as either 'primary or supplementary sources of data'"* (Charmaz, 2010 in Hansen et al., 2014, p. 26). The definition of what is data and the concept of how to use the term, is commonly being argued by researchers to describe the quantitative empirical materials gathered within natural sciences, and not the empirical materials collected to use within qualitative research. However this should not be considered the rule (Goodson & Phillimore, 2004 in Hansen et. al, 2014). While this research has its focus within qualitative research and follows the path of interpreting the material collected, Hansen et al. (2014) highlights that although the researcher needs to consider that all data is constructed as it was argued above by Charmaz, it is also worth mentioning that all researchers should acknowledge that they themselves are also constructers of data, as it will be the case for the researcher in this paper.

An early research question was formulated along with the creation of three aims to how the overall question would be answered. However the formulation of the original research question and aims was established rather early in the research process, with the researcher being aware of the potential need for a reformulation of the question at a later stage. According to Bryman (2012) we as researchers hold a position to determine the research perspective we wish to share and the acquired knowledge the research has provided. The original research question was created through the process of dissecting the research field chosen and examining how the particular topic would be researched in practice. A number of online articles from various news sites as well as theory related to primarily tourism policy, would also play a role in the formulation of an early research question.

However as previously indicated, the research question and research aims for the paper would continue to evolve and would later be transformed into a question presenting a more narrow

direction within the topic of the GBR. The result of the process was ultimately established through a combination of the researcher digging deeper into the topic and examining the collected material, while acquiring guidance from the supervisor of the project and discussing the theoretical possibilities and potential outcomes. These refinements eventually led into the selection of the problem formulation presented in this research paper. However, as it is highlighted by Bryman (2012), it should be noted that this again opposes the use of a typical grounded theory approach, due to the need for the researcher not having a personal opinion on the topic and therefore not becoming somewhat biased in both the data gathering and data analysis.

#### **2.4 Theoretical considerations**

In order to analyse the topic chosen for this research field a selection of significant theories have been chosen in order to accomplish the research aims for this paper. The theoretical considerations will be detailed in chapter 3. The theories and the material collected will ultimately act as the foundation for the analysis presented later in this paper. The purpose of this chapter will be to present the reader with a better understanding of the various existing theories related to the research topic of this paper, while furthermore discussing and outline how the theory may guide this research paper. In addition to the importance of theory collected when performing research, Bryman (2012 states:

"Theory is important to the social researcher because it provides a backcloth and rationale for the research that is being conducted. It also provides a framework within which social phenomena can be understood and the research findings can be interpreted".

Bryman, 2012, p. 20

This is seen in relation to the approach used in this study, by which the researcher seeks to combine existing theory and the material collected, in order to help analyse the research question within this paper. While the public debate concerning the GBR and the role of government initially inspired the selection of the research area, the researcher acknowledges the use of existing theory as an important tool in order to further examine the chosen research topic.

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Chapter 3 will draw upon theoretical articles related to the field of valuation studies within tourism research, while also adding contributions from articles concerning valuation studies non-related to the field of tourism, although they still shares a significant relevance to the topic in this paper. Hannam and Knox (2010) argues that by only drawing on theory strictly related to tourism research there may be a risk of developing too much of an inward focus to the research field studied, potentially causing the research outcome to evolve in a negative direction, due to the potential exclusion of relevant information. The inclusion of theory outside tourism studies within tourism research arguably being somewhat small. The chapter will furthermore examine theoretical articles and literature related to tourism policy and planning, seeking to enhance the readers understanding of the government's role in how the tourism value of the GBR is constructed, as well as how governments may influence the public debate due to mixed agendas.

#### 2.5 Qualitative research

"The qualitative approach to research is generally not concerned with numbers but typically with information in the form of words, conveyed orally or in writing" (Veal, 2011, p. 35). Additionally Denzin and Lincoln (2006, in Veal, 2011) argue that qualitative research practices in comparison to quantitative research methods tend to 'transform' the world', though this is not an opinion shared by Veal who states that "clearly any type of research may archive that" (Veal, 2011, p. 36). However it is important to distinguish between the two types of approaches to research and understand where they each are applicable. Additionally Veal (2011) stress the need to understand why one type of research approach may be more suited to perform tourism research and additionally why this approach tends to be favoured by researchers within the social sciences. According to Bryman (2012) quantitative research emphasises on the collection of data in the form of numbers and by taking on a deductive approach to the relationship between theory and research, while having an objectivist viewpoint to the social reality. In order words, rather than focusing on the meaning of words or text, either through an interview transcript or a written article or report, the emphasis here is on the measurement of occurrences that appears through calculations and numbers (Hansen et al, 2014). This approach and the process of such is furthermore defined by Veal (2011), who states:

"The quantitative approach to research involves numerical data. It relies on the numerical evidence to draw conclusions or to test hypotheses. [...] The data can be derived from questionnaire surveys, from observation involving counts, or from administrative sources, such as ticket sales data from a leisure facility or data collected by immigration authorities at airports on the number of tourist arrivals from different origins".

Veal, 2011, p. 34

Although large parts of leisure and tourism research contain the collection and analysis of statistical information such as visitor numbers (Hansen et al, 2014), this paper focuses on a qualitative research approach rather than a quantitative. With this research paper having its focus on the views and opinions among individuals within the public debate concerning the GBR, a quantitative approach may arguably be insufficient as a desired research method for this topic. For this reason the use of a qualitative research approach in order to examine the topic was favoured, which furthermore relates to the opinion shared by Hannam and Knox (2010), stating "quantitative methodologies are ill-suited to theoretically complex and dynamic research projects" (Hannam & Knox, 2010, p. 179). While quantitative research methods often focuses on the measurement of data gathered from questionnaires or statistics, instead the qualitative research methods emphasize on performing participant observations, interviews that are in-depth and more loosely structured, as well as analysing content within texts or documents (Veal, 2011). The use of qualitative methods will furthermore increase the chance of uncovering potential paradoxes within the data collected, due to these methods being more able to take into consideration the personality of the participants of e.g. an interview, or the valuable information presented by key individuals in written articles and reports (Pansiri, 2006).

#### 2.6 Empirical data

#### 2.6.1 Case study

As already previously suggested, this paper centres has its focus a specific case, namely the GBR and the valuation processes related to The Reef, as well as how both the Queensland government, the federal government and the Adani Mining Group all are related in how the value of the GBR is constructed within the public debate. While the case study often has a tendency to be referred to as being a specific method within the qualitative research approach, this is not entirely the case. This is due to the fact that a case study may tend to involve a mix of both quantitative and qualitative methods and may therefore not solely considered being a type of qualitative research (Veal, 2011; Bryman, 2012). Instead Gerring (2007, in Veal, 2011) argues that a case study may be seen as an intensive study of a single case, to which he defines it as *"a spatially delimited phenomenon observed at a single point in time or over some period of time"* (Gerring, 2007 in Veal, 2011, p. 342). The timeframe of this case, as referred to by Gerring, spans from the first approval by the Queensland government of the proposed Carmichael coalmine on the 8th May 2014 and leading to this present day. This is seen in relation to the controversial debate that evolved from the approval of the mine, which since then have developed into a complex and critical public debate.

By selecting a particular case as the unit of the analysis, it was possible to gather more adequate material on the chosen topic with the case study, guiding the researcher through the research process and minimizing the exploration of less relevant information (Veal, 2011). With information about the GBR being quite extensive and somewhat intangible due to The Reef holding its place within many other branches of research beside tourism, the need for a point of reference within the data collection process proved to be crucial.

#### 2.6.2 Desk-based research and secondary data

The use of desk-based research plays an important role in the material collected for this paper. A number of online media sources were used as part of the research including articles from news media sources, online articles from independent journalists and academics, as well as material gathered from online comments made by individual users on various news sites. As mentioned previously this paper focuses on the use of qualitative methods, which is more specifically the use of qualitative content analysis and thematic analysis while using coding as a way of uncovering important patterns within the information collected. These methods will be further discussed later in this chapter. Upon deciding on a potential research topic, Hannam & Knox (2010) stresses the importance of designing the scope of the research, so it makes sense both conceptually and geographically. In addition Hannam and Knox (2010) state that *"a research project on another continent is very exciting if you are able to spend the time there to do it; it may ultimately be that* 

somewhere closer to home is easier though, as this also allows you to make a follow-up visit after the main period of research" (Hannam & Knox, 2010, p. 178) It is important to highlight that although the researcher both acknowledges and generally agrees with the statement made by Hannam and Knox, the research of this paper focuses on the importance of public opinions as well as the analysis of previously released documents by governments and organisations. The researcher argues that important information would be equally efficient to collect through deskbased research, qualitative content analysis and the inclusion of secondary data from online material. Although it may arguably have been beneficial to reside in Australia while performing this research paper, the researcher argue that the qualitative analysis of essential documents from government and organisations while additionally making use of online sources in the form of quotes within articles and user comments, the research design for this paper may still be justified. This could be seen in relation to the argument shared by Veal (2011), stating "secondary data can play a variety of roles in a research project, from being the whole basis of the research to being a vital or incidental point of comparison" (Veal, 2011, p. 186).

Veal (2011) highlights the importance of distinguishing between what is 'primary data' and what is 'secondary data'. While primary data are seen to be newly recovered information collected by the researcher for a current project, thereby making the researcher the primary user of that data, secondary data is information that already exists and were originally collected for another purpose, although the data can be used a second time yet in a different context (Veal, 2011). All the articles included in this paper were all written in English and were all related to the topic of the GBR and the Adani debate. Although all online articles were concerning the debate of the GBR and the potential threat of the coalmining industry, the articles contained various point of views. Some articles were written from a financial and political point of view, highlighting the consequences that threatened employment issues and local communities by the approval of the potential Carmichael coalmine, while others took on an environmental and more cultural aspect, stressing the importance of the reef as world heritage. Additionally some articles questioned the clash between two dominant industries within the landscape of the GBR, the tourism industry and the mining industry, arguing that one industry may potentially ruin the other. The various articles used as research within this paper were published by or through a number of news media

corporations and online journals. More specifically the material collected was from news sites in and outside Australia such as The Guardian Australia, ABC News, BBC, The New York Times, The Sydney Morning Herald and Reuters. Additionally data were collected from articles published on other news and research related sites such as the marketing and trends website Gizmodo Australia and lastly the independent research and journalism site The Conversation.

Although secondary data plays a crucial role in the research for this paper the researcher acknowledges the fact that the secondary data used in this study was originally collected for a different purpose, and may therefore be biased by the various authors in terms of the views and opinions presented within the articles. With this in mind the researcher stresses the importance of acquiring a certain degree of trustworthiness from the sources behind the various articles while also viewing the data through a critical lens. A factor additionally highlighted by Lincoln and Guba (1985; 1994 in Bryman, 2012) stating that in order to properly access the quality of qualitative research, two criteria should be referred to: 'trustworthiness' and 'authenticity'. Although many researchers within the field of social research methods distinguish between the terms 'reliability' and validity' when evaluating qualitative research, Lincoln and Guba (1994 in Bryman, 2012) proposes a different outlook of the two terms due to a often lack of application in practice, stating "the simple application of reliability and validity standards to qualitative research is that the criteria presuppose that a single absolute account of social reality is feasible" (Lincoln & Guba, 1994 in Bryman, 2012, p. 390). In other words Lincoln and Guba (1994 in Bryman, 2012) highlights the need to be critical of the traditional terms of reliability and validity, due to these terms assuming that there are only one absolute truth about the social world by which scientist needs to reveal, though they instead argue that there may be more than just one. Both authenticity and trustworthiness plays a role in this paper due to the researcher's assessment of the information provided in the various online articles collected as data for this study. While it is crucial for the researcher to be critical of the information presented by journalists and academics in for instance The Guardian, The New York Times or The Conversation, it may arguably be counted as authors that possess a certain degree of both trustworthiness and authenticity. While some news corporations seems to support sensationalism within journalism, the two aforementioned news papers are both well established and holds a long history of both being trustworthy sources of information, while furthermore not allowing any influence from outside interests such as governments or private companies. Whilst The Conversation is not entirely a news site but rather an independent journal for information, either with a relation to academic research or journalism, it offers insights from a variety of experts and professionals such as academic professors, scientists, business executives or revered journalists. Arguably these particular sources of data may hold a certain amount of credibility when used as secondary data. However it should be acknowledged, that although both journalists from esteemed newspapers and various experts within academics and other sectors arguably may be counted as trustworthy and possessing a certain degree of credibility, their materials may still be biased. The materials published by authors of various kind may have been encourage by personal agendas and therefore the researcher should treat the data with sensitivity before using, and acknowledge that some data may be motivated by other interests (Bryman, 2012).

As previously mentioned the secondary data gathered for this paper also includes online user comments. The comments were made by readers/users of the before mentioned articles in e.g. The Guardian or The Conversation, and were therefore related to the public discourse surrounding the protection of GBR and the looming threat of the proposed coal mine by Adani. Some of the readers shared specific information about their identity within the comment (city, age, occupation) although this was rarely the case. Instead most comments made in relation to the articles were merely showing either a persons name or an alias without any further information. The majority of the comments showed some knowledge of the state and federal governments as well as knowledge of Queensland, local communities and employments issues. Arguably the users of the articles may be Australian citizens or possible living in Australia due to their interest in the various debates, although the researcher acknowledges that this may be merely be considered speculation. The various online articles had different point of views as mentioned previously within this section, with some involving the environmental protection and others concerning tourism. The comments made by the users were often related to a particular article but just as frequently opinions were shared across the various discourses involving the GBR and not exclusively to the content of the article. The researcher came across a tendency that the readers of these articles would also link the GBR debate to other related topics such as the government's role and actions, but also what it would mean to the local region and different communities. The opinions provided by online user comment played a valuable role within the research process and as part of the analytical discussion in chapter 4.

#### 2.6.3 Fieldwork

Bryman (2012) highlights the importance of field notes when researchers seek to evaluate their observations and reflections during their ethnographic process. Bryman (2012) furthermore argues that because of the frailty of the human memory it is crucial for the researcher to write down any thoughts created or information heard, due to minimizing the risk of later questioning the meaning of the gathered information. However for this study the fieldwork process may have been rather unorthodox. The fieldwork for this paper, although possibly considered indirect, were done several months prior to the beginning of this research with the researcher traveling around Australia and through the majority of the length of Queensland. It should be mentioned that by the time of the fieldwork, the topic of this research paper was not yet chosen and was instead formulated several months later after the researcher returned to Denmark. By the time of the researcher's travel up through Queensland it was the ambition to write a thesis concerning the GBR and its relation to tourism, which lead to numerous interactions with individuals living in the region. The researcher was seeking insights regarding the current state of the health of the GBR as well as its meaning to the tourism industry, to local communities and local businesses as well as personal attachments to the reef itself. As mentioned previously, by the time of the performed fieldwork the researcher had yet not decided on a topic, which therefore lead to a data gathering process being more loosely structured and less focused on a particular research area. Of the fieldwork mentioned were conversations with local business owners, dive instructors, tour guides and locals met in various towns and cities. Despite the information gathered being of more general nature and not necessarily directly connected to the research field of this paper, the researcher argue that the process have had value in the development of this paper. The researcher highlights the importance of gaining a deeper understanding of the chosen research topic, with the researcher experiencing the GBR, Queensland and Australia through his own eyes, as mentioned in section 1.2 previously in this paper. This view is shared by Hannam and Knox (2010) adding, that by being able to study a topic up close and position yourself as a researcher

within the geographical landscape of the research, it allows the researcher to acquire a more thorough understanding of the various complexities, and may additionally lead to gathering information that would otherwise not have been presented (Hannam & Knox, 2010).

#### **2.6.4 Qualitative content analysis**

In addition to opinions shared by individuals within online articles and through user commenting on websites, this paper also include a qualitative content analysis of a selection of documents. The documents that are analysed within this paper are Exporting Climate Change by Greenpeace, The Double Threat to the Great Barrier Reef by Greenpeace, Risky Business by the Climate Counsel, The Reef 2050 Long-Term Sustainability Plan by the Australian Government and lastly the report At What Price? by Deloitte. Bryman (2012) and Veal (2011) argues that when seeking to interpret documents as part of constructing qualitative research, there is two approaches that are viable to do so: the discourse analysis and the qualitative content analysis. This paper favours the latter. Although a discourse analysis provides benefits in interpreting the spoken language in a real-life conversation or in a newspaper article and furthermore are able to be applied to various sorts of written documents (Veal, 2011), the qualitative content analysis has been chosen by the researcher for this paper. With the discourse analysis being more flexible and often more usable than its related approach; the conversation analysis, the qualitative content analysis is likely to be the most predominant approach to a qualitative analysis of documents (Bryman, 2012). "It [the qualitative content analysis] comprises a searching-out of underlying themes in the materials being analysed" (Bryman, 2012, p. 557). Whereas the discourse analysis seeks to interpret the language within a conversation or a text, attempting to explore why certain things are said and the motivation behind the people saying it, the qualitative content analysis seeks to uncover themes within the written document, that potentially could be included in a thematic analysis and through the use of coding (Shannon & Hsieh, 2005). "Qualitative content analysis as a strategy of searching for themes in one's data lies at the heart of the coding approaches that are often employed in the analysis of qualitative data" (Bryman, 2012, p. 559). Bryman (2012) distinguishes between two approaches to the use of qualitative content analysis: the semiotics approach and the hermeneutics approach. This paper favours the use of the hermeneutics approach. While the semiotic approach aims to examine the meaning of symbols within a text, the intention of the

hermeneutics approach is to make "the analyst of a text seeks to bring out the meaning of a text from the perspective of its author" (Bryman, 2012, p. 560). In order words by taking on a hermeneutic approach to the qualitative content analysis the researcher seeks to treat the setting by which a text is produced with sensitivity, while aiming to understand the production of the text in a social and historical context through the perspective of its author (Veal, 2011). The content within the documents included in the qualitative content analysis focuses on highlighting facts and aims to showcase political promises from governments, the current state of the GBR as well as the the economic, social and cultural contribution of the GBR. With this in mind the researcher feels a hermeneutic approach to the qualitative content analysis were more suitable than the one of semiotics, due to the importance of the current social, economic, environmental and cultural context to which the documents were created, and their relation to the public debate concerning the GBR. The content analysis of the documents were time-consuming due to many of the documents containing a high number of pages and consequently a vast amount of text were in need to be examined. The process of coding the material collected and additionally analysing the information within a thematic analysis will be further discussed later in this chapter.

#### 2.7 Alternative research processes

Although the use of information gathered from online articles and the information provided from the analysis of documents both have shaped the foundation of the research constructed for this paper, other research processes have also played a role to a certain extent. Hannam and Knox (2010) emphasises on the importance of researchers attempting to be original when performing research, seeking to examine previously untouched fields of research and constructing something 'new'. To this they state *"we urge you [researchers] to be bold, creative and innovative"* (Hannam & Knox, 2010, p. 176). This point of view is furthermore shared by Kara (2015) stating the need for being creative within research despite the tendency among researchers to often draw on a more traditional route in their various studies. The original aim for the research included in this paper was to do exactly that. As mentioned previously the researcher maintains a personal interest in the global environmental concerns and wildlife protection. Drawing on a specific personal interest when selecting a future research topic may be a crucial factor for its future process as Hannam and Knox (2010) argues:

"Ideally, you would choose something that will be able to sustain your interest over the period of the time that you will have in which to conduct the project. A good idea is to spend as long as you possibly can at the outset of thinking through what it is that you find interesting".

#### Hannam & Knox, 2010, p. 176

In parallel to the view by Hannam and Knox, the researcher was inspired to attempt to take on an alternative, more original path to performing research, with the focus of seeking to perform what may be considered 'activist research' or 'emancipatory research'. Kara (2015) offers a definition of the terms stating *"emancipatory research, sometimes known as activist research is a form of insider research. Emancipatory research is intended to empower disadvantaged people"* (Kara, 2015, p. 41). Through the use of social media channels, the researcher wanted to take on the role of an activist by creating posts on various pages of interest on Facebook, to which all had a relation to the public debate concerning the GBR. The use of social media as a platform for activism within various landscapes is highlighted by Lim (2013), arguing that although many previously have considered social media as being a rather tame and less productive form of activism, social media has grown to become a significant element in the work done by NGOs around the globe.

The following Facebook pages of interest were the page of Greenpeace Australia, the environmental NGO Get Up, the Adani Mining Group Australia and The Liberal Party of Australia. The purpose of selecting these particular organisations/groups and their respective pages was to encourage user responses on the posts made by the researcher, provoking and/or inspiring them to react on the post, with it either being information they would agree with or highly disagree with. The researcher felt that by posting crucial information about the state of the reef and the threat of the proposed coal mine directly on the Adani's Facebook page, as well as on the page of the Liberal Party, it would provoke the followers of these pages and their organisations to respond with their personal view on why or why not the reef is threatened by the proposed coal mine. The same approach was to be used on the NGO's Greenpeace Australia and Get Up, although it were not necessarily to provoke but rather encourage the users to share their views on why the reef holds such important and great value. By doing activist research and attempting to provoke users

to react and thereby provide comments were to be seen as a alternative, perhaps more direct approach to collecting user information, than more traditional information gathering methods such as the use of surveys or questionnaires. The purpose of choosing this approach over for example an online survey were to get more direct and perhaps more honest opinions on the valuation of the GBR, by letting users share their views on the topic without any boundaries or structures. Kara (2015) highlights that although the researcher seeks to take on an alternative approach to research there should still be a certain ethical directory behind the approach, despite the methods being more direct or provoking. This opinion was acknowledged by the researcher, seeking to only publish the truth and leaving out any form of speculation but merely relying on facts provided by scientists and researchers. By gathering a vast number of comments from users of the selected Facebook pages, the researcher would be able to examine the information gathered from the data and use it in a future analysis, along with the selected theoretical considerations.

However although the use of activist research on social media played a some role in the research process for this paper, the actual research method and the findings gathered through the use of such, was very limited and were therefore not included within the empirical material. The researcher realised within the process of posting on social media, that the outcome was very limited and that the users either just clicked 'like' on the posts or did not even interact at all. Additionally this process proved to be more problematic than expected due to both the pages of Adani and the Liberal Party being closed for the creation of personal posts on their page, with users only being allowed to comment on already existing posts. A hindrance that arguably may have minimized the impact of the posts created by the researcher. Instead the research design was rearranged during the project writing process, with the researcher deciding to change the research methods. Instead the research for this paper were based on a foundation of gualitative content analysis and online media articles in order to acquire sufficient material to research the topic for this paper. It should be highlighted that although the use of an activist research approach did not directly add to the research for this paper, the attempt of using this method, although not successful, lead to the process of selecting the research methods used for this paper This process would perhaps not have been selected without the researcher first attempting to take on an activist approach, and for this reason it may therefore arguably still play a role in the creation of this paper, although minor than what was first expected.

#### 2.8 Data analysis

#### **2.8.1 Coding**

As mentioned previously in this chapter the material collected by the researcher were examined through the use of the data categorisation tool known as coding. Furthermore the categorisation process would shape the foundation for a thematic analysis of the collected material, while additionally forming a valuable element in the analytical discussions presented later in chapter 4. Secondary data such as quotes from online articles published by journalists and researcher, the online user comments as well as with the information gathered from the qualitative content analysis, were all categorized through the use of coding. This process is defined by Charmaz (1983, in Bryman, 2012) who states "codes serve as shorthand devices to label, separate, compile, and organize data" (Charmaz, 1983 in Bryman, 2012, p. 568). The use of coding may assist the researcher examine the data collected from various sources, by removing excess information that would not possess a significant relevance to this paper and thereby making documents and online articles easier to read and understand. The coding process was done in relation to the research question presented in this paper, and through a process of constant comparison made to both the research question, the theoretical considerations as well as to other collected material. It helped the researcher stay on course and focus the coding process towards the research field at hand, thereby minimizing the chance of including other less important information. Strauss and Corbin (1990 in Bryman, 2012) argue that there are three different approaches to the use of coding within research: Open coding, axial coding and selective coding. This research focuses on the use of 'open coding'. This approach is furthermore described by Strauss and Corbin (1990 in Bryman, 2012), by which they explain it to be "the process of breaking down, examining, comparing, conceptualizing and categorizing data" (Strauss & Corbin, 1990 in Bryman, 2012, p. 569). By assigning different colours to the data that was examined and coded as proposed by Veal (2011), it helped the researcher sorting the data and shape the coding process by which a number of categories were created. These categories were essential in order for the researcher to come across on-going themes within the data that were being examined, which additionally would be included in a thematic analysis. The thematic categories that were established were 'Public, Government, Economy, Tourism, Adani and Environment'. The sorting of data into these categories happened through the process of the researcher reflecting on where a given quote would fit in, ultimately leading into acquiring a number of boxes that would reflect the on-going theme within that specific box (Veal, 2011). Although some material in the form of quotes or sentences were easy to fit into one category, some would perhaps be of longer extent and would thereby be able to fit into more than one category. The occurrence led into some quotes and sentences ultimately being coded as multi-coloured, due to them consisting of information that would more than one theme.

#### 2.8.2 Thematic analysis

When examining the data through the coding process, key quotes were singled out by the researcher and were placed within the thematic table below. The purpose of the table were to provide an overview for the researcher and act as a thematic guidance, by which the researcher would draw on when constructing the analysis presented later in this paper (Bryman, 2012). However it should be mentioned that not all quotes and sentences that was coded were included in the table. Excluding some quotes from the thematic analysis were due to a lack of relevancy in an analytical discussion as well as being less important compared to other quotes. The information provided by some quotes were overlapping, which made them less important while others were considered obsolete within an analytical discussion. The table below shows the table that was used by the researcher for the thematic analysis, however the actual table filled out with data is found in appendix 1. Table 1 is categorized into the following headings: 'Public, Government and Economy' whereas the headings for the categories in table 2 are as follows: 'Tourism, Adani and Environment'.

#### Table 1

|   | Public/community/needs | <b>Government</b> /policy/emplo<br>yment | Economic/monetary/costs |
|---|------------------------|--|-------------------------|
| Greenpeace:<br>Exporting climate<br>change        |                        |  |                         |
| Greenpeace:<br>Double threat to<br>the GBR        |                        |  |                         |
| Reef 2050 Long-<br>Term<br>Sustainability<br>plan |                        |  |                         |
| Climate Council:<br>Risky business                |                        |  |                         |
| Deloitte: What is the price?                      |                        |  |                         |
| Experts from online articles                      |                        |  |                         |
| Online user<br>comments                           |                        |  |                         |

Table 2

|  | Tourism/tourism impacts | Adani/threat of Adani | Environment/science/cons<br>ervation impacts |
|--|-------------------------|-----------------------|--|
| Greenpeace:<br>Exporting climate<br>change |                         |                       |  |

| Greenpeace:<br>Double threat to<br>the GBR        |  |  |
|---|--|--|
| Reef 2050 Long-<br>Term<br>Sustainability<br>plan |  |  |
| Climate Council:<br>Risky business                |  |  |
| Deloitte: What is the price?                      |  |  |
| Experts from online articles                      |  |  |
| Online user<br>comments                           |  |  |

#### **2.9 Limitations and implications**

Although it was argued previously in this chapter that the geographical distance between the researcher and the research field were considered less important during the process of which this paper was constructed, the distance may still be considered a limitation. Though it was not originally an aim for the researcher to conduct either personal interviews or questionnaires on site as a part of this paper, the possibility of constructing these may have been a potential research method after the activist research was dropped in the early process. Additionally the possibility of the researcher being within the location of the research field may also have opened up for other types of activist research, by which it may have been possible to take on the role of an actual activist within an environmental NGO, and undertake participant observations from within an demonstration rally. Another limitation regarding constructing this paper may arguably be the substantial use and reliance of secondary data as empirical material. The researcher have

previously argued for their need and relevancy in order to examine research question presented in this paper, however the over-reliance on secondary data sources may still be somewhat limiting in the research outcome. This is due to the secondary data sources originally having a source in other materials and was therefore not exclusively constructed to the specific research of this paper, but rather in relation to various aspect of the public discourse concerning the GBR.

An implication for the research of this paper may somewhat be the lack of success in performing activist research on social media and the lack of responses/reactions made by the users. If the use of this method have been successful, the research paper may arguably have had access to even more personal insights from Australians regarding the GBR debate, and it would have created another, more original element to the paper. Additionally the lack of success with the method created the need for suddenly changing the direction and attempting to collect data through the use of other methods, while including them to a more heavy extent. Another implication that may be considered as a limitation as well, is the fieldwork constructed for this paper. The fieldwork done for this paper were done many months prior to starting the actual project writing process, which ultimately have made the original fieldwork to be considered less valuable. This is due to, as previously mentioned in the section 2.6.3, that the fieldwork were done at the location of the research field, but without the eventual research question as guidance. Therefore the researcher were seeking insights and information from individuals on all aspects of the GBR and its current state, and were therefore not keeping in mind any specific questions regarding the public valuation of the reef, the government's role as well as the threat of the Adani coal mine.

#### 2.10 Methodology conclusion

The principle of phronetic research and the process of taking on an interpretive approach were described in this chapter. The use of elements within the grounded theory method such as coding were clarified, though it was furthermore noted that other parts of the grounded theory research method did not fit within the research design for this paper and were therefore not considered appropriate. The principles of qualitative research were examined, while a further description of the use of a case study and qualitative content analysis were discussed. The alternative research design of online activist research during the early research process, to the decision of using qualitative

content analysis of documents and online articles as the main empirical material. With the use of coding as a data categorization tool a number of themes within the collected material were determined, leading into the creation of a thematic analysis which later would be used as part of the discussion within the analysis chapter.

# 3. Theory

#### **3.1 Theory introduction**

The first section within the theory chapter concerns the field of valuation studies and valuation in practice. It aims to offer the reader with definitions of what may be understood by the term 'value' as well as how this term may apply to various context both within research and in modern society. Following this, the first section seeks to provide the reader with an understanding of how value is constructed and which factors that may influence the activity, while additionally discussing how the assessment of value in practice may be investigated through the introduction of a analytical framework. Following this the second section seeks to conceptualize the role of the government within society and tourism, and explores how the government through policy-making may influence industries and communities. It aims to explore the political agendas of the government and how the ideologies and strategies of a government may or may not be of benefit to the public and industries.

#### **3.2 Valuation**

#### 3.2.1 Defining value

The term 'value' is frequently used in daily life and more so it relates to a variety of elements, by which both individuals, universities, businesses and organisations connect a certain worth of importance to a specific item or an idea (Helgesson & Muniesa, 2013). However often there is a tendency to which value is primarily mentioned in relation to economics, explaining the economical worth of a specific tangible object in the form of assets and funds (Heuts & Mol, 2013). Additionally to being related to economical worth, the term value is often also mentioned in relation to a human value appreciated by individuals, by which a person believes in acting in a certain way that may benefit others or seem positive, either by that individual or in the eyes of others (Kjellberg & Mallard, 2013). Although it may also have a relation to human value, the organisational value of businesses and organisational values present employees with a certain guideline to which everyone within the company should be able to relate to. The purpose of these values are to indicate what is required by employees when representing the company, what customers can expect from the company as well as aiming to create a positive workplace, by

which the employees feel happy (Carmon & Ariely, 2000). Ultimately value may be considered in relation to all aspects of daily life and thereby proposing an array of meanings to what that is meant by the term 'value'. When seeking for a definition of the term, Helgesson and Muniesa (2013) explains it as *"the propensity in current society to gauge things, assess them, rate them, put monetary value on them and so on. In short, valuation appears to be an engaging social practice"* (Helgesson & Muniesa, 2013, p. 2). Although the considerations presented by Helgesson and Muniesa may be somewhat precise in regards to assessing the meaning of the term, Dewey (1939 in Helgesson & Muniesa, 2013) offers a lengthier version of the definition by which he states:

"The words 'valuing' and 'valuation' are verbally employed to designate both prizing, in the sense of holding precious, dear (and various other nearly equivalent activities, like honouring, regarding highly) and appraising in the sense of putting a value upon, assigning value to. This is an activity of rating, an act that involves comparison, as is explicit, for example, in appraisals of money terms of goods and services".

Dewey, 1939 in Helgesson & Muniesa, 2013, p. 5

The two aforementioned definitions proposes the same views of what that may define the terms value, valuing and valuation, with more specifically arguing that the terms is directly linked to human behaviour in both past and current society. Kjellberg and Mallard (2013) adds to these views by arguing that value is something that is entirely constructed by people and that value is in clear relation to the behaviour and feelings of individuals, whether if this is by creating objects to which a certain value is added. In addition to the views previously mentioned concerning the definition of value, the Oxford dictionary proposes the following definitions:

"The regard that something is held to deserve; the importance, worth or usefulness of something. The material or monetary worth of something. Principles or standards of behaviour; one's judgement of what is important in life. The numerical amount denoted by an algebraic term".

#### Oxford Dictionary, 2017

With the different yet similar definitions offered above, value is presented as a proposition that arguably cannot stand alone but instead evolves from the constructional behaviour of people and their individual reason for adding value to a specific item or action. Muniesa and Helgesson (2013)

argues that though the added value to something is of interest in itself, whether it being e.g. monetary or judgements of behaviour, the true interest from researchers should lie within the field of understanding how value is socially constructed within society. This composition will be reviewed in the next section within this chapter.

#### **3.2.2 Constructing value**

According to Helgesson and Muniesa (2013) value may be considered socially constructed. It evolves from the behaviour of people by which they add value to objects and feelings, though those values may either be lesser or more valuable to a certain extent. In the previous section the meaning of the term value was reviewed and various definitions was argued as being a worth added to and thereby associated with, items that either possess a monetary value, the importance or usefulness of something or the principles of what is deemed important in life. With added value of items and behaviour playing a significant role in the everyday life in societies all around the world, Helgesson and Muniesa (2013) calls for the need to understand how value is socially constructed. They urge researchers to look further than merely just answering yes to the question of whether value is a phenomenon entirely constructed by people, and instead seek to examine what this social construction means. As previously discussed there are many ways to which value may be represented and thereby the process by which value is added, also differs depending on the context and the classification of what type of value that is being referred to. Carmon and Ariely (2000) in their study on valuation from a merchant perspective within the landscape of buyers and sellers, states:

"We propose that buying- and selling-price estimates reflect a focus on what the consumer forgoes in the potential exchange and that this notion offers insight into the well-known difference between those two types of assessment. Buyers and sellers differ not simply in their valuation of the same item but also in how they assess the value".

#### Carmon & Ariely, 2000, p. 1

In addition to this statement they argue that value may be assessed on numerous levels, even within the same transaction as the one mentioned between a given buyer and a selling. Carmon and Ariely (2000) add that the assessment of value may even vary depending on where in the

process the assessment takes place. The assessment of value may be entirely different depending on the perspective of the role as either a buyer or a seller. In a particular study, it was found that on average people taking on the role of a buyer would perceive \$31 for a particular hunting item being a fair price to pay and the item additionally then being considered good value, the same buyers, when taking on the role of a seller of that exact item, would not wish to sell it for less than \$143 (Carmon & Ariely, 2000). In a related study, Wagner (2015) examined the valuing process and constructing of value at a marketplace in Morocco. She argues that although value is assessed depending on where in the transaction process the buyer and seller is positioned, monetary value does not solely play a role in how value is constructed. Wagner (2015) found that whilst the monetary value of objects within that marketplace in Morocco played a significant and expected role in the transactions between people, the assessment of value were more so created by social and cultural factors. Whereas the study by Carmon and Ariely (2000) focused entirely on the monetary value which showed that people assessed value from a perspective of personal gain, by which they were seeking to buy cheap and sell expensive, Wagner (2015) experienced that factors such as cultural background and social relations, played an equally important role in the construction of value in transactions between people. Wagner found that "there would be a connection between 'being-Moroccan-by-descent' and getting a lower price" (Wagner, 2015, p. 120). Additionally Wagner (2015) found that there was a clear distinguish between the construction of value of an item depending on which origin or social status the given buyer would have. For tourists coming from outside Morocco the items that were being sold would have a much higher price than if it was a local coming to purchase the exact same, although furthermore if that local would possess any social relation like a friend's brother or aunt, the price would become even more favourable (Wagner, 2015). However Wagner (2015) experienced that there were an exception to the rule concerning the assessment of value when dealing with 'outsiders', a view shared by Carmon and Ariely (2000), arguing that although monetary value would be crucial within transactions, there may be exceptions to the assessment such as family or friend relations. Wagner (2015) found that although tourists from outside Morocco were treated differently in terms of constructing and assessing the value of the items that were being sold, tourists born in Europe but of Moroccan descent would be considered local, despite the people never living in the North African country. Here the social and cultural background was valued to a significant degree and the tourists of Moroccan ancestry were treated as 'sons/daughters of Morocco' like any of the locals (Wagner, 2015). Though the tourists of Moroccan descent may arguably have grown up in Europe under somewhat better conditions and with more financial leverage than the local sellers on the marketplace, the monetary factor were considered minimal upon the construction of value of the items sold, with cultural heritage and social relations instead being the major factor.

Although the construction of value happening through tangible transactions between people may be considered a more traditional way of understanding value creation, valuation happens in various other landscapes than merely between a buyer and seller at a shop or marketplace. As previously discussed the construction of value happens to a socially related process, to which Helgesson and Muniesa states "value is seen as the outcome of a process of social work and the result of a wide range of activities (from production and combination to circulation and assessment) that aim at making things valuable" (Helgesson & Muniesa, 2013, p. 6). Ultimately it comes down to people's actions and the assessment of worth that is added to their activities, ideas and beliefs. Using an example of the Hollywood movie 'Moneyball', Helgesson and Muniesa (2013) highlights the current society's need to add value of various sorts to all aspects of people's daily lives. With the release of the movie 'Moneyball' it grossed \$19.5 million, it was ranked 87 out of 100 on a critics score and it were nominated for six Acadamy Awards, though the movie ended up not winning any (Helgesson & Muniesa, 2013). Muniesa and Helgesson (2013) argues that even with the nominations themselves being considered of value despite not even winning, it may have become a significant challenge in modern society to find areas where no valuation processes is happening.

In the study made by Petersen and Ren (2015) concerning the constructed value of the Eurovision Song Contest 2014, they explore the multifaceted process of construction and assessing value when perhaps a degree of the value are being viewed as somewhat invisible or as mere speculation by many bystanders, due to the added value being highlighted as a factor that will benefit the community in the long run. After the Eurovision Song Contest was held, policy-makers as well the public realized how much more the financial costs was than first expected, which lead to massive critique of the organisational group behind the event, primarily the regional DMO

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Wonderful Copenhagen, to which both politicians and the public complained that this future, somewhat hidden value that would to be constructed by the event, would never break even to the costs of the event (Petersen & Ren, 2015). Kjellberg et al. (2013 in Petersen & Ren, 2015) state:

"One of the central avenues which can be explored through valuation studies is how macro-level trends underlie current changes concerning the ways in which value and values are produced and transformed: Such factors as neoliberalism, the rise of new public management, the spread of meritocracy, consumerism or ICT developments are evoked".

Kjellberg et al., 2013 in Petersen & Ren, 2015, p. 99

In addition Ren et al. (2015) argue that although public and private collaboration is on the rise and furthermore present to an extent within numerous industries, there tend to be a complexity in determining value and values that goes beyond merely financial profit. Instead a more dynamic way should be present to assess how values are constructed within the collaboration between public and private sectors. Boyer and Polasky (2004) in their study on the valuing of urban wetlands argue that often values are not so easily understood or perceived by both policy-makers as well as the general public. As previously argued by Petersen and Ren (2015) there is a tendency to look primarily at the monetary value and the financial outcome of launching new projects, to which Boyer and Polasky (2004) state that some values may not be so easy to address, despite it having a significant, yet indirect worth to the community and local ecosystem. Beside its obvious visual aesthetics and recreational purposes urban wetlands purifies the surrounding water supply plus maintains nutrients for plant – and wildlife (Boyer & Polasky, 2004). Recently there has been a change in the public opinion and the perception among policy-makers, whereas previously urban wetlands would be drained in order to provide space for the development of apartments or factories, now the public encourages urban wetlands to be protected (Boyer & Polasky, 2004). However the costs of environmental conservation in the form of urban wetlands and the nonmarket value it possess, are often compared to the monetary value and financial benefits that may be constructed with the development of new buildings, which ultimately leads to further urbanization and limiting the amount of the urban wetlands (Boyer & Polasky, 2004).
Ren et al. (2015) in their study on valuing tourism, argue that when value is constructed in relation to tourism there may be two different approaches that one could consider: the managerial approach and the critical approach. The managerial approach takes on an economic aspect, casting the focus on the financial benefits for the destination, whereas visitor nights and tourist expenditures are evaluated. In comparison to the more cost-effective approach and the focus on economics, the critical approach has its focus on valuing tourism in relation to social and cultural impacts of tourism to communities within destinations (Ren et al., 2015). Ren et al. (2015) furthermore adds that although the two approaches focuses on different aspects, they may still share a similarity in viewing tourism as a relatively stable object, though instead tourism should be considered as formed from a social practice.

"Tourism seems to become ever more entangled. To an increasing degree, tourism is managed and performed in ways that are not separate from, but that connects with, a jumble of everyday practices and concerns. This implies that the value and values of tourism turn into something which never stands alone, but is always negotiated in relation to and co-enacted along with other elements and concerns".

Cartier & Lew, 2005 in Ren et al., 2015, p. 88

Ren et al. (2015) argues that with tourism being highly complex as an industry and with it continuing to be ever evolving in influencing other industries and sectors, the effects of tourism and the constructing of value that goes beyond merely the tourism industry, may seem vast and entangled. In addition Jóhanneson et al. (2015 in Ren et al., 2015) add *"increasingly, tourism is valued by being connected to actors and elements we would not traditionally think of belonging to the sphere of 'tourism proper'"* (Jóhanneson et al., 2015 in Ren et al., 2015, p. 89). As argued by Petersen and Ren (2015) the private and public collaboration within numerous industries continues to increase and involving partnerships between often less typical actors, creating the question of how and where to assess value when the emerging reality suggest that value is no longer constructed from either one factor or the other (Ren et al., 2015).

#### **3.2.3** Assessing valuing in practice

"Is 'valuation' anything at all? Apart from a strange excuse for doing things in certain ways?" Helgesson et al., 2017, p. 1). Within the modern society valuation may seem to be fundamental to the evaluation of economic organisations, social policies, environmental investigations as well as democratic processes (Helgesson et al., 2017). Muniesa and Helgesson (2013) argue that it appears that the process of valuation happens constantly in one's daily life, whether we are fully aware of us adding value to certain items and beliefs, or if it simply happens as a part of living in modern society. However although this action is connected to human behaviour and the construction of value happens close to all aspects of one's life (Helgesson & Muniesa, 2013), Heuts and Mol (2013) in relation to the study of valuation in practice, highlights the importance of seeking to understand what exactly is considered to be 'good value', while furthermore what factors are included in the process to which people concludes that something is either 'good' or 'bad'. Heuts and Mol (2013) examines the question: 'what is a good tomato?' which highlights the principle of their study on how the assessment of value can be analysed in practice, by which they suggest an analytical framework. As previously argued by Carmon and Ariely (2000) earlier in this chapter, the term value and the process of valuation has a tendency to referred to as the assessment of a monetary value. Heuts and Mol (2013) shares that view although they stress the importance of examining valuing in practice by looking at the valuation process from a broader perspective, to which they state:

"Money and markets are not the only contexts where valuing is a prominent activity. For instance, cultural sociologists are busy tackling how values are related to what the call 'taste'; philosophers keep insisting on the relevance of 'normativity' while separating this out into kinds; science and technology scholars wonder how the study of 'goods and bads in practice' can best be added to the study of objects and subjects in practice; while in anthropological work embodied 'appreciations' are being explored".

Heuts & Mol, 2013, p. 126

By understanding the context in which valuation is being constructed and how that activity is processed, Heuts and Mol (2013) argue that it may be easier to assess what embodies 'good' and 'bad' within the assessment of value done by people. Previously in this chapter Helgesson and Muniesa (2013) proposed the idea that value is an activity that is socially constructed. In addition

to this statement they furthermore ask the question whether the assessment of value is then based on an entirely objective point of view, or if it instead evolves from a person's subjective opinion on a given matter (Helgesson & Muniesa, 2013). Daston and Galison (2007 in Helgesson & Muniesa, 2013) argue that value can be objective if the circumstances are right and it undertakes a carefully chosen process of objectification, by which the particular situation assess whether the valuation may be deemed either strong or weak, or valuable or invaluable. However Helgesson and Muniesa (2013) also add that value can be subjective due to valuing being related to one's desires and wants as it is often proposed in terms of consumer preferences, though subjectivity may also evolve from one's consciousness and how we wish to either attach or detach ourselves to something. Heuts and Mol (2013) and Helgesson and Muniesa (2013) agree that the assessment of value may even be both, with items often possessing multiple values to people and that the value may either become more or less enhanced depending on the circumstances of the valuation process. To this Helgesson and Muniesa (2013) states "what things are worth can be manifold and change- and these values can be conflicting or not, overlapping or not, combine with each other, contradict each other. All, or almost all, depends on the situation of valuation, its purpose, and its means" (Helgesson & Muniesa, 2013, p. 7). Inspired by the study made by Boltanski and Thévenot (2006 in Heuts & Mol, 2013) and their differentiation between the 'economies of worth', Heuts and Mol (2013) proposes an alternative theory based on somewhat the same principles, yet it having a more justified application to the practice of assessing how 'ordinary people' constructs and determine value (Heuts & Mol, 2013). In the original work by Boltanski and Thévenot they distinguish about 'worth' (a quality) and the classification of 'economies', where instead when applying it to social practices, Heuts and Mol (2013) opted for changing 'worth' to 'valuing' (an activity) and from 'economies' to 'registers', due to what may be either good or bad in relation to what is considered relevant may vary depending on the circumstances. Instead Heuts and Mol (2013) offer their own term; 'registers of valuing', adding that not only may the valuation process be considered quite complex, the activity of valuing may additionally be considered performative. Vatin (2013 in Heuts & Mol, 2013) argue that "valuation studies should not just study evaluation, activity of classifying things as either valuable or not, but also valorising, the activity of making things (more) valuable" (Vatin, 2013 in Heuts & Mol, 2013, p. 129).

In order to properly understand and thereby analyse the act of valuing, by which the process of assessing, appreciating, adapting and improving an objects value are being examined, Heuts and Mol (2013) proposes five different 'registers of valuing' within their analytical framework, which they consider relevant for valuing tomatoes. The first of five registers is the 'monetary register', with its significance in the construction of value previously being highlighted by Helgesson and Muniesa (2013) and Carmon and Ariely (2000). This register relates to the economic factors of valuing, by which financial transactions are the key to add value to a specific item. Heuts and Mol (2013) in relation to what may be considered a good tomato, they argue that consumers may consider a tomato 'good' if its on discount in the grocery store while farmers may consider the costs for the amount of fertilizer used, in order for the tomato not being too expensive to produce. Although the 'monetary register' concerns the financial costs, clashes within that register regarding the idea of what is cheap and what is expensive may still be present (Heuts & Mol, 2013). The second register of valuing concerns the activity of 'handling', which propose the aspect of fragility due to tomatoes being easily crushed plus having only a limited time before they deteriorates. Heuts and Mol (2013) state that although tomatoes is handled with significant consideration at one particular level of the production, other aspects such as handling them during the transportation process may ultimately still ruin the tomatoes, highlighting the need for care in all aspects of the growth in order to make sure its not ruined. Regardless of the quality of a tomato it will only be as great as its limits allows it to be, where even the best, and most durable tomatoes may still be squashed if stacked up too high (Heuts & Mol, 2013). The third register concerns the idea of assessing an object in relation to 'historical time'. Heuts and Mol (2013) argues that within the third register, nostalgia or historical meaning plays a role in how tomatoes is valued by individuals. To this they add that older consumers for instance may consider the tomatoes they remember from when they were kids, being much better before the production process started to become more mechanical. For others time, more specifically the 'present time' may be of value, with growers highlighting that although consumers may consider the tomatoes of their childhoods being of better quality, today science and technology offer the possibility to create a much better tomato than previously (Heuts & Mol, 2013). The fourth register proposed by Heuts and Mol (2013) in their valuing framework refers to 'naturalness'. This register highlights the fact people may value tomatoes and consider them being 'good', if they are not being

manipulated or influenced of any kind. Heuts and Mol (2013) argue that for some people like professional chefs for instance, a natural tomato is a tomato that has not undertaking any sort of interaction with pesticides or similar substances, and using a tomato that is not completely natural is out of the question. However Heuts and Mol (2013) highlights that although some consumers and professional chefs may view an organic tomato as being a tomato in its most natural form, tomato growers point out that despite the general idea that organic means natural, organic farming does not exclusively resist the use of chemicals, which otherwise may be the public perception. The last of the five registers of valuing is the one relating to 'sensual'. Heuts and Mol (2013) argue that in the fifth register in their framework, sensual may be considered to be good if the tomato is visually appealing regarding colour, shape or how the texture looks. However Heuts and Mol (2013) argue that with it also being the case in the four other registers, the 'sensual register' may too possess internal clashes. For some tomato-users the assessment whether a tomato is good or not lies completely within whether the tomato looks visually appealing to eat, where others would happily consider a tomato being sensually good despite it having a more uneven shape or look, due to it then being considered more natural and real (Heuts & Mol, 2013). Additionally Heuts and Mol (2013) argue that for some the visual appeal is everything despite the tomato potentially looking too fabricated and are lacking in taste, although others consider the aesthetics less important but instead values a look being more rustic and less picturesque, where the inside is what really matters. Heuts and Mol (2013) highlights the need for understanding that a particular register of valuing will ultimately propose several levels within, to which one might value a tomato in a certain way but depending on the circumstances that same value may change and may even become contradicting.

# 3.3 Government and power

#### 3.3.1 Policy and the role of the government

According to Ritchie and Crouch (2003) world tourism is being shaped by number of global forces that to different extents are influencing both global tourism in general, but also regional and local tourism within destinations. Some forces and their respective impacts to tourism are uncontrolled such as the typical climate of a destination, climate changes or environmental biodiversity, where other, more internal forces may be controllable to a far greater extent, through the use of management, policy-making and governance (Ritchie & Crouch, 2003). Hall and Jenkins (1995 in Hannam & Knox, 2010) states that the influence of tourism within a region or a country and the profitable potential of a thriving tourism industry, has grown onto holding an absolute essential key to the success of modern governments. Additionally Holloway (1998 in Hannam & Knox, 2010) state:

"Tourism has moved to the centre of the regimes of planning within national, local and supra-national governments as policymakers have recognised both the potential for income generation and, on the less positive side, environmental damage. Furthermore, a growing feature of the tourism industry is the extent to which businesses and governments work together either to manage the impacts of tourism or to promote or develop tourism in particular destinations".

Holloway, 1998 in Hannam & Knox, 2010, p. 19

With the influence of tourism continuously growing, both regarding the positive financial outcome and the increase in the creation of jobs within various industries, the public and private sectors are seeking further collaboration due to a shared interest in seeking new capital investments and exploiting growth opportunities (Hall, 2011). In addition Dredge and Jenkins (2007a) add that "government and business have become increasingly engaged in collaborative planning and policymaking, whereby business is driven to maximise positive economic outcomes and government has sought to achieve popular political objectives, such as increased investment and employment (Dredge & Jenkins, 2007a, p. 6). Through this continues corporation, Dredge and Jenkins (2007a) argue that there is a tendency in modern society that the relationship between the public and private sector have evolved into being so complex and entangled, that its extremely difficult to distinguish between what is public policy or private. Bridgman and Davis (2004 in Dredge & Jenkins, 2007c) define policy and more specifically public policy as "the vehicle through which politicians seek to make a difference. Policy is the instrument of governance, the decision that direct public resources in one direction but not another. It is the outcome of the competition between ideas, interests and ideologies that impels our political system" (Bridgman & Davis, 2004 in Dredge & Jenkins, 2007c, p. 6). Although policy-making derives from actions within the public and private sector and often evolves from a combination of both as well as community interests, Ritchie and Crouch (2003) highlights the role of the government (or state), stating "a change in

government at the local, regional or national level often brings with it a change in political ideology". Such shifts can result in major modifications of fiscal, environmental and immigration policies" (Ritchie & Crouch, 2003, p. 85). Furthermore Clegg (1989 in Hannam & Knox, 2010) add that governments is to be considered the focal point of power relations that maintain, regulate and oversee the majority of financial, political and social existence. Henriksen and Halkier (2009) stress the importance of the role of the government when taking into consideration the impact, both positive and negative, a government's policy-making and legislation may have on tourism in regional destinations. In addition to the definition of policy previously mentioned in this section, Ritchie and Crouch (2003) offers to define tourism policy as:

"A set of regulations, rules, guidelines, directives and development/promotion objectives and strategies that provide the framework within which the collective and individual decisions directly affecting tourism development and the daily activities within a destination are taken".

Ritchie & Crouch, 2003, p. 148

In short the objective of developing tourism policy is to establish a beneficial environment that will add value to all stakeholders within that particular province, while limiting any negative impacts (Ritchie & Crouch, 2003). The purpose of the government, as mentioned before by Clegg (1989 in Hannam & Knox, 2010), is to assess the regulation of economic, political and social life, although additionally the government maintains the role of sustaining public interest and seeking to develop the country and attend to the needs of local communities (Bramwell & Lane, 2010). However the complexity of performing governance to a extent that is deemed acceptable by various actors within a community continues to grow, which demands greater actions by local and national governments with Dredge and Jenkins (2007a) adding "it has become increasingly evident that there is no singular public interest. There are communities of interest, each with different goals, issues, values and knowledge that contribute to policy dialogues, and in turn, affect decision-making" (Dredge & Jenkins, 2007a, p. 6). Although Hannam and Knox (2010) and Henriksen and Halkier (2009) stress the importance of governance maintaining its focus to be benefiting public interests plus making sure that public needs are heard, Dredge and Jenkins (2007a) argue that local and national governments in current society face strong challenges to maintain these principles. This is due to for instance, large private companies acquiring political

influence based on large capital investments, which may decrease the amount of trust in the government by the public and further increase the distance between governments and the communities (Ren et al., 2016).

# 3.3.2 Government power, agendas and public interest

As mentioned previously both state and federal governments is in principle meant to serve public interest and maintain a regulating role, which will ensure that the needs of the public is heard and attended to. Dredge and Jenkins (2007c) proposes the question 'what is the public interest?' to which they add may be considered the essential element in managing public policy and planning. The question concerning what may be considered to be public interests are not so easily to determine. Thomas (1994 in Dredge & Jenkins, 2007c) state *"the public interest is the 'interest of no one special'; the interest of any individual or group taking at random"* (Thomas, 1994 in Dredge & Jenkins, 2007c, p. 45). In order words public interests is not the interest of a specific group within the community, but instead rather a matter of maintaining what is right or wrong, as well as it being a matter of shared values about moral, life, security and health (Dredge & Jenkins, 2007c). Although state and federal governments serve 'the people', there may be cases where the principle of serving the public interests and needs is overshadowed by outside influences, which potentially may create a public attitude that the government perhaps are not fully transparent Ren et al. (2016). This view is furthermore shared by Putnam (2000 in Dredge & Jenkins, 2007) and McAllister and Wanna (2001 in Dredge & Jenkins, 2007) stating:

"Critics argue that after two decades of economic neoliberalism, market forces and commercial interests have gained unprecedented influence within the state apparatus. The notion that politicians and bureaucrats are contracted to act in the interests of citizens is increasingly questioned, and a crisis in the legitimacy of and trust in government has been identified".

Putnam, 2000; McAllister & Wanna, 2001 in Dredge & Jenkins, 2007c, p. 44

In addition to the statement above local governments, whose obligations lie within the aspects of managing and improving both the current and potential needs of local communities, may for example propose funding for a project, that on the surface, would act as a way of attending to public interests but may instead consists of other, less public-favoured agendas (Hannam & Knox,

2010). Dredge and Jenkins (2007c) offers an example of how a local government may provide funding to a destination marketing agency, which ultimately would benefit the local community by attracting more visitors and private investments, creating an opportunity for local businesses to increase their profits and thereby becoming beneficial for the local economy. In addition to this Dredge and Jenkins (2007c) point out that:

"The destination marketing agency undertakes its activities in response to the interests of its membership (i.e. tourism operators and service providers), and the wider 'public interest' become marginalised. Benefits accrue to the sectional interest of the local tourism industry while the local community, whose land taxes help subsidise the destination marketing agency, can become alienated or disfranchised".

Dredge & Jenkins, 2007c, p. 45

In relation to the argument by Dredge and Jenkins, Hall (2011) stress that there is a difficulty in policy-makers and governments to properly apply the idea of acting entirely in what may be considered public interest. This is primarily due to the fact that it is a matter of subjectively interpreting the needs of the public and give meaning to the needs through policy activities, where at the same time the government may possess other interest in the form of e.g. reducing state debt (Hall, 2011). In modern society there may often be a tendency by which governments are heavily influenced by other interests besides what their role may suggest, with Dredge and Jenkins (2007c) stating "they [the government] are inevitably influenced by their own value systems, ideas and beliefs, the institutional frameworks within which they work and the policy actors with whom they have contact" (Dredge & Jenkins, 2007c, p. 45). In their study on the conflicting industries of mining and tourism and the future of local communities in Greenland, Ren et al. (2016) argue that although it is the public interest and the opinion among local communities to choose to focus on developing the tourism industry rather than the mining industry, the government may still seek to fund and develop the mining industry due to it being a faster and more lucrative business, despite the environmental and cultural concerns of the public. In other words, although as previously argued by Hannam and Knox (2010) that the government, state or federal, should act in regards to the public needs, the government may still be motivated and influenced by their own philosophies and goals, as argued by Dredge and Jenkins (2007c). Additionally upon determining which projects the government chooses to fund, outside influences in the shape of for instance capital investments made by private companies, may ultimately alter the decision-making process by the government (Ren et al., 2016).

Despite the traditional, historical power of governments and the position a government holds to potentially implement ideas and philosophies in practice, Keating and Weller (2000 in Dredge & Jenkins, 2007c) argue that within modern societies this factor may have changed, while stating "the nature of the constituency is changing. People have become more sceptical, better informed, less trusting and still more demanding. Even if governments can do more now than at any time in the past, they seem less able to meet all the demands" (Keating & Weller, 2000 in Dredge & Jenkins, 2007c, p. 52). Dredge and Jenkins (2007c) additionally argue that governments are no longer capable to declare that they respectively manage the collective public interest, but are rather in need of evaluating numerous opposing values and making trade-offs concerning the public interest, emphasising on the view of attempting to benefit the majority of the society. Although it has become arguably harder for governments to manage the overall public interests and attend to all needs within a society, Dredge and Jenkins (2007c) add that although communities already in themselves demand greater action from the state than ever before, further implications for governments that oversees modern society are increasing. More critical, yet somewhat influential voices have evolved within modern society, where various NGO's, community groups, businesses coalitions, trade unions and social movements all demand a voice to which government should pay attention (Dredge & Jenkins, 2007c). Ritchie and Crouch (2003) shares that opinion and add that the complexity lies within "the competitive (micro) environment is bordered by a number of institutions, organization, groups and individuals that, although not directly part of what we might call 'the industry' [tourism], nevertheless exert an influence – on the behaviour and practices of those within the industry" (Ritchie & Crouch, 2003, p. 105). In relation to the higher degree of influences on policy in modern society, Dredge et al. (2011) furthermore argue that "it is important to reiterate that influence exist in both individuals and groups, including communities, associations, bureaucracies and governments, and its potential to significantly influence planning and policy making" (Dredge et al., 2011, p. 16). Dredge and Jenkins (2007a) stress the need for governments to understand the potential implications to their political ideologies at hand, where especially various NGO's and progressive activist groups possessing a

real noteworthy influence to their work, due to their strength in communicating to the public and civil society. The beliefs of individuals within modern society have become arguably more significant, nonetheless influential, to which Ritchie and Crouch (2003) argue:

"Many individuals take an interest in issues on a global scale because circumstances in one part of the world (e.g. pollution, the economy, social problems) can affect other regions. For this reason, tourism's general public may indeed be global. The exploration of aboriginal peoples, the destruction of the environment and the desecration of a cultural heritage of global significance are examples of tourism development issues that might arouse worldwide attention".

Ritchie & Crouch, 2003, p. 106

Bramwell and Lane (2010) shares that view while additionally stressing the importance of local DMO's and other related NGO's to act in order to influence policy-makers, by thereby attempting to create possibility of increasing the benefits for local communities as well as the region potentially becoming more sustainable. Howlett and Ramesh (1995 in Dredge & Jenkins, 2007c) argue that:

"The reality of modern politics is that interest groups are becoming stronger and more vocal. But interest groups do not necessarily exhibit equal opportunity to participate in and influence government planning and policy-making. The role, influence and access of interest groups to the policy process is largely dependent on the organisational characteristics of the group and the resources they are able to garner".

Howlett & Ramesh, 1995 in Dredge & Jenkins, 2007c, p. 50

In order words, interests groups may play an essential role in encouraging the public to maintain an interest in policy matters through communicative work, but do only to a certain extent possess the ability to influence the policy-making of governments directly. However well-resourced interest groups and organisations may potentially be able to gain a stronger influence on local and national government due to strong financial capabilities, employing skilled personnel and consultants as well as investing in political lobbying (Dredge & Jenkins, 2007c).

#### 3.3.3 Policy instruments and government actions

According to Bridgman and Davis (2004 in Dredge & Jenkins, 2007b) "policy instruments are the means by which governments achieve their ends. Governments confront public problems using a range of instruments, programs, tools, approaches and techniques to achieve their goals" (Bridgman & Davis, 2004 in Dredge & Jenkins, 2007b, p. 160). Dredge and Jenkins (2007b) argue that the amount of both policy issues and policy instruments more or less go hand in hand, which additionally is further distinguished into which circumstances the instruments are in need to be used. Furthermore in regards to when and where to address which policy instruments a government may use, Dredge and Jenkins (2007b) refers to a number of factors that may influence the decision-making to which they state:

"The number and type of instruments will also vary according to the problem (e.g. economic, social or environment), the level of government and the nature and availability of resources. The choice of instruments also needs to take local political conditions, community aspirations and expectations into account and be mindful of local organisation cultures and practices".

Dredge & Jenkins, 2007b, p. 161

The circumstances that are present when governments needs to address a certain policy problem is key, leading to the decision on how, when and where to implement policy instruments and select which instruments that is essential in order to solve that particular problem (Bramwell & Lane, 2010). Logar (2010) in her study on sustainable tourism management in Croatia stresses the need for carefully selecting policy instruments that may ultimately have the tools that will help minimize the effects of tourism on a destination level, where impacts on the environment, local community, culture and potentially the local economy may all be relative concerns. This may include the use of eco-taxes and eco-labels as well as user fees at tourist sites and heritage areas while additionally financial incentives and regulation of property rights (Logar, 2010). *"Policy instruments for governments use range from the traditional 'command and control' approach through appropriate legislation, to the use of economic incentives"* (Bramwell, 1998 in Ayuso, 2009, p. 145). Lohmann et al. (2009) highlights the importance of government interactions when seeking to develop tourism destinations and increase growth for the local community. Lohmann et al. (2009) argue the influence a government hold within both the tourism industry and potentially

other industries, regarding its policy-making, its choice of strategies and policy instruments. As previously argued by Logar (2010), who stress the need for fundamental government regulations and legislation in order for a destination to potentially become more sustainable, Lohmann et al. (2009), in their study on the aviation-based transformation of Singapore and Dubai, shares that view and underlines how governments may enhance a destination through carefully chosen policy-making. Lohmann et al. (2009) argue that by changing for instance the policy concerning tourist visas and allowing tourists to have easier access to the cities upon arriving at the transit hubs, has encouraged tourists to stay longer at the destination, increasing the amount of money spend and thereby improving the local economy.

# **3.4 Theory conclusion**

'Value' is used interchangeable in everyday practices and within arguably all parts of modern society, while additionally value is defined as being an assessment of comparing, assigning worth, prizing and holding in regard. The word itself has a tendency to be used within economics, by which a monetary worth to an asset or an object will be referred to as its value. Value is to be considered as socially constructed. It is viewed as a social practice to which people assess value to various objects and beliefs based on an objective or subjective assessment, though often value and the act of valuing may be both. A number of factors are present when seeking to examine the understanding of valuing in practice, with individuals assigning worth based on influences such as financial costs and historical meaning among others. The assessment of value may change depending on the circumstances, with values often being interrelated and contradicting. The government maintains a significant role within various aspects of society, where tourism as an industry may both be managed and regulated through government decision-making. Tourism has grown into becoming an essential factor within many global economies, by which governments may use tourism as an asset within their political strategies of future planning. The government serves the purpose of public interest, though the definition of what may be considered public interest is relative, with governments often instead aiming to serve the interest of the majority. Through its political power and policy-making, the government has the possibility of enhancing industries and businesses through legislation and implementation of policy instruments such as government funding and regulations. Collaboration across sectors by developing collaborative

policies and planning strategies that include numerous stakeholders in the form of government, businesses and community groups, may increase the potential of tourism destination.

# 4. Analysis

# **4.1 Analysis introduction**

In this chapter the theoretical considerations from the previous chapter will be used in order to discuss and examine the findings from the empirical material. The first section will aim to outline the public discourse concerning the GBR and provide the reader with an understanding of the public debate. Additionally in this section an examination of how the public value of the GBR is constructed within the Adani debate follows, providing a discussing of the various public values that affects the valuing process and how these value may be interrelated. In the second section the role of the state and federal government in how the tourism value of the GBR is constructed within the public debate will be discussed, followed by an exploration on how the government agendas may be influenced by hidden interest, while lastly the question of what is being traded-off and what is being silenced within the debate will be examined.

# 4.2 The construction of public value of the Great Barrier Reef and the Adani debate

#### 4.2.1 Outlining the public discourse

In order to understand the present, yet on going public discourse that concerns both the GBR, the role of governments, the public and Adani, it could be of value firstly to take a step back and attempt to cast light on the issue at its somewhat relative beginning. By the summer of 2014 the then Queensland Government as well as the former minister of environment Greg Hunt, both gave the official approval for the development of the Adani Carmichael coalmine and its related rail line (Grech et al., 2016). Despite scientists and environmental NGO's already back then calling for the government to rally against the threat of climate change and the evident impacts on the GBR by the surrounding coal mining industry, instead the then Tony Abbott's Liberal National Coalition government highlighted the global warming and climate change as somewhat of a hoax, and instead stressed the importance of coal for the Australian economy (von Strokirch, 2016). The previous government gained quite the reputation for being heavily against anyone who would argue against their pro-coal philosophy, while additionally becoming notorious for labelling NGO's such as Get Up and Greenpeace Australia in the media as being somewhat considered "enemies of the state" (The Conversation, 2017d). In addition to the previous government's willingness to encourage the public to see the potential in coal, despite the global science community detailing

the lack of future for the coal industry and shifting to renewable energies, then prime minister Tony Abbott claimed "Coal is vital for the future energy needs of the world. So let's have no demonization of coal. Coal is good for humanity" (appendix 3). Von Strokirch (2016) state that with the Abbott Coalition bringing environmental NGO's in the firing line and threatening to undermine the organisation's reputations, legal rights and government funding while additionally limiting the renewable energy industry by threatening to demolish its federal bodies, the Abbott Coalition instead rewarded the coal industry with removal of the carbon price and profit taxes. In addition von Strokirch (2016) adds by arguing "the Coalition's conduct in this domain [its view on global warming] was motivated by climate scepticism, cynical wedge politics, a traditional 'quarry' view of prosperity, and narrow conceptions of national interest privileging a powerful section of corporate Australia, namely the fossil fuel industry" (von Strokirch, 2016, p. 23). Previously it was arguably very clear to which extent the Abbott Government wanted to participate in the fight against global warming and climate change, however after the last elections with appointment of the new Prime Minister Malcolm Turnbull and his Liberal Party government replacing Abbott, the political ideology may not be so transparent. In section 3.3.2 it was highlighted by Dredge and Jenkins (2007c) the need for governments, both state and federal, to serve and support the needs of the public, by which the government's role is to manage public interest and develop the nation in the most sustainable direction. However as it was previously discussed in section 3.3.2 Dredge and Jenkins argue "they [the government] are inevitably influenced by their own value systems, ideas and beliefs, the institutional frameworks within which they work and the policy actors with whom they have contact" (Dredge & Jenkins, 2007c, p. 45). This statement may lead into the argument that the current government may possess other values and motivations than the ones that is communicated to the public as being in public interest, with Turnbull shortly after being appointed Prime Minister, were claiming "we do not doubt the implications of the science, or the scale of the challenge [to fight climate change]" (in von Strokirch, 2016, p. 27). This statement from early in his term as prime minister should be seen in relation, though also in comparison, to harsh critique received from both the media and environmental NGO's, with Greenpeace Australia in their report titled 'Exporting Climate Change' stating:

"Unlike much of the world, Australia's government is betting on a bright future for coal, not on structural decline. It is working assiduously to prop up the industry and extend its longevity. Australia's aim is to ride out the downturn and emerge with an even bigger share of a growing coal market".

Greenpeace Australia, appendix 2

Where the Abbott Coalition were rather open, yet controversial about their views on climate change as well as their trust and investments into the coal industry, the Turnbull Government and its appointed ministers may arguably be of a different political stand concerning what may be considered serving public interest. However the question lies within whether the federal government may really be interested in minimizing the use of fossil fuels and lean towards renewable energy plus actively trying to save the GBR. Environmental NGO's such as Greenpeace Australia and Get Up as well large parts of Australians proposes that exact question, arguing why there is only very limited actions towards solving this very significant issue but still predominantly actions by the government lending support to the coal industry (The Guardian, 2017h)? Greenpeace Australia in their report 'Double Threats to the GBR' states:

"The Australian Government remains committed to the policies that are fuelling climate- and killing the Reef. Australia's carbon emissions are increasing and the Australian Government continues to provide billions of dollars in support to the fossil fuel industry, as well as maintaining seemingly unconditional support for the proposed Carmichael Coalmine".

Greenpeace Australia, appendix 2

With the appointment of a new government, replacing the less-popular and controversial political ideology and including strategies of the Abbott Coalition, the majority of the Australian public may have acquired some newfound hope in protection the GBR (Grech et al., 2016). However voices of public disagreement and disbelief may continue to develop with local Port Douglas tour operator John Edmondson arguing *"most travellers are fairly wealthy, they're mostly educated, they're aware of what's in the media and those with knowledge of coral reefs understand the key threat to the reef is climate change. They see [the government's] support for the Adani mine as counter to moves towards a lower carbon economy"* (appendix 3). The public valuation of the GBR may arguably become even more essential and in need for further debate and related political actions,

as the public discourse concerning the GBR and its protecting may continue to evolve along with government interactions that seem to contradict with what the public considers by being 'within public interest'.

## 4.2.2 Understanding the public valuation of the Great Barrier Reef

As previously discussed in section 3.2.2 Helgesson and Muniesa (2013) argue that valuing is to be seen as a phenomenon that evolves from the behaviour of people, to which its considered to be socially constructed. Additionally Helgesson and Muniesa (2013) add that objects that are not constructed by man have no predetermined value, but merely the constructing of value occurs when people add a certain assessment of worth to objects and belief-systems, which thereby makes people prefer certain items and behaviours to others. Kjellberg and Mallard (2013) argue that in modern society we as humans have grown custom to add value to almost any aspect of our daily lives, to which we appear to be in need to assess things, compare them, make evaluations and often apply a monetary value. The process of valuing within social practice may arguably have been well defined by Dewey (1939 in Helgesson & Muniesa, 2013), by which he states:

"The words 'valuing' and 'valuation' are verbally employed to designate both prizing, in the sense of holding precious, dear (and various other nearly equivalent activities, like honouring, regarding highly) and appraising in the sense of putting a value upon, assigning value to. This is an activity of rating, an act that involves comparison, as is explicit, for example, in appraisals of money terms of goods and services".

Dewey, 1939 in Helgesson & Muniesa, 2013, p. 5

By considering the views of Helgesson and Muniesa (2013) and acknowledging the definition presented by Dewey (1939 in Helgesson and Muniesa, 2013), the question lies within in what way to examine and understand how the public value of the GBR is constructed, and more so, how Adani fits within this discourse? Heuts and Mol (2013) in their study titled 'What is a good tomato?' proposes are framework in order to further understand the valuation process, demonstrating how such a process may be constructed as well as examining which challenges the researcher faces by doing so. In their inquiry into the practice of valuing tomatoes they propose the question 'what is a good tomato', which opens up the critical discussion drawing on opinions from various tomato-users and their relationships with tomatoes, evaluating how the users on a

personal level add value to a tomato in regards to different, yet changing circumstances (Heuts & Mol, 2013). The concept of examining the process of valuing in practice proposed by Heuts and Mol (2013) within the field of valuation studies, have since been acknowledged and applied to a certain extent by Ren et al. (2015) and Petersen and Ren (2015). Although the study by Heuts and Mol (2013) focuses on asking the question 'what is a good tomato', to which there may be an emphasis on examining the concept of 'what is good' versus the implicit 'what is bad', this paper do not focus on asking that exact same question. Instead this research paper seeks to understand how the public value of the GBR is constructed within the public debate while additionally examining how Adani may fit in into this discourse and value creation. Previously in section 3.2.3 the process of assessing value was discussed while additionally the framework proposed by Heuts and Mol (2013) were outlined. Value and the act of valuing evolves from social practice and occurs through the assessment made by people, making valuing a social activity as it was previously highlighted in this section by Dewey (1939 in Helgesson & Muniesa, 2013). Helgesson et al. (2017) critically ask the question "Is 'valuation' anything at all? Apart from a strange excuse for doing things at certain ways?" Helgesson et al., 2017, p. 1). In the study by Heuts and Mol (2013) they argue, that although the valuation of a tomato may be entirely individual and may depend on both the circumstances as well as the background and motivations of the user, the actual value of a tomato may still hold a very genuine, yet tangible value in modern society. An argument that may seem to contradict the views by Helgesson et al. (2017), insinuating the impression that valuation may go beyond the idea of doing things a certain way. Building on the theoretical discussion from section 3.2.3 Heuts and Mol (2013) proposes five registers of valuing that may assist the researcher in examining which factors that may be essential to understand how a certain valuation process is constructed. Inspired by the early work of Boltanski and Thévenot (2006 in Heuts & Mol, 2013), Heuts and Mol (2013) developed their concept of five registers of valuing through the process of adapting the research done by Boltanski and Thévenot and their framework of 'economies of worth', to their research field. A process by which they state:

"We shifted from talking about 'worth' (a quality) to foregrounding 'valuing' (an activity) and from 'economies' (that come with a single gradient each) to 'registers' (that indicate a shared relevance, while what is or isn't good in relation to this relevance may differ from one situation to another".

Heuts & Mol, 2013, p. 129

Through understanding the need to adapt to the research context at hand by interpreting the work by Boltanski and Thévenot, Heuts and Mol (2013) argue that although their interpretation may have created the possibility for the concept to be fitting within the context of social practice rather than within economics, a register is still guided by the very data collected by the researcher. As seen in relation to the views by Heuts and Mol, Helgesson and Muniesa (2013) add "what things are worth can be manifold and change- and these values can be conflicting or not, overlapping or not, combine with each other, contradict each other. All, or almost all, depends on the situation of valuation, its purpose, and its means" (Helgesson & Muniesa, 2013, p. 7). This argument further highlight the importance of taking the material collected into consideration and thereby adjusting registers to fit the interpretation suited for the context. A view that is shared by Heuts and Mol (2013) in relation to their definition of the five registers of valuing, to which they state:

"These five registers do not simply jump from our materials. Instead, through careful analysis we distilled them, like a chemist distils chemical components from a mixture. We used a simple distillation techniques: if 'money' was mentioned in our materials a few times, we started using a colour pencil to colour all sentences with an allusions to money with a single colour".

Heuts & Mol, 2013, p. 134

The aforementioned methodological approach applied by Heuts and Mol, shares a similarity by the approach undertaken by the researcher for this paper in order to properly examine the data that was collected. As initially highlighted in section 2.8.1 Charmaz (1983 in Bryman, 2012) in reference to applying coding as a methodological tool, state *"codes serve as shorthand devices to label, separate, compile, and organize data"* (Charmaz, 1983 in Bryman, 2012, p. 568). Where in the research by Heuts and Mol (2013), they would examine and distil their collected materials in order to acquire the following five registers of valuing: monetary, handling, historical time, naturalness and sensual. Each register was labelled on a basis of what their examination of material concluded. Although the five aforementioned registers were created in relation to the valuation of 'what is a good tomato?' and therefore matched that context, the five registers proposed by Heuts and Mol (2013) may be considered somewhat lacking in terms of their

relevance to the question of how the public valuation of the GBR is constructed within the Adani debate. Therefore by acknowledging the views and the work by Heuts and Mol (2013), the researcher proposes five registers of valuing that may be considered more suitable to understand the context of public valuation and the GBR. Through a coding process that were previously discussed in section 2.8.1 the researcher were able to establish a selection of labels within the material collected, which ultimately were implemented into a thematic analysis (see appendix 1). Based on the process of carefully examining the various themes that sprung from the material, it were concluded that the five respective register of valuing were arguably essential to understanding how the public valuation of the GBR was constructed and how Adani fits into this debate.

The first register that sprung from the material was the one entitled '*public*'. This register focuses on how individuals within local communities value The Reef from both a social and cultural perspective, as well as how the influence of Adani and the coal industry may impact the health of the residents that lives in its catchment. Health and environmental impacts on local communities and industries may propose a significant factor in how the GBR is valued by the public, with the report by the Climate Council arguing "*Australia's agricultural industry is vulnerable to worsening extreme weather events, like extreme heat and more severe drought. Coal burning here, or abroad further increases those risks*" (appendix 2). Here the conditions of local industries and businesses such as farmers and sugarcane growers are threatened by the impacts of heavy coal burning, increasing the possibility that the local economy may suffer additionally from the development of the proposed Carmichael aoalmine. A GBR tour operator from Northern Queensland adds to the looming negative influence of the coal industry, saying:

"European reef visitors is routinely raising the issue of Australian government support for the Adani mine as a sign it was "going in the wrong direction" in its policy on climate change – the reef's greatest threat. [...] We've postponed our decision [a \$3m investment in a fourth cruise both] because with the current situation you just don't want to be too exposed".

Tour operator, Northern Queensland, appendix 3

Reflecting on the views previously shared above, it may arguably be of great concern within local communities whether the current handling of the GBR and the Adani and coal influence may have vast impacts on their daily lives, with potentially even raising concerns regarding loss of employment and profits. However the loss of jobs and future for local businesses within both the tourism and agricultural industries, may not be the only distress in how the public value is constructed within the discourse. The report by the Climate Council raises public concerns in relation to the impacts of the coal industry, highlighting the importance of the GBR versus supporting fossil fuels by stating:

"There has been a recent re-emergence of the life threatening 'black lung' (coal workers' pneumoconiosis) in Queensland, with 21 reported cases. [...] The risk of premature death for people living within 50 kilometres of coal-burning power plants can be as much as three to four times that of people living at a greater distance".

# Climate Council, appendix 2

With health being cited as a major factor in terms of acknowledging the impacts of the coal industry and additionally by the proposed Adani Carmichael Coalmine, the public may arguably be concerned about the supposed favouritism of the coal industry by the state and federal government, over the preservation of the GBR and its value to local communities and Australians in general. In the report by Deloitte (2017b) drawing on large quantities of information and statistics collected from Australian citizens, it is argued that the actual public value of the GBR goes far beyond what may be priced from any economic perspective, but rather concludes that the GBR is simple too precious in terms of its multi-social, cultural, environmental and heritage value. In addition Deloitte states:

"The Great Barrier Reef is in Australia's cultural DNA. It is integral to the identity of Australia's Traditional Owners. What's more, its status as one of the seven natural wonders of the world makes it an international asset. In many ways, it hardly seems necessary to quantify its value. The Great Barrier Reef is priceless and we know that there is no replacement".

#### Deloitte, appendix 2

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With the GBR being a world heritage site and additionally being considered as one of the seven natural wonders of the world, its value for both Australians and the international community may be hard to argue against. A concerned member of the aboriginal Jagalingou people adds "we are afraid of being wiped out completely, all memory of our tribe will be erased forever due to mining. If we can't maintain what our forefathers gave us, we will become non-existent. It will be barren wasteland, a cultural genocide" (appendix 3). The public discourse that concerns the GBR highlights the various levels within both the local and international community that may be affected by a lack of conservation of the GBR, with locals within many aspects of society being touched by the risk of the proposed coalmine and current coal burning.

The second register of valuing has to do with 'government'. Both the state and federal government arguably plays a significant role in how the public valuation is constructed. Through communication, policy-making and releasing funds, the government may potentially enforce or hinder various projects that need further investments to grow (Hannam & Knox, 2010). However through the use of political statements and press releases the government may arguably be considered to add to the public value creation of the GBR. In relation to the government's role as a regulator of industries and legislation, the government highlights the value of the GBR in their Reef 2050 Long-Term Sustainability Plan (hereafter referred to as The Reef Plan) by stating:

"The Great Barrier Reef is a place of great significance to its Traditional Owners, the first nation peoples of the area. They maintain a unique and continuing connection to the Reef and adjacent coastal areas. This connection to their land and sea country has sustained Traditional Owners for millennia – spiritually, culturally, socially and economically".

#### Australian Government, appendix 2

The report by the federal government suggests a thorough understanding and assessment of the multifaceted value that the GBR holds for Australians and the rest of the world. Additionally the report is a way of communicating to the public how The Reef is valued from both a more overall perspective concerning the value that exist for various industries operating in and around the reef area, but also the social, cultural and environmental value that all relates to the GBR. With The Reef Plan the government acknowledges the economic benefits of the coal industry but instead

argues that the GBR as a national treasure needs to be prioritised at the highest level and minimize the impacts of both climate change and external influences. Additionally in the government's acknowledgement of the public value of the GBR, the report state "The Great Barrier Reef is strongly valued by the national and international community and is critical to the cultural, economic and social wellbeing of the more than one million people who live in its catchment and to Australians more generally" (appendix 2). Arguably the government aids in constructing that the GBR, first of all, is of great value to the public on various levels within society, highlighting the reasons why The Reef previously were and still is priceless for both Australia and the world. Although the government may be considered aiding in how the public value of the GBR is constructed within the Adani debate due to the government' acknowledgement of The Reef, the construction of public value may even be enhanced due to the government's role in failing to limit the influences of coal companies such as Adani. This means that although the public value is constructed within the debate in a certain way, the lack of action by the government in order to further protect The Reef may enhance the connection to the GBR by the public, with the Climate Council arguing that "opening up the Galilee Basin for coal mining" is completely at odds with protecting Australians, infrastructure, industry and ecosystems" (appendix 2). Additionally Deloitte adds:

"Valuing the GBR is useful for raising public awareness of its importance to our economy, society and environment. It can also assist in policy and planning discussions. In fact, we implicitly value the Reef and other environmental assets as we make a range of economic, business and policy decisions"

Deloitte, appendix 2

This statement by Deloitte may highlight the significant role the government possess in assisting in constructing the public value of the GBR, where the creation of public awareness may be a key component in making people understand the GBR's importance for local communities and industries. However in relation to the previous argument above, the lack of government action may arguably add to the construction of public value of the GBR, with locals realising the importance of The Reef through government inaction, to which executive director of Greenpeace Australia, David Ritter argues *"the balance of power seems loaded against us. First the Queensland premier Annastacia Palaszczuk, and now the prime minister, Malcolm Turnbull, have betrayed both* 

the reef and the trust of the Australian people by snivelling across the seas, pledging allegiance to the Carmichael Coalmine" (appendix 3). NGO's such as Greenpeace and Get Up adds to the construction of the public value of the GBR by communicating what may be considered the public interest and highlighting the lack of will for the government to act. An online user argues:

"Is it any wonder that a majority of Australians oppose the mine? Any jobs created would be greatly offset by the loss of jobs in tourism, due to environmental destruction mainly in the irreplaceable Great Barrier Reef. The only ones who will benefit will be Mr. Adani and the tax having where this shonky operator deposits the \$billions".

Online user comment, appendix 4

The heavy criticism of government inaction by the public, the media and NGO's may ultimately enhance the public value of the GBR within Australia, encouraging more people in and outside the country to participate in the debate. Despite the government's action to protect the reef by developing The Reef Plan, the mistrust and public criticism of the government within the GBR and Adani debate could seem to only strengthen, to which an online user state *"so our government are spending billions on coal subsidies, promoting and supporting more coalmines with infrastructure, and are happy to sacrifice our land and freshwater. It isn't just dumb, it is the very definition of insanity"* (appendix 4).

A third register will have its focus on *'economic'*. The economic aspect sprung from the material collected and additionally possess a factor within the construction of public value concerning the GBR and the Adani debate. In the report by Deloitte it is argued that *"valuing nature in monetary terms can effectively inform policy settings and help industry, government, the scientific community and the wider public understand the contribution of the environment, or in this case the Great Barrier Reef, to the economy and society"* (appendix 2). This statement by Deloitte is in relation to previous statement by Deloitte highlighted earlier in this section, arguing that the GBR may be considered truly priceless due to its multi-social, cultural, environmental and economical value. However the aspect of economy and financial costs poses a significant factor in the minds of the public due, to most investments by government through government funding is found through taxpayer money. This leads into the financial costs concerning Adani and the Carmichael coalmine

project in particular being a substantial criticism point within the public debate, with an online user commenting:

"Australia is littered with environmentally disastrous mining projects that financially beneficial laws allowed companies and directors to simply walk away from, with the environmental mess left to the public. In many cases, environmental restoration never happened. It's absolutely criminal. You can bet that with so many institutions unwilling to finance, this [Carmichael Coalmine] project will fall over and Adani will also walk away from it".

Online user comment, appendix 4

Despite the jobs created within tourism and hospitality as well as the fishing and agricultural industries in and around the GBR, the main concern within the public valuation of the reef within the Adani debate, continues to be the fact that taxpayer money is used in mining projects that do not seem to possess any future sustainability. The government highlights the great benefits provided as a result of existence the GBR but may somewhat in the public eye, fail to address the public interest in terms of The Reef. In critique of the government's inability in serving the needs of the local communities, an online user add "essentially, the Queenslanders, are paying for their land and freshwater to be destroyed, polluted and/or significantly depleted" (appendix 4). This is furthermore stressed in the view of another online user who states "I wonder just how much public money has already been spent on Adani. Any money spent on a clearly irresponsible project that has been demonstrated to be economically unsound must be accounted for and the office holders held directly responsible" (appendix 4). Arguably the government's use of taxpayer money has grown into a substantial public concern with the distance between the public and the state and federal governments growing larger. Delotte highlights the need to interact and adds to the public debate by arguing "while efforts [to save the GBR] to date have been substantial, the significance of the Great Barrier Reef's contribution to the Australian economy, to Australian jobs and its remarkable asset value, strongly indicates the Reef should be given even greater priority by all citizens, businesses and levels of government" (appendix 2).

In a fourth register the construction of the public value within the debate focuses on *'environment'*. By being the world's largest coral reef and one of the seven natural wonders of the

world automatically environmental concerns may present itself within the discourse concerning the GBR, Adani and the coal mining industry. Greenpeace stresses the lack of action by the government in order to protect the GBR from further destruction, with them highlighting the issue in their climate change report, stating *"the recent grant of federal and Queensland state environmental approvals for the Carmichael mega coalmine illustrates the lack of commitment to mitigating climate change and the direct, physical threats to the Reef"* (appendix 2). Additionally in relation to the aforementioned statement, Greenpeace furthermore add *"the Carmichael mega coalmine in the state of Queensland – would generate more CO2 offshore than all of Australia's power stations and all the cars on its roads put together"* (appendix 2). The environmental impact of burning fossil fuels may seem unquestionable, however the proposed coalmine by Adani generates strong concerns within the public discourse of the GBR with both locals, NGO's and scientists in and outside Australia, publicly denouncing the mine and stressing the need to act immediately. Greenpeace furthermore highlights the environmental impacts of the proposed mega mine within the public discourse, criticising the project and the government backing.

"Planned by mining company Adani for the Galilee Basin in Queensland, the proposed Carmichael Coalmine would be the largest coalmine in Australia. The scale of the proposed mine dwarfs many of the world's capital cities. At the full production, the mine would produce 60 million tones of coal year and its annual CO2 footprint would be bigger than the cities of New York and Tokyo".

Greenpeace, appendix 2

The government support and inability to hinder the Adani project face heavy scrutiny with not only the environment facing the threat of climate change but also various industries related to The Reef and its health. A local dive operator in the GBR region states *"overseas tourists have begun to doubt the value of a trip to the ailing Great Barrier Reef and it is getting increasing difficult to "show people what they expect to see"* (appendix 3). Although it already may arguably be an issue that tourism faces a decline despite the Carmichael coalmine not yet been built, the prospect of further impacts to The Reef and its surroundings raises public concerns with journalist Jeff Sparrow from The Guardian arguing *"in reality, the environment's always been a class issue. Climate change will devastate the poor – and the rich and the powerful will barely notice"* (appendix 3).

The fifth and final register concerns the aspect of '*tourism*' within how the public value of the GBR is constructed within the continuing Adani debate. Being a major asset for both the state of Queensland and the Australian economy, tourism provides more jobs and growth to local communities than any other industry in the region (Grech et al., 2016), while furthermore maintaining a role in how the public value of the GBR is constructed and displayed within the public discourse. Tony Fontes, a tour operator in the Whitsunday Islands state:

"The [tourism] industry can only wish it had the influence of the mining lobby when it comes to the decisions that affect the reef. [...] The tourism industry could gain a large amount of sway if they could get their act together and jump and down as a unit. It's just a matter of getting them to operate together, [but] that's like herding a bunch of cats".

Tour operator, appendix 3

Despite the public value of the GBR arguably being closely tied to the tourism industry, given the 64.000 jobs directly related to The Reef and primarily the tourism industry (Deloitte, 2017b), the public debate concerning the GBR seems highly in favour of protecting The Reef, yet Adani somehow have maintain influence on government decision-making. This will be further discussed in section 4.3.2. There may be a lack of public support, at least in the media, for the public and economic value of the tourism industry, which may leave the coal industry with an upper hand in the debate concerning the public value of the potential of tourism industry versus the future of the coal business. A view whom Claire Zwick, a former GBRMPA (Great Barrier Reef Marine Park Authority) boat skipper backs, by which she states "tourism operators have a "pretty weak voice" politically. This is in part because the [tourism] industry is largely made up of small to medium businesses where everybody's working seven days a week and it's really hard to fit in a political agenda" (appendix 3). Within the GBR and Adani debate the value of tourism for the public and the economy is highlighted by NGO's, the media and the government, with criticism of the Adani Carmichael project only continuing to grow from almost all angles, although the state and federal government still maintain their belief that the mega mine is a good investment. An aspect of the debate that may continue to raise confusion within the public discourse.

The five registers of valuing proposed by the researcher arguably all play a significant element in understanding how the public value of the GBR is constructed within the Adani debate. Between the five registers of valuing proposed by Heuts and Mol (2013) and the five registers applied in this paper, there may nevertheless be parallels between studies, despite the research fields differing. However the principles may still be somewhat the same despite the context being different, as it was previously discussed in this paper by Helgesson and Muniesa (2013) in section 3.2.1. Heuts and Mol (2013) highlights 'naturalness' as one of the criteria by which consumers assess a certain value to a tomato. The principle of naturalness lies within the product being in its most natural form and thereby without any interference or manipulation. According to Heuts and Mol (2013) for some consumers it makes the tomato good and thereby worth purchasing, whereas a parallel to this paper, the naturalness in the sense the environment may possess the same public value assessment. As previously discussed, the health of the coral reef are crucial to both the tourism and fishing industry, while additionally playing an important factor for Traditional Owners and the surrounding agricultural industry. Furthermore as suggested by Heuts and Mol (2013), the register entitled 'sensual' by which the visible appeal of tomato may influence the value assessment by the consumer, previously it was discussed that the visible attraction of the GBR also had a substantial impact on the motivation of tourists upon deciding to visit The Reef. The registers of valuing categorized as 'handling' and 'monetary' by Heuts and Mol (2013) may also be considered in relation to the registers 'economic' and 'government' discussed in this paper. 'Handling' refers to the way of physically handling, transporting and stocking tomatoes, whereas 'monetary' relates to the more tangible transactions between buyer and sellers as previously discussed by Wagner (2015) and Carmon and Ariely (2000) in section 3.2.2. As a parallel to this paper 'handling' may be considered in the management and regulation of the state and federal governments, whereas 'monetary' may arguably be connected to the amount of jobs and financial profits created as a consequence of the various industries related to the GBR.

### 4.2.3 Interrelations within the public valuation of GBR

In the previous section Heuts and Mol (2013) argue that their five registers of valuing were defined through a carefully examination of the material collected by the researchers. If certain elements within the materials occurred more than a couple of times, the researchers would note

it as a theme, which ultimately lead into the categorization of the five registers of valuing. However although the registers of valuing may all be valuable factors within the construction of value, Heuts and Mol (2013) argues that *"sometimes, different registers of valuing pull and push in different directions. Then one register may be prioritised over the others, or a compromise may be crafted"* (Heuts & Mol, 2013, p. 134). In order words the different registers of valuing may lead into clashes of different values. In terms of how the public value of the GBR is constructed within the Adani debate, values may clash in how the public perceives the benefits provided by the coal industry in terms of financial profits and jobs created, in comparison to the ones created by the tourism industry. Within the public debate the state government in particular, have stressed the importance of the development of the Carmichael Coalmine due to its ability to create more than 10.000 jobs for Queensland locals (The Guardian, 2017i). However this promise communicated by Queensland premier Anna Palaszczuk have been considered merely somewhat of a false campaign promise, to which an online user states:

"In Queensland, Premier Palaszczuk does not want the Adani Carmichael mine to be stranded, as she could lose 5 or 6 seats that surround the Carmichael mine area at the next election and lose government. That is why she is vehemently sticking to the line that 10.000 jobs will be created, a fake figure apparently postulated by the federal MP, George Christensen, and reinforced by the Turnbull Government".

Online user comment, appendix 4

The clash of values may arguably be somewhat in the amount of jobs created for locals within the Queensland region. As previously mentioned the GBR directly creates 64.000 jobs, which is furthermore divided into both some of the largest Australian companies such as the Qantas Airlines Group, Telstra Telecommunications and the National Australian Bank as well as thousands of jobs created as an effect of the tourism industry (Deloitte, 2017b). However the push and pull factor in terms of conflicting values within the public discourse, comes into play due to the fact that most of the allegedly 10.000 potential jobs will be newly created jobs in a sector that historically have employed un-skilled workers (Grech et al., 2016; Deloitte, 2017b). Despite the media and NGO's such as Greenpeace and Get Up publicly denouncing the promises made by Palaszczuk, arguing that the actual jobs created by the proposed mega mine will only extent to

roughly 10 % of the amount of jobs promised, the public opinions within the Queensland region are still somewhat undecided on the future of the mine project (The Guardian, 2017b).

Another conflict of values within the public valuation of the GBR and the proposed five registers of valuing discussed in this paper, lies within the context of the registers 'tourism' and 'environment'. Although as highlighted previously in this chapter, tourism related to the GBR is considered an enormous financial asset for both Queensland and Australia, by which a vast amount of tour operators, hotels, and transport companies operates along the geographical size of the GBR, the vast amount of human activity in the coastal area and by the coral reef cannot avoid affecting the environment. The government maintains the regulations of how much CO2 the tourism industry and its operators may emit while additionally through taxation guaranteeing that tourists pay a fee to visit the world heritage area as a way of enhancing the GBR's further sustainability (Reef 2050 Long-Term Sustainability Plan, 2015). However there is a public concern among the Traditional Owners that although the huge threat from the global climate change is evident and the massive coal industry arguably affect the state of reef to a greater extent, there is still a concern that the large tourism industry with its many thousands of visitors each year will damage the reef even further (The Conversation, 2017e). David Gschwind, the chief executive from the Queensland Tourism Industry Council shares this concern though maintains the belief that tourism can still prosper, to which he argues: "the reef is often referred to as the canary in the mine shaft and I think we have an opportunity, if not an obligation, to encourage the global community to do the right thing not just to keep the reef alive but to allow us all to continue living on this planet, because the reef is only an indicator of what's in store for all of us if we don't get it right" (appendix 3). Arguably both the coal and the tourism industry influence the GBR to different extents, however one, the tourism industry, may be more forgiven and possibly possess a more profitable, yet sustainable future in relation to the state of the GBR. This may be seen in relation to government actions, though criticised by the public and media as being unable to keep their promise, by which the government through its Reef Plan assures that:

"For the first time, actions across government, industry, Traditional Owners, researchers and the community will be fully integrated to ensure that current and future threats to the reef are addressed in an effective, efficient and appropriate manner. Regional and local approaches, based on both local and expert knowledge, will be central to protecting and managing the Reef's values and the community benefits they support."

Australian Government, appendix 2

The role of the government within the public debate as well as how the government may have an influence in how the public value is constructed, will be further discussed in the next section.

# 4.3 Government influence on the construction of value

# 4.3.1 The government's role and influence on tourism value

According to Holloway (1998 in Hannam & Knox, 2010) tourism industries have grown to maintain essential roles within modern economies to which he states:

"Tourism has moved to the centre of the regimes of planning within national, local and supra-national governments as policymakers have recognised both the potential for income generation and, on the less positive side, environmental damage. Furthermore, a growing feature of the tourism industry is the extent to which businesses and governments work together either to manage the impacts of tourism or to promote or develop tourism in particular destinations".

Holloway, 1998 in Hannam & Knox, 2010, p. 19

In order words tourism have grown into being the worlds largest industry (Hannam & Knox, 2010) by which governments across the globe have realised that tourism as an asset plays a significant part in the economic sustainability of both regions and countries as a whole. Ritchie and Crouch (2013) point out that although some global forces such as climate change and environmental disasters may be somewhat unmanageable or at least unpredictable for the sustainability of tourism industries, other factors such as how the tourism industry is managed through government interactions and regulations may arguably be easier to tackle. Bridgman and Davis (2004 in Dredge & Jenkins, 2007c) argue that governments through the act of policy-making may seek to promote and grow one industry over another based on the government's political philosophy, to which they add "policy is the instrument of governance, the decision that direct public resources in one direction but not another. It is the outcome of the competition between ideas, interests and ideologies that impels our political system" (Bridgman & Davis, 2004 in Dredge

& Jenkins, 2007c, p. 6). However there may be a potential clash between political ideologies and the assessment of what may be considered public interest when the state and federal government of Australia assess the tourism industry related to the GBR and the coal industry. Additionally Kerr (2003 in Hannam & Knox, 2010) add that "governments may enact legislation on tourism issues" but more generally they regulate the wider economic and cultural environments that tourism operates in" (Kerr, 2003 in Hannam & Knox, 2010, p. 19). Within the public debate the government communicates strong support for the Queensland tourism industry and primarily tourism related to the GBR, however the government's attempt to construct the tourism value within the public debate may arguably be somewhat biased by their political belief and agendas. Helgesson and Muniesa (2013) states "value is seen as the outcome of a process of social work and the result of a wide range of activities (from production and combination to circulation and assessment) that aim at making things valuable" (Helgesson & Muniesa, 2013, p. 6). The state and federal government, in their publication of the The Reef Plan, arguably seeks to communicate to the public that they both wish and are going to take action to protect the GBR so that the environment, the local communities, the surrounding industries related to the Reef and the world heritage icon, all will not be impacted further by climate change. In the government's Reef Plan they state:

"Governments, industry and local, regional and global communities will continue to work in partnership to ensure the Reef remains a global icon into the future. [...] The Australian and Queensland governments will ensure that sufficient financial and other resources are available to achieve outcomes. The Australian and Queensland governments have a long history of investing significant resources in protecting and managing the Reef".

Australian Government, appendix 2

In the media the state and federal governments seems to aim to be viewed as strongly environmentally concerned, serving the public interest through its policy-making and strategies that will ensure that the massive tourism industry in the GBR will continue to thrive and that local communities would not be affected with loss of jobs and businesses. However as briefly touched upon previously in this chapter, the government continue to receive heavy criticism by the media and the public for their lack of action towards protecting the GBR, despite their previous promises. This may be seen in relation to the argument made by the government, seeking to communicate to the public a scenario by which the tourism value for both the economy and local communities would not be affected, despite the government allowing the further development of the Adani Carmichael coalmine (The Guardian, 2016a). However this public announcement have faced heavy disapproval from various sides, by which the Climate Council in their report from 2017 states:

"A recent study by The Australia Institute (2016) showed that if coral bleaching persists, tourism areas adjacent to the Great Barrier Reef risk declines in visitors from 2.8 million visitors (2015 figures) to around 1.7 million per year. This is the equivalent of more than \$1 billion in tourism expenditure, which supports around 10,000 tourism jobs in regional Queensland".

### Climate Council, appendix 2

Arguably science demonstrates that the opinion or more so promise made by the government, claiming that local communities and the tourism industry would not be affected by the proposed Carmichael coalmine may seem somewhat unlikely. The valuation of the GBR were made rather clear and arguably fairly unquestionable by Deloitte (2017b), claiming the GBR to possess "a economic, social and icon asset value \$56 billion, supporting 64.000 jobs and contributing \$6.4 billion to the Australian economy" (Deloitte, 2017b, p. 5). The same values that the state and federal governments seeks to communicate to the public upon constructing the tourism value of the GBR. However the valuation of the GBR goes far beyond merely the consideration of financial calculations and employment rates, with the Reef possessing greater public value to local communities, Australians and the rest of the world than even just its tourism value. In the report by Deloitte (2017b) they argue "many of the residents that live in the GBR region use the GBR for recreational activities such as visiting an island, snorkelling, diving, sailing, boating and fishing. The values people attribute to the GBR are their own. They are shaped by life experiences and circumstances that will never be fully known" (appendix 2). This statement by Deloitte may be seen in relation to the view by Jóhanneson et al. (2015 in Ren et al., 2015) arguing that tourism to a continuous greater extent is valued by the connection of industries, actors and various community groups, which traditionally would not normally be considered belonging within the tourism scope. An opinion furthermore shared by Ritchie and Crouch (2003) adding "the competitive (micro) environment is bordered by a number of institutions, organization, groups and individuals that, although not directly part of what we might call 'the industry' [tourism],

nevertheless exert an influence – on the behaviour and practices of those within the industry" (Ritchie & Crouch, 2003, p. 105). The broad public valuation of the GBR may suggest exactly that, which opens up the debate whether the government may or may not deliberately seek to influence the construction of tourism value of the GBR by somewhat merely focusing on the economic and employment aspects of the tourism value. Additionally this may be seen in relation to the arguments by the government suggesting that the current status of the tourism industry would not be affected the slightest by the development of the potentially largest coalmine in Australia and one of the largest in the world. The question however lies within the government's somewhat inability to communicate the public values that lies within the broader levels of the tourism value of the GBR, which as mentioned previously by Jóhanneson et al. (2015 in Ren et al., 2015), is both complex and interrelated across industries and community groups. A view that is shared by Boyer and Polasky (2004), who argues that when constructing and assessing value to nature and environmental resources, a number of those values may not directly be present for the public or government to assess, though those values provided by environmental assets may have a greater influence on the wellbeing of surrounding communities. An opinion to which Carter and Lew (2005 in Ren et al., 2015) add:

"Tourism seems to become ever more entangled. To an increasing degree, tourism is managed and performed in ways that are not separate from, but that connects with, a jumble of everyday practices and concerns. This implies that the value and values of tourism turn into something which never stands alone, but is always negotiated in relation to and co-enacted along with other elements and concerns".

Cartier & Lew, 2005 in Ren et al., 2015, p. 88

With tourism continuously growing into a deep, complex web of numerous actors within community groups, industries and governmental actors, the influence by both state and federal governments on how the tourism value of the GBR is constructed within the public debate, may seem to lack a more nuanced assessment of the tourism value as a whole. Instead the actions and communications made by the governments may suggest an assessment of the value of the GBR prioritised strictly from an economic point of view, with arguably little concern for environmental and social impacts. Concerns that continues to be highlighted in the media and by NGO's, to which Deloitte (2017b) in their multi-valuation report of the GBR argues the importance of the coral reef on many levels beside tourism, by which they state:

"The unique tourism offering of the GBR attracts millions of visitors each year. Tourism is a major industry along the GBR coastline, supporting thousands and boosting regional, state and national income. Commercial fishing and aquaculture industries flourish at the hand of the rich biodiversity of the GBR. These industries are an important source of income for Queensland coastal communities and play a vital role in Australia's seafood industry".

#### Deloitte, appendix 2

The value processes undertaken by the government may suggest other ways of prioritising and interpreting public interest and the serving of public needs, than merely what is argued by experts and various NGO's. With the tourism value of the GBR arguably possessing a larger, more complex public value than what can be assessed through the use of economics, the governments inability to address the needs of the public and the tourism industry by further actions to protect the GBR, may suggest that other government agendas and hidden interest may be present. This element will be further examined in the next section.

#### 4.3.2 Government agendas and hidden interest

Helgesson and Muniesa (2013) argue that not only is value socially constructed as it was discussed in section 3.2.2, it is also a matter of value being either objective or subjective or even to an extent both. Previously in section 3.2.3 Heuts and Mol (2013) stress the need to understand that values constructed by people may somewhat often be multifaceted and overlapping with other values. The value of things or objects may additionally possess multiple values in themselves (Helgesson & Muniesa, 2013). Helgesson and Muniesa (2013) argues that *"what thing are worth can manifold and change- and these values can be conflicting or not, overlapping or not, combine with each other, contradict each other. All, or almost all, depends on the situation of valuation, its purpose, and its means"* (Helgesson & Muniesa, 2013, p. 7). This opinion may ultimately relate to the valuation of the GBR by the state and federal government, which may or may not possess a value assessment of The Reef that is not entirely one-sided. Dredge and Jenkins (2007c) argue that to its core the government, regardless of it being state or federal, serves the purpose of the public by
operating on foundation build to benefit the public interest and attend to the public needs. However Thomas (1994 in Dredge and Jenkins, 2007c) add by arguing that although the government's role is to operate within the public interest, the definition of 'what is public interest' may not be so easy to determine, but instead public interest may be considered the interest of the majority of citizens rather than the entire public (Bramwell & Lane, 2010). Historically the Australian federal government have been strong supporters of the coal industry and the profits of fossil fuels, leading back to the previous Abbott Government Coalition, with von Strokirch (2016) stating "faith in the mining industry as the engine of Australian economic growth and prosperity has persisted in spite of the mining boom ending in the wake of the Global Financial Crisis, slower growth in China and a discernible global shift to cut carbon emissions by reducing coal-fired power and developing renewable energy " (von Strokirch, 2016, p. 25).

The transition into focusing primarily on the development of renewable energy sources and moving away from building the economy on the profits of the fossil fuel industry, have not yet caught the speed that the media, NGO's and the majority of the public had hoped for. The lack of focus on other industries such as the highly profitable tourism industry related to the GBR in order to build the Australian and Queensland economy, have not entirely shifted despite Malcolm Turnbull coming to office. This may be related to the arguments made in the previous section, where the government publicly denounced the idea that the development of the Carmichael coalmine would in any way impact both the neighbouring tourism industry, the environment or even the health of people within local communities. An opinion, that are furthermore backup by the Queensland Liberal National senator Ian Macdonald who state "I struggle to see the connection [why tourist and locals were linking Adani to the state of the reef]" (appendix 3). The political agenda of the state and federal government may somewhat be questionable concerning whether their ideologies seek to serve the public interest and the needs of the Queensland communities, or if hidden agendas such as maximising profits and personal wealth may shadow the government's political judgement. A question that may be difficult to fully answer despite it continuous to be present within the public debate that surrounds the public value of the GBR, the related tourism value and the alleged hidden influence of Adani in the decision-making. Blair Palese, the chief executive of 350.org, a global campaign seeking to fight global warning and

maintains strong critique of the fossil fuel industries, add to the debate "while the Queensland and federal governments remain staunch supporters of this dirty mine, new polling shows the Australian community is angry that \$1bn of public money could be handed to Adani for a mine which will wreck the climate and the Reef" (appendix 3). An opinion furthermore shared by professor Samantha Hepburn at Deakin University in the state of Victoria, who argue "the state government owns the coal resource, but it is a special type of ownership. This is "public resource" ownership, meaning that all decisions made by the state government to exploit much be in the interest of the public as a whole" (appendix 3).

With large majorities of the Australian public being outraged by the government's inability to shut down the Adani project, plus additionally taking into consideration the fairly unquestionable scientific evidence of continuous climate change and the added affect of coal burning, the question may be in why the governments continues to somewhat play on two horses. Additionally the lack of environmental sustainable actions may yet be guestioned, when vast amount of scientific evidence suggest that the GBR and its tourism industry may not survive the development of the Adani mega mine, while additionally that coal and other fossil fuels ultimately will face a downgrade within the global economy. Dredge and Jenkins (2007a) and Ritchie and Crouch (2003) highlights the important social, cultural and economic influence a thriving tourism industry may have on its surrounding communities and may additionally provide great benefits for a sustainable local economy. Herein lies the question why the state and federal governments arguably fail to address the greater tourism value of the GBR and its influence on both Queensland and the rest of Australia, instead of solely highlighting the GBR tourism industry as a profitable business that somewhat is too big to fail. Although as previously discussed in this chapter, the state of the environment within the GBR and the health of the coral reef links directly with the future of the tourism industry and its value for the Australian economy. Multifaceted values to which Dredge and Jenkins (2007c) argue "tourism activity has widespread positive economic consequences and contributes to community well-being and quality of life well beyond the economic benefits enjoyed by local industry. The negative impacts of tourism tend to be localised to individuals or small groups" (Dredge & Jenkins, 2007c, p. 46).

The environmental impacts of tourism within the GBR region may arguably be far less than the impacts of the coal and mining industry along the coast of Queensland. Additionally the tourism

industry in GBR have become heavily legislated and regulated by state and federal governments, by which the CO2 emissions from tour operators operating in the region are closely observed and with tourists obligated to being charged fees for entering the marine park, that equals the amount of \$7 million per year (GBRMPA, 2017) in government revenue. However despite the government's actions in order to influence the construction of tourism value of the GBR in terms of its strategic promises within The Reef Plan and addressing the economic benefits of the GBR to the public, the agendas and value process of the governments may still need to be viewed through a critical lens. This may be seen in relation to the views by Hannam and Knox (2010), who argues that although tourism may be used as a positive and beneficial element in order to build and sustain local communities, governments needs to take into consideration the public needs and maintaining a philosophy that aims to make tourism function in balance with local communities and cultures, without impacting the environment. The political power of governments should rather be focused in order to build more sustainable economics through the potential effects of tourism, while not allowing tourism, despite its economic value and profitable outcomes, impacting the surrounding environment (Bramwell & Lane, 2010).

### 4.3.3 Trade-offs and silences within the public debate

With the media, environmental NGO's and a majority of the public all questioning the state and federal governments close ties to the Adani corporation, the question seems to lie within the case of what are actually being traded-off by the government's support to the Adani project. Furthermore an additional aspect of the debate may arguably be within the concern of what the government and somewhat Adani, deliberately are silencing within the public debate. As previously discussed earlier in section 4.3.1 Helgesson and Muniesa (2013) stresses that value processes may ultimately be overlapping, contradicting and even conflicting. This was previously argued by Heuts and Mol (2013) in section 4.2.3, by which a value may even possess several meanings that may change depending on the circumstances. Although the government adds to the public debate by supporting the conservation of the GBR and its tourism and environmental value, the actions or lack of may argue a different scenario. Greenpeace highlights the concerns by stating that:

"The [reef] 2050 [long-term sustainability] plan only refers to Australia's domestic emissions target and makes a vague commitment to review its emissions targets post-2020. The plan still allows for growth in coastal development and an increase in coal ports and associated dredging activity, which would severely degrade the Reef".

Greenpeace, appendix 2

An argument that may suggest the government's lack of strategy to actually fulfil its promises to the public and the protection of the GBR. However the lack of action towards implementing and sustaining climate promises in terms of the governments own Reef Plan, may not be its only alleged lack of political action with the health impacts of coal burning and fossil fuel pollution to Australians and export communities, ultimately being a critical factor silenced within the public debate. According to the Climate Council the government, in their support and projected public taxpayer funding of the Adani Carmichael coalmine, has deliberately failed to include the extensive health impacts the proposed mega, by which they state *"there is a lack of consistent monitoring of air, water and soil quality at and around Australian coalmines. Furthermore there is a deficiency in research into the effects of coal on Australian communities"* (appendix 2). Additionally in the report by Climate Council they furthermore add:

"A global study of health indicators spanning 40 years and 41 countries found that there are large, hidden health costs associated with coal consumption. [...] In India, to which the coal from Adani's Carmichael mine in Queensland will most likely be exported, an estimated 80,000-115,000 people die from coal pollution each year".

Climate Council, appendix 2.

Arguably there are some rather unquestionable environmental and possible health concerns related to the potential development of the Carmichael Coalmine, which leads to the discussion of why the state and federal government are still publicly supporting the proposed Adani project. Accused of overseas lobbying trip to the Adani headquarters in India, the governments continues to support the mine with the Queensland government declaring the project as 'critical infrastructure (The Guardian, 2017b). Fuelling the debate and arguably adding to the silencing of the debate concerning the health and environmental impacts, Queensland premier Anna

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Palaszczuk states *"all of you [Adani protesters] have jobs, and there are regional Queenslanders that are fighting for jobs. Ten thousand regional jobs"* (appendix 3). An amount of jobs that were highlighted by an online user as being a number completely out of proportions, previously in this chapter.

The lack of leadership by the governments within the valuing processes of the GBR in terms of its public value and its tourism value may arguably be present. The conservation of the GBR and its ability to withstand future climate change may additionally have experienced another, yet temporary setback, when UNESCO failed to list the GBR on their 'in danger list' (The Guardian, 2015). An action that arguably otherwise would have hindered any further dredging, water pollution and mining development in the GBR region. According to several media sources, experts and environmental NGO's, it was an allegedly deliberate action by the government to influence UNESCO to leave out the GBR from the 'in danger list' due to the potential financial losses the government and the economy would face if during so. However by not allowing UNESCO to declare the GBR in danger, instead the government allegedly further allowed the continuous pollution and environmental impacts by the coal industry, which may suggest a lack of attention in what is considered in public interest. By trading-off further environmental destruction and a thereby sustainable future for the tourism industry related to the GBR, current financial gains from the coal business and present profits from the GBR tourism industry were supposedly favoured by the government. Mark Butler from the Australian Labor Party criticised the government for silencing their political influence on the decision within the public debate, by which he state:

"[Malcolm] Turnbull is trying to bury the existence of climate change by getting the Environment Department to eliminate mentions of Australia. Report after report, expert after expert, tells us that the biggest threat to the Great Barrier Reef is climate change. How could UNESCO miss this? They didn't. The government made sure it was left out".

### Appendix 3

With Dredge and Jenkins (2007b) and Lohmann et al. (2009) highlighting the ability governments have to regulate industries while furthermore through policy-making and the implementation of policy instruments, potentially being capable of enhancing the further growth, arguably the state

and federal government supposedly have the ability to intensify their fight against climate change. However according to David Ritter, executive director of Greenpeace Australia, the government are lacking values that transcend into what would serve public needs and additionally what would be in balance with public interest, to which he argue "through its actions and inaction, rhetoric, funding priorities and policy decisions, the Australian government has implicitly pursued the line that it is possible to turn things around for the reef without tackling global warming. This is the big *lie*" (appendix 3). There may arguably be a continued feeling within the debate concerning the public value of the GBR, its tourism value as well as the government influence of Adani, by which not everything is being fully transparent within the actions and communications of the state and federal government towards the public. Dredge and Jenkins (2007b) argue that a government possess a large variety of options in terms of possible policy instruments that they may implement in order to solve potential problems, though the government would need to take into consideration public interest, community aspirations as well as local stakeholders in the form of various industries. Whether the government are attending to public needs and service public interest with their current management of the GBR may arguably continue to be up for further debate.

#### 4.4 Analysis conclusion

The public debate concerning the GBR and the lack of government action, with the potential Adani threat lurking in the horizon, have grown within the last couple of years and may seem to only continue to cause debate, with the debate becoming a global matter. Historically since the management of the previous Abbott Government, the environmental protecting of the GBR and its surroundings have been minimal, with fossil fuels continuing to be somewhat talismanic within the Liberal Party despite Malcolm Turnbull coming to office as Prime Minister. The empirical data indicated that numerous factors were present within how the public value of the GBR were constructed, while furthermore within the empirical data it was found that five registers of valuing distilled from the material, more specially 'Public, Government, Economy, Tourism and Environment' may be strong factors that all share a significant influence in how the public value of GBR is constructed. Criticism directed towards the government from the media, the public and environmental NGO's such as Greenpeace and the Climate Council, highlighted the government's

inability in preserving the GBR, with the arguments stressing the government's deliberate influence on impacting the public value debate concerning the GBR and Adani. It was found that the government holds an essential role in how the tourism value of the GBR is constructed within the public debate, though the empirical data implied that the state and federal government might hold other agendas despite the one to serve the public interest and arguably a more sustainable future. It was explored how the federal government allegedly influenced UNESCO's failed attempt to list the GBR on their 'in danger' list, leaving the environment and the state of the GBR to continuing being vulnerable of impacts from the coal industry and climate change. The empirical material indicated that the state and federal government supposedly silenced certain information within the public debate, by which trade-offs arguably were made risking the health of Australians, the future of the GBR and its related tourism industry, over the support of the development of the Carmichael coalmine and the mining industry.

## **5.** Conclusion

This paper sought to examine how the public and tourism value of the GBR were constructed within the public debate, while additionally exploring the roles and influence of the government and Adani. The public debate concerning the GBR were outlined and discussed, examining how the government's concern of the health of the GBR has shifted after a change of government, although the inability to further protect the GBR are still present. Using theoretical considerations previously discussed in this paper along with applying theoretical framework proposed by Heuts and Mol (2013) the process of how the public value of the GBR is constructed within the Adani debate was examined. By evaluating the materials collected using the methodological approaches chosen for this paper, it was found that a number of occurring themes were essential in the understanding the values present within the public debate. Through an analytical discussion incorporating key quotes from the empirical material, it led to the discovery that the public value of the GBR is to be considered multifaceted, with the GBR maintaining multiple cultural, historic, economic and environmental values, which all influences how the public values the GBR. Furthermore it was discovered that circumstances plays a role in the value assessment of the GBR, with the particular context of the valuation process influencing how people determine value. However if the circumstances change, the value assessment may shift and even become conflicting to other values.

It was found that the state and federal government hold the ability to influence how the public value is constructed within the public debate, as well as how the tourism value of the GBR may be portrayed. It was discovered that the Turnbull Government through its political power regulates the GBR tourism industry, overseeing and recording the CO2 emissions and water pollution by the tourism operators in the coastal region. However after examining the empirical data, it led to the discovery that the state and federal governments have eased the environmental protocols and taxations for the coal industry and Adani, causing outrage within Australia and in the international community. The government portrays the tourism value of the GBR as being a major economic asset to the Australian economy, although it was discovered that the government supposedly considers the GBR tourism industry to be somewhat constant and too big to fail, despite any potential impacts to the environment and the coral reef would prove critical. This may be argued

through discovering that the government allegedly lobbied and influenced UNESCO's decisionmaking, hindering the listing of the GBR as 'in danger', while additionally hiding the government action for the public. In addition the government's strategy to protect the GBR and its future by developing the Reef Plan, may be somewhat lacking viable solutions to actually save the GBR, while additionally the Reef Plan fails to address further coal port development in the region. An argument that may further suggest the alleged close ties between the state and federal government and Adani.

The lack of government action so far towards developing viable solutions to protect the GBR while continuing to cast somewhat unconditional support of the coal industry and the proposed Adani project, arguably leaves the future of the GBR uncertain. Although the previous Abbott government and current government lead by Turnbull both were elected by the public, it may arguably suggest somewhat shortcomings of democracy. With the government not upholding its campaign promises while additionally arguably only looking at the present and not a sustainable future based on what may be in public interest, the uncertain future of the GBR may see itself face three proposed, potential scenarios. The first scenario may be the government ensuring that the GBR is listed as 'in danger', not allowing any further coal and mining development in the region and limiting all human activity in the GBR. A second scenario is allowing the development of the Carmichael coalmine and further investing into the coal and fossil fuel industry, trading-off the state of the environment and the GBR, as well as the profitability of the tourism industry. A third scenario is to follow the path of the present, highlighted by a process of promising to protect the GBR but continuously undermining the environmental protecting, the public interest and regions' tourism industry. As time passes by, the GBR will continue to be destroyed while the government and UNESCO wait on finding a solution to save the GBR without addressing the GBR's real threat; the impact of climate change.

### 6. Future research and implications

As the public debate concerning the future of the GBR continues to evolve, while the potential threat of the proposed Carmichael mine is still present, opportunities for further research into the topic may arguably seem to become ever more relevant. With the research for this paper being primarily undertaken outside the borders of the research field at hand, while furthermore being focused around the qualitative analysis of documents and secondary data, it opens up for the possibility of building on the research for this paper, by studying the topic at the location. With this research relying on information collected through secondary data, future research at the location could expand to qualitative in-depth semi-structured interviews with numerous actors within the GBR region, allowing the researcher to acquire an extended, more localised understanding of how the public values the GBR. As a parallel to the study by Heuts and Mol (2013) titled 'what is a good tomato?', the researchers in their search for the answer to the their question, interviewed actors within all parts of a tomato's life cycle and layers of its use, including growers, sellers, private consumers and professional chefs. Although the theoretical concept by Heuts and Mol (2013) were used within this paper, the research design and methodological approach used in their study may be applied to future research of the public value of the GBR. Through the process of interviewing locals within the GBR region such as tour operates, Traditional Owners, farmers, commercial fisheries, local citizens- and politicians, the possibility of acquiring a stronger, more thorough understanding of how the public values the GBR may be obtainable. The method of personal in-depth interviews with actors within the GBR region, may in addition add information on how the public and individuals assess value to the GBR and how those values may be interrelated or conflicting depending on the circumstances present. However interviewing locals from the GBR region may potentially prove to be challenging, due to the risk of people feeling unsure if the information provided may somehow affect their jobs and reputation within local communities, which ultimately may lead into participants being unwilling to share information. With the GBR continuously being threatened by climate change and impacts to the environment, further research into the subject of the public value of the GBR may assist in further opening up the debate, encouraging the public and international community to put pressure on the government to address the threat of climate change and its impact on the GBR and its future.

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# 8. Appendix

# Appendix 1: Thematic/coding tables

# Table 1

|                   | Public/community/needs | Government/policy/emplo                                   | Economic/monetary/costs |
|-------------------|------------------------|---|-------------------------|
|                   |                        | yment   |                         |
|                   |                        |   |                         |
| Greenpeace:       |                        | Australia represents itself as an overachiever in global  |                         |
| Exporting climate |                        | efforts to combat climate                                 |                         |
| change            |                        | change but despite its<br>commitment to the Paris         |                         |
|                   |                        | Agreement, the rapid                                      |                         |
|                   |                        | growth in its fossil fuel<br>exports show                 |                         |
|                   |                        | Australia's overall                                       |                         |
|                   |                        | contribution to global                                    |                         |
|                   |                        | climate change is getting worse, not better.              |                         |
|                   |                        | With scientists forecasting                               |                         |
|                   |                        | that coral bleaching may                                  |                         |
|                   |                        | become an annual event as global temperatures rise        |                         |
|                   |                        | Australia's climate change                                |                         |
|                   |                        | policy weaknesses have                                    |                         |
|                   |                        | serious implications for the<br>world's natural           |                         |
|                   |                        | environment.  |                         |
|                   |                        | Australia's response to                                   |                         |
|                   |                        | climate change cannot be                                  |                         |
|                   |                        | credible so long as it sends<br>more carbon emissions     |                         |
|                   |                        | abroad than it saves at                                   |                         |
|                   |                        | home.   |                         |
|                   |                        | Unlike much of the world,                                 |                         |
|                   |                        | Australia's government is                                 |                         |
|                   |                        | betting on a bright future<br>for coal, not on structural |                         |
|                   |                        | decline. It is working                                    |                         |
|                   |                        | assiduously to prop up the                                |                         |
|                   |                        | industry and extend its<br>longevity. Australia's aim is  |                         |
|                   |                        | to ride out the downturn,                                 |                         |
|                   |                        | and emerge with an even                                   |                         |
|                   |                        | bigger share of a growing<br>coal market.                 |                         |

| 1 | 1                            |
|---|------------------------------|
|   |                              |
|   | Australia's economic and     |
|   | climate change policies      |
|   | directly contradict the      |
|   | country's international      |
|   | obligations to safeguard     |
|   | the World Heritage-listed    |
|   | Great Barrier Reef. By       |
|   | refusing to acknowledge      |
|   | Australia's contribution to  |
|   | climate change through       |
|   | coal exports and weak        |
|   | domestic emissions           |
|   | reductions policies, the     |
|   | government is choosing to    |
|   | ignore what is known to be   |
|   | the greatest threat to the   |
|   | Great Barrier Reef's         |
|   | survival.                    |
|   |                              |
|   | In spite of this plan [2007  |
|   | climate change action        |
|   | plan], the government has    |
|   | since persistently           |
|   | underplayed the threat to    |
|   | the Reef posed by the        |
|   | export of fossil fuels, the  |
|   | key driver of climate        |
|   | change.                      |
|   |                              |
|   | The 2050 plan only refers    |
|   | to Australia's domestic      |
|   | emissions target and makes   |
|   | a vague commitment to        |
|   | review its emissions targets |
|   | post-2020. The plan still    |
|   | allows for growth in coastal |
|   | development and an           |
|   | increase in coal ports and   |
|   | associated dredging          |
|   | activity, which would        |
|   | severely degrade the Reef.   |
|   |                              |
|   | The recent grant of federal  |
|   | and Queensland state         |
|   | environmental approvals      |
|   | for the Carmichael mega      |
|   | coal mine illustrates the    |
|   | lack of commitment to        |
|   | mitigating climate change    |
|   | and the direct, physical     |
|   | threats to the Reef.         |
|   |                              |
|   | The Australian Government    |

|  |  |   | I |
|--|--|---|---|
|  |  | promotes its Emissions<br>Reduction Fund – an<br>AUD\$2.55 billion program<br>through which it has<br>purchased 92 million<br>tonnes of emission<br>reductions – as the<br>centrepiece of its response<br>to global climate change.<br>Yet, the benefit of these<br>purchases has already been<br>erased 14 times over by the<br>increase in annual coal<br>exports and the resulting<br>emissions since the current<br>government was elected in<br>2013.<br>Although the Australian<br>Government has<br>committed to signing the<br>Paris Agreement, it has yet<br>to outline any meaningful<br>policies for achieving its<br>2030 domestic emissions<br>reduction goal. |   |
| Greenpeace:<br>Double threat to<br>the GBR | Fewer than 7% of<br>Australians believe that<br>funding this [Abbot Point<br>to Carmichael Coalmine<br>line] rail project would be<br>a good use of public<br>money. | The government, however,<br>maintains it is making 'good<br>progress', and stands by its<br>Reef 2050 Plan, which is<br>mainly focused on<br>improving water quality on<br>the Reef. This is despite its<br>own advisors saying the<br>Plan won't work because it<br>fails to address the biggest<br>threat to the Reef—climate<br>change.<br>UNESCO has criticised the<br>Australian Government for<br>not doing enough to<br>protect the Reef.<br>In 2012, UNESCO warned<br>Australia the Great Barrier<br>Reef was under imminent<br>threat and could be listed<br>as 'in danger'. Fears about<br>the Reef were sparked by<br>its deteriorating condition                |   |

|  | and the dangers posed by<br>further coal expansion<br>projects in the area. An 'in<br>danger' listing allows the<br>UNESCO World Heritage<br>Committee to allocate<br>assistance from the World<br>Heritage Fund, but it can<br>also be seen as an<br>embarrassment for the<br>government responsible. In   |  |
|--|---|--|
|  | the case of the Reef, it also<br>has the potential to<br>damage tourism.  |  |
|  | In July 2015, after intense<br>lobbying from the<br>Australian Government,<br>UNESCO placed the Great<br>Barrier Reef on its 'watch<br>list', narrowly avoiding an<br>'in danger' listing.  |  |
|  | The Australian Government<br>remains committed to<br>policies that are fuelling<br>climate change—and killing<br>the Reef. Australia's carbon<br>emissions are increasing<br>and the Australian<br>Government continues to<br>provide billions of dollars in<br>support to the fossil fuel<br>industry, as well as<br>maintaining seemingly<br>unconditional support for<br>the proposed Carmichael<br>coal mine. |  |
|  | In October 2016, the chief<br>of the Great Barrier Reef<br>Marine Park Authority<br>admitted that climate<br>change should have<br>featured more heavily in<br>the Reef 2050 Plan.  |  |
|  | The Northern Australia<br>Infrastructure Facility<br>(NAIF) is currently<br>considering providing a<br>taxpayer-funded loan of up<br>to \$1 billion for a rail line to<br>transport coal from the   |  |

|   |  | proposed Carmichael coal<br>mine to the Abbot Point<br>port for export. The<br>Australian Government has<br>emphasised that the NAIF<br>Board is an 'independent'<br>body, but senators have<br>questioned whether<br>Federal Resources Minister<br>Matt Canavan's public<br>support for the Carmichael<br>project amounts to<br>directing NAIF through the<br>media. Even if the Board is<br>technically independent of<br>government, its members<br>have clear ties to the<br>mining industry, calling into<br>question whether they are<br>truly impartial.  |   |
|---|--|--|---|
| Reef 2050 Long-<br>Term<br>Sustainability<br>plan | Proudly, this massive reef<br>system is loved by<br>Australians and the more<br>than 1.9 million visitors<br>who come to see it each<br>year from across the<br>globe.<br>The Great Barrier Reef is<br>a place of great<br>significance to its<br>Traditional Owners, the<br>first nation peoples of the<br>area. They maintain a<br>unique and continuing<br>connection to the Reef<br>and adjacent coastal<br>areas. This connection to<br>their land and sea country<br>has sustained Traditional<br>Owners for millennia—<br>spiritually, culturally,<br>socially and economically.<br>The Great Barrier Reef is<br>strongly valued by the<br>national and international<br>community and is critical<br>to the cultural, economic | Governments, industry, and<br>local, regional and global<br>communities will continue<br>to work in partnership to<br>ensure the Reef remains a<br>global icon into the future.<br>The Australian and<br>Queensland governments<br>have responded to all<br>recommendations of the<br>World Heritage Committee<br>and indeed have gone<br>further. The Australian<br>Government is placing a<br>permanent ban on disposal<br>in the Great Barrier Reef<br>Marine Park of material<br>from capital dredging<br>projects. The new<br>Queensland Government<br>will legislate to restrict<br>capital dredging for the<br>development of new or<br>expansion of existing port<br>facilities to within the<br>regulated port limits of<br>Gladstone, Hay<br>Point/Mackay, Abbot Point | The Australian and<br>Queensland governments<br>will ensure that sufficient<br>financial and other resources<br>are available to achieve<br>outcomes. The Australian<br>and Queensland<br>governments have a long<br>history of investing<br>significant resources in<br>protecting and managing the<br>Reef. |

| and social wellbeing of<br>the more than one million<br>people who live in its<br>catchment and to<br>Australians more<br>generally.   | and Townsville, and<br>prohibit the sea-based<br>disposal of this dredge<br>material in the Great<br>Barrier Reef World Heritage<br>Area.   |  |
|--|---|--|
| Australia's iconic world<br>heritage sites have a deep<br>resonance in the hearts<br>and minds of local,<br>Australian and<br>international<br>communities. It is in the<br>interests of all that the<br>long-term sustainability<br>of the Reef is assured. | The Australian and<br>Queensland governments<br>acknowledge that<br>successfully protecting<br>Australia's natural<br>environment, including the<br>Reef, is an ongoing<br>obligation—it requires<br>long-term planning and<br>commitment.  |  |
|  | Protecting the Reef's<br>Outstanding Universal<br>Value and its natural<br>integrity and cultural values<br>is a critical priority for the<br>Australian and Queensland<br>governments. This Plan<br>[Reef 2050 sustainability<br>plan] is the governments'<br>commitment to working in<br>partnership with industry<br>and the community to<br>make this happen. |  |
|  | [The government's vision]<br>To ensure the Great Barrier<br>Reef continues to improve<br>on its Outstanding<br>Universal Value every<br>decade between now and<br>2050 to be a natural<br>wonder for each successive<br>generation to come.   |  |
|  | For the first time, actions<br>across government,<br>industry, Traditional<br>Owners, researchers and<br>the community will be fully<br>integrated to ensure that<br>current and future threats<br>to the Reef are addressed<br>in an effective, efficient and<br>appropriate manner.<br>Regional and local<br>approaches, based on both                          |  |

|                                    |   | local and expert<br>knowledge, will be central<br>to protecting and managing<br>the Reef 's values and the<br>community benefits they<br>support. |   |
|------------------------------------|---|---|---|
| Climate Council:<br>Risky business | Developing any new<br>thermal coalmines,<br>particularly of the scale of<br>the Carmichael mine in<br>the Galilee Basin, is<br>fundamentally at odds<br>with protecting<br>Australians from the<br>impacts of climate<br>change.<br>Australia's agricultural<br>industry is vulnerable to<br>worsening extreme<br>weather events, like<br>extreme heat and more<br>severe drought. Coal<br>burning here, or abroad,<br>further increases those<br>risks.<br>Coal is very harmful to<br>human health.<br>Particulate air pollution<br>(fine particles that enter<br>the lungs) caused 4.2<br>million deaths globally in<br>2015. Burning of coal is a<br>major source of<br>particulate air pollution.<br>In India, to which the coal<br>from Adani's Carmichael<br>mine in Queensland will<br>most likely be exported,<br>an estimated 80,000-<br>115,000 people die from<br>coal pollution each year.<br>There has been a recent<br>re-emergence of the life<br>threatening 'black lung'<br>(coal workers' | Developing the Carmichael<br>mine fundamentally<br>undermines any national or<br>state action to tackle<br>climate change.                        | Coal's health impacts cost<br>Australian taxpayers an<br>estimated \$2.6 billion every<br>year.<br>The Carmichael mine is a<br>risky financial investment<br>and promises of economic<br>benefit are overblown.<br>17 major banks worldwide<br>have stated they will not<br>fund the Carmichael mine<br>based on both its lack of<br>economic viability and<br>environmental impact.<br>As the world moves towards<br>a more sustainable, lower<br>carbon economy, company<br>directors who do not<br>properly consider climate<br>change related risks may be<br>held legally liable for<br>breaching their duty of care<br>and due diligence.<br>India's extremely rapid<br>growth in renewables is<br>raising doubts about the<br>long-term market for coal. |

|                              |  | I |  |
|------------------------------|--|---|--|
|                              | pneumoconiosis) in<br>Queensland, with 21<br>reported cases.   |   |  |
|                              | Carmichael coalmine's<br>unlimited water licence<br>will likely affect<br>agriculture water needs.   |   |  |
|                              | The risk of premature<br>death for people living<br>within 50 kilometres of<br>coal-burning power<br>plants can be as much as<br>three to four times that<br>of people living at a<br>greater distance.                                |   |  |
|                              | There is a lack of<br>consistent monitoring of<br>air, water and soil quality<br>at and around Australian<br>coalmines. Furthermore,<br>there is a deficiency in<br>research into the effects<br>of coal on Australian<br>communities. |   |  |
|                              | A global study of health<br>indicators spanning 40<br>years and 41 countries<br>found that there are<br>large, hidden health costs<br>associated with coal<br>consumption.   |   |  |
|                              | Opening up the Galilee<br>Basin for coal mining is<br>completely at odds with<br>protecting Australians,<br>infrastructure, industry<br>and ecosystems.  |   |  |
| Deloitte: What is the price? | The Great Barrier Reef is<br>in Australia's cultural<br>DNA. It is integral to the<br>identity of Australia's<br>Traditional Owners.<br>What's more, its status as<br>one the seven natural<br>wonders of the world                    |   | The Great Barrier Reef has<br>an economic, social and icon<br>asset value of \$56 billion. It<br>supports 64,000 jobs and<br>contributes \$6.4 billion to<br>the Australian economy.<br>Valuing nature in monetary |

| makes it an international   | terms can effectively inform    |
|-----------------------------|---------------------------------|
| asset. In many ways, it     | policy settings and help        |
| hardly seems necessary      | industry, government, the       |
| to quantify its value. The  | scientific community and the    |
| value of the Great Barrier  | wider public understand the     |
| Reef is priceless and we    | contribution of the             |
| know that there is no       | environment, or in this case    |
| replacement.                | the Great Barrier Reef, to the  |
|                             | economy and society.            |
| The annual employment       |                                 |
| supported by the Great      | The Great Barrier Reef          |
| Barrier Reef is more than   | contributed \$6.4 billion in    |
| most of Australia's major   | value added and over 64,000     |
| banks, and many             | jobs to the Australian          |
| corporates including the    | economy in 2015–16 (direct      |
| likes of Qantas and         | and indirect). Most of these    |
| Deloitte Australia.         | jobs came from tourism          |
| Deloitte Australia.         | activities generated by the     |
| So why do people value      | Great Barrier Reef, but there   |
| the Great Barrier Reef?     | were also important             |
| What makes it worth \$56    | economic contributions from     |
| billion? Australians and    | fishing, recreational and       |
| the international           | scientific activities.          |
| community value the         | scientine activities.           |
| Great Barrier Reef for a    | More than the jobs it [the      |
| range of reasons. Some      | GBR] supports and the value     |
| reasons are more            | it adds to the economy each     |
| concrete such as their      | year, the Great Barrier Reef    |
| belief in its importance    | is valued at \$56 billion as an |
| for tourism, while some     | Australian economic, social     |
| are more abstract such as   | and iconic asset.               |
| their belief that Australia |                                 |
| would just not be 'the      | While efforts [to save to       |
| same' without it.           | reef] to date have been         |
|                             | substantial, the significance   |
| Valuing the GBR is useful   | of the Great Barrier Reef's     |
| for raising public          | contribution to the             |
| awareness of its            | Australian economy, to          |
| importance to our           | Australian jobs and its         |
| economy, society and        | remarkable asset value          |
| environment. It can also    | strongly indicates the Reef     |
| assist in policy and        | should be given even greater    |
| planning discussions. In    | priority by all citizens,       |
| fact, we implicitly value   | businesses and levels of        |
| the Reef and other          | government.                     |
| environmental assets as     |                                 |
| we make a range of          | No single Australian natural    |
| economic, business and      | asset contributes as much in    |
| policy decisions.           | terms of brand and icon         |
|                             | value to international          |
| Valuing the GBR's           | perceptions of Brand            |
| benefits to society is not  | Australia as the Great Barrier  |
| to imply it is commodified  | Reef.                           |
| or should be privatised.    |                                 |
|                             |                                 |

|                                 | Because it is a public<br>good, it would not be<br>better protected in a<br>private market<br>environment. Valuation is<br>about the GBR's relative<br>contribution to our<br>wellbeing; like air or food,<br>it is something upon<br>which life depends.  |  |  |
|---------------------------------|--|--|--|
| Experts from<br>online articles | <ul> <li>"European reef visitors is<br/>routinely raising the issue<br/>of Australian government<br/>support for the Adani<br/>mine as a sign it was</li> <li>"going in the wrong<br/>direction" in its policy on<br/>climate change – the<br/>reef's greatest threat",<br/>(John Edmondson, Port<br/>Douglas operator)</li> <li>"I think what's happening<br/>now is some people think<br/>it's just not worth it<br/>because of what they've<br/>seen and read, and that's<br/>offset by other people<br/>that know it's only going<br/>to get worse, and will see<br/>it now." (John<br/>Edmondson, Port Douglas<br/>operator)</li> <li>"We've postponed our<br/>decision [a \$3m<br/>investment in a fourth<br/>cruise boat] because with<br/>the current situation you<br/>just don't want to be too<br/>exposed," (John<br/>Edmondson, Port Douglas<br/>operator)</li> <li>"Most travellers are fairly<br/>wealthy, they're mostly<br/>educated, they're aware<br/>of what's in the media<br/>and those with<br/>knowledge of coral reefs<br/>understand the key threat</li> </ul> | "That decision [dumping<br>three million cubic metres<br>of dredge spoil] has to be a<br>political decision. It is not<br>supported by science at all,<br>and I was absolutely<br>flabbergasted when I<br>heard." (Dr Charlie Veron,<br>Marine scientist)<br>"We're dealing with a<br>World Heritage area, the<br>most important World<br>Heritage area on the<br>planet Our own legislative<br>mandate says 'the long-<br>term protection and<br>conservation of the values',<br>and we're not doing that." -<br>former director, Great<br>Barrier Reef Marine Park<br>Authority<br>"Listing a site as "in<br>danger" can help address<br>threats by, for example,<br>unlocking access to funds or<br>publicity. (journalist, BBC<br>News)<br>"We are taking every action<br>possible to ensure this<br>great wonder of the world<br>stays viable and healthy for<br>future generations to<br>come," (Josh Frydenberg,<br>former environment<br>minister) |  |

|   | to the reef is climate                            | were linking Adani to the                                      |  |
|---|---|--|--|
|   | change. They see support                          | state of the reef]". (Ian                                      |  |
|   | for the Adani mine as                             | Macdonald, Queensland  |  |
|   | counter to moves                                  | Liberal National senator)                                      |  |
|   | towards a lower carbon                            |  |  |
|   | economy" (John                                    | "Tropical Tourism  |  |
|   | Edmondson, Port Douglas                           | North Queensland had sent                                      |  |
|   | operator)   | an email urging its dive                                       |  |
|   |   | operator members by email                                      |  |
|   | "The broader public do                            | to provide a "tsunami" of                                      |  |
|   | not know what to believe                          | good news stories to   |  |
|   | about the reef amid                               | counter bad publicity",  |  |
|   | "sensationalist" media                            | (Joshua Robertson,   |  |
|   | coverage of the bleaching                         | journalist The Guardian)                                       |  |
|   | and responses from an                             | "Within the Liberal party in                                   |  |
|   | industry that had left " a                        | "Within the Liberal party, in<br>particular, fossil fuels have |  |
|   | real gap in advocacy for                          | become talismanic, as that                                     |  |
|   | the reef" on climate                              | parliamentary coal-stroking                                    |  |
|   | change", (John<br>Edmondson, Port Douglas         | session exemplified. If  |  |
|   | operator)   | Islamic State pledged to                                       |  |
|   | σμετατοι  | bomb the Great Barrier   |  |
|   | "Climate change has                               | Reef, the Coalition would                                      |  |
|   | essentially become a class                        | demand soldiers installed                                      |  |
|   | struggle. That's why it                           | on every kilometre of the                                      |  |
|   | now seems depressingly                            | iconic coastline. But  |  |
|   | likely we'll see the reef                         | because the threat's   |  |
|   | slowly dying before our                           | environmental, the   |  |
|   | eyes" (Jeff Sparrow,                              | conservatives see inaction                                     |  |
|   | journalist The Guardian)                          | almost as matter of  |  |
|   |   | principle." (Jeff Sparrow,                                     |  |
|   | "We are afraid of being                           | journalist The Guardian)                                       |  |
|   | wiped out completely, all                         |  |  |
|   | memory of our tribe will                          | "Through its actions and                                       |  |
|   | be erased forever due to                          | inaction, rhetoric, funding                                    |  |
|   | mining. If we can't                               | priorities and policy  |  |
|   | maintain what our                                 | decisions, the Australian                                      |  |
|   | forefathers gave us, we                           | government has implicitly<br>pursued the line that it is       |  |
|   | will become non-existent.                         | possible to turn things  |  |
|   | It will be a barren                               | around for the reef without                                    |  |
|   | wasteland, [an aboriginal]<br>cultural genocide." | tackling global  |  |
|   | (Adrian Burragubba,                               | warming. This is the big                                       |  |
|   | leading member of the                             | lie." David Ritter, CEO,                                       |  |
|   | Jagalingou people).                               | Greenpeace Australia   |  |
|   | DamiPon heablel                                   | Pacific)   |  |
|   | The state government                              |  |  |
|   | owns the coal resource,                           | "We either re-examine the                                      |  |
|   | but it is a special type of                       | current plans for  |  |
|   | ownership. This is "public                        | unrestricted coal exports,                                     |  |
|   | resource" ownership,                              | taking proper account and                                      |  |
|   | meaning that all decisions                        | responsibility for the   |  |
|   | made by the state                                 | resulting greenhouse   |  |
|   |   | emissions, or watch the  |  |
| L |   |  |  |

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|---|---|
| government to exploit it<br>must be in the interest of<br>the public as a whole.<br>(Samantha Hepburn, prof.<br>Deakin University)<br>"While the Queensland<br>and federal governments<br>remain staunch<br>supporters of this dirty<br>mine, new polling shows<br>the Australian community<br>is angry that \$1bn of<br>public money could be<br>handed to Adani for a<br>mine which will wreck the<br>climate and the Reef,"<br>(Blair Palese, chief<br>executive<br>of <b>350.org</b> Australia).<br>The balance of power<br>seems loaded against us.<br>First the Queensland<br>premier, Annastacia<br>Palaszczuk, and now the<br>prime minister, Malcolm<br>Turnbull, have betrayed<br>both the reef and the<br>trust of the Australian<br>people by snivelling<br>across the seas, pledging<br>allegiance to the<br>Carmichael coalmine.<br>(David Ritter, CEO<br>Greenpeace Aus) | reef die" (Prof. Ove Hoegh-<br>Guldberg, University of<br>Queensland)<br>"What the reef needs right<br>now is action, not overseas<br>lobbying trips. To show real<br>action to save the reef, the<br>government should revoke<br>its approval of the world's<br>largest coal port in the<br>Great Barrier Reef at Abbot<br>Point and introduce<br>credible climate policies."<br>(Larissa Waters, Australian<br>Greens senator)<br>"I've spent a lot of my<br>career working<br>internationally, and it's<br>very rare that I would see<br>something like this<br>happening [removing<br>mentions of Australia].<br>Perhaps in the old Soviet<br>Union you would see this<br>sort of thing happening,<br>where governments would<br>quash information because<br>they didn't like it. But not in<br>western democracies. I<br>haven't seen it happen<br>before." (Will Steffen, prof.<br>Australia national<br>university)<br>"[Malcolm] Turnbull is<br>trying to bury the existence<br>of climate change" by<br>getting the Environment<br>Department to eliminate<br>mentions of Australia.<br>Report after report, expert<br>after expert, tells us that<br>the biggest threat to the<br>Great Barrier Reef is<br>climate change. How could<br>UNESCO miss this? They<br>didn't. The Government<br>made sure it was left out."<br>(Mark Butler, Labor party)<br>"Coal is vital for the future |

|                         |   | energy needs of the world,"<br>he said. "So let's have no<br>demonisation of coal. Coal<br>is good for humanity."<br>(Tony Abbott)   |  |
|-------------------------|---|--|--|
| Online user<br>comments | The simple reason we are<br>still pursuing the adani<br>mine is that most people<br>who are against it VOTED<br>FOR IT TO HAPPEN. The<br>simple fact is that, on the<br>whole, we get what we<br>vote for.<br>So our government are<br>spending billions on coal<br>subsidies, promoting and<br>supporting more coal<br>mines with infrastructure,<br>and are happy to sacrifice<br>our land and freshwater.<br>It isn't just dumb, it is the<br>very definition of insanity.<br>Essentially, the<br>Queenslanders are paying<br>for their land and<br>freshwater to be<br>destroyed, polluted<br>and/or significantly<br>depleted. | In Queensland, Premier<br>Palasczuk does not want<br>the Adani Carmichael mine<br>to be stranded, as she<br>could lose 5 or 6 seats that<br>surround the Carmichael<br>mine area at the next<br>election and lose<br>government. That is why<br>she is vehemently sticking<br>to the line that 10000 jobs<br>will be created, a fake<br>figure apparently<br>postulated by the federal<br>Liberal MP, George<br>Christensen, and reinforced<br>by the Turnbull<br>Government.<br>The current government<br>have proven themselves<br>many times over to be<br>untrustworthy, deceitful,<br>and economical with the<br>truth. They are very willing<br>to spend our taxes to<br>subsidise their backers<br>from the fossil fuel<br>industries. Their worldview<br>is incompatible with action<br>to reduce our carbon<br>emissions. | Australia is littered with<br>environmentally disastrous<br>mining projects that<br>financially beneficial laws<br>allowed companies &<br>directors to simply walk<br>away from, with the<br>environmental mess left to<br>the public. In many cases,<br>environmental restoration<br>never happened. It's<br>absolutely criminal. You can<br>bet that with so many<br>institutions unwilling to<br>finance, this project will fall<br>over & Adani will also walk<br>away from.<br>I wonder just how much<br>public money has already<br>been spent on Adani. Any<br>money spent on a clearly<br>irresponsible project that<br>has been demonstrated to<br>be economically unsound<br>must be accounted for and<br>the office holders held<br>directly responsible. |

| Table 2                                    | Tourism/tourism impacts   | Adani/threat of Adani   | Environment/science/cons  |
|--|---|---|---|
|  | Tourismy tourism impacts  | Addin/ threat of Addin  | ervation impacts  |
|  |   |   |   |
| Greenpeace:<br>Exporting climate<br>change |   |   | The Carmichael mega<br>coalmine in the state of<br>Queensland – would<br>generate more CO2<br>offshore than all of<br>Australia's power stations<br>and all the cars on its roads<br>put together.  |
| Greenpeace:                                |   | Planned by mining company   | Despite conceding that  |
| Double threat to                           |   | Adani for the Galilee Basin<br>in Queensland, the   | climate change is the<br>"biggest long-term threat"   |
| the GBR                                    |   | proposed Carmichael coal<br>mine would be the largest<br>coalmine in Australia. The<br>scale of the proposed mine<br>dwarfs many of the world's<br>capital cities. At full<br>production, the mine would<br>produce 60 million tonnes of<br>coal per year and its annual<br>CO2 footprint would be<br>bigger than the cities of New<br>York and Tokyo. The project<br>has been plagued by funding<br>withdrawals and subject to<br>numerous legal challenges,<br>but has received<br>unprecedented support<br>from Australian State and<br>Federal Governments. | to the Reef's health, the<br>Reef 2050 Plan offered little<br>action to kerb the impacts<br>of climate change. The<br>report's main proposals<br>include a ban on dumping<br>dredge from new coal port<br>developments in the Great<br>Barrier Reef Marine Park,<br>\$100m to improve water<br>quality, and reductions in<br>pesticide and sediment<br>pollution. |
| Reef 2050 Long-                            |   |   |   |
| Term                                       |   |   |   |
| Sustainability                             |   |   |   |
| plan                                       |   |   |   |
| Climate Council:<br>Risky business         | Opening up the Galilee<br>Basin undermines other<br>industries, such as |   | If the Galilee Basin were a<br>country on its own, it would<br>emit more than 1.3 times   |

#### Table 2

| tourism and agriculture.    | Australia's current annual emissions from all sources |
|-----------------------------|---|
| Coal expansion will drive   | and rank in the top 15                                |
| further warming of the      | emitting countries in the                             |
| oceans, which increases     | world.  |
| the risk of extreme         |   |
| bleaching to Australia's    | Climate change, driven by                             |
| multi-billion dollar        | greenhouse gas pollution                              |
| tourism asset, the Great    | from burning coal and                                 |
| Barrier Reef.               | other fossil fuels, is                                |
| Burner Reef.                | increasing the severity and                           |
| Climate change driven       | frequency of many extreme                             |
| Climate change, driven      |   |
| largely by greenhouse gas   | weather events in Australia,                          |
| emissions from fossil       | such as heatwaves,                                    |
| fuels, presents a serious   | bushfires and intense                                 |
| challenge to business and   | rainfall.   |
| industry.                   |   |
|                             |   |
| Australia's agriculture and |   |
| tourism industries are      |   |
| highly dependent on a       |   |
| stable climate and are at   |   |
| direct risk of further      |   |
| climate change. In          |   |
| addition, the Carmichael    |   |
| mine has been criticized    |   |
| for competing with          |   |
| agricultural interests for  |   |
| water.                      |   |
| water.                      |   |
| A recent study by The       |   |
| Australia Institute (2016)  |   |
| showed that if coral        |   |
| bleaching persists,         |   |
|                             |   |
| tourism areas adjacent to   |   |
| the Great Barrier Reef risk |   |
| declines in visitors from   |   |
| 2.8 million visitors (2015  |   |
| figures) to around 1.7      |   |
| million per year. This is   |   |
| the equivalent of more      |   |
| than \$1 billion in tourism |   |
| expenditure, which          |   |
| supports around 10,000      |   |
| tourism jobs in regional    |   |
| Queensland                  |   |
|                             |   |
| To protect the Great        |   |
| Barrier Reef and            |   |
| Queensland's tourism        |   |
| industry, rather than       |   |
| opening new coalmines,      |   |
| Australia's focus should    |   |
| be to phase out existing    |   |
|                             |   |

| coalmines well before<br>their reserves are<br>exhausted.<br>The Great Barrier Reef<br>and the millions of<br>tourists it attracts each<br>year is at even greater risk<br>if mining goes ahead.<br>Competition for water<br>from within the mining<br>industry places pressure<br>on the agriculture sector.<br>Furthermore, exploiting<br>the Galilee Basin coal<br>deposits could also drive<br>major local and regional<br>impacts, ranging from<br>groundwater<br>contamination,<br>biodiversity loss, social<br>impacts on local<br>communities, and<br>damages to human<br>health. |   |  |
|---|---|--|
| The unique tourism<br>offering of the GBR<br>attracts millions of visitors<br>each year. Tourism is a<br>major industry along the<br>GBR coastline, supporting<br>thousands of jobs and<br>boosting regional, state<br>and national income.<br>Commercial fishing and<br>aquaculture industries<br>flourish at the hand of the<br>rich biodiversity of the<br>GBR. These industries are<br>an important source of<br>income for Queensland<br>coastal communities and<br>play a vital role in<br>Australia's seafood<br>industry.<br>Many of the residents<br>that live in the GBR region |   |  |
|   | their reserves are<br>exhausted.<br>The Great Barrier Reef<br>and the millions of<br>tourists it attracts each<br>year is at even greater risk<br>if mining goes ahead.<br>Competition for water<br>from within the mining<br>industry places pressure<br>on the agriculture sector.<br>Furthermore, exploiting<br>the Galilee Basin coal<br>deposits could also drive<br>major local and regional<br>impacts, ranging from<br>groundwater<br>contamination,<br>biodiversity loss, social<br>impacts on local<br>communities, and<br>damages to human<br>health.<br>The unique tourism<br>offering of the GBR<br>attracts millions of visitors<br>each year. Tourism is a<br>major industry along the<br>GBR coastline, supporting<br>thousands of jobs and<br>boosting regional, state<br>and national income.<br>Commercial fishing and<br>aquaculture industries<br>flourish at the hand of the<br>rich biodiversity of the<br>GBR. These industries are<br>an important source of<br>income for Queensland<br>coastal communities and<br>play a vital role in<br>Australia's seafood<br>industry. | their reserves are<br>exhausted.<br>The Great Barrier Reef<br>and the millions of<br>tourists it attracts each<br>year is at even greater risk<br>if mining goes ahead.<br>Competition for water<br>from within the mining<br>industry places pressure<br>on the agriculture sector.<br>Furthermore, exploiting<br>the Galilee Basin coal<br>deposits could also drive<br>major local and regional<br>impacts, ranging from<br>groundwater<br>contamination,<br>biodiversity loss, social<br>impacts on local<br>communities, and<br>damages to human<br>health.<br>The unique tourism<br>offering of the GBR<br>attracts millions of visitors<br>each year. Tourism is a<br>major industry along the<br>GBR coastline, supporting<br>thousands of jobs and<br>boosting regional, state<br>and national income.<br>Commercial fishing and<br>aquaculture industries<br>flourish at the hand of the<br>rich biodiversity of the<br>GBR. These industries are<br>an important source of<br>income for Queensland<br>coastal communities and<br>play a vital role in<br>Australia's seafood<br>industry.<br>Many of the residents |

|                 | use the GBR for  |   |   |
|-----------------|--|---|---|
|                 | recreational activities                                  |   |   |
|                 | such as visiting an island,                              |   |   |
|                 | snorkeling, diving, sailing,                             |   |   |
|                 | boating and fishing.                                     |   |   |
|                 | The values people  |   |   |
|                 | attribute to the GBR are                                 |   |   |
|                 | their own. They are                                      |   |   |
|                 | shaped by life experiences                               |   |   |
|                 | and circumstances that                                   |   |   |
|                 | will never be fully known.                               |   |   |
|                 | Australians want their                                   |   |   |
|                 | children and future                                      |   |   |
|                 | generations to be able to                                |   |   |
|                 | visit the GBR and enjoy it.                              |   |   |
|                 | This desire is supported                                 |   |   |
|                 | by a sense of the morality<br>in guaranteeing the future |   |   |
|                 | health of the GBR and an                                 |   |   |
|                 | acknowledgement of the                                   |   |   |
|                 | GBR's importance to the                                  |   |   |
|                 | planet and biodiversity.                                 |   |   |
|                 | The international  |   |   |
|                 | community values the                                     |   |   |
|                 | GBR for a range of                                       |   |   |
|                 | reasons. From a global                                   |   |   |
|                 | perspective, the GBR's                                   |   |   |
|                 | importance to the planet<br>and to biodiversity is       |   |   |
|                 | paramount. The   |   |   |
|                 | sentiment of its universal                               |   |   |
|                 | importance is supported                                  |   |   |
|                 | by a desire for future                                   |   |   |
|                 | generations to be able to                                |   |   |
|                 | visit the GBR.   |   |   |
|                 |  |   |   |
|                 |  |   |   |
| Experts from    | "We don't have an<br>industry without the                | "The Queensland Labor                                   | "Today, our Reef is under threat like never before. |
| online articles | industry without the<br>Barrier Reef being in good       | government has declared<br>the project "critical        | Two consecutive years of                            |
|                 | condition." (Col McKenzie,                               | infrastructure" –                                       | global coral bleaching are                          |
|                 | executive director,                                      | and granted Adani unlimited                             | unprecedented, while                                |
|                 | Association of Marine                                    | water access for the next 60                            | increasingly frequent                               |
|                 | Park Tourism Operators)                                  | years" (Jeff Sparrow,                                   | extreme weather events                              |
|                 |  | journalist The Guardian)                                | and water quality issues                            |
|                 | "Tourist figures are down                                | (All of the family of the                               | continue to affect reef                             |
|                 | 50 per cent in the                                       | "All of you [protesters in                              | health," (Dr John Schubert                          |
|                 | Whitsundays and it is<br>being felt along the            | India critising the Adani<br>mine] have jobs, and there | AO, Chair of the Great<br>Barrier Reef Foundation)  |
|                 | Queensland coast. The                                    | are regional Queenslanders                              | Surrer Reer Foundationy                             |
|                 |  |   |   |

| · · · · · · · · · · · · · · · · · · · |  |   |  |
|---------------------------------------|--|---|--|
|                                       | majority of the operators<br>in Cairns say this is as bad<br>as it was during the global<br>financial crisis", (Col<br>McKenzie, executive<br>director, Association of<br>Marine Park Tourism<br>Operators)<br>"Deloitte's Building the<br>Lucky Country<br>report Positioning for<br>prosperity? Catching the<br>next wave, identified<br>tourism as one of the<br>'Fantastic Five' industries<br>capable of contributing as<br>much as \$25 billion to<br>Australia's economy over<br>the next 20 years." (Clare<br>Harding, Deloitte<br>Managing Partner<br>Financial Advisory)<br>"The potential of tourism<br>as a growth sector is being<br>recognised more and<br>more by business and<br>governments.<br>Understanding the<br>economic drivers shaping<br>and influencing tourism is<br>increasingly important if<br>the significant<br>opportunity presented by<br>the sector's global growth<br>is to be realised by<br>Australia". (Clare Harding,<br>Deloitte Managing | that are fighting for jobs.<br>Ten thousand regional jobs."<br>(Annastacia Palaszczuk,<br>Queensland Premier)<br>"The primary concern is that<br>there are no trigger<br>thresholds or, if you prefer<br>another word, impact<br>thresholds, which require a<br>cessation of mining. The<br>concerns we have are that<br>even at the levels [water<br>supply] they're [Adani]<br>saying they need it's not<br>clear what the impacts<br>would be." (Basha Stasak,<br>campaigner, Australian<br>Conservation Foundation)<br>"Best practice should<br>certainly be addressing<br>some very clear standards<br>around what the impacts<br>will be and being very clear<br>on how they are mitigating<br>against them and where<br>the risks are too high. At<br>minimum Adani should be<br>required to play by the same<br>rules as everyone else and<br>not be given special<br>treatment. We are not<br>talking best practice we are<br>talking minimum standard."<br>(Basha Stasak, campaigner,<br>Australian Conservation<br>Foundation) | "Overseas tourists have<br>begun to doubt the value of<br>a trip to the ailing Great<br>Barrier Reef and it is getting<br>increasingly difficult to<br>"show people what they<br>expect to see"". (Dive<br>operator, at the GBR) |
|                                       | Partner Financial<br>Advisory)<br>"The [tourism] industry<br>"can't afford to lie" by<br>talking up its designated<br>sites and then showing<br>tourists a place where "all<br>the coral's dead and<br>there's nothing but algae.<br>You will not have a<br>business in 12 months.<br>Social media will kill you.<br>We have to tell people<br>what's there." (Col   | "They lobbied politicians<br>from all parties in<br>Queensland to have a<br>special case made for Adani<br>Carmichael, even though<br>other Mega Galilee mines<br>do need to have public<br>submissions and appeals"<br>(Jo-Anne Bragg, chief<br>executive, Environment<br>Defenders  |  |
| 1   | 1  |  |
|---|--|--|
| McKenzie, chief executive                             | Office Queensland)   |  |
| of the Association of                                 |  |  |
| Marine Park Tourism                                   | "Really it's just shocking that                            |  |
| Operators)  | the Queensland community                                   |  |
|   | won't have an opportunity                                  |  |
| "Tourism operators have                               | on the merits to scrutinise                                |  |
| a "pretty weak voice"                                 | this associated water licence                              |  |
| politically. This is in part                          | [given to Adani] with                                      |  |
| because the industry is                               | groundwater experts and                                    |  |
| largely made up of small                              | point out the weaknesses in                                |  |
| to medium businesses                                  | this licence." (Jo-Anne                                    |  |
| where "everybody's                                    | Bragg, chief executive,                                    |  |
| working seven days a                                  | Environment Defenders                                      |  |
| week and it's really hard                             | Office Queensland)   |  |
| to fit in a political                                 | <i>"</i>   |  |
| agenda"" (Claire Zwick, a                             | "It goes completely under                                  |  |
| former GBRMPA boat                                    | the radar," Wilkinson said.                                |  |
| skipper)  | In Australia Adani has not                                 |  |
| (( <b>T</b> ),  | demonstrated that it can                                   |  |
| "The [tourism] industry                               | comply with environmental                                  |  |
| can only wish it had the                              | laws and regulations while                                 |  |
| influence of the mining                               | embarking on a project of                                  |  |
| lobby when it comes to                                | anything like the size and                                 |  |
| decisions that affect the                             | scale of Carmichael. In India                              |  |
| reef" (Tony Fontes, a                                 | Adani has taken on projects                                |  |
| Whitsundays reef tour                                 | of this scale and risk and we                              |  |
| operator)   | know that it has been found                                |  |
| "The terre is a little                                | guilty of serious  |  |
| "The tourism industry                                 | environmental breaches and                                 |  |
| could gain a large amount                             | has a terrible track record in                             |  |
| of sway if they could get                             | its home country." (Ariane                                 |  |
| their act together and                                | Wilkinson, lawyer,   |  |
| jump and down as a unit.                              | Environmental Justice                                      |  |
| It's just a matter of                                 | Australia)   |  |
| getting them to operate                               | "This project [Corrected - ]                               |  |
| together, [but] that's like<br>berding bunch of cats" | "This project [Carmichael<br>coal mine] has been through   |  |
| herding bunch of cats".<br>(Tony Fontes, a            | coal minej has been through<br>extensive scrutiny by state |  |
| Whitsundays reef tour                                 | and federal governments.                                   |  |
|   | The community and many of                                  |  |
| operator)   | these groups have had their                                |  |
| "We [the tourism                                      | say, many times." (Anthony                                 |  |
| industry] should have a                               | say, many times." (Anthony<br>Lynham, Queensland's         |  |
| political voice on behalf of                          | natural resources and mines                                |  |
| the community because                                 | minister)  |  |
| what we defend is a                                   | initiater j  |  |
| public asset," (Daniel                                | "The Queensland  |  |
| Gschwind, chief executive                             | government has granted                                     |  |
| Queensland Tourism                                    | Adani free, unlimited water,                               |  |
| Industry Council).                                    | it has amended water laws                                  |  |
| maasa y councilj.                                     | to stop objections by                                      |  |
| In reality, the                                       | farmers and granted Adani a                                |  |
| environment's always                                  | secret royalties deal," (Peter                             |  |
| been a class issue. Climate                           | McCallum, coordinator,                                     |  |
|   |  |  |
|   |  |  |

|                         | change will devastate the<br>poor – and the rich and<br>the powerful will barely<br>notice." (Jeff Sparrow,<br>journalist The Guardian) | Mackay Conservation<br>Group)<br>"While GetUp!'s [the NGO]<br>focused on spamming<br>people with their conspiracy<br>theories, Adani is focused<br>squarely on delivering an<br>integrated mine, rail and<br>port project that will help<br>deliver more than 10,000<br>direct and indirect jobs in<br>Queensland, billions of<br>dollars of opportunities for<br>small and medium<br>enterprises, and helping<br>prolong the mining boom, in<br>line with the strictest<br>environmental approvals<br>regime on an infrastructure<br>project ever applied in the<br>history of Australia,"<br>(spokesperson, Adani)<br>"People of Queensland are<br>upset about this [putting<br>eight times the legally<br>allowable particulate in<br>water] because they don't<br>want the Adani mine<br>everyone in Airlie Beach is<br>against the mine." (Moira<br>Williams, Stop Adani |  |
|-------------------------|---|---|--|
| Online user<br>comments |   | against the mine." (Moira   |  |

|  | oppose the mine. Any jobs<br>created would be greatly<br>offset by the loss of jobs in<br>tourism, due to<br>environmental destruction<br>mainly in the irreplaceable<br>Great Barrier Reef. The only<br>ones who will benefit will be<br>Adani himself and the tax<br>haven where this shonky<br>operator deposits the<br>\$Billions. |  |
|--|--|--|
|--|--|--|

# **Appendix 2: Data from official documents**

#### **Greenpeace. Exporting Climate Change**

Australia represents itself as an overachiever in global efforts to combat climate change but despite its commitment to the Paris Agreement, the rapid growth in its fossil fuel exports show Australia's overall contribution to global climate change is getting worse, not better.

With scientists forecasting that coral bleaching may become an annual event as global temperatures rise Australia's climate change policy weaknesses have serious implications for the world's natural environment.

Australia's response to climate change cannot be credible so long as it sends more carbon emissions abroad than it saves at home.

Unlike much of the world, Australia's government is betting on a bright future for coal, not on structural decline. It is working assiduously to prop up the industry and extend its longevity. Australia's aim is to ride out the downturn, and emerge with an even bigger share of a growing coal market.

The Carmichael mega coalmine in the state of Queensland – would generate more CO2 offshore than all of Australia's power stations and all the cars on its roads put together.

Australia's economic and climate change policies directly contradict the country's international obligations to safeguard the World Heritage-listed Great Barrier Reef. By refusing to acknowledge Australia's contribution to climate change through coal exports and weak domestic emissions reductions policies, the government is choosing to ignore what is known to be the greatest threat to the Great Barrier Reef's survival.

In spite of this plan [2007 climate change action plan], the government has since persistently underplayed the threat to the Reef posed by the export of fossil fuels, the key driver of climate change.

The 2050 plan only refers to Australia's domestic emissions target and makes a vague commitment to review its emissions targets post-2020. The plan still allows for growth in coastal development and an increase in coal ports and associated dredging activity, which would severely degrade the Reef.

The recent grant of federal and Queensland state environmental approvals for the Carmichael mega coal mine illustrates the lack of commitment to mitigating climate change and the direct, physical threats to the Reef.

The Australian Government promotes its Emissions Reduction Fund – an AUD\$2.55 billion program through which it has purchased 92 million tonnes of emission reductions – as the centrepiece of its response to global climate change. Yet, the benefit of these purchases has

already been erased 14 times over by the increase in annual coal exports and the resulting emissions since the current government was elected in 2013.

Although the Australian Government has committed to signing the Paris Agreement, it has yet to outline any meaningful policies for achieving its 2030 domestic emissions reduction goal.

#### **Climate Council Risky Business**

If the Galilee Basin were a country on its own, it would emit more than 1.3 times Australia's current annual emissions from all sources and rank in the top 15 emitting countries in the world.

Climate change, driven by greenhouse gas pollution from burning coal and other fossil fuels, is increasing the severity and frequency of many extreme weather events in Australia, such as heatwaves, bushfires and intense rainfall.

Developing the Carmichael mine fundamentally undermines any national or state action to tackle climate change.

Opening up the Galilee Basin undermines other industries, such as tourism and agriculture.

Developing any new thermal coalmines, particularly of the scale of the Carmichael mine in the Galilee Basin, is fundamentally at odds with protecting Australians from the impacts of climate change.

Coal expansion will drive further warming of the oceans, which increases the risk of extreme bleaching to Australia's multi-billion dollar tourism asset, the Great Barrier Reef.

Australia's agricultural industry is vulnerable to worsening extreme weather events, like extreme heat and more severe drought. Coal burning here, or abroad, further increases those risks.

Coal is very harmful to human health.

Particulate air pollution (fine particles that enter the lungs) caused 4.2 million deaths globally in 2015. Burning of coal is a major source of particulate air pollution.

In India, to which the coal from Adani's Carmichael mine in Queensland will most likely be exported, an estimated 80,000-115,000 people die from coal pollution each year.

There has been a recent re-emergence of the life threatening 'black lung' (coal workers' pneumoconiosis) in Queensland, with 21 reported cases.

Coal's health impacts cost Australian taxpayers an estimated \$2.6 billion every year.

The Carmichael mine is a risky financial investment and promises of economic benefit are overblown.

17 major banks worldwide have stated they will not fund the Carmichael mine based on both its lack of economic viability and environmental impact.

As the world moves towards a more sustainable, lower carbon economy, company directors who do not properly consider climate change related risks may be held legally liable for breaching their duty of care and due diligence.

To protect Australians from worsening climate impacts, Australia must contribute its fair share to eliminating global greenhouse gas pollution.

Climate change, driven largely by greenhouse gas emissions from fossil fuels, presents a serious challenge to business and industry. As the world transitions to renewables, coal is becoming a risky business, with the possibility of stranded assets and liability for company boards that fail to account for the risks.

India's extremely rapid growth in renewables is raising doubts about the long-term market for coal.

Australia's agriculture and tourism industries are highly dependent on a stable climate and are at direct risk of further climate change. In addition, the Carmichael mine has been criticized for competing with agricultural interests for water.

Carmichael coalmine's unlimited water licence will likely affect agriculture water needs.

A recent study by The Australia Institute (2016) showed that if coral bleaching persists, tourism areas adjacent to the Great Barrier Reef risk declines in visitors from 2.8 million visitors (2015 figures) to around 1.7 million per year. This is the equivalent of more than \$1 billion in tourism expenditure, which supports around 10,000 tourism jobs in regional Queensland

To protect the Great Barrier Reef and Queensland's tourism industry, rather than opening new coalmines, Australia's focus should be to phase out existing coalmines well before their reserves are exhausted.

The risk of premature death for people living within 50 kilometres of coal-burning power plants can be as much as three to four times that of people living at a greater distance.

There is is a lack of consistent monitoring of air, water and soil quality at and around Australian coalmines. Furthermore, there is a deficiency in research into the effects of coal on Australian communities.

A global study of health indicators spanning 40 years and 41 countries found that there are large, hidden health costs associated with coal consumption.

Opening up the Galilee Basin for coal mining is completely at odds with protecting Australians, infrastructure, industry and ecosystems.

The Great Barrier Reef and the millions of tourists it attracts each year is at even greater risk if mining goes ahead. Competition for water from within the mining industry places pressure on the agriculture sector. Furthermore, exploiting the Galilee Basin coal deposits could also drive major local and regional impacts, ranging from groundwater contamination, biodiversity loss, social impacts on local communities, and damages to human health.

#### Reef 2050 Long-Term Sustainability Plan

Governments, industry, and local, regional and global communities will continue to work in partnership to ensure the Reef remains a global icon into the future.

Proudly, this massive reef system is loved by Australians and the more than 1.9 million visitors who come to see it each year from across the globe.

The Australian and Queensland governments have responded to all recommendations of the World Heritage Committee and indeed have gone further. The Australian Government is placing a permanent ban on disposal in the Great Barrier Reef Marine Park of material from capital dredging projects. The new Queensland Government will legislate to restrict capital dredging for the development of new or expansion of existing port facilities to within the regulated port limits of Gladstone, Hay Point/Mackay, Abbot Point and Townsville, and prohibit the sea-based disposal of this dredge material in the Great Barrier Reef World Heritage Area.

The Australian and Queensland governments acknowledge that successfully protecting Australia's natural environment, including the Reef, is an ongoing obligation—it requires long-term planning and commitment.

The Great Barrier Reef is a place of great significance to its Traditional Owners, the first nation peoples of the area. They maintain a unique and continuing connection to the Reef and adjacent coastal areas. This connection to their land and sea country has sustained Traditional Owners for millennia—spiritually, culturally, socially and economically.

The Great Barrier Reef is strongly valued by the national and international community and is critical to the cultural, economic and social wellbeing of the more than one million people who live in its catchment and to Australians more generally.

Australia's iconic world heritage sites have a deep resonance in the hearts and minds of local, Australian and international communities. It is in the interests of all that the long-term sustainability of the Reef is assured. Protecting the Reef 's Outstanding Universal Value and its natural integrity and cultural values is a critical priority for the Australian and Queensland governments. This Plan [Reef 2050 sustainability plan] is the governments' commitment to working in partnership with industry and the community to make this happen.

[The government's vision] To ensure the Great Barrier Reef continues to improve on its Outstanding Universal Value every decade between now and 2050 to be a natural wonder for each successive generation to come.

For the first time, actions across government, industry, Traditional Owners, researchers and the community will be fully integrated to ensure that current and future threats to the Reef are addressed in an effective, efficient and appropriate manner. Regional and local approaches, based on both local and expert knowledge, will be central to protecting and managing the Reef 's values and the community benefits they support.

The Australian and Queensland governments will ensure that sufficient financial and other resources are available to achieve outcomes. The Australian and Queensland governments have a long history of investing significant resources in protecting and managing the Reef.

#### Greenpeace. Double Threat to the GBR

The government, however, maintains it is making 'good progress', and stands by its Reef 2050 Plan, which is mainly focused on improving water quality on the Reef. This is despite its own advisors saying the Plan won't work because it fails to address the biggest threat to the Reef—climate change.

UNESCO has criticised the Australian Government for not doing enough to protect the Reef.

In 2012, UNESCO warned Australia the Great Barrier Reef was under imminent threat and could be listed as 'in danger'. Fears about the Reef were sparked by its deteriorating condition and the dangers posed by further coal expansion projects in the area. An 'in danger' listing allows the UNESCO World Heritage Committee to allocate assistance from the World Heritage Fund, but it can also be seen as an embarrassment for the government responsible. In the case of the Reef, it also has the potential to damage tourism.

In July 2015, after intense lobbying from the Australian Government, UNESCO placed the Great Barrier Reef on its 'watch list', narrowly avoiding an 'in danger' listing.

The Australian Government remains committed to policies that are fuelling climate change—and killing the Reef. Australia's carbon emissions are increasing and the Australian Government continues to provide billions of dollars in support to the fossil fuel industry, as well as maintaining seemingly unconditional support for the proposed Carmichael coal mine.

Despite conceding that climate change is the "biggest long-term threat" to the Reef's health, the Reef 2050 Plan offered little action to kerb the impacts of climate change. The report's main proposals include a ban on dumping dredge from new coal port developments in the Great Barrier Reef Marine Park, \$100m to improve water quality, and reductions in pesticide and sediment pollution.

In October 2016, the chief of the Great Barrier Reef Marine Park Authority admitted that climate change should have featured more heavily in the Reef 2050 Plan.

Planned by mining company Adani for the Galilee Basin in Queensland, the proposed Carmichael coal mine would be the largest coalmine in Australia. The scale of the proposed mine dwarfs many of the world's capital cities. At full production, the mine would produce 60 million tonnes of coal per year and its annual CO2 footprint would be bigger than the cities of New York and Tokyo. The project has been plagued by funding withdrawals and subject to numerous legal challenges, but has received unprecedented support from Australian State and Federal Governments.

The Northern Australia Infrastructure Facility (NAIF) is currently considering providing a taxpayerfunded loan of up to \$1 billion for a rail line to transport coal from the proposed Carmichael coal mine to the Abbot Point port for export. The Australian Government has emphasised that the NAIF Board is an 'independent' body, but senators have questioned whether Federal Resources Minister Matt Canavan's public support for the Carmichael project amounts to directing NAIF through the media. Even if the Board is technically independent of government, its members have clear ties to the mining industry, calling into question whether they are truly impartial.

Fewer than 7% of Australians believe that funding this [Abbot Point to Carmichael Coalmine line] rail project would be a good use of public money.

# Deloitte: What is the price?

The Great Barrier Reef has an economic, social and icon asset value of \$56 billion. It supports 64,000 jobs and contributes \$6.4 billion to the Australian economy.

The Great Barrier Reef is in Australia's cultural DNA. It is integral to the identity of Australia's Traditional Owners. What's more, its status as one the seven natural wonders of the world makes it an international asset. In many ways, it hardly seems necessary to quantify its value. The value of the Great Barrier Reef is priceless and we know that there is no replacement.

Valuing nature in monetary terms can effectively inform policy settings and help industry, government, the scientific community and the wider public understand the contribution of the environment, or in this case the Great Barrier Reef, to the economy and society.

The Great Barrier Reef contributed \$6.4 billion in value added and over 64,000 jobs to the Australian economy in 2015–16 (direct and indirect). Most of these jobs came from tourism

activities generated by the Great Barrier Reef, but there were also important economic contributions from fishing, recreational and scientific activities.

The annual employment supported by the Great Barrier Reef is more than most of Australia's major banks, and many corporates including the likes of Qantas and Deloitte Australia.

More than the jobs it [the GBR] supports and the value it adds to the economy each year, the Great Barrier Reef is valued at \$56 billion as an Australian economic, social and iconic asset.

So why do people value the Great Barrier Reef? What makes it worth \$56 billion? Australians and the international community value the Great Barrier Reef for a range of reasons. Some reasons are more concrete such as their belief in its importance for tourism, while some are more abstract such as their belief that Australia would just not be 'the same' without it.

While efforts [to save to reef] to date have been substantial, the significance of the Great Barrier Reef's contribution to the Australian economy, to Australian jobs and its remarkable asset value strongly indicates the Reef should be given even greater priority by all citizens, businesses and levels of government.

Valuing the GBR is useful for raising public awareness of its importance to our economy, society and environment. It can also assist in policy and planning discussions. In fact, we implicitly value the Reef and other environmental assets as we make a range of economic, business and policy decisions.

Valuing the GBR's benefits to society is not to imply it is commodified or should be privatised. Because it is a public good, it would not be better protected in a private market environment. Valuation is about the GBR's relative contribution to our wellbeing; like air or food, it is something upon which life depends.

The unique tourism offering of the GBR attracts millions of visitors each year. Tourism is a major industry along the GBR coastline, supporting thousands of jobs and boosting regional, state and national income.

Commercial fishing and aquaculture industries flourish at the hand of the rich biodiversity of the GBR. These industries are an important source of income for Queensland coastal communities and play a vital role in Australia's seafood industry.

Many of the residents that live in the GBR region use the GBR for recreational activities such as visiting an island, snorkeling, diving, sailing, boating and fishing. The economic contribution of the GBR to recreation is captured by the expenditure on these types of recreational activities in the GBR region.

Overall, the GBR contributed \$6.4 billion in value added to the Australian economy in 2015–16. Nearly 90% of this economic contribution (approximately \$5.7 billion) was from tourism activities alone. In terms of employment, the GBR supported more than 64,000 full-time jobs in Australia.

Australians and the international community value the GBR for a range of reasons. Some reasons are more concrete such as their belief in its importance for tourism, while some are more abstract such as their belief that Australia would just not 'the same' without it. Needless to say, the values people attribute to the GBR are their own. They are shaped by life experiences and circumstances that will never be fully known.

Australians want their children and future generations to be able to visit the GBR and enjoy it. This desire is supported by a sense of the morality in guaranteeing the future health of the GBR and an acknowledgement of the GBR's importance to the planet and biodiversity.

All in all, there is a belief that Australia would just not be the same without the GBR and this sentiment supports the GBR's total economic, social and icon value.

The international community values the GBR for a range of reasons. From a global perspective, the GBR's importance to the planet and to biodiversity is paramount. The sentiment of its universal importance is supported by a desire for future generations to be able to visit the GBR.

No single Australian natural asset contributes as much in terms of brand and icon value to international perceptions of Brand Australia as the Great Barrier Reef.

### **Appendix 3: Quotes from online news articles**

ABC News (2014). "That decision [dumping three million cubic metres of dredge spoil] has to be a political decision. It is not supported by science at all, and I was absolutely flabbergasted when I heard". (Dr Charlie Veron, Marine scientist)

ABC News (2014). "We're dealing with a World Heritage area, the most important World Heritage area on the planet... Our own legislative mandate says 'the long-term protection and conservation of the values', and we're not doing that." - former director, Great Barrier Reef Marine Park Authority

BBC News (2017). "Listing a site as "in danger" can help address threats by, for example, unlocking access to funds or publicity. (journalist, BBC News)

Reuters (2017). "We are taking every action possible to ensure this great wonder of the world stays viable and healthy for future generations to come," (Josh Frydenberg, former environment minister)

ABC News (2017). "Today, our Reef is under threat like never before. Two consecutive years of global coral bleaching are unprecedented, while increasingly frequent extreme weather events and water quality issues continue to affect reef health," (Dr John Schubert AO, Chair of the Great Barrier Reef Foundation)

ABC News (2017). "We don't have an industry without the Barrier Reef being in good condition." (Col McKenzie, executive director, Association of Marine Park Tourism Operators)

ABC News (2017). "Tourist figures are down 50 per cent in the Whitsundays and it is being felt along the Queensland coast. The majority of the operators in Cairns say this is as bad as it was during the global financial crisis", (Col McKenzie, executive director, Association of Marine Park Tourism Operators)

Deloitte (2017). "Deloitte's Building the Lucky Country report Positioning for prosperity? Catching the next wave, identified tourism as one of the 'Fantastic Five' industries capable of contributing as much as \$25 billion to Australia's economy over the next 20 years." (Clare Harding, Deloitte Managing Partner Financial Advisory)

Deloitte (2017). "The potential of tourism as a growth sector is being recognised more and more by business and governments. Understanding the economic drivers shaping and influencing tourism is increasingly important if the significant opportunity presented by the sector's global growth is to be realised by Australia". (Clare Harding, Deloitte Managing Partner Financial Advisory)

The Guardian (2017). "Overseas tourists have begun to doubt the value of a trip to the ailing Great Barrier Reef and it is getting increasingly difficult to "show people what they expect to see"". (Dive operator, at the GBR)

The Guardian (2017). "European reef visitors is routinely raising the issue of Australian government support for the Adani mine as a sign it was "going in the wrong direction" in its policy on climate change – the reef's greatest threat", (John Edmondson, Port Douglas operator)

The Guardian (2017). "It's nearly the last chance [to see the reef]," (John Edmondson, Port Douglas operator)

The Guardian (2017). "You're getting a creeping increase of people that had a great day – but points out that you could see there was a lot of dead coral" (John Edmondson, Port Douglas operator)

The Guardian (2017). "I think what's happening now is some people think it's just not worth it because of what they've seen and read, and that's offset by other people that know it's only going to get worse, and will see it now." (John Edmondson, Port Douglas operator)

The Guardian (2017). "We've postponed our decision [a \$3m investment in a fourth cruise boat] because with the current situation you just don't want to be too exposed," (John Edmondson, Port Douglas operator)

The Guardian (2017). "I struggle to see the connection [why tourists were linking Adani to the state of the reef]". (Ian Macdonald, Queensland Liberal National senator)

The Guardian (2017). "Most travellers are fairly wealthy, they're mostly educated, they're aware of what's in the media and those with knowledge of coral reefs understand the key threat to the reef is climate change. They see support for the Adani mine as counter to moves towards a lower carbon economy" (John Edmondson, Port Douglas operator)

The Guardian (2017). "If you come from the UK or France or Holland, windmills are a more common thing, renewable energy, much more electric cars – are we deserving of their money as custodians of the reef?" (John Edmondson, Port Douglas operator)

The Guardian (2017). "Politically I'm basically a Liberal voter who gets frustrated that, [on] the right wing of the centre right of politics, basically environmental issues are pushed over to the other side" (John Edmondson, Port Douglas operator)

The Guardian (2017). "The broader public do not know what to believe about the reef amid "sensationalist" media coverage of the bleaching and responses from an industry that had left " a real gap in advocacy for the reef" on climate change", (John Edmondson, Port Douglas operator)

The Guardian (2017). "The reality is that there's been a very dramatic change and a shifting in baseline in a lot of areas. You can still go out and have a fantastic day and the reef is still probably the best-managed reef in the world. But it's an expensive day. It's \$250 [a person] for most boats to go out to the reef and people have got a very high expectation. To give them their value for

money and give them a good product is getting harder and harder because it's harder to get the coral and show people what they expect to see." (John Edmondson, Port Douglas operator)

The Guardian (2017). "Tropical Tourism North Queensland had sent an email urging its dive operator members by email to provide a "tsunami" of good news stories to counter bad publicity", (Joshua Robertson, journalist The Guardian)

The Guardian (2017). "Look, if we get another year of this [mass coral bleaching], we'll be in an absolute world of hurt and I know that," (Col McKenzie, chief executive of the Association of Marine Park Tourism Operators)

The Guardian (2017). "Just 7% of the reef is set aside for tourism. The story being put out there that there's been severe bleaching throughout the whole area: it's just not true." (Col McKenzie, chief executive of the Association of Marine Park Tourism Operators)

The Guardian (2017). "The [tourism] industry "can't afford to lie" by talking up its designated sites and then showing tourists a place where "all the coral's dead and there's nothing but algae. You will not have a business in 12 months. Social media will kill you. We have to tell people what's there." (Col McKenzie, chief executive of the Association of Marine Park Tourism Operators)

The Guardian (2017). "But most of the tourists come back and they've seen this fluorescent coral and they're really excited with how bright and vibrant it is. They don't realise that that fluorescent coral is in the process of being very, very sick." (Col McKenzie, chief executive of the Association of Marine Park Tourism Operators

The Guardian (2017). "While everyone can sit here and say, 'The reef's fine, it can withstand it' – well, yeah, it can, but they're not looking at the big picture." (Claire Zwick, a former GBRMPA boat skipper)

The Guardian (2017). "Tourism operators have a "pretty weak voice" politically. This is in part because the industry is largely made up of small to medium businesses where "everybody's working seven days a week and it's really hard to fit in a political agenda"" (Claire Zwick, a former GBRMPA boat skipper)

The Guardian (2017). "The [tourism] industry can only wish it had the influence of the mining lobby when it comes to decisions that affect the reef" (Tony Fontes, a Whitsundays reef tour operator)

The Guardian (2017). "The tourism industry could gain a large amount of sway if they could get their act together and jump and down as a unit. It's just a matter of getting them to operate together, [but] that's like herding bunch of cats". (Tony Fontes, a Whitsundays reef tour operator)

The Guardian (2017). "The reef is now possibly more famous than Australia. Everybody has heard of it, most people want to come and visit some time, many people report fond memories of it. I

can't readily think of many more iconic landscapes, or seascapes, than the reef." (Daniel Gschwind, chief executive Queensland Tourism Industry Council)

The Guardian (2017). "We are very committed to the conservation of the reef but we clearly also want to make sure that the information and the description of the bleaching is accurate and not deterring visitors from continuing to visit. And also, by the way, not discourage people from continuing to put the effort into conservation and reach the conclusion that all is lost, we might as well give up." (Daniel Gschwind, chief executive Queensland Tourism Industry Council).

The Guardian (2017). "We [the tourism industry] should have a political voice on behalf of the community because what we defend is a public asset," (Daniel Gschwind, chief executive Queensland Tourism Industry Council).

The Guardian (2017). "The reef is often referred to as the canary in the mine shaft and I think we have an opportunity, if not an obligation, to encourage the global community to do the right thing not just to keep the reef alive but to allow us all to continue living on this planet, because the reef is only an indicator of what's in store for all of us if we don't get it right." (Daniel Gschwind, chief executive Queensland Tourism Industry Council).

The Guardian (2017). "Climate change has essentially become a class struggle. That's why it now seems depressingly likely we'll see the reef slowly dying before our eyes" (Jeff Sparrow, journalist The Guardian)

The Guardian (2017). "The chamber responded with loud derision [to a tweet posted by reef scientist Terry Hughes on the state of the reef], as if the grief of a climate scientist constituted some tremendous joke got up for their especial amusement. Amid the jeers and hoots, Liberal frontbencher minister Simon Birmingham mockingly suggested that Whish-Wilson needed a hanky." (Jeff Sparrow, journalist The Guardian)

The Guardian (2017). "The Queensland Labor government has declared the project "critical infrastructure" – and granted Adani unlimited water access for the next 60 years" (Jeff Sparrow, journalist The Guardian)

The Guardian (2017). "In the past, activists sometimes suggested that climate politics transcended the old divisions between left and right. Even the greediest tycoon lived on the same planet as the rest of us. On that basis, the argument went, they could be won over in the fight to preserve it. In reality, the environment's always been a class issue. Climate change will devastate the poor – and the rich and the powerful will barely notice." (Jeff Sparrow, journalist The Guardian)

The Guardian (2017). "The politicians and tycoons with their stock options and property portfolios will still find pleasant locales for their holidays, no matter how degraded the oceans become. They have as little personal stake in combatting climate change as they do in fighting for housing affordability" (Jeff Sparrow, journalist The Guardian)

The Guardian (2017). "Within the Liberal party, in particular, fossil fuels have become talismanic, as that parliamentary coal-stroking session exemplified. If Islamic State pledged to bomb the Great Barrier Reef, the Coalition would demand soldiers installed on every kilometre of the iconic coastline. But because the threat's environmental, the conservatives see inaction almost as matter of principle." (Jeff Sparrow, journalist The Guardian)

ABC News (2017). "All of you [protesters in India critising the Adani mine] have jobs, and there are regional Queenslanders that are fighting for jobs. Ten thousand regional jobs." (Annastacia Palaszczuk, Queensland Premier)

The Guardian (2017). "Climate change is a highly inconvenient truth for nationalism, as it is unsolvable at the national level and requires collective action between states and between different national and local communities." (Andrew Norton, International Institute for Environment and Development)

The Guardian (2017). "As late as the 1960s, the Queensland government saw the reef almost solely as a site for resource extraction, leasing over 20m hectares of it for oil extraction in 1967. At the time, Rhodes Airbridge, a professor of geology from Columbia University explained that the reef should be exploited "immediately and to the hilt"". (Andrew Norton, International Institute for Environment and Development)

The Guardian (2017). "Certainly the severe implications are that if the groundwater is taken, then it's not available for other more long-term or sustainable uses," (Jo-Anne Bragg, chief executive, Environment Defenders Office Queensland)

The Guardian (2017). "The primary concern is that there are no trigger thresholds or, if you prefer another word, impact thresholds, which require a cessation of mining. The concerns we have are that even at the levels [water supply] they're [Adani] saying they need it's not clear what the impacts would be." (Basha Stasak, campaigner, Australian Conservation Foundation)

The Guardian (2017). "Best practice should certainly be addressing some very clear standards around what the impacts will be and being very clear on how they are mitigating against them ... and where the risks are too high. At minimum Adani should be required to play by the same rules as everyone else and not be given special treatment. We are not talking best practice we are talking minimum standard." (Basha Stasak, campaigner, Australian Conservation Foundation)

The Guardian (2017). "They lobbied politicians from all parties in Queensland to have a special case made for Adani Carmichael, even though other Mega Galilee mines ... do need to have public submissions and appeals" (Jo-Anne Bragg, chief executive, Environment Defenders Office Queensland)

The Guardian (2017). "Really it's just shocking that the Queensland community won't have an opportunity on the merits to scrutinise this associated water licence [given to Adani] with groundwater experts and point out the weaknesses in this licence." (Jo-Anne Bragg, chief executive, Environment Defenders Office Queensland)

The Guardian (2017). "It goes completely under the radar. In Australia Adani has not demonstrated that it can comply with environmental laws and regulations while embarking on a project of anything like the size and scale of Carmichael. In India Adani has taken on projects of this scale and risk and we know that it has been found guilty of serious environmental breaches and has a terrible track record in its home country." (Ariane Wilkinson, lawyer, Environmental Justice Australia)

The Guardian (2017). "This project [Carmichael coal mine] has been through extensive scrutiny by state and federal governments. The community and many of these groups have had their say, many times." (Anthony Lynham, Queensland's natural resources and mines minister)

The Guardian (2017). "It broke my heart to see so many corals dying on northern reefs on the Great Barrier Reef in 2016. With rising temperatures due to global warming, it's only a matter of time before we see more of these events. A fourth event after only one year would be a major blow to the reef." (Prof. Terry Hughes, reef scientist)

The Guardian (2017). "The publication of the research [a report authored by 46 reef scientists] comes the same week as Queensland government officials meet with UNESCO officials in Paris to appeal for more time to make good on conservation efforts to ward off an "in-danger" listing for the reef. It also coincides with a visit by the Queensland premier, Annastacia Palaszczuk, to India to lobby Adani to proceed with its mine plan" (Joshua Robertson, journalist, The Guardian)

New York Times (2017). "The sooner we take action on global greenhouse gas emissions and transition away from fossil fuels to renewables, the better." (Prof. Terry Hughes, reef scientist)

New York Times (2017). "In the north, I saw hundreds of reefs — literally two-thirds of the reefs were dying and are now dead. We didn't expect to see this level of destruction to the Great Barrier Reef for another 30 years," (Prof. Terry Hughes, reef scientist)

New York Times (2017). "They [environmental scientists] warned decades ago that the coral reefs would be at risk if human society kept burning fossil fuels at a runaway pace, releasing greenhouse gases that warm the ocean. Emissions continued to rise, and now the background ocean temperature is high enough that any temporary spike poses a critical risk to reefs" (Damian Cave, journalist, New York Times)

New York Times (2017). "The fact is, Australia is the largest coal exporter in the world, and the last thing we should be doing to our greatest national asset is making the situation worse," (Imogen Zethoven, campaign director, Australian Marine Conservation Society)

New York Times (2017). "I don't think the Great Barrier Reef will ever again be as great as it used to be — at least not in our lifetimes," (C. Mark Eakin, reef expert, National Oceanic and Atmospheric Administration)

Gizmodo Australia (2017). "The Queensland government has granted Adani free, unlimited water, it has amended water laws to stop objections by farmers and granted Adani a secret royalties deal," (Peter McCallum, coordinator, Mackay Conservation Group)

Gizmodo Australia (2017). "Rather than considering challenging the measly \$12,000 fine for polluting the Great Barrier Reef coast Adani should begin work immediately to secure its coal terminal from storms and cyclones to avoid repeat pollution of the Reef coast and the Caley Valley Wetlands," (Peter McCallum, coordinator, Mackay Conservation Group)

Sydney Morning Herald (2014). "While GetUp!'s [the NGO] focused on spamming people with their conspiracy theories, Adani is focused squarely on delivering an integrated mine, rail and port project that will help deliver more than 10,000 direct and indirect jobs in Queensland, billions of dollars of opportunities for small and medium enterprises, and helping prolong the mining boom, in line with the strictest environmental approvals regime on an infrastructure project ever applied in the history of Australia," (spokesperson, Adani)

Greenpeace Australia (2016). "Through its actions and inaction, rhetoric, funding priorities and policy decisions, the Australian government has implicitly pursued the line that it is possible to turn things around for the reef without tackling global warming. This is the big lie." David Ritter, CEO, Greenpeace Australia Pacific)

The Guardian (2016). "We either re-examine the current plans for unrestricted coal exports, taking proper account and responsibility for the resulting greenhouse emissions, or watch the reef die" (Prof. Ove Hoegh-Guldberg, University of Queensland)

The Guardian (2017). "People of Queensland are upset about this [putting eight times the legally allowable particulate in water] because they don't want the Adani mine ... everyone in Airlie Beach is against the mine." (Moira Williams, Stop Adani protester)

The Guardian (2017). "The federal government is doing nothing really, and the current programs, the water quality management is having very limited success. It's unsuccessful [...] We've given up. It's been my life managing water quality, we've failed. Even though we've spent a lot of money, we've had no success." (Jon Brodie, water quality expert)

The Guardian (2015). "What the reef needs right now is action, not overseas lobbying trips. To show real action to save the reef, the government should revoke its approval of the world's largest coal port in the Great Barrier Reef at Abbot Point and introduce credible climate policies." (Larissa Waters, Australian Greens senator)

The Guardian (2015). "Tony Abbott [former prime minister of Australia] has spent hundreds of thousands of dollars of taxpayer money on a PR offensive to convince UNESCO delegates that the reef is OK. We wish the government had fixed the problems and removed the threat of coal expansions to the reef rather than using spin to gloss over the problem". (Sebastian Bock, investment campaigner, Greenpeace UK)

The Guardian (2015). "Scientists are warning us that we can have coal expansions or the reef – not both. The reef is on a knife's edge. Putting more pressure on the reef by allowing more coal expansion is unthinkable. The Australian government must halt planned projects like the Carmichael mega-mine and the dredging and dumping at Abbot Point. If the Turnbull government is serious about protecting the reef – as they keep telling the world they are – they should stop any Galilee coal project in its tracks." (Sebastian Bock, investment campaigner, Greenpeace UK)

The Guardian (2015). "We are afraid of being wiped out completely, all memory of our tribe will be erased forever due to mining. If we can't maintain what our forefathers gave us, we will become non-existent. It will be a barren wasteland, [an aboriginal] cultural genocide." (Adrian Burragubba, leading member of the Jagalingou people).

ABC News (2017). "It does show the climate pollution is on the rise, and if I was a cynical person I would say the Government didn't want to release that [a report showing a rise in carbon emissions] until they were forced to," (Kelly O'Shanassy, chief executive, Australian Conservation Foundation)

ABC News (2017). "After being caught out trying to keep pollution data secret, the Government has released the figures and they paint a grim picture," (Adam Bandt, Greens climate change and energy spokesperson)

The Conversation (2017) The state government owns the coal resource, but it is a special type of ownership. This is "public resource" ownership, meaning that all decisions made by the state government to exploit it must be in the interest of the public as a whole. (Samantha Hepburn, prof. Deakin University)

The Guardian (2017). The federal and Queensland governments are **pursuing economic benefits** from the coal in the nearby Galilee Basin. If government revenue from the Great Barrier Reef were increased, it might reduce the need for revenue from elsewhere. (Michael Vardon, prof. Australian national university)

The Guardian (2016). "I've spent a lot of my career working internationally, and it's very rare that I would see something like this happening [removing mentions of Australia]. Perhaps in the old Soviet Union you would see this sort of thing happening, where governments would quash information because they didn't like it. But not in western democracies. I haven't seen it happen before." (Will Steffen, prof. Australia national university)

The Conversation (2016). "[Malcolm] Turnbull is trying to bury the existence of climate change" by getting the Environment Department to eliminate mentions of Australia. Report after report, expert after expert, tells us that the biggest threat to the Great Barrier Reef is climate change. How could UNESCO miss this? They didn't. The Government made sure it was left out." (Mark Butler, Labor party)

The Guardian (2017). "While the Queensland and federal governments remain staunch supporters of this dirty mine, new polling shows the Australian community is angry that \$1bn of public money

could be handed to Adani for a mine which will wreck the climate and the Reef," (Blair Palese, chief executive of **350.org** Australia).

The Guardian (2017). The big lie propagated by Australian government and big business is that it is possible to turn things around for the reef without tackling global warming. As scientists have made clear, it isn't – we have to stop climate pollution to give our reef a chance. (David Ritter, CEO Greenpeace Aus)

The Guardian (2017). The balance of power seems loaded against us. First the Queensland premier, Annastacia Palaszczuk, and now the prime minister, Malcolm Turnbull, have betrayed both the reef and the trust of the Australian people by snivelling across the seas, pledging allegiance to the Carmichael coalmine. All too often, the rest of big business is complicit in the crisis by explicitly or tacitly supporting the coal industry. Financial institutions such as CommBank continue to invest in the fossil fuel projects that are bringing disaster to the reef. (David Ritter, CEO Greenpeace Aus)

The Guardian (2014). "Coal is vital for the future energy needs of the world," he said. "So let's have no demonisation of coal. Coal is good for humanity." (Tony Abbott)

# **Appendix 4: Online user comments**

The simple reason we are still pursuing the adani mine is that most people who are against it VOTED FOR IT TO HAPPEN. The simple fact is that, on the whole, we get what we vote for.

One cannot 'accept responsibility for all that you vote for' when there are only two possible winners that swap every few terms, and that promise to represent everyone, but cannot be held responsible for anything, because all they have to do is wait a few terms. You're wrong in blaming the people. The system limits the outcomes possible.

The \$5 billion Adani Carmichael mine project has been postponed on a number of occasions and staff have been retrenched. It is no longer seen as a strategic project for Adani.

In Queensland, Premier Palasczuk does not want the Adani Carmichael mine to be stranded, as she could lose 5 or 6 seats that surround the Carmichael mine area at the next election and lose government. That is why she is vehemently sticking to the line that 10000 jobs will be created, a fake figure apparently postulated by the federal Liberal MP, George Christensen, and reinforced by the Turnbull Government.

So our government are spending billions on coal subsidies, promoting and supporting more coal mines with infrastructure, and are happy to sacrifice our land and freshwater. It isn't just dumb, it is the very definition of insanity.

Essentially, the Queenslanders are paying for their land and freshwater to be destroyed, polluted and/or significantly depleted.

Australia is littered with environmentally disastrous mining projects that financially beneficial laws allowed companies & directors to simply walk away from, with the environmental mess left to the public. In many cases, environmental restoration never happened. It's absolutely criminal. You can bet that with so many institutions unwilling to finance, this project will fall over & Adani will also walk away from.

I wonder just how much public money has already been spent on Adani. Any money spent on a clearly irresponsible project that has been demonstrated to be economically unsound must be accounted for and the office holders held directly responsible.

The current government have proven themselves many times over to be untrustworthy, deceitful, and economical with the truth. They are very willing to spend our taxes to subsidise their backers from the fossil fuel industries. Their worldview is incompatible with action to reduce our carbon emissions.

This Adani project will be an environmental disaster impacting on the GBR, ground water, local ecology and will destroy tourism jobs and likely create far fewer mining related jobs than the touted 10 000.

Is it any wonder that a majority of Australians oppose the mine. Any jobs created would be greatly offset by the loss of jobs in tourism, due to environmental destruction mainly in the irreplaceable Great Barrier Reef. The only ones who will benefit will be Adani himself and the tax haven where this shonky operator deposits the \$Billions.