The diffusion of green economy strategy in tourism destinations:

A case study of Wakatobi Islands, Indonesia

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Abstract

An emerging body of literature explores the need for the implementation of sustainable tourism and a green economy in tourism destinations. However, the diffusion of green economy strategy to stakeholders remains problematic, in part due to a lack of attention around the ways in which such ideas are communicated within different social and communication systems. As such, this study aims to explore the diffusion and subsequent implementation of green economy in tourism in Wakatobi Islands, Indonesia.

To address these fundamental gaps, this thesis first combines theoretical advances from a green economy framework and diffusion of innovation theory to develop a conceptual framework; and second, uses this framework to guide a case study to allow better understanding of how diffusion of green economy strategy can fill the gap of information transfer about the green economy concept among stakeholders in destination. This research takes a qualitative case study approach. A total of 33 semi-structured interviews and 2 focus group discussions were conducted with Wakatobi tourism stakeholders, including government, businesses, non-government organisations (NGOs), academics and community.

The thesis is structured in three parts. The first part relates to the awareness of stakeholders of green economy strategy in Wakatobi. The proposed framework provides a tool that assists researchers to understand the tourism sector's perceptions around the implementation of the green economy concept. The second part provides empirical findings relating to the drivers and barriers for diffusing green economy strategy in destination. Factors that drive the diffusion consist of four themes, namely: (1) motivation; (2) awareness; (3) social system; and (4) access of information. Findings also show barriers to the diffusion of knowledge around the green economy in destination, namely governance and social and cultural barriers.

The third part explores the channels of communication related to diffusing information about the green economy in Wakatobi. In this part, Rogers' diffusion theory (2003) sheds light on the use of communication channels and other related elements of diffusion in disseminating information about green economy strategy. In turn, findings suggest four channels of communication with the dissemination process of green economy, namely: (1) interpersonal communication; (2) group communication; (3) mass communication; (4) special event communication.

Doctor of Philosophy Declaration

I, Pir Owners, declare that the PhD thesis entitled, The diffusion of a green economy strategy in tourism destination: A case study of Wakatobi Islands, Indonesia is no more than 80,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

I have conducted my research in alignment with the Australian Code for the Responsible Conduct of Research and Victoria University's Higher Degree by Research Policy and Procedures.

All research procedures reported in the thesis were approved by the VU Human Research Ethics Committee HRE-19-041.

Signature Date

1 July 2022

Publications Associated with This Thesis

The research undertaken as part of this thesis has resulted in several publications including:

Conference papers:

Owners, P., DeLacy, T., & Jiang, M. (2019). Transforming a tourism destination into a green economy: A policy analysis of Wakatobi Islands, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 363 (1). https://doi.org/10.1088/1755-1315/363/1/012004

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Chapter 1 Introduction

1.1 Introduction

Sustainability has been a key objective of the tourism industry over the past decade (2020). According to the World Tourism Organisation (2019a), international tourist arrivals reached 1.401 billion in 2018, growing more than two-fold in less than two decades. Tourism demand is projected to reach 1.8 billion tourists in 2030 in terms of international movements, despite the COVID-19 pandemic that had an extremely destructive impact on the tourism and hospitality industry (UNWTO, 2019a). This continuing growth is predicted to contribute to increasing negative social, economic and environmental impacts. For example, global emissions from tourism are predicted to grow by 130% from 2005 to 2035 (Scott, Hall, & Gössling, 2016) and the global carbon footprint of tourism increased from 3.9 to 4.5 global tonnes of carbon (GtCO2e) between 2009 and 2013 (Lenzen et al., 2018).

Sustainable tourism has emerged as a promising way to address negative tourism impacts and maintain long-term viability (Liu, 2003). The sustainable tourism literature is extensive and reports on research, policies, strategies and actions to protect and conserve tourism destinations' natural, cultural and social resources (Huang, Chang, Chung, Yin, & Yen, 2019). Sustainability is crucial in small island tourism to protect and manage important social and ecology components (Kurniawan et al., 2019); for example, to cope with environmental degradation, such as the decrease of mangrove areas, destruction of island habitat, the rise of solid and liquid waste and the degradation of coral reefs and other marine environments (Mai & Smith, 2015).

As global concerns about climate change increase, new conceptual approaches are being advocated, broadly defined as the 'green economy', 'green new deal', 'planetary health', 'green growth' and so on (DeLacy, Jiang, & Lipman, 2014; Griffin & DeLacy, 2002; McGrath & Lipman, 2016; Robinson & Breed, 2019). These approaches argue that the tourism green economy can transform the tourism economy into a more integrative and holistic approach to growth and economic development, environmental protection, low-carbon development, resilience, resource efficiency, ecological sustainability, human well-being, inclusiveness and equity (Alexandra Law, De Lacy, Lipman, & Jiang, 2016). In response, many countries are developing policies, strategies and implementation plans to achieve a tourism green economy transformation. According to Loiseau et al. (2016), South Korea and China are among many

countries that have implemented a green economy strategy in tourism. Recently, the Indonesian government has developed green economy policies to address its aims to achieve sustainable development (UNDP, 2015). The Ministry of Finance developed a green economy strategic plan for 2015–2019, which was part of the implementation of the President's plans to reduce greenhouse gas (GHG) emissions in Indonesia by 26% by 2020 (Bappenas, 2015).

The implementation of sustainable tourism-green economy approaches first requires stakeholders of the tourism destination to understand key concepts and how they can be implemented. As Dabphet, Scott, and Ruhanen (2012) note, to effectively implement sustainable tourism, it is essential to disseminate innovative thinking among key tourism stakeholders. Further, organised communication is a significant step to maintain the visibility of sustainability over the long term (Ziemann, 2011). However, it seems that many destination stakeholders in Indonesia have limited understanding of the sustainable tourism-green economy. Indonesia consists of more than 17,000 islands (Elliot, Mitchell, Manan, & Wismer, 2001; Indonesia, 2021; Soedjak, 2012; Wisesa, 2010) and although high profile tourism destinations, like Bali, have implemented many sustainable tourism-green economy approaches (DeLacy et al., 2014), many newer tourism destinations have not (Khrisnamurti., Utami, & Darmawan, 2016). There is very little literature exploring the reasons for the lack of implementation of sustainable tourism-green economy approaches in Indonesian destinations and detailed knowledge about these concepts and how they can be implemented among destination stakeholders (Febrinastri, 2018; Schumacher et al., 2018).

Using Wakatobi Islands as a case study, this thesis aims to identify, comprehend and assess what might be required to implement sustainable tourism-green economy strategies in tourism destinations, and in particular, understand how sustainable tourism-green economy concepts can be disseminated to destination stakeholders. This research will draw on evidence from sustainable tourism, green economy and diffusion of innovations literature.

1.2 Rationale and Knowledge Gap

Since the 1970s, the need to address the negative impacts of tourism and work towards sustainability has been made prominent (Scott et al., 2016; Vázquez Loaiza, Pérez-Torres, & Díaz Contreras, 2019). According to the UNWTO (2019b), sustainable tourism considers three dimensions of sustainability: (1) to make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological processes and helping to conserve natural heritage and biodiversity; (2) to respect the socio-cultural authenticity of

host communities, conserve their built and living cultural heritage and traditional values, and contribute to inter-cultural understanding and tolerance; (3) to ensure viable, long-term economic operations and provide socio-economic benefits to all stakeholders, which are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, thereby contributing to poverty alleviation. These components of sustainable tourism are intended to reduce the tensions and friction created by the complex interactions between the tourism industry, tourists, the environment and host communities so that the long-term capacity and quality of natural and human resources can be maintained (Bramwell & Lane, 1993). In this way, sustainable tourism is also an important concept in minimising environmental and sociocultural impacts to small island communities with a growing tourism economy (Lim & Cooper, 2009; Smith, 2015). It aims to address the negative impacts caused by tourism activities on local people and their marine and terrestrial resources (Pham-Do & Pham, 2020).

Recently, there has been growing recognition that sustainability in tourism could be approached using the concepts of green travel and tourism economy (Law et al., 2016; Alexandra. Law et al., 2013; UNWTO, 2021). UNWTO (2021) suggests a green travel and tourism economy needs to address biodiversity conservation, climate action, circular economy, governance and finance, public health. and social inclusion. DeLacy et al. (2014) argue that the tourism green economy provides a more integrative and holistic approach to growth and economic development, environmental protection, low-carbon development, resilience, resource efficiency, ecological sustainability, human well-being, inclusiveness and equity.

Indonesia has undertaken a range of green economy policies and strategies (UNDP, 2015), including in tourism. According to the Ministry of National Development Planning (2015), an important step in the Indonesian government's commitment to tackling climate change was initiating the Low Carbon Development Indonesia (LCDI) policy as a reflection of green financial strategies. The Ministry of Tourism Indonesia appeared to also play a part in implementing the policy linked to climate change in tourism sector, commissioning a Green Growth 2050 Roadmap for Bali tourism (DeLacy et al., 2014).

In this research, green economy in tourism is viewed as innovative knowledge that needs to be disseminated to stakeholders in a way that encourages understanding (Coccia, 2007; Dabphet et al., 2012). The diffusion of innovation (sustainability) affects the perceptions of tourism stakeholders (McGrady, 2016). Bell (2014) argued that there is a positive correlation between

the understanding of sustainability in Australian small and medium enterprises and the diffusion of eco-innovation. Similarly, Pitra and Zauskova (2014) contend there exists a correlation between the process of knowledge transfer and innovation activities.

In recent years, there has been a growing body of literature on the implementation of sustainable tourism in Indonesia (Hendrayani & Darmastuti, 2019; Minsaris, Damar, Imran, & Madduppa, 2019; Partelow & Nelson, 2020; Purnomo, Idris, & Kurniawan, 2020). Many researchers have supported the notion that ecotourism offers a pathway towards sustainability in tourism (Choi et al., 2020; Mihardja et al., 2020; Suana et al., 2020). Others have highlighted corporate social responsibility as a significant contributor to sustainable development (Nurlaila et al., 2017; Rahmawati, Jiang, & DeLacy, 2019; Rahmawati, Jiang, Law, Wiranatha, & DeLacy, 2018). However, little attention has been paid to implementation of green economies in tourism destinations.

1.2.1 Wakatobi Islands

Wakatobi is a renowned destination as one of largest nature conservation area and national park in Indonesia (commonly known as Wakatobi National Park, WNP). It is located in eastern Indonesia in Southeast Sulawesi Province. The destination is unique as it consists of four different islands, Wangi-wangi, Kaledupa, Tomia and Binongko, and 97% of this area is covered by ocean (Wakatobi, 2019). Marine resources have been the main attraction of Wakatobi, as it located within the coral triangle, a region with exceptional marine biodiversity (von Heland & Clifton, 2015). Evidence estimates that Wakatobi's marine life is characterised by approximately 900 species and 750 coral reefs (Kodir, Ahmad, & Meiji, 2020). Therefore, diving activities have been the most prominent tourism attraction across the islands (Wisesa, 2010). In 2017, the government of Indonesia listed Wakatobi as one of the top 10 destinations that are projected to replace the renowned hotspot, Bali island (Post, 2017). As a result, the number of visitors coming to Wakatobi increased significantly although it has not yet reached the target of 20 million foreign tourists (Wakatobi, 2019).

According to Minsaris et al. (2019), Wakatobi is a small area that is extremely vulnerable to climate change disruption. They argue that tourism and fishery activities in Wakatobi have led to coral reefs destruction and suggest that the destination should develop a resilience-based coral reef management. However, in terms of the sustainability-green economy in this tourism

system, evidence suggests little action has been taken around sustainability on the island, as few local residents have had sufficient education or experience to participate in sustainable tourism development (Wisesa, 2010). Further, it is evident that the authorities in the destination (Wakatobi National Park Official) have not implemented any meaningful sustainability program (Kodir et al., 2020).

This study adopts a qualitative research approach within the interpretivist tradition and takes a case study approach to gather data from stakeholders across Wakatobi Islands. Research methods involved interviews and group discussions with industry, government and community stakeholders, along with field observations. Data were analysed using a thematic approach using NVivo.

1.3 Study Aims, Research Objectives and Research Questions

This study utilises the diffusion of innovations theory to explore the diffusion of the green economy. It is an exploratory study, with the aim of exploring the diffusion and subsequent implementation of a sustainable tourism and green economy strategy across Wakatobi Island, Indonesia. To achieve this aim and to provide further guidance for the analysis undertaken throughout this research, four objectives were developed, followed by more specific research questions addressing each of these objectives.

Research objective 1: Develop a suitable framework to guide the understanding of how the green economy can be understood and implemented in small, developing tourism destinations.

Research question:

1a. What is a suitable framework to guide understanding of how the green economy can be understood and implemented in small, developing tourism destinations?

Research objective 2: To determine stakeholder awareness of the green economy strategy in Wakatobi.

Research questions:

2a. How do the stakeholders in Wakatobi deal with sustainability issues?

2b. To what extent do the stakeholders in Wakatobi understand the concepts and strategies required to implement a green economy?

Research objective 3: To determine the drivers of, and barriers to, the diffusion of the sustainable tourism-green economy strategy as knowledge or innovation in Wakatobi.

Research questions:

3a. To what extent have drivers to the diffusion of knowledge of green economy concept been addressed by the destination?

3b. To what extent have barriers to diffusion of knowledge of green economy concept been addressed by the destination?

Research objective 4: To identify the channels of communication used to diffuse information and implement the green economy strategy.

Research questions:

4a. What channels might be used for diffusion of information?

4b. What channels were successful in the diffusion of information?

Table 1.1 Aims and Objectives of the Proposed Research

Aim: Explore the diffusion and subsequent implementation of a green economy strategy in Wakatobi Island, Indonesia

Objective 1 :

Develop a suitable framework to guide the understanding of how green economy can be understood and implemented in small, developing tourism destinations.

Research Question (RQ 1)	**Data/Information Required**	**How to collect data**
What is a suitable framework to guide the understanding of how green economy can be understood and implemented in small, developing tourism destinations?	1. Frameworks for implementing green economy in tourism 2. Diffusion theories and models	1. Analysis of academic and grey literature

Objective 2 :

To determine stakeholder awareness of the green economy strategy in Wakatobi.

Research Question (RQ 2)	**Data Required**	**Data collection**

a. How do the stakeholders in Wakatobi deal with sustainability issues? b. To what extent do the stakeholders in Wakatobi understand the concepts and strategies required to implement a green economy?	Stakeholder knowledge	1. Analysis of secondary data 2. In-depth interviews 3. Focus groups 4. Observations

Objective 3:

To determine the drivers and barriers to the diffusion of the sustainable tourism-green economy strategy as knowledge or innovation in Wakatobi.

Research Question (RQ 3)	**Data Required**	**Data collection**
a. To what extent have drivers to the diffusion of knowledge of green economy concept been addressed by the destination? b. To what extent have barriers to diffusion of knowledge of green economy concept been addressed by the destination?	Stakeholder actions	1. Analysis of secondary data 2. In-depth interviews 3. Focus groups 4. Observations

Objective 4:

To identify the channels of communication used to diffuse information and implement the green economy strategy.

Research Question (RQ4)	**Data Required**	**Data collection**
a. What channels might be used for diffusion of information? b. What channels were successful in diffusion of information?	Types of channels that applied to diffuse the sustainable tourism-green economy strategy?	1. In-depth interviews 2. Observations

1.4 Significance of the Research

Knowledge of how to implement green economy strategies has the potential to guide successful planning, improve natural resource management, enhance local community development, improve local livelihoods and assist adaptation to climate change in Wakatobi, Indonesia. This knowledge can inform green economy strategies and a participatory approach to tourism destination management and planning more broadly. The study is expected to benefit the tourism industry in Wakatobi, helping to prepare the community in terms of sustainable tourism

development for the creation of this destination as the ‘next Bali’. It will also explore the role of local community in achieving a green economy in a developing country context. The proposed diffusion of the sustainable tourism-green economy strategy framework will help build new theories and concepts around the green economy in tourism. It will provide better interdisciplinary insights as it overlaps with the diffusion of innovation theory.

This study will support the building of awareness among destination stakeholders, helping them transition towards a green economy pathway. It will also provide essential information for the practice of sustainable tourism development decision-making within local government. Further, the critical review of the seven pillars of the green economy framework in the destination will highlight how a green economy strategy can be implemented to bring growth and economic development.

1.5 Thesis Structure

This thesis aims to bring together current understandings of sustainable tourism, green economy and the diffusion of innovations and explore the implementation of a sustainable tourism-green economy in a small tourism destination. The thesis is structured into nine chapters.

Chapter One introduced the rationale for the study and provided an overview of the research, including research aims and objectives, research questions and the context.

Chapter Two provides a review of the literature relevant to the study, including an overview of the concepts of green economy, sustainable tourism, sustainability and diffusion of innovation. The chapter also reviews existing frameworks in green economy and sustainable tourism and develops a conceptual framework that allows a better understanding of how sustainable tourism-green economy can be implemented. It also presents a proposed framework for this research to address RQ 1.

Chapter Three outlines the research methodology employed by this study. It presents the research design utilised, including the qualitative semi-structured interviews and focus group discussions.

Chapter Four presents the profile of Wakatobi Islands, in Southeast Sulawesi, Indonesia. It overviews the area’s geography, natural resources and biodiversity and describes the social,

economic and political conditions of its four islands, Wangi-wangi, Kaledupa, Tomia and Binongko.

Chapter Five explores stakeholder awareness of green economy strategy in Wakatobi Islands, addressing RQ 2. DeLacy et al. (2014) seven pillars of green economy framework functions as lens to view the application of green economy in Wakatobi.

Chapter Six explores the drivers of and barriers to diffusion of a green economy strategy in Wakatobi. Using the framework of diffusion theory of Rogers (2003), this chapter responds to research objective three, which is to identify drivers for diffusing green economy strategy in Wakatobi, and then assesses how those factors contribute to transmission of knowledge and information around the green economy concept. This chapter also addresses the barriers of diffusion.

Chapter Seven presents channels of communication in diffusing a green economy strategy in Wakatobi. This chapter addresses research objective four, around communication channels associated with the diffusion of sustainable tourism and green economy in Wakatobi Islands. This chapter continues the use of Rogers' diffusion theory, focusing on the element of communication channels.

Chapter Eight discusses the key findings presented in Chapters Five, Six and Seven, and presents implications arising out of these findings.

Chapter 2 Literature Review

2.1 Introduction

This chapter reviews the literature relevant to the thesis, with a focus on sustainability, sustainable tourism, green economy and diffusion theory. First, the concept of sustainability, including the history of sustainable development, the sustainable development goals (SDGs) and the green economy, is overviewed. The second part of this chapter discusses the issue of sustainable tourism. This includes the dimensions of sustainable tourism and the gaps that exist between intentions and implementation. The third section discusses the green economy in tourism, along with the drivers of and barriers to the green economy in tourism. The fourth section argues that the implementation of a green economy into tourism destinations requires the transfer of knowledge to destination stakeholders; diffusion of innovation theory is a key factor that underpins this green economy implementation process. Last, this chapter proposes a conceptual framework that allows a better understanding of how diffusion in innovation theory links to the implementation of the green economy in tourism destinations.

2.2 Sustainability

The concept of sustainability has broadly underpinned the ultimate goal of development, which is to maintain the healthy functioning of the Earth's ecosystems while driving economic growth, employment and poverty eradication (UNDESA, 2012). Sustainability has been argued to be a crucial tool for addressing the problems of negative tourism impacts and maintaining the long-term viability of tourism (Liu, 2003). According to the United Nations (UNDP, 2019), sustainability (also known as sustainable development) should maintain, enhance, and, where necessary, rebuild natural capital as a critical economic asset and as a source of public benefit, especially for poor people whose livelihoods and security depend on nature. By attaining those objectives, the world will transform, to achieve the sustainable development goals and move towards a green economy (UNEP, 2012).

The transition to a greener and more inclusive economy is also key to the agreement among the world's governments around the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs). Governments around the globe agreed to achieve 17

SDGs (see Table 2.1) and 169 targets as a new universal agenda under three pillars of sustainable development: economic, social and environmental

Table 2.1 The 17 Sustainable Development Goals (SDGs)

Goal 1	End poverty in all its forms everywhere.
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture.
Goal 3	Ensure healthy lives and promote well-being for all at all ages.
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all.
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all.
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
Goal 10	Reduce inequality within and among countries.
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable.
Goal 12	Ensure sustainable consumption and production patterns.
Goal 13	Take urgent action to combat climate change and its impacts.
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development.
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reserve land degradation and halt biodiversity loss.
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Goal 17	Strengthen the means of implementation and revitalize the global partnership for sustainable development.

Source: UNWTO, 2019.

Sustainability is not a new concept. It has been applied since the mid-twentieth century when Raymond Dasmann, John Milton and Peter Freeman first published the concept of sustainable development with their Ecological Principles for Economic Development in 1973 (Bramwell & Lane, 1993; Butler, 1991). The importance of sustainability itself has emerged along with the damage to the natural environment caused by industrial and population growth around the world (Bramwell & Lane, 1993). Furthermore, the concept of sustainable development is associated with the 1972 UN Conference in Stockholm on the Human Environment (UN, 1972). How to explicitly achieve sustainability or sustainable development was highlighted by the International Union for the Conservation of Nature and Natural Resources, in its World Conservation Strategy (IUCN, 1980; Liu, 2003). The strategy outlined a form of economic development that cares about the long-term health of people and the planet (Liu, 2003; Shrivastava & Berger, 2010). According to the World Commission on Environment and Development (WCED, 1987, p.15), sustainable development is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".

Unsustainable development arises due to unregulated economic growth (Stabler & Goodall, 1997), and many researchers (Liu, 2003; Wall, 1997) have noted the particular importance of tourism in this regard. Butler (1999) argued that it is important to preserve the viability of tourism for an indefinite period to fulfill the greater good and human needs that tourism brings. As a result, the need to integrate tourism into a sustainable development agenda has become a key priority in the wider efforts towards slowing climate change and its impacts (Gössling, Hall, Ekström, Engeset, & Aall, 2012; Liu, 2003).

Although sustainability has been discussed by many scholars (Lozano-Ramirez et al., 2022; Butowski, 2019), the guidance to achieve it in destination is considered problematic. According to Xu and Sofield (2016), one of the main issues that sustainability needs to deal with is to provide sufficient sustainability principles to be followed. They argue that it is important to provide a pro-active sustainability approach with an integrated environmental concerns to

allow tourism to participate constructively in the national transformation to a sustainable society (Xu & Sofield, 2016).

2.3 Sustainable Tourism

Tourism has been recognised as an industry with both positive and negative impacts. On the positive side, tourism supports the growth of employment and investment (Archer, 1996). However, it has also contributed significantly to a number of environmental and social problems. According to UNWTO (2019a) and the International Transport Forum, transport-related emissions from international tourism are expected to grow 45% (2016–2030) from 458 million tonnes CO_2 in 2016 to 665 million tonnes CO_2 in 2030. Furthermore, Sun, Lenzen, and Liu (2019) forecast that the growth of emissions could reach 3,059 million tonnes (Mt) CO_2 by 2035, which is about a 135% growth compared to 2005 in business-as-usual scenario.

As an attempt to minimise a wide variety of negative social, economic and ecological impacts resulting from tourism activities, the concept of sustainable tourism has the objective of balanced natural and cultural resource management while achieving tourism economic benefits (Liu, 2003; Pan et al., 2018). Sustainable tourism is argued to be necessary to reduce the negative effects of tourism activities on the environment, society and economy and to achieve ecologically sustainable, economically viable, and also ethical and socially-equitable tourism (Streimikiene et al., 2020).

In this field, numerous definitions of sustainable tourism can be found. For instance, Moldoveanu and Neacsu (2018) described sustainable tourism as all forms of activity, management and development of services that preserve natural, economic and social integrity and guarantee the preservation of natural and cultural resources. Bramwell and Lane (1993) argued that sustainable tourism is categorised as an approach that intends to reduce the tensions and friction created by the complex interactions between the tourism industry, visitors, the environment and destination communities. Therefore, it implies that considerable care must be taken to limit growth, to ensure the long-term viability and quality of both natural and human resources. In terms of sustainable development, the UNWTO (2005) defines sustainable tourism development as principles of sustainability that refer to the environmental, economic and socio-cultural aspect of tourism development, and a suitable balance must be established between these three dimensions to guarantee its long-term sustainability.

To encourage greater sustainability in the tourism industry, a wide range of instruments or indicators have been developed by many organisations (Gössling et al., 2012; Sarenac, Rebić, & Bojat, 2019; Whittlesea, Becken, Jago, & Pham, 2019). According to Gössling et al. (2012), there are 10 key instruments for sustainable tourism development based on a study conducted in Norway in 2011. Those criteria are: (1) cultural wealth, (2) physical and cultural integrity of the landscape, (3) biological diversity, (4) clean environment and resource efficiency, (5) local quality of life and social values, (6) local control and commitment, (7) job quality for tourism employees, (8) guest satisfaction and security and quality of experience, (9) economic sustainability and competitive tourism destinations, and (10) economic sustainability and competitive tourism business (see Table 2.2). Similarly, a detailed index incorporating industry conditions, industry perceptions and the future outlook of the industry over time has been proposed to support sustainable tourism development in New South Wales, Australia, (see Table 2.3) (Whittlesea et al., 2019).

Table 2.2 Sustainability Criteria

Conserving nature, environment and culture	**Strengthening social values**	**Economic sustainability**
1. Cultural wealth	5. Local quality of life and social values	9. Economic sustainability and competitive tourism destinations
2. Physical and cultural integrity of the landscape	6. Local control and commitment	10. Economic sustainability and competitive tourism business
3. Biological diversity	7. Job quality for tourism employees	
4. Clean environment and resource efficiency	8. Guest satisfaction and security; quality of experience	

Source: Gossling et al. (2012, p. 906).

Table 2.3 New South Wales – Visitor Economy Index

Industry conditions	**Industry perceptions**	**Leading data sets**
1. Current capacity and utilisation	5. Economic conditions and role of government	8. Tour bookings
2. Shortages of skills and supply chain limits	6. Hiring, skills and investment intentions	9. Airlines/flights booked

3. Visitors' lengths of stay	7. Indicator of investment programs	10. Accommodation bookings
4. Retail sales and growth		11. Industry sentiment and perceptions

Source: A new indicator framework for Australia's Visitor Economy (Whittlesea et al., 2019).

According to Cater (1995), the focus of sustainable tourism is on the quality of life of the local community, the needs of tourists and the protection of the environment. The implementation of sustainable tourism in tourist destinations is seen to have a positive correlation with the rising income of the locals (Bramwell & Lane, 1993). Also, tourists have greater satisfaction with destinations that perform sustainable tourism, from ensuring sustainable waste management to preserving cultural tourism resources (Chong & Balasingam, 2019; Schianetz, Kavanagh, & Lockington, 2007).

Although sustainable tourism concept has been identified, the industry of tourism is not yet close to sustainability (Bukcley, 2012). Buckley argued that sustainability requires not only an integrated approach but also modifications to human society so as to reduce its aggregate impacts. In this sense, it is essential for tourism planners and managers to consistently evaluate the used framework to implement sustainable tourism concept (Bukcley, 2012).

The concept of sustainability in tourism acknowledges the significance of environmental, economic and sociocultural dimensions, referred by many scholars as the 'triple bottom line' (Boley & Uysal, 2013; Larry Dwyer, 2005; Norman & Macdonald, 2004). The term environmental sustainability relates to natural capital, which consists of renewable and non-renewable resources that should be maintained before diminishing returns set in (Goodland, 1995). There is a positive correlation between ability to meet the economic needs of people in tourism destinations and the economic measure of development (Copus & Crabtree, 1996). Meanwhile, the socio-cultural dimensions of tourism are connected with the ability of a community to absorb inputs and continue to function either by being free from social disharmony or by adapting to the presence and influence of tourists (Altinay, Var, Hines, & Hussain, 2007; Liu, 2003; Mowforth & Munt, 2003; Ritchie & Crouch, 2003).

2.3.1 Environmental dimension

The environmental dimension of sustainable tourism has been perceived as one of the keys to achieving sustainability, as it directly (and also indirectly) impacts tourism development (Butler, 1999; Lane, 2009; Liu, 2003; Ruhanen, 2013; Sonak, 2004). There is a significant positive correlation between development activities of tourism and the deterioration of ecological functions and services (Sonak, 2004). Ruhanen (2013) noted that environmental conditions are a critical resource for tourism and a wide range of climate-induced environmental changes will have profound effects on the industry across all levels of destinations. Therefore, climate change in tourism destinations is a major disruption to the tourism industry itself (S. Becken, 2013; Gössling et al., 2012).

A considerable amount of literature has been published on the impacts of climate change on the tourism industry (S. Becken, 2013; Gössling et al., 2012; Jopp, DeLacy, & Mair, 2010; Pyke, Law, Jiang, & de Lacy, 2018) including extreme weather conditions, such as droughts, floods, heat waves and hurricanes (Rahmawati, 2017). Local community health is also affected. Given tourism and climate are inextricably linked, it is important to implement climate change adaptation strategies (Jopp, Mair, DeLacy, & Fluker, 2014). Solid waste and freshwater use are also important issues to consider (Andolina, Signa, Tomasello, Mazzola, & Vizzini, 2020; Boretti & Rosa, 2019; Torres-Bejarano, González-Márquez, Díaz-Solano, Torregroza-Espinosa, & Cantero-Rodelo, 2016; UNEP, 2012).

The quality of freshwater is important in providing the standard of service expected by visitors to destinations (E. Wong et al., 2013). However, the availability of freshwater resources in tourism destinations is often impacted by the large amounts used by tourism businesses and will be further challenged by the trends of climate change that predict higher temperatures and lower rainfall (Giupponi & Mordechai, 2003; Okello, Njumbi, Kiringe, & Isiiche, 2014). According to Diaz-Farina, Diaz-Hernandez, and Padron-Fumero (2020), tourism contributes substantially to waste generation. An average 1.67 kg of waste is generated per tourist (Obersteiner et al., 2021), with most waste generated by hotels and restaurants (Pirani & Arafat, 2014). In that regard, UNEP (2020) suggests the need to optimise the implementation of integrated solid waste management systems by involving all stakeholders.

Many tourism destinations are dependent on the quality of their natural assets, such as pristine forests and beautiful coral reefs. Consequently, strategies to conserve nature is an important component of sustainable tourism (Ritchie & Crouch, 2003). According to Mensah, Joshua, and Gabriel (2015), the protection and management of ecology in tourism destinations often determines their long-term success. The protection of biodiversity, both terrestrial and aquatic,

is seen as core to implementing sustainable tourism (Beissinger, D. D. Ackerly, Doremus, & Machlis., 2017; Chung & Cho, 2018; Graham, 2021). According to Chung and Cho (2018), more visitors travel to protected areas of higher biodiversity than any other destination. There exists a positive correlation with economic development around these destinations: for example, residents obtain benefits from hotels, restaurants and employment for nature guides. However, tourism may degrade the quality of biodiversity in protected areas (Chung & Cho, 2018).

Achieving biodiversity conservation requires a sympathetic policy environment that encourages a greener and more inclusive economy in tourism destinations (E. P. Y. Wong, Mistilis, & Dwyer, 2011). Examination of the existing policy environment and associated policy gaps is required to suggest improved environmental policy to drive effective change in water and waste management, biodiversity conservation and climate change mitigation and adaptation (E. Wong et al., 2013) .

2.3.2 Social and cultural dimensions

Another integral dimension of sustainability is sociocultural sustainability (Teixeira et al., 2021). It is argued that social and cultural dimensions link to the environmental dimension to form the aggregate tourism resources that determine the attractiveness of the tourist destination (Teixeira et al., 2021). According to Wall (1997), there is a clear correlation between rising number of visitors and social effects on the hosts and residents in tourism destinations, such that interactions between tourists and hosts benefit both parties, particularly as a result of sharing traditional ideas, values, norms and/or identities (Liu, 2003; Rátz, 2000). Fairley Fairley, Tyler, Kellett, and D'Elia (2021) confirm that tourism development is valuable to local residents, and leads to their economic gains.

Jovičić, Tamara, Milorad, and Dunja (2011) notes that tourism development has sociocultural impacts on society. He argues that the impacts of tourism manifest as changes to value systems, individual behaviour, structures and relationships within the family and traditional rituals and customs. Schmidt and Rose (2017) argue that tourism development leads to cultural deterioration and ecological devastation. They describe how members of a Chilean community had stopped performing their *Wetripantu* ritual as a result of trees and forest becoming extinct due to development.

Tucker and Boonabaana (2012) argue that tourism development reflects inequalities in terms of gender relations. According to Ferguson and Alarcón (2014), it is important to address

gender issues with an integrated gender perspective that achieves sustainable tourism development. Similarly, A. L. Hardy and Beeton (2009) notes that tourism planning is necessary to minimise undesirable impacts especially on traditions and cultural heritage of community in destination. They suggest that the identification of an appropriate plan for necessary adjustments for local residents can encourage cultural resilience towards sustainability. In terms of realising sociocultural sustainability, it is important to incorporate social capital (Putnam, 2000), social cohesion (Ballet, Damien, & François-Regis, 2020; Cuthill, 2010) and social inclusion (Mendoza-del Villar et al., 2021) to achieve the goal of more sustainable tourism.

Putnam (2000) defines social capital as the incorporation of social networks and norms and trust that enable member of communities to achieve their objectives effectively. Social capital refers to social connections, norms and trust and is a critical consideration in sustainable development as it represents an asset for territorial communities. It should be a precondition for national and local policies that aim to yield positive changes in the economic base and the quality of life of the people (Nanetti & Holguin, 2016). Nanetti & Holguin (2016) argue that social capital is linked to the process of development planning of institutional decision-makers and socioeconomic stakeholders who share trust, norms of solidarity and community-oriented action. Social capital is an important factor in achieving sustainable and equitable solutions for natural resource management since it facilitates the flow of information and helps reinforce individuals' identity within an organisation (Lin, 2001; Pretty & Ward, 2001). Although it seems to benefit community member, there is still considerable disagreement with regard to those views. According to Taylor (2017), bonding social capital produces tensions and conflicts and widens inequality gap between the economically and politically powerful kin groups and the marginalised ones. Further she contended that it is important for tourism planners to start thinking the possibility the downside of social capital for the development of community in destination (Taylor, 2017).

The role of social cohesion in sustainability is the focus of debate within the human and social sciences (Ballet et al., 2020; Cuthill, 2010). Social cohesion refers to coherence in attitudes and behaviours adopted by individuals as members of groups (Friedkin, 2004). Along with social capital, social cohesion supports the preservation of the environment by bringing behaviours in line with the common norms of sustainable management of natural resources (Pretty & Ward, 2001). According to Mackay (2020), social cohesion is closely related to social harmony and is critical to the sustainability of every way of life, especially regarding two key social

issues: (1) the mental health crisis, and (2) social fragmentation. He argued that both issues could be a threat to sustainability. Therefore, they need to be confronted in any honest discussion of social sustainability.

Meanwhile, social inclusion is an important factor to achieve sustainability since it involves the strategy of inclusiveness, and integrating local and foreign social actors to achieve equilibrium across economic, environmental and social policies (Mendoza-del Villar et al., 2021). According to a report released by Eurostat (2017), social inclusion is one of the key challenges identified in the renewed sustainable development strategy. This report also highlighted that the objectives of social inclusion are to create a socially inclusive society by taking into account the solidarity between and within generations and to secure and increase the quality of life of citizens as a precondition for lasting individual well-being. The report suggested a measure to address social exclusion and poverty in society by providing access to the labour market.

According to Murphy (2012), the social and cultural dimensions of sustainable development refer to the social pillars of sustainability. These pillars are built on four key factors: (1) equity, (2) awareness of sustainability, (3) participation, and (4) social cohesion (see Table 2.4). Murphy also argued that a set of policies align with the social pillars, which function as a reflection of the UN's SDGs.

Table 2.4 Social Pillars of Sustainable Development

Dimension	**Policy Area**
Equity	The export of pollution
	Climate change and the development needs of global southern countries
	Vulnerable groups and the effects of climate change
	Vulnerable groups and fiscal measures
	Welfare provision to current generations and carbon emissions
	Protecting future generations by reducing consumption levels
Awareness of sustainability	ESD and environmental awareness programs and campaigns
Participation	Broadening the participative base of environmental planning processes

Social cohesion	Promoting social cohesion and environmental objectives simultaneously

Source: Murphy (2012, p. 21).

In terms of equity, Murphy (2012) contended that it is a key factor in achieving sustainable development. He argued that the concept incorporates a wide spectrum of policy areas ranging from the provision of clean water, nutrition, employment, education, shelter, essential medicines and an unpolluted environment to access to social networks. Regarding awareness of sustainability, Murphy (2012) argued that the component requires more attention in a way to achieve sustainable development. Although many scholars consider it as an important factor for social sustainability, there is some considerable concern about it when it comes to the link with access to education (Vavik & Keith, 2010). They argued that it needs to include education as part of awareness for social sustainability. In connection with component of participation, Murphy (2012) contended that the concept plays significant role for promoting environment goals. Further, by joining in participatory processes, individuals and groups can enhance their social inclusion. Another important component to achieve social development is social cohesion. According to Murphy (2012), while the promotion of social cohesion as a policy objective appears to occupy a particularly important place in the social sustainability literature, it seems that the concept is considered less important in ecological modernisation literature.

According to L. Rogers (2017), the cultural dimension of sustainable development also plays an important role as an enabler of mutual understanding. Further, he argues that culture contributes to poverty reduction and paves the way for a human-centered, inclusive and equitable development. According to UNESCO (2016) "...placing culture at the heart of development policies constitutes an essential investment in the world's future and a pre-condition to successful globalization processes that take into account the principle of cultural diversity".

Ritzman et al. (2018) note that it is important to consider cultural dimensions of tourism development in a way that preserves the existence of the culture and heritage of the people in destination countries. They argue failure to preserve cultural aspects leads to societal imbalance at tourism hotspots, making it difficult to achieve sustainability in tourism.

According to Kim and Jamal (2007), cultural dimensions of tourism link to issues of authenticity. They argue that development, especially in the modern era, is closely related to processes of commodification. In this sense, destinations' cultural value can appear to be

inauthentic and alienating. However, Olsen (2002) notes that authenticity of cultures in community is debatable, as authenticity is a social construct around which people can take different standpoints.

2.3.3 Economic dimension

Tourism is fundamentally an economic activity (Jamrozy, 2007). The economic dimension of sustainable development has been a significant key factor of the triple bottom line framework regarding environmental and sociocultural dimensions of tourism sustainability (Liu, 2003). According to Liu (2003), the economic dimension refers to the sustainable growth of tourism, contribution to the economy, and the use of resources and environment. Therefore, this economic dimension also encompasses economic performance issues, such as the ratio of market capitalization and investments in human capital, as well as research and development, wages and benefits paid, community development initiatives and the value of goods and services (Suggett & Goodsir, 2002).

According to World Travel & Tourism Council (WTTC, 2020), tourism, specifically domestic travel, has been a powerful tool to generate employment and economic growth. In particular, tourism accounted for 10.3% of global gross domestic product (GDP) and 330 million jobs, or 10.4% of total employment in 2019. GDP per capita is an important tool to measure economic growth in relation to the improvement of living standards and quality of life of a population, as well as the sustainability of resources. Tourism seems to have the potential to contribute significantly to the 2030 agenda for sustainable development because of its significant employment generation (Azam & Abdullah, 2021). According to Azam & Abdullah (2021), the impact that tourism brings on economic growth has a close connection with energy consumption. They argue that tourism-related activities require energy consumption either directly as fossil fuel or indirectly as regularly generated electricity from petroleum, coal or gas. However, tourism has a significant influence on emissions (Waheed, Sarwar, & Wei, 2019), which are considered a main reason for environmental degradation (Khan & Hou, 2021).

According to Manyara and Jones (2007), tourism also has a close relationship with economic development because it contributes to poverty alleviation. Tourism reduces poverty specifically in Small Island Developing States (SIDS) with data showing that tourism intensity is associated with a rise in GDP per capita (Min Jiang, DeLacy, Mkiramweni, & Harrison, 2011). Boluk, Cavaliere, and Higgins-Desbiolles (2019) note that poverty alleviation refers to

tourism employment. They argue that tourism generates unskilled and low-skilled formal and informal employment which is more conducive to alleviating poverty.

In terms of achieving gender quality and ending poverty (as per the 17 SDGs), the global report on women in tourism UNWTO (2019b) notes that women are highly involved in tourism as members of communities and civil society – 54% of people employed in tourism worldwide are women (UNWTO, 2019b) and 23% of tourism ministers worldwide in 2018 were women, up from 21% in 2010 (UNWTO, 2019b).

The principal point of the economic dimension is its interrelationship with two other dimensions (i.e., environmental and social dimensions) as the triple bottom line framework of sustainable tourism (Budeanu, Miller, Moscardo, & Ooi, 2016). Regarding improvements in economic well-being and standards of living, stakeholders should incorporate environmental dimensions of sustainability (Choi & Ng, 2011; Holleran, 2008) to navigate tourism economic growth into responsible tourism behaviour that address concerns about the implication of climate change (Ruhanen, 2012; Yohe & Lasco, 2007). In addition, it is crucial for the economic dimensions of sustainable development to integrate society as a part of these social dimensions, in an attempt to meet the economic needs of the host community over the long term while considering the benefits to the national economy and stakeholders in the tourism industry (Cuthill, 2010; Mowforth & Munt, 2003).

It is believed that the implementation of those interlinkages among the dimensions of sustainability will face many challenges along the path towards successful sustainable tourism development (UNWTO, 2017). According to Paunović and Jovanović (2017), sustainability in tourism is currently poorly implemented and operationalised. In this context, transition management and pathways to sustainable tourism as part of SDG targets remain complex issues (Gössling et al., 2012) as discussed in the next section.

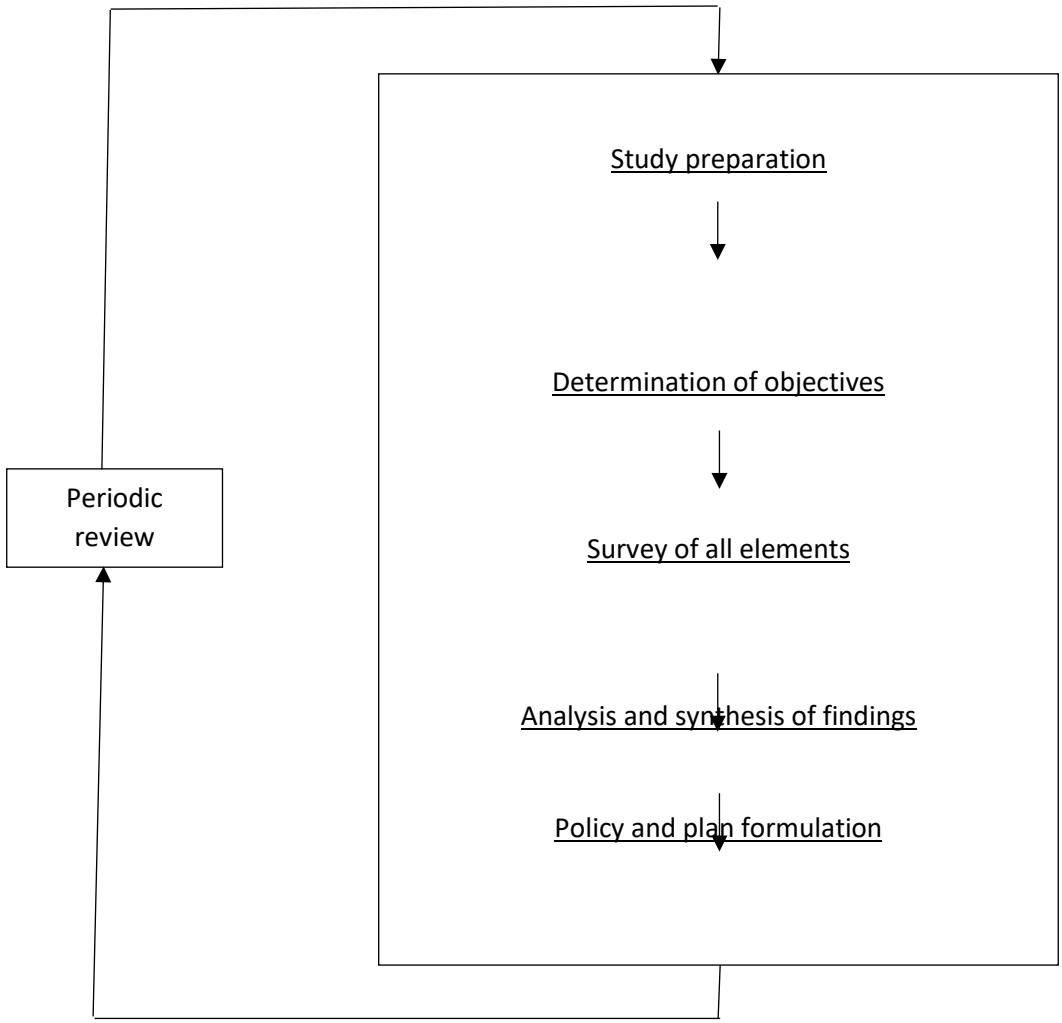
Implementation of Sustainable Tourism

Gössling et al. (2012) argued that global tourism has yet to achieve sustainability due to the negative impacts of tourism activities, which have experienced a significant increase in line with the rise of domestic and international tourist trips (C. Michael Hall, 2011). However, growth has slowed significantly in the past two years due to the COVID-19 pandemic (Austrade, 2021). According to Inskeep (1987), for a destination to implement sustainability they need to implement sustainable tourism plans.

Tourism planning is a set of ideas and principles that can assist in dealing with the negative consequences of environmental and community impacts (Rahmafitria et al., 2020). Also, it can maximise economic return to destinations and encourage a more positive response from the host community towards tourism in the longer term (Hall, 2000). Further, it is seen as a key process to respond to social issues and change, along with the growth of travel businesses (Bianchi, 2018; Rahmafitria, Sukmayadi, & Purboyo, 2020).

There are a number of well-established steps in the tourism planning development process (S. J. Page & Thorn, 1997). According to S. J. Page (1995), the first step of planning is study preparation, followed by determination of objectives and surveying of all elements. The next step includes the analysis and synthesis of findings, followed by policy and plan formulation and recommendations. Last implementation and monitoring of the plan (Figure 2.1).

Figure 2.1 *Tourism Planning Process*



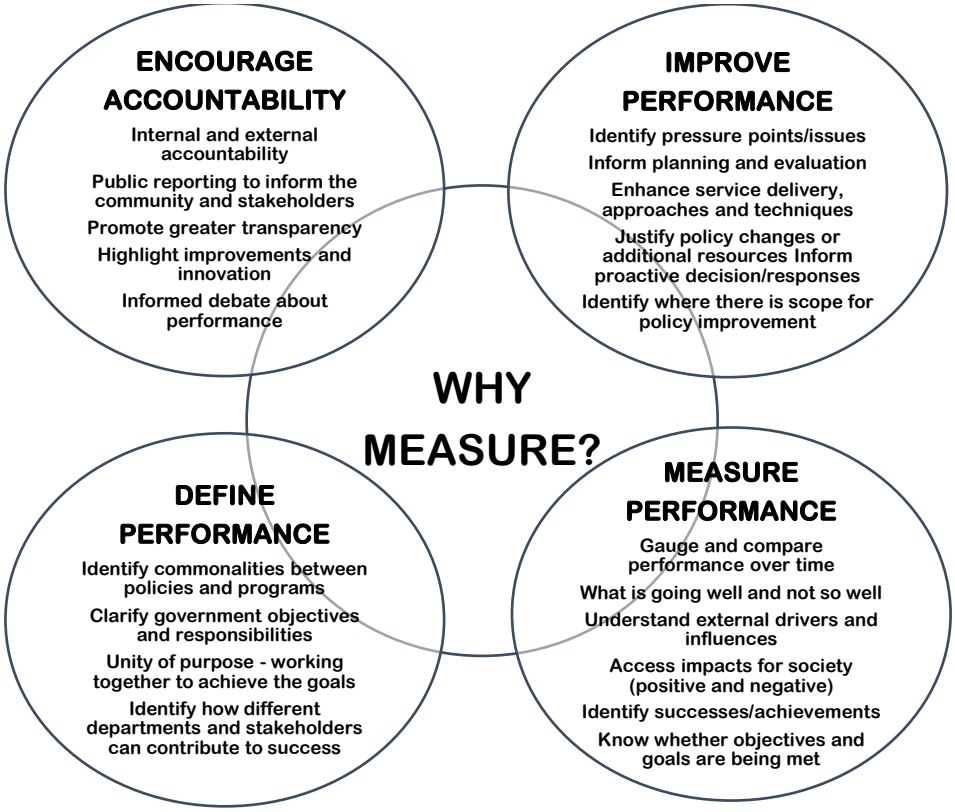
Source: Page & Thorn (1997, p. 62.)

A strategic plan to achieve sustainability is necessary to guide future directions, activities, programs and actions of sustainable tourism (D. R. Hall, 2000). Strategic plans incorporate all components needed for sustainability, such as institutional arrangements, institutional culture and stakeholder values and attitudes as well as broader economic, social, political and economic trends. Tourism planning has a close connection with policy (D. R. Hall, 2000). In this context, public policy is an important intervention by government to help shape the economic framework for the tourism industry (D. R. Hall, 2000). It also plays a significant role in addressing issues such as conservation, land use, promotion and marketing (Buckley, 2002; Fletcher & Cooper, 1996; Lew, Ni., Wu., & Ng, 2017; Stephen J. Page & Thorn, 2010; Yüksel, Yüksel, & Culha, 2012). According to Cohen, E.S., Higham., Gossling, and Paul (2014), it is essential to understand the process of policymaking. D. R. Hall (2000) argues that governments play a fundamental role in developing tourism planning and policy as a protector of common or public interests. In other words, government represents key interests in the policy process of tourism.

The idea of sustainable tourism implementation also refers to the use of indicators as tools that facilitate the analysis and assessment of the tourism planning implementation (S. Becken & Miller, 2016; Torres-Delgado & Saarinen, 2014; White, G., K.L., & A., 2006; Whittlesea et al., 2019). According to Torres-Delgado and Saarinen (2014), sustainable tourism indicators are a common working strategy for tourism destinations. These indicators help evaluate the sustainability of a tourism destination by identifying the key factors of change, as well as their evolution and potential threats (James, 2004). However, Navarro, Yepes, and Marti (2021) argued that these indicators reveal only a partial change in some cases.

According to Whittlesea et al. (2019), it is critical to identify the right indicators applied in the right way, since they describe the prevailing conditions, monitor progress toward key goals, identify areas of concern and inform the suitable policy responses (Figure 2.2). The selection of indicators must reflect the effort to promote sustainable development as outlined by the 17 SDGs, namely the ‘triple bottom line’ of people, planet and profit (S. Becken & Miller, 2016; Whittlesea et al., 2019).

Figure 2.2 Importance of Indicators



Source: Whittlesea et al., (2019, p. 2).

Similarly, D. R. Hall (2000) notes that sustainable development indicators measure sustainability or sustainable development performance and that sustainability indicators need to take account of economic linkages, quality of life and environmental quality. In this context, indicators of sustainability provide information on long-term viability based on the degree to which the economic, environmental and social systems are effectively integrated. Indicators and measurements are fundamental to the implementation of sustainable tourism (Dias, 2017; D. R. Hall, 2000; Sharpley, 2009). Indicators are most often used to provide a clear indication of effectiveness and efficiency of sustainable development in tourism (D. R. Hall, 2000), while measurements assess the effectiveness of strategic policies or initiatives (Sharpley, 2009).

According to Modica, Capocchi, Foroni, and Zenga (2018), the definition of measurement in tourism refers to the necessity of formulating measures for sustainable tourism relating to its social, economic and environmental dimensions. In this context, measurement plays a key role in operationalising the indicator systems to measure sustainability. Whittlesea et al. (2019) suggest that tourism performance measures function as an approach to review past

performance, with little prediction, and largely ignoring other important industry and societal considerations. They argue that the focus of measurement is primarily economic, in that measurement produces a set of indicators to predict future performance. In other words, measurement is necessary to prepare for challenges ahead, both known and unknown (Whittlesea et al., 2019).

According to Fletcher and Cooper (1996), a number of techniques can be used to measure the performance of sustainable tourism implementation. However, the central issues should focus on: (1) identification of the roles of public and private sectors; (2) development of a phased action program for tourism destinations (e.g., zoning); (3) development of a marketing program for tourism destinations; (4) identification of specific projects and opportunities at tourism destinations and the preparation of development briefs.

Sustainability certification, which examines sustainability awareness and attitudes of stakeholders in tourism destinations, has been suggested as a tool of measurement and standard (Gkoumas, 2019). The UNWTO has acknowledged that certification can improve policy action for sustainable development in a way that promotes common statistical language. This certification can be compared across countries and different economic sectors and makes the voice of tourism heard in relation to key decisions (UNWTO, 2019b). Buckley (2002) indicates that this certification is a scheme to label the environmental performance of a particular place, product or environmental management or performance measures. The benchmark indicators and criteria used in these certification program attempt to integrate economic, environmental and social factors (S. Becken & Miller, 2016). According to Global Sustainable Tourism Council (2019), the criteria consist of four sections: sustainable management, socioeconomic sustainability, cultural sustainability and environmental sustainability (as detailed in Table 2.5).

Table 2.2. Criteria of Certification

Section A: Sustainable management	**Section C: Cultural sustainability**
1. Management structure and framework	1. Protecting cultural heritage
2. Stakeholder engagement	2. Visiting cultural sites
3. Pressure and change management	
Section B: Socioeconomic sustainability	**Section D: Environmental sustainability**
1. Delivering local economic benefits	1. Conservation of natural heritage
2. Social wellbeing and impacts	2. Resource management

	3. Management of waste and emissions

Source: GSTC (2019, p. 3)

According to GSTC (2019), under section A (sustainable management), destinations would be assessed for three sub-criteria: (1) management structure and framework; (2) stakeholder engagement; and (3) managing pressure and change. It is argued that the assessment – which is evaluated using a number of indicators – would seem to determine the achievement of SDGs 9, 11, 12, 13, 16 and 17. Section B (socioeconomic sustainability), attempts to define the implementation of SDGs 1, 2, 4, 5, 8, 9 and 10. Criteria under section c (cultural sustainability) aim to measure the implementation of SDGs 11 and 12, while section D (environmental sustainability) attempts to determine the implementation of SDGs 14 and 15.

There are a number of perspectives on the objectives of those criteria. GSTC (2019) note that the guidelines and indicators were set to standardise the implementation of sustainable tourism. However, Buckley (2002) contends that they appear to support businesses to obtain certain positive impacts from the measurements, arguing that it could generate revenue for destinations, encouraging more visits from visitors (Akama, Maingi, & Camargo, 2015; Buckley, 2002). Meanwhile, the use of certification is most likely to refer to the development of a sustainable tourism strategy, including the shaping of policy direction to preserve the environment and culture (Akama et al., 2015; Buckley, 2002; Torres-Delgado & Saarinen, 2014);. However, Stroebel (2015) argued that the implementation of certification to generate growth, development and poverty alleviation remains relatively low, despite the attempts that have been made to protect the environment. In this context, the implementation of green economy strategy becomes critical (Alexandra Law et al., 2016). The following section discusses the articulation of green economy strategy in tourism.

Despite the fact that an environmentally friendly tourism industry has not yet been achieved, there is considerable evidence that the awareness of sustainable tourism development has been globally acknowledged, primarily as a result of the 2030 Agenda for Sustainable Development 2015 (UNWTO, 2017). From an environmental perspective on sustainable tourism, there appear to be six statistical domains of primary relevance: water (including sewage), energy, GHG emissions, solid waste, environmental conditions, and environmental expenditure (UNWTO, 2017).

According to Buckley (2002), there are several categories that need to be highlighted in terms of assessing social and environmental impacts on and responses to tourism: the world's population, which is a key predictor of current and future human impact on the planet; peace, which is a global measure of successful social organisation and governance; prosperity, which is a measure of economic activity and a surrogate for per capita resource consumption; pollution, which indicates increases in environmental impact; and protection, which refers to the number of protected areas that seem to have experienced significant decreases.

To measure awareness and implementation of sustainable tourism, it is important to make use of appropriate techniques to ensure that the plan is well implemented. Central issues include: (1) identification of the roles of public and private sectors; (2) development of a phased action program for tourism destinations, e.g., zoning; (3) development of a marketing program for tourism destinations; (4) identification of specific projects and opportunities at tourism destinations and the preparation of development briefs.

Sustainability certification, which examines sustainability awareness and attitudes of stakeholders in tourism destinations, has been suggested as a tool of measurement and standard (Gkoumas, 2019). This certification can be compared across countries and different economic sectors and makes the voice of tourism heard when addressing the key decisions (UNWTO, 2019b). Buckley (2002) argued that this certification is a scheme of certification to label the environmental performance of a particular place, product or environmental management or performance measures.

The use of certification is most likely to refer to the development of sustainable tourism strategy, including the shaping of policy direction to preserve the environment and socio-culture towards sustainability (Akama et al., 2015; Buckley, 2002; Torres-Delgado & Saarinen, 2014). The following section discusses the articulation of green economy strategy in tourism towards sustainability.

2.4 Tourism and the Green Economy

The importance of seeking out alternative ways of achieving sustainable tourism has led to a new paradigm in achieving the 17 SDGs, namely tourism and the green economy (Alexandra Law et al., 2016; Pan et al., 2018; Whittlesea, 2016). According to UNEP (2011), a green economy is defined as an economy that results in the improvement of human wellbeing and social equity, while significantly reducing environmental risks and ecological scarcities. Thus, it can become an efficient and socially inclusive low-carbon resource. In this context, green

economics has offered new opportunities to change the economy in a way that simultaneously addresses many of today's sustainability challenges (DeLacy et al. 2014). According to Whittlesea (2016), a green economic system requires: "Different approaches and alternative measures for defining and monitoring progress beyond GDP and isolated economic measures which incorporates environmental externalities". This statement highlights that, in the green economy, the premise that economic development and environmental policies can be separated is incorrect (Barbier, 2012). Whittlesea (2016) noted that environmental economics helps to account for environmental externalities and seeks to consider economic development and growth beyond traditional monetary terms.

The initial concept of the green economy focused primarily on attempts to reduce carbon emissions and pollution, enhance energy and resource efficiency and prevent the loss of biodiversity and ecosystem services as a result of The United Nations Conference on Sustainable Development, or Rio+20 (Barbier, 2012). According to the World Bank (2012), the green economy (referred to as green growth) aims to sustain robust growth, while avoiding unsustainable economic patterns and preventing irreversible environmental damage. Whittlesea (2016) noted that to enable transition to a thriving green economy in tourism, it is essential to address key challenges, including the reduction of greenhouse gas (GHG) emissions, reduced water consumption, better waste management and effective management of cultural heritage.

Although the focus of green economy strategy has been identified, the transition to a green economy requires a fundamental policy reforms (Pegels & Altenburg, 2020). They argued that more concerns are needed to address policy linked to a subset of green incentives and technologies, which incorporated carbon price and taxation of various environmental issues (Pegels & Altenburg, 2020).

According to the UNWTO (2021), there are six key elements that need to be addressed to transition to a travel and tourism green economy. First, biodiversity conservation shows that actions supporting biodiversity conservation are directly connected to a healthy environment. Evidence suggests that the COVID-19 pandemic has reduced the number of conservation efforts in many destinations all over the world. Therefore, conservation efforts need to be supported that enable a greener recovery. Second, climate action is essential to enhance mitigation efforts to reduce emissions in tourism sector. Further, UNWTO (2021) recommends the development of low-carbon transportation and greener infrastructure. Third, is a movement towards a circular economy to advance resource efficiency in tourism value chains in a way

that embraces a sustainable and resilient growth pathway. In this context, the efficient use of energy and water are essential measures. Fourth, in relation to governance and finance, public-private collaboration and partnership, including dialogue between government, employers and worker organisations needs to be addressed to successfully transition to a more sustainable, inclusive and resilient tourism. Fifth, public health and the strong connection the COVID-19 pandemic has had with tourism. Therefore, epidemiological indicators should be incorporated into tourism plans (UNWTO, 2021).

The sixth element is the need for social inclusion; it is critical to support the tourism workforce, which includes women, young people and migrant workers, to develop a more sustainable and resilient tourism. In particular, UNWTO is issuing a series of thematic inclusive recovery guidelines to support an inclusive recovery from COVID-19 (UNWTO, 2021).

A great deal of attention is also needed to address climate change as it is one of the most potential medium and long-term problems facing tourism (Ruhanen, 2012; Whittlesea, 2016). According to Min. Jiang and De Lacy (2014), climate change impacts tourism destinations' risk, infrastructure, attractiveness, and natural resources, which impact the timing, length and quality of tourist flow. Therefore, reducing the impacts of climate change on destinations is at the heart of tourism and the green economy. Destination adaptation to the risk of climate change is key to the tourism and green economy approach (Law et al., 2016). According to Ruhanen (2012), adaptation is the ability of a system (natural or human) to adjust or adapt to climate change by moderating damages and coping with consequences. Furthermore, climate change adaptation strategies for the tourism industry will address issues, such as drought, which links to rainwater collection, water conservation, rising sea levels, storms and beach erosion (Becken & Hay, 2012).

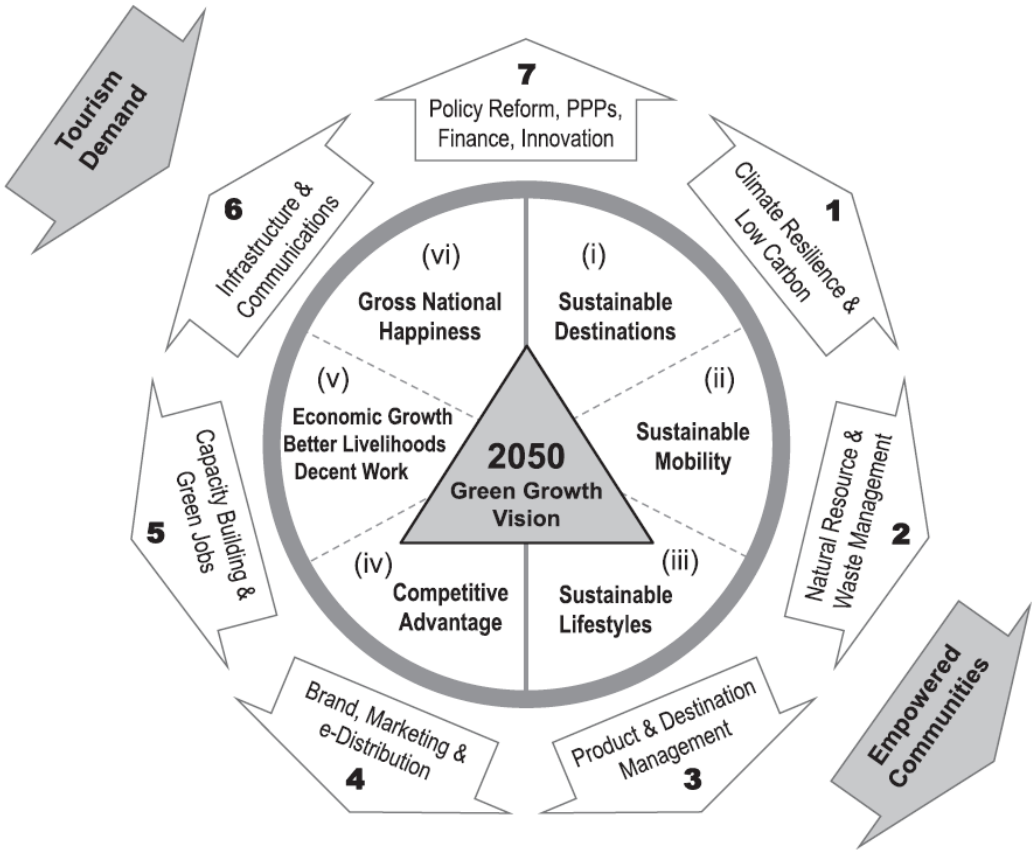
According to Law et al. (2016), the emerging green economy presents new opportunities to change the tourism economy as it integrates the environment as well as social inclusiveness into economic thinking. Further, it fills the gap in sustainable tourism frameworks that lack operationalisation towards sustainability. They argued that the concept does not replace sustainable tourism development. Instead, it addresses holistically social marginalisation, environmental degradation and resource depletion (Law et al., 2016).

In addition, the concept of green economy also delivers new opportunity in creating jobs that benefiting the environment. It is believed that green jobs, as one of dimensions of green economy concepts, are considered important to transition to a green economy as it produces

goods or provide services that benefit the environment or conserve natural resources. It seems that goods that are linked to souvenirs that commonly generate income for community in destination do fit to this concept (Cohen, 2022).

DeLacy et al. (2014) implies that a green economy framework provides a strategy for implementation by tourism destinations in a more detailed and integrated way. The green economy framework (Figure 2.3) in tourism incorporates: (1) climate resilience (adaptation) and management of low-carbon transition (mitigation); (2) natural resource and waste management (i.e., biodiversity conservation); (3) product development and destination management; (4) branding, marketing and e-distribution; (5) capacity building and green jobs; (6) infrastructure, technology dissemination and communication; and (7) important means of implementation such as policy reformation, public private partnerships (PPPs), finance and innovation.

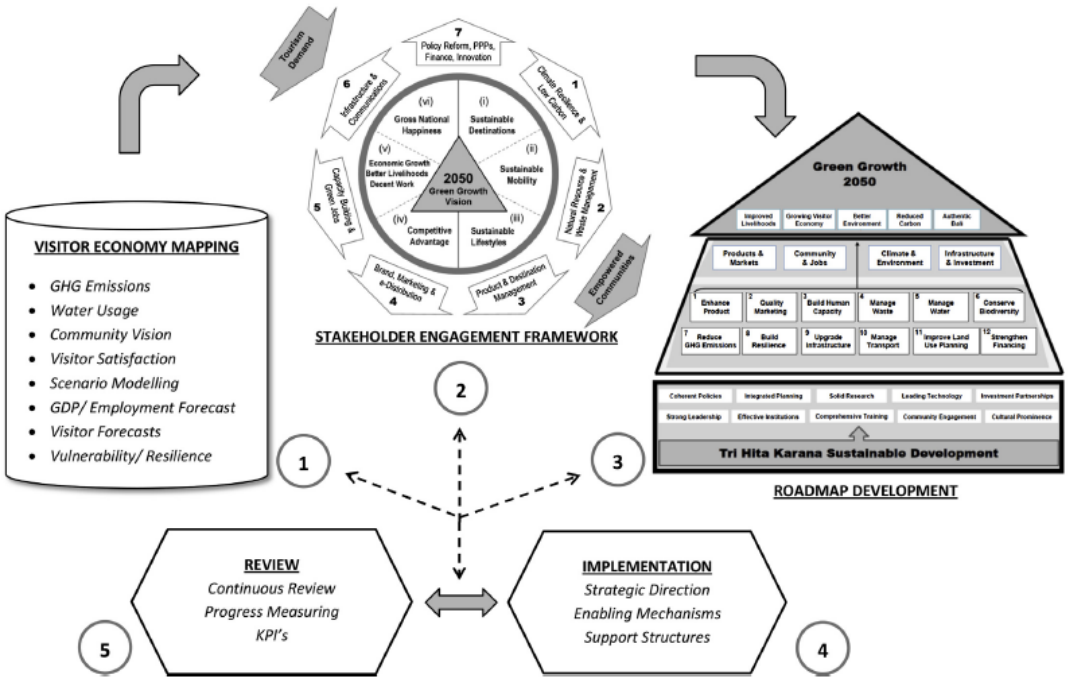
Figure 2.3 Seven Pillars of the Green Economy Model



Source: Adapted from DeLacy et al. (2014, p. 211).

The approach above has been developed and applied in tourism destinations across Bali, Indonesia (Law et al., 2016). The development of the seven pillars is the result of integrated and holistic identification of the tourism value chain by incorporating tourism components, namely: sustainable destinations; sustainable mobility; sustainable lifestyles; destination competitiveness; green growth in jobs; local livelihoods and decent work; and (indicators for happiness and social wellbeing of host and visitor communities (Law et al., 2016). In 2013,the Indonesian government, under the Ministry of Tourism and Creative Economy (MTCE), commissioned a local and international team to develop a green economy strategy for Bali tourism until 2050. (DeLacy et al., 2014). As seen in Figure 2.4, it provides 12 key strategies as part of the 2050 Green Growth Roadmap Framework (DeLacy et al., 2014).

Figure 2.4 2050 Green Growth Roadmap Framework



Source: Adapted from DeLacy et al. (2014, p. 211).

In this thesis, the emerging green economy, that is providing new opportunity to change the tourism economy (Law et al., 2016) seems to reflect a novelty factor in tourism industry. The way it fills the gap in sustainable tourism frameworks might also be considered to bring a newness factor in tourism (DeLacy et al., 2014). As such, the concept of green economy plays role of innovation in tourism. According to Rodriguez-Sanchez et al., (2019), innovation in tourism links to new conceptual or practical opportunities. Further, they argue that innovation in tourism is considered more than a mere idea. In this context, green economy plays a significant innovative role in tourism.

As a strategic plan, the green economy has to incorporate appropriate indicators as part of the framework in an attempt to measure the effect of the strategy implementation. More recent evidence suggests that the implementation of green economy policies can be measured using 119 indicators, as developed in a case study of the tourism destinations in Bali Island. The study further proposes more detailed indicators than ESTI or STI indicators, which have gaps in measuring the green economy strategy in the context of social values (Alexandra Law, DeLacy, & McGrath, 2017).

Implementing green economy-sustainable tourism principles is often constrained by stakeholders' lack of information and knowledge of green economy-sustainable tourism (Dale

Honeck, 2012; Dale. Honeck, 2012; Liu, 2003; Ruhanen, 2012; Stroebel, 2015). It is essential to employ an approach or framework that can facilitate mutual understanding among destination stakeholders (H. C. Choi & Sirakaya, 2006; Grenna, Hilbruner, Santi, Scuppa, & Vereczi, 2006). Authors have argued that understanding of the sustainable tourism concept is linked strongly to effective communication issues, including the use of media. Diffusion theory is considered an appropriate framework to guide investigation of the multitude of factors (including communication and media issues) that facilitate the transfer of sustainable tourism-green economy knowledge among stakeholders.

The following section discusses diffusion theory as a framework to guide research on transferring knowledge and concept to tourism destination stakeholders in Wakatobi Islands to achieve sustainability and place the destination onto a green economy path.

2.5 Diffusion Theory

The implementation of sustainable tourism and green economy concepts has been problematic, especially in emerging markets (Honeck, 2012). The lack of information and knowledge around these concepts has been a significant contributor to the inherent problems (Dabphet et al., 2012; Liu, 2003; S. F. McCool, Moisley, & Nickerson, 2001; Timothy, 2009). Ruhanen (2008) argues there is a lack of a clear understanding of the concepts among tourism destination stakeholders. Thus, the dissemination of the concepts from theory into applications is problematic (A. L. Hardy & Beeton, 2009).

Various approaches have been proposed to investigate the diffusion of knowledge (E. Rogers, 2003; Sorenson & Johannessen, 2013). According to Nicolopoulou (2011), the study of knowledge transfer is one of the approaches to identify the process of information dissemination. She argued that this study provides a framework to address the transfer of knowledge in terms of professionals in the domain of CSR and sustainability. Similarly, A. Hardy, Vorobjovas-Pinta, and Eccleston (2018) stated that knowledge transfer plays a significant role in the investigation of the dissemination of information about tourism from tourism academics to tourism industry. In particular, they argued that the process of knowledge transfer was connected closely to application of new technology ie. The Elaboration Likelihood Model (ELM).

According to Gupta and Govindarajan (2000), the way in which new knowledge or concepts accumulate has been examined in a number of knowledge management studies concerning the use of accessible knowledge from external sources. The implementation of knowledge

management focuses on acquiring, organising and communicating both implicit and explicit knowledge between people in organisations (Taskin & Bridoux, 2010). Knowledge management utilises existing information resources and methods of recalling information to emphasise the value-adding effects of people from different backgrounds with differing levels of expertise (Kuhlen, 2003). However, there is no guarantee that the operation of knowledge management can improve performance, given the application of knowledge from one part of an organisation may not necessarily improve the performance of another (Haas & Hansen, 2004). In this regard, most organisations do not have a knowledge-sharing culture due to their formal structure, which prevents the operation of knowledge management (Gupta & Govindarajan, 2000).

According to Yi and Liu (2022), one effective way to transfer ideas and practices as a part of innovation is by communicating them through specific mediums among actors within interconnected relationships. Further, they argued diffusion framework seemed to be effective to spread information from source to receiver. In this context, they provided evidence on how policy diffusion plays significant role in a way to develop understanding among stakeholders (Yi and Liu, 2022).

Meanwhile, Rogers (2003) provided a way to understand how concepts can be diffused through different communication channels to individuals and organisations over time. According to Surry (1997), diffusion theory is considered appropriate to investigate a multitude of factors, which either facilitate or impede the diffusion of sustainable tourism development among and between stakeholders. Diffusion theory was originally applied in a sociological study investigating agricultural innovations. However, diffusion theory has been useful in many disciplines, including tourism, due to the fact that it can provide answers to questions about the unsuccessful implementation of an innovation (Dabphet, 2010).

According to Rogers (2003), there are various types of diffusion research, with a number of methods for data collection and analysis (Table 2.6). He outlined that diffusion literature has expanded across a number of disciplines, including anthropology, geography, and communication. Dibra (2015) also stated that the "Theory of Rogers" has been tested through more than 6,000 research studies and various tests, making it a very reliable tool.

Table 2.6 Nine Major Diffusion Research Traditions

Diffusion Research Tradition*	Estimated Percentage of All	Typical Innovations Studied	Method of Data Gathering and Analysis	Main Unit of Analysis	Major Types of Findings

	Diffusion Publications				
Anthropology	4%	Technological ideas (steel axe, horse, water boiling)	Participant and non-participant observation and case studies	Tribes or peasant villages	Consequences of innovations; relative success of change agents
Early sociology	_	City manager government, postage stamps, ham radios	Data from secondary sources and statistical analysis	Communities or individuals	S-shaped adopter distribution: characteristics of adopter categories
Rural sociology	20%	Agricultural ideas (weed sprays, hybrid seed, fertilizers)	Survey interviews and statistical analysis	Individual farmers in rural communities	S-shaped adopter distribution: characteristics of adopter categories; perceived attributes of innovations and their rate of adoption; communication channels by stages in the innovation-decision process; characteristics of opinions leaders
Educations	8%	Teaching/learning innovations (kindergartens, modern math, programmed instruction, team teaching	Mailed questionnaires, survey interviews, and statistical analysis	School systems teachers or administrators	S-shaped adopter distribution: characteristics of adopter categories
Public health and medical sociology	10%	Medical and health ideas (drugs, vaccinations, family-planning methods, AIDS prevention)	Survey interviews and statistical analysis	Individuals or organizations such as hospitals and health departments	Opinion leadership in diffusion; characteristics of adopter categories, communication channels by stages of the innovation-decision process
Communications	15%	New events, technological innovations, new communication technologies	Survey interviews and statistical analysis	Individual or organizations	Communication channels by stages in the innovation-decision process; characteristics of adopter categories and of opinion leaders; diffusion networks
Marketing and management	16%	New products (a coffee brand, the touch-tone telephone clothing fashions;	Survey interviews and statistical analysis; field experiments	Individual costumers	Characteristics of adopter categories, opinion leadership in diffusion

		new communication technologies)			
Geography	4%	Technological innovations	Secondary records and statistical analysis, maps	Individuals and organizations	Role of spatial distance in diffusion
General sociology	9%	A wide variety of ideas	Survey interviews and statistical analysis	Individuals, other units	Characteristics of adopter categories
Other traditions**	14%	-	-	-	-
Total	100%				

Source: Rogers (2003, pp. 44–45).

2.5.1 Diffusion theory in sustainable tourism

A number of studies in tourism have found that diffusion theory can play a significant role in understanding the implementation process of sustainability principles (Dabphet et al., 2012; McGrady, 2016). According to McGrady (2016), it is important to examine the diffusion of sustainability innovations. He argued that there are significant factors that affect the awareness of sustainability innovations at the business level, including the characteristics of a business, and it is easier for smaller companies to shift towards more sustainable practices as those changes are more easily obtained. Bell (2014) noted that it is essential to understand the process of diffusion as well as the concept of drivers and barriers to adopt a new model. In this context, the implementation of eco-innovations was the focus of the study. According to Dabphet et al. (2012), the implementation of sustainable tourism development concepts in tourism destinations is affected by the level of understanding among the stakeholders. They argued that there are a number of factors that determine the ability to implement this innovation, such as the involvement of opinion leaders and the use of media communication.

In a broader spectrum, it is evident that the understanding of tourism product and idea correspond with the ability to transfer knowledge and innovations among stakeholders (Weidenfeld et al., 2010). Although they did not mention specifically the terms diffusion, the essence that the process of transfer knowledge taking into account overlaps with the principle of the process of diffusion theory (Dabphet et al., 2012). In the context of tourism sector, Weidenfeld et al. (2010) argued knowledge transfer is a key element in the innovation process.

The conceptual framework for the research in this thesis was inspired by Roger's diffusion of innovation theory (2003). The framework is adapted from two empirical studies on diffusion of innovation in tourism by Dabphet (2010) and McGrady (2016), which offered an enriched framework for a holistic understanding of the implementation of sustainable tourism-green economy strategy.

2.5.2 Elements of diffusion theory

According to Rogers (2003), diffusion is a process in which an innovation is communicated through certain channels over time among the members of a social system. He suggested that diffusion is a means of social change defined as a process through which alteration occurs in the structure and function of social system. In addition, diffusion is a process or mechanism that spreads new ideas, including social practice such as policy making (Elkins & Simmons, 2016). Rogers (2003) outlined four main elements of the diffusion process, namely: (1) the

innovation; (2) the communication channels employed; (3) the relative time of diffusion and adoption, and (4) the social system, which refers to a set of interrelated units engaged in joint problem-solving to achieve common goal.

2.5.2.1 The Innovation

According to Rogers (2003), innovation refers to the introduction of something new. Barnett (1953) stated that innovation is a new thought, behaviour or thing as it is qualitatively different from the existing forms. In this regard, innovation is something that has never been seen before (Green, Howells, & Miles, 2001). Furthermore, innovation is the introduction of new things, but not the improvement. Similarly, innovation is defined as a new idea that may be a recombination of old ideas, a scheme that challenges the present order, or a formula or a unique approach perceived as new by the individuals involved (Burrill & Ledolter, 1998; Fache, 2000). Therefore, as long as the idea is perceived as new to the people involved, it is called an innovation (Van de Ven, 1986).

The concepts of sustainability and the green economy are widely regarded as an innovation. According to Gossling, Hall, and Weaver (2008) sustainability in tourism is an innovative idea as it provides new approach to achieve sustainable tourism. Further, it provides solutions for many economic and environmental issues by creating small businesses and employing local people (McCool et al., 2015). It is also seen as filling the gap in the sustainable tourism framework, which lacks operationalisation towards sustainability (Law et al., 2013). The concept of a green economy fills the gap in the sustainable tourism framework as it delivers new opportunities by creating jobs that benefit the environment. It is believed that green jobs, as one dimension of a green economy, are considered important in the transition to a green economy as they produce goods or provide services that benefit the environment or conserve natural resources (Law et al., 2013).

According to Rogers (2003), there are various characteristics of innovation, namely relative advantage (referring to the notion of usefulness), compatibility (perceived as consistent with existing values, beliefs, experiences and needs), complexity (referring to the degree to which an innovation is perceived as difficult to understand or operate), trialability (referring to the degree to which an innovation may be experimented with on a limited basis) and observability (referring to the degree to which the results of an innovation are visible to others). Innovation characteristics have been used to describe the relationship between the attributes or characteristics of innovation and the implementation of that innovation. Moore and Benbasat

(1991) argued that innovation characteristics refer to the ability to measure perceptions. In this sense, sustainable tourism and green economy can be considered innovative since they have incorporated almost all characteristics of innovation.

Communication Channels

A communication channel is a means by which messages pass from one individual to another (Rogers, 2003). It is linked to the essence of communication as a process by which participants create and share information with one another to reach a mutual understanding. Further, Rogers (2003) categorised communication channels into two groups, namely mass media channels and interpersonal communication. He implied that media channels are any means of transmitting messages that involve a mass medium such as radio, television, newspaper and internet. Meanwhile, interpersonal channels involve a face-to-face exchange between two or more individuals. In this regard, there is considerable evidence that interpersonal channels are viewed as more effective in many ways than the mass media, as they are non-purposive, flexible and trustworthy. Mass media channels, however, also play a significant role in any diffusion process since they are a one-step communication process, through which messages can reach a number of receivers, create knowledge, spread information, and alter weakly-held attitudes. Mass media channels are seen as the most rapid and efficient means of informing potential adopters of the existence of an innovation (Rogers, 2003).

The achievement of mass media flow through the general public requires basic communication skills and the availability of vast and highly differentiated data on members of the perspective audience (Bennett & Manheim, 2006). This is because efficient communication should provide information to reduce uncertainty among the audience. Then, the reduction of uncertainty inherent in communication can decrease the resistance to innovations (Rogers, 2003). Further, Rogers (2003) argued that interpersonal communication is more likely to reduce uncertainty by imparting information that leads to increased understandings of the innovation, while the mass media tend to provide information of a fairly general nature.

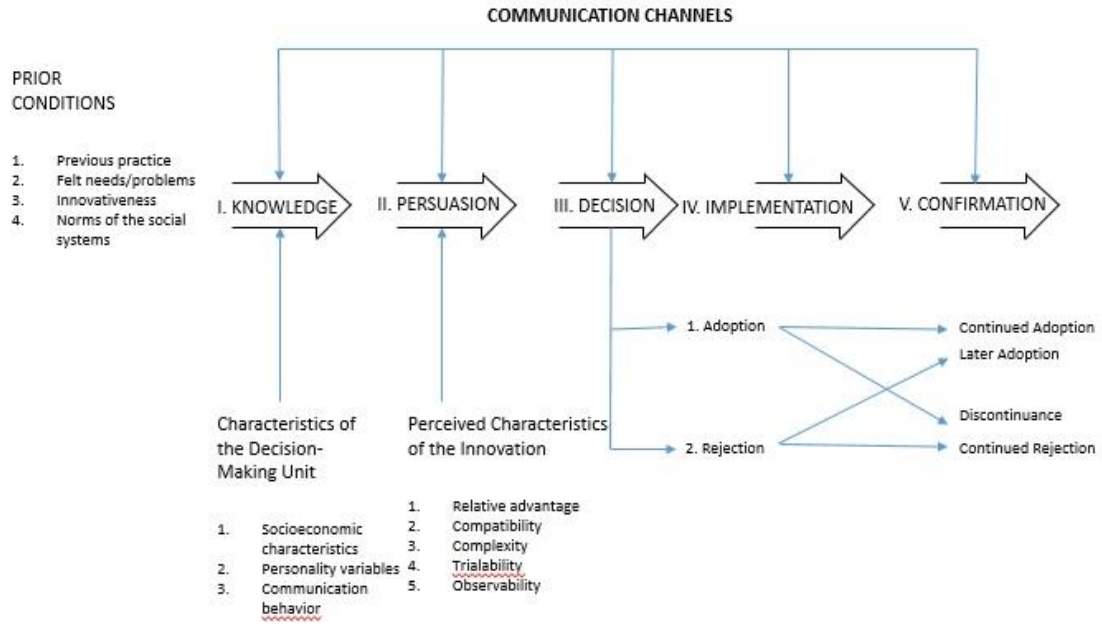
The relative time of diffusion

As the third element in the diffusion process, the inclusion of time as a variable in diffusion research is one its strengths. However, the measurement of the time dimension can also be criticised (Rogers, 2003). Time is involved in diffusion in three distinct ways: (1) the

innovation-decision process; (2) the innovativeness of an individual, or another unit of adoption; and (3) the rate of adoption (Rogers, 2003).

According to Rogers (2003), the innovation-decision process is the process through which an individual (or another decision-making unit) passes from the first knowledge of an innovation to the formation of an attitude towards the innovation, to the decision to adopt or reject, to the implementation and use of the new idea, and to the confirmation of the decision. This process involves time, and the steps typically occur in a chronological sequence of (1) knowledge, (2) persuasion, (3) decision, (4) implementation, and (5) confirmation (Figure 2.5).

Figure 2.5 Diffusion of Innovation Framework



Source: Adapted from Rogers (2003, p. 170)

Innovativeness is the degree to which an individual or another unit of adoption adopts a new idea relatively earlier than the other members of a system (Rogers, 2003). In this context, the rate of adoption is measured for an innovation in a system rather than for an individual as the unit of analysis. In terms of how individuals change their behaviour to implement an innovation through the diffusion process Larsen & McGuire (1998) along with Prochaska, Walczak, & Staszak (2002) outlined a five-stage model involving the: (1) awareness stage, (2) interest stage, (3) evaluation stage, (4) trial stage, and (5) adoption stage.

The first stage is the awareness stage, where individuals are exposed to the innovation and have some idea of how it functions. Gaining knowledge is an understandable prerequisite in the diffusion of any innovation, since the innovation is introduced to the potential adopters who then learn of its existence at this stage (Wright, 2003). However, Rogers (2003) also noted that there is no true knowledge of the innovation at this stage due to a lack of information. As a result, there are only a few who want to consider adopting it. To increase the awareness of the potential adopters, the innovation must firstly fill a particular need in their life for it to be noticed. The mass media are an important communication channel at the awareness stage.

At the interest stage, individuals form a favourable or unfavourable attitude towards the innovation and seek additional information about it. At this stage, the potential adopters gather information, weigh the potential advantages and disadvantages of the innovation and develop an attitude towards it, whether or not they can see the benefits of adoption. Mass media and interpersonal communication are the main communication channels for the potential adopters at this stage (Blackburn, 1989). At the evaluation stage, individuals engage in activities, then decide whether the innovation should or should not be tested. At this time, the potential adopters begin to make key decisions about the innovation, especially whether or not it may play a positive role in their life. However, if the innovation has a negative connotation, they may also seek advice and knowledge from their peers. Therefore, interpersonal communication plays an important role at this stage (Rogers, 2003).

At the trial stage, individuals make the decision either to utilise the innovation or reject it, depending on whether it fits their needs or desires. Mass media and interpersonal communication become key information sources for the potential adopters at this time (Rogers, 2003). At the adoption stage, individuals evaluate the results of the innovation and eventually determine whether or not it will be adopted. The potential adopters make use of the information they have gathered at the interest and evaluation stages, and with the outcome of the trial stage, they ultimately decide whether or not they will adopt the innovation. However, after the potential adopters have adopted an innovation, they may also decide to reject it in the short term. The decision to reject the innovation after the adoption is called discontinuance (Rogers, 2003). Hence, diffusion changes over time as it proceeds, depending on how people gain the source information to determine the adoption or rejection of an innovation.

The social system

According to Rogers (2003), the social system plays a significant role in the diffusion process as a set of interrelated units that are engaged in joint problem solving to accomplish a common goal. He argued that the members or units of a social system may be individuals, informal groups, organisations, and/or subsystems. In addition, the structure of a social system can facilitate or impede the diffusion of innovations. The characteristics of a social system in the diffusion theory can be classified into at least four points: (1) system norms; (2) opinion leaders and agents of change; (3) social structures; and (4) social consequences and innovations.

In diffusion theory, norms are defined as the range of tolerable behaviours and used as a guide or standard for the behaviour of the members of a social system. They communicate to individuals what behaviours they are expected to perform. Norms can be applied at any level of society, such as nations, religious communities, organisations, or local systems like villages (Rogers, 2003).

Opinion leaders have long been regarded as agents of change in numerous social campaigns to assist in the implementation of behaviour change efforts (Shi & Salmon, 2018). Opinion leaders can legitimise the behaviour change program and act as role models for behaviour change. In the diffusion process, several researchers have viewed opinion leaders as one of the most important agents, as they can influence others through their authority and status via both informal and interpersonal communications (Katz, Hamilton, & Levin, 1963; E. Rogers, 2003; Valente, 1995). Rogers (2003) argued that opinion leaders are more considerably exposed to mass media, like radio, television, and newspaper, which can influence the opinion of others within their respective communities. Meanwhile, leaders themselves use the media as a source for personal information.

Social structures are patterned arrangements of units in certain social systems (Rogers 2003). Furthermore, these structures give regularity and stability to human behaviour in such systems; they allow the prediction of behaviour with some degree of accuracy. Therefore, structures represent types of information, in that they decrease uncertainty.

According to Rogers (2003), social consequences and innovations are conceived as part of particular social systems in diffusion theory as they reflect the consequences of changes which can be classified as desirable, direct and anticipated. He argued that desirable consequences depend on whether the effects of an innovation in a social system are functional or dysfunctional. Meanwhile, direct consequences rely on whether the changes of individuals or

social systems occur in immediate response to an innovation. Anticipated consequences depend on whether or not the changes are recognised and intended by the members of a social system (Rogers, 2003).

The diffusion of sustainable tourism-green economy strategy in Wakatobi

As outlined in the above literature review, it is evident that a considerable amount of literature has been published on the application of diffusion theory in tourism (Dabphet, 2010; Bell, 2014; McGrady, 2016). Although the focus of this research differs, there are some common findings that can be drawn from those studies, such as:

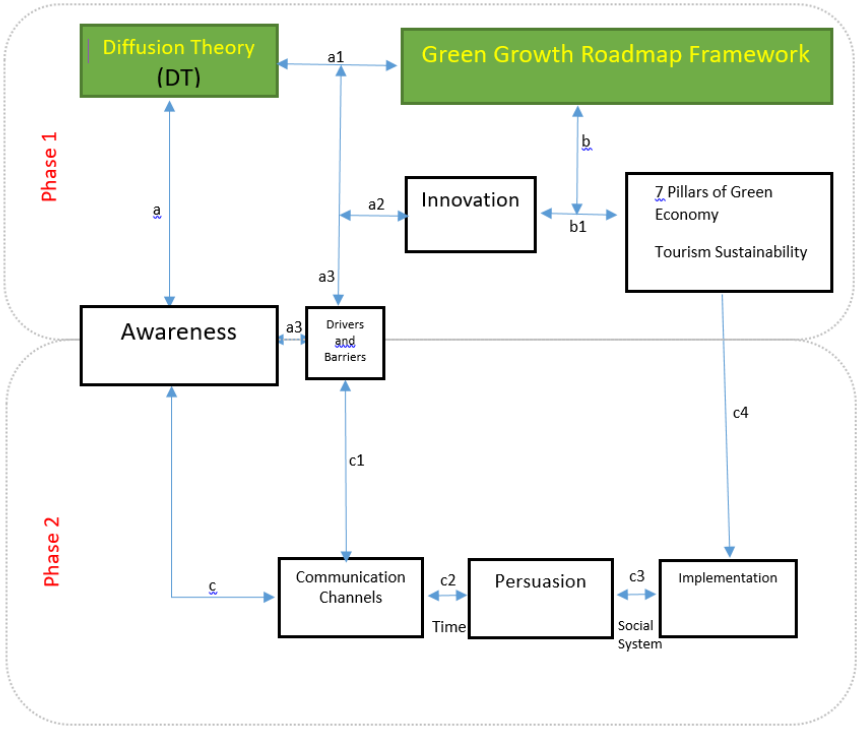
1. There is a link between the use of diffusion theory and the ability to identify the drivers of and barriers to influencing diffusion and adoption of sustainable tourism. In this case, diffusion theory provides lens that is useful to capture the transformation of concept of sustainable tourism and green economy (McGrady, 2016; Kvam & Straete, 2010).
2. The implementation of sustainable tourism (or other innovation, such as eco-innovation) links to the level of information dissemination of the concept within the local community.
3. Communication and media play significant role in helping build understanding of the concept.

This research uses the diffusion theory of Rogers (2003) as a framework to understand what the problems of implementing sustainable tourism-green economy into destinations, particularly in Wakatobi Islands, Indonesia.

2.6 Proposed Conceptual Framework

The proposed model for the diffusion of the green economy strategy in destination countries is presented in Figure 2.6. This model represents an integrated approach to the two established models discussed so far, including the Green Growth Roadmap Framework in tourism by DeLacy (2014) and diffusion of innovation framework by Rogers (2003). Conceptually, the model aligns common elements and seeks to forge relationships between what may appear to have been distinct elements of the two models. The aim is to provide a holistic presentation of the steps involved in harmonising green economy strategy in terms of the way it is diffused to destination stakeholders to achieve sustainability in tourism.

Figure 2.6 Conceptual Framework



After reviewing the literature, two phases became apparent in designing the framework. The first phase is to identify stakeholders' understanding of the green economy in tourism. This phase involves assessing stakeholders' perception of the implementation of the green economy concept. In this context, one of the outcomes is to get the awareness level of stakeholder on moving to a green economy. It is critical to understand the awareness of green economy in destination countries as part of the innovation of sustainable tourism. Therefore, the indicators set as the basis of questions in interviews are linked to the level of awareness of stakeholders in relation to the implementation of green economy. Further, this phase investigates factors that drive and hinder the information transfer of green economy to destination stakeholders. The second phase addresses the elements needed to transfer knowledge about the green economy to destination stakeholders. It highlights factors that contribute to knowledge and information transfer about the green economy in tourism.

The following sections explain, in detail, how the components adopted from the previous frameworks are fundamentally linked to provide a holistic approach towards the integration of diffusion of innovation and green economy strategy.

2.6.1 Phase one: understanding the awareness of green economy and factors that drive and hinder towards sustainability

The story starts with the idea of diffusion as a process in which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 2003). In the context of Phase one, the investigations begin to identify the green economy concept as an innovation in sustainable tourism under the flow of connection between arrows 'a' and 'a1', 'b' and 'b1', simultaneously exploring the perceptions of destination stakeholders on the implementation of green economy. The seven pillars of green economy, under the framework of Green Growth Roadmap 2050 by DeLacy (2014), guide the investigation of awareness among stakeholders of the green economy strategy in Wakatobi Islands. In this context, one of the outcomes is to assess the awareness level of stakeholders of moving to a green economy. It is critical to understand awareness levels of green economy in destination countries as part of innovation in sustainable tourism. Therefore, the indicators set as the basis of questions in interviews are linked to the level of awareness of stakeholders in relation to the implementation of a green economy.

Further, the study identifies drivers of and barriers to diffuse green economy under the flow of arrows 'a1', 'a2' and 'a3'. This phase is adapted from a framework presented by Rogers (2003), which explores factors of the drivers that play a role in disseminating information about sustainability. At the same time, factors of barriers to knowledge creation linked to green economy are also identified.

In this context, the flow of the arrows is closely related to the essence of the flow of communication channels as part of integrated instrument of diffusion of innovation (Rogers, 2003). He argued that the model plays a circular approach in measuring the concept or idea. In other words, it reflects a dynamic framework that progressively move interchangeably (Rogers, 2003).

2.6.2 Phase two: Exploring the elements needed to transfer green economy knowledge to destinations

Phase Two investigates ways to transfer knowledge and information about the green economy to destination stakeholders. In doing so, this phase follows the flow of connection of factors that diffuse understanding of the green economy concept. The arrows 'c', 'c1' and 'c2' simultaneously reflect the framework of diffusion of innovation by Rogers (2003). This

framework identifies the diffusion of information and knowledge links to green economy implementation under the lenses of communication channels and persuasion, which incorporates the relative time of diffusion (arrow ‘c2’) and social systems (arrow ‘c3’). It also explores overlaps with drivers and barriers of diffusion (arrow ‘c1’).

In this phase, the investigation highlights connections among the elements of the diffusion of innovation framework that interconnected to both knowledge creation and the implementation of a green economy. The identification of what channels of communication might be used for diffusion information and what channels were successful in diffusion of information links to the awareness and knowledge of the green economy concept. This is reflected in the flow of connection under arrows ‘a’ and ‘c’. Phases One and Two are also interconnected, as reflected by arrows ‘a’ and ‘b’, which appear to travel in two directions. It also attempts to explore the roles of persuasion and social systems in diffusing information and knowledge to the stakeholders to encourage them to move towards a green economy (arrows ‘c1’, ‘c2’ and ‘b’).

This framework seeks to demonstrate that by addressing a knowledge gap in relation to destination stakeholders, understanding of the green economy strategy will benefit all stakeholders to move to green economy. According to Dabphet et al. (2012), the implementation of sustainability in tourism destinations corresponds positively to the level of understanding among stakeholders about the sustainable tourism development concept. In this context, the understanding is limited to the term sustainable tourism development concept. This framework attempts to fill knowledge gaps using a more integrated and holistic approach to the transmission of knowledge and information about the green economy.

2.7 Chapter Summary

This chapter highlighted that the green economy strategy has a powerful capacity to empower a community in tackling a wide variety of negative impacts resulting from tourism activities. However, there is little research focused on the implementation of sustainable tourism-green economies in small, developing destination. Evidence indicates that a key ingredient of implementing sustainability strategies in destinations is transfer or diffusion of knowledge to destination stakeholders. Roger’s diffusion of innovation theory (2003) has been selected as a suitable framework to investigate the implementation of green economy strategy in the case study destination of Wakatobi Island.

Chapter 3 Methodology

3.1 Introduction

This chapter discusses the approach and methodology employed to address the research aims outlined in Chapter 1. The research paradigms of the study are explored, and the selected research approach is discussed in section 3.2. Then, the methodological approach, methods and sampling techniques used for this research are examined. This study incorporated three research phases. The first phase involved developing a conceptual framework through review of the literature, the second phase involved testing the framework in a case study in Wakatobi and finally, the third phase involved developing a generic model based on the results of the Wakatobi evaluation. Instrument constructions for primary methods are outlined followed by a description of the data analysis. This chapter also discusses the limitations of the research, and methods to maintain confidentiality and data storage. Finally, a summary concludes this chapter.

3.2 Research Paradigm

A fundamental step in doing research is to bring to the inquiry certain paradigms that play a set of beliefs that guides actions to address the aim of the study (Creswell, 2007). Determining the paradigm refers to developing the philosophy and theory for the research process. Neuman (2013) notes that understanding the research paradigm leads to establishing the standpoint of the researcher in relation to the subject of the study. In other words, it specifies the assumptions guiding the design of the research (Denzin & Lincoln, 2011).

According to Jennings (2010), to determine the paradigm of a research project, it is essential to take into account the sets of assumptions that underpin the research process. Four assumptions question the practice of research: ontological, epistemological, axiological and methodological (Table 3.1).

Table 3.1 Elements of this study.

Assumption	Questions	Characteristics	Implications for practice
Ontological	What is the nature of reality?	Reality is multiple as seen through many views	Researcher reports different perspective as themes develop in the findings
Epistemological	What counts as knowledge? How are knowledge claims justified? What is the relationship between the researcher and that being researched?	Subjective evidence from participants; researcher attempts to lessen distance between himself or herself and that being researched	Researcher relies on quotes as evidence from the participants: collaborates, spends time in the field with participants, and becomes and "insider"
Axiological	What is the role of values?	Researcher acknowledges that research is value-laden and that biases are present	Researcher openly discusses values that shape the narrative and includes his or her own interpretation in conjunction with the interpretations of participants
Methodological	What is the process of research? What is the language of research?	Researcher uses inductive logic, studies the topic within its context, and uses an emerging design	Researcher works with particulars (details) before generalizations, describes in detail the context of the study, and continually revises questions from experiences in the field

Source: Creswell (2014).

Jennings (2010) distinguishes between paradigm, methodology and method as follows:

1) The paradigm is the overarching view of the way the world works.
2) The methodology is the complementary set of guidelines for conducting research within the overlying paradigmatic view of the world.
3) Methods are the specific tools of data and/or empirical material collection and analysis/interpretation/(re)construction that a researcher will use to gather information on the world and thereby subsequently build theory or knowledge about that world.

In addition, Neuman (2011) notes that a different philosophical standpoint will influence the methodology and methods chosen by researcher in finding data and creating knowledge or closing the knowledge gap in the literature. Understanding the philosophy of science helps explain how and why the approaches to social science research are different from natural science research.

This section is designed to provide a general overview of a wide variety of research paradigms available and the rationale as to why the interpretive approach was chosen as the appropriate paradigm for this research. Kuhn as cited in Kivunja and Kuyini (2017) notes that the word paradigm refers to a philosophical way of thinking. According to Neuman (2011), a paradigm is a general organising framework for theory and research that includes basic assumptions, key issues, model of quality research and methods for seeking answers.

Evidence suggests there are a number of approaches in social research (Creswell, 2007; Denzin & Lincoln, 2017; Flick, 2002), which, according to Neuman (2011), can be grouped into three major approaches: positivist, interpretive and critical. However, Denzin & Lincoln (2017) argue there are five approaches in social research, adding postpositivist and participatory. Meanwhile, they prefer to label the approach of interpretive with constructivism. Jennings (2010) develop other philosophical paradigms including feminism, post-modernism and participatory paradigms.

In terms of the positivist paradigm, researchers seek precise quantitative measures, test causal theories with statistics and believe in the importance of replicating studies (Neuman, 2011). Conversely, interpretive research emphasises the understanding of the participant's point of view, feelings and experiences. Differing from positivist and interpretivist approaches, the critical approach blends theory into action and advocates for social change (Neuman, 2011). Veal (2006) notes that researchers with a positivist paradigm view the world as external and objective, while in an interpretive paradigm, the researcher tries to be involved in the

participant's way of life to access their mind and point of view. In similar vein, Neuman (2013) suggests that by utilising an interpretive approach, researchers gain an in-depth understanding of the phenomenon under investigation using relatively few cases.

In this thesis, the candidate aligns himself with the interpretive approach. This research focuses on understanding participants' perspectives on the topic and the reason for their actions, and linking this understanding with the framework developed from the literature. Other approaches taken in this research include:

1) Ontology: there is a reality that can be studied from a social perspective. In this context, the reality that takes place in Wakatobi Islands, Indonesia.
2) Epistemology: the researcher chooses to be an interpretivist because of his belief that the relationship between researcher and the research is inter-subjective, not objective.
3) Methodology: the researcher has chosen the case study method, as the topic of the diffusion of green economy strategy is more relevant in a local rather than global context.

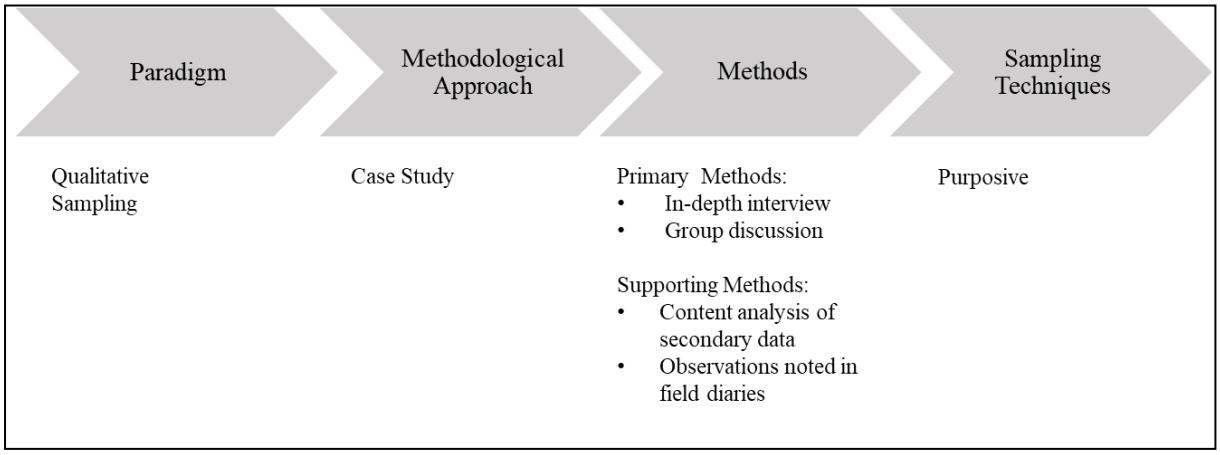
The following section will discuss, in detail, the methodology and methods used for this research.

3.3 Research Methodology

This study adopts a qualitative research approach within the interpretivist tradition (Figure 3.1). A qualitative approach involves gathering information from the research participants and actors to reveal meanings in and understanding of the issues being researched (Neuman, 2006). For the most part, the data are expressed by actors in their own words, and this may or may not be voluminous, unstructured, nuanced, ambiguous (Botterill & Platenkamp, 2012; Larry. Dwyer, Gill, & Seetaram, 2012; Guest, Namey, & Mitchell, 2013; Neuman, 2006; Sirakaya-Turk, 2011; Veal, 2006).

According to Creswell (2014), conducting qualitative research refers to developing a plan (or research design) that incorporates paradigm, methodological approach, methods and sampling techniques. Research design frameworks develop the structure of components that flow through all phases of the research process.

Figure 3.1 Overview of Paradigm, Methodological Approach, Methods and Sampling Technique Applied in this Study



Source: Adapted from Klint (2013) and Creswell (2013).

3.3.1 Qualitative research

The use of a qualitative approach in the study of sustainable tourism has been increasingly applied (Kieżel, Piotrowski, & Wiechoczek, 2019). Qualitative methods are perceived as a broad class of empirical procedures designed to describe and interpret the experiences of research participants in a context specific setting (Denzin & Lincoln, 2017). These methods allow researchers to become more of an 'insider', and to potentially discover social actors' culture and their worldviews (Blaikie, 2000). As stated by Merriam as cited in E. Wong et al. (2013) "qualitative researchers are interested in understanding the meaning people have constructed, that is, how people make sense of their world and the experiences they have in the world". Moreover, qualitative methods aim to gain a deeper understanding of specific issues by listening and analysing what study participants reveal to a researcher and can furthermore be used with only sensitising concepts as a guide (Henderson & Bialeschki, 2005). As such, Creswell (2007) notes that qualitative method is a multiparadigmatic research in focus which enables people to interpret activities or things with a considerable number of perspectives.

As stated by Dabphet (2010), the qualitative approach plays a significant role in investigating not only people's understanding of sustainable tourism but also in assessing the perception of research sources on the communication channels in its diffusion. In this context, a qualitative approach was utilised in this study to reveal understandings of the green economy strategy and communication channels in its diffusion for stakeholders of Wakatobi Islands, Indonesia. Further, the model developed through qualitative research will be useful for the global context,

although the assessment of the conceptual framework will be undertaken in the context of Wakatobi as a single case study.

Case studies

The term case study is largely used for qualitative research that seeks to explore a context using interpretive enquiry (Denzin & Lincoln, 2017). It is a qualitative approach in which the investigator explores a real life, contemporary bounded system or multiple bounded systems over time, through detailed, in-depth data collection involving multiple sources of information, and reports a case description and case themes (Creswell, 2007). Glesne (2011) notes that a case study can involve one person or many, a village or event or part of program. Sirakaya-Turk (2011) argues that although the sample of a case study may be small (one unit or village or company), the story can be completed holistically from various data sources (e.g., interviews, observations, documentations, memos, emails, poster physical artefacts and video tapes). According to Hammond and Wellington (2012), case study research is not intended to present a general phenomenon. Rather, the case is used to explain the 'how' and 'why' of a phenomenon.

Stake (2000) identifies three types of case study: intrinsic, instrumental and collective. Intrinsic case study research is interested in a specific case in and of itself, without generalisation or theory building. Instrumental case study is useful for research to discuss a case with an aim of examining a specific issue. Collective case studies involve gathering data from several cases to comprehend a specific phenomenon. This thesis can be categorised as an instrumental case study because it has gathered data from tourism businesses in Wakatobi as a single case study to understand how the tourism industries help local communities deal with the implementation of a green economy strategy (Lund, 2014).

The green economy strategy appears from a real-life context that engages stakeholder destination (i.e., communities, businesses and governments) to move towards sustainability in tourism (Gossling et al., 2012; Law et al., 2014). As such, it is best investigated using a case study approach. Furthermore, case study research allows all data collection methods to be applied (de Vaus, 2001). According to Jennings (2010), there are three common modes that can be used: interview, participant observation and documentary methods. (Yin, 2009) acknowledged six ways of collecting empirical data for case study research: documentation, archival records, interviews, direct observation, participant observation and physical artefacts. This thesis uses interviews and group discussion as the primary data collection methods

(section 3.3.2). It also uses content analysis of secondary data and observations noted in research diaries (section 3.3.3).

This thesis takes a case study approach because it has several strengths as identified by (Hodkinson, 2001). First, case study research allows researchers to understand complex inter-relations. Second, case study research is grounded in lived reality. Third, case studies allow the exploration of the unusual or unexpected. Fourth, case studies explain the casual relationship of the process and finally, enrich conceptual development in the research. Moreover, case studies have several strengths compared to other types of study. They can provide depth or detail story about a case; deliver complete information regarding the context or process, including what causes the phenomenon and linking causes and outcomes; and foster new research questions (Denzin & Lincoln, 2011).

However, it is also important to acknowledge the limitations of the case study, which include that the complexity of data gathered is difficult to represent simply; data cannot be used as numerical representation-unless it is a quantitative one; case studies are not generalisable in the conventional sense; and there can be doubt about the objectivity of the researchers (Hodkinson, 2001). Jensen and Rodgers (2002) argue that the case study approach may lack rigour, is prone to bias and lacks generalisability. However, conventional wisdom that assumes case study research is not generalisable is misleading because case studies often contain a substantial element of narrative. Good narratives typically approach the complexities and contradictions of real life, which cannot be summarised or formulated into specific scientific formulae (Flyvbjerg, 2006). In this thesis, one of the strategies to cope with these limitations is by managing the number of respondents. As it planned, the research sets a larger number of respondents (which is 33 people) in order to represent all stakeholders in destination.

3.3.2 Primary Methods

In-depth interviews

The main idea behind an interview is to uncover people's perspective and experiences regarding a specific context. The interview is an exchange of ideas or perspectives between researcher and respondent regarding the topic being researched (Jennings, 2010). According to Hesse-Biber and Nagy Leavy (2011), the in-depth interview uses individuals as a point of departure for the research process, and assumes that individuals have unique and important knowledge about the social world that is ascertainable and can be shared through verbal communication.

The in-depth interview technique was employed in this research because: (1) it enabled the researcher to collect rich empirical data and dense explanations of the topic being studied (Jennings, 2010); (2) the iterative nature of interviewing helped ensure its validity and accuracy (Dwyer, Gill, & Seetaram, 2012); and (3) face-to-face interviews allowed the researcher to observe surroundings, ask longer questions and achieve a high respond rate compared to the survey method (Neuman, 2011).

However, as with any research method, in-depth interviews also have limitations. For example, they require large investment from both researcher and interviewee as one interview can take up to 90 minutes or longer. Further, the distance of one location to another, as well as adjusting to respondent schedules may generate additional transport and communication costs (Jennings, 2010; Neuman, 2011). These challenges were addressed to some extent by combining interviews with other research methods, such as focus groups, content analysis and observations, to achieve the research objectives while controlling costs.

Focus groups

Focus group research is a qualitative technique in which researchers gather with approximately 6 to 12 people to discuss the issue. These discussions tend to last around 90 minutes and participants are free to express their opinions facilitated by a trained moderator (Neuman, 2011). Glesne (2011) suggests that group discussions mean facilitating a group of people (6 to 10 people) on a discussion about a research topic over a period of 1 to 2 hours in 1 session.

The focus group discussion approach was applied in this study for the following reasons. First, focus groups can produce powerful knowledge and insights. According to Denzin and Lincoln (2017), more than observations and individual interviews, focus groups afford researchers access to social-interactional dynamics that produce memories, positions, ideologies, practices and desires among a specific group of people. Second, focus groups allow researchers to see the complex ways in which respondents position themselves in relation to each other as they answer research questions in more focused ways (Denzin & Lincoln, 2017). Third, focus groups save time and energy. As stated by Glesne (2011), focus groups allow researchers to access the perspective of several people at the same time and in the same place. However, despite these advantages, Neuman (2011) argues that focus groups produce fewer ideas than individual interviews. In this context, the research set to probe deeper questions to respondents when it comes to answers that might need to be followed up.

3.3.3 Supporting methods

Document analysis of secondary data

Document analysis is a research method that uses a set of procedures to make valid inferences from text (Dwyer, Gill, & Seetaram, 2012). The content refers to words, symbols, ideas, pictures or anything that can be used as a visual and audio communication medium for human interaction (Neuman, 2011). Secondary data may include academic journals, books conference papers, government publications, newspaper articles, reports, theses, statistics and websites (Gray, 2017).

Observations noted in field diaries

Research involving observation allows for exploring the world in many ways (Patton, 2014). Observation allows researchers to explore and explain the setting of the research context and note real situations that cannot be expressed verbally or in written form. Berg (2007) suggests that these observations be noted in written field diaries that, when possible, are completed immediately after any activities undertaken during the field trip. The use of observational analysis allows researchers to explore the world in many ways and provides an opportunity to describe to the reader the setting of the phenomenon being studied (Patton, 2014).

A summary of methods applied in this research is presented in Table 3.2, while a further discussion of how the primary methods are applied in this thesis is provided in section 3.5.

Table 3.2 Summary of Methods Applied in this Research

Method	Purpose	Participants and Recruitment Sources
In-depth interview	Utilised to: (1) reveal participants' perspectives based on their expertise and experience; (2) capture broad opinions, experiences, and points of view that cannot be explored by conducting a survey or questionnaire or other methods (Guest et al., 2013).	Participants: 15 participants as representative of three stakeholder groups: (1) tourism businesses in Wakatobi; (2) NGOs; and (3) government. Recruitment: Participants were selected through purposive sampling techniques.
Focus Group Discussion (FGD)	Applied to: (1) develop an understanding of diverse opinions and perceptions regarding the implementation of sustainable tourism-green economy strategy; (2) allow knowledge sharing between community, community leaders, NGOs, and government representatives, regarding the topic discussed (Dwyer et al., 2012).	Participants: 10 participants in the first FGD and 8 participants in the second FGD in Wakatobi. Recruitment: Participants were selected through purposive sampling techniques.
Content Analysis of Secondary Data	Applied to: (1) provide supplemental data to contextualise the case study destination; (2) help in designing interview questions; and (3)	Sources: Research reports, government policies and

	identify possible respondents for primary data collection (Neuman, 2011).	regulations, academic literature, and newspaper articles.
Observation noted in Field Diaries	Utilised to (1) obtain first-hand information; (2) examine interaction and behaviours in real-world settings; (3) enable wide ranges of empirical data as researcher in the study setting for extended period; and (4) gain awareness of how respondents construct their point of views (Jennings, 2010).	Sources: Observation and documentation during data collection activities in Wakatobi. Recruitment: Immediately after any activities taken during the field trips. This includes date, specific location and experiences or personal responses.

Sources: Adapted from Calgaro (as cited in E. Wong et al., 2013).

3.4 Sampling techniques

This research used purposive sampling techniques to identify key informants. Patton (2002) notes that purposive sampling is the way to choose study participants based on their involvement in the study and to select those from whom the researcher can learn most about the issue or the central inquiry. Adger et al. (2004) argue that the ideal sample size for a phenomenological study is between 5 to 25 respondents and for grounded theory is 20 to 30 people. In purposive sampling, respondents are not selected as representative of a larger population but because of their capacity to give rich information regarding the topic being researched (Sirakaya-Turk, 2011). Most experts in this field agree that a purposive sample size should be determined inductively; therefore, sampling should continue until theoretical saturation is reached. Saturation was first formally described by Krippendorff (1967), who defined it as the point at which little or no new information is raised from new, additional respondents (Ezzy, 2013). However, Morse (1995) contended that in qualitative research there are no published guidelines or tests of adequacy for estimating the sample size required to reach saturation equivalent to those formulas used in quantitative research. Rather, in qualitative research, the signal of saturation seem to be determined by investigator proclamation and by evaluating the adequacy and the comprehensiveness of the results.

In this thesis, the type of community in destination seems to be fit with the approach of purposive sampling. Further, the investigation purposively chose persons that represent the community. In that context, the capacity and capability of the person have been taken into account. For example, community leaders were chosen from community that represents the area of destinations: Wangi-wangi island, Kaledupa island, Tomia island and Binongko island.

Prior to data collection, Victoria University's Ethic Committee granted human research ethics approval to conduct in-depth interviews and focus groups in Wakatobi Islands, Indonesia. The government of Wakatobi, several tourism industries and community leaders and individual

respondents provided support for this project. Table 3.3 shows the number of respondents that participated in this research. To ensure confidentiality, a further breakdown of the sample is not provided.

In this thesis, 15 participants were involved in indepth interviews, while the other 18 participants involved in both indepth interviews and group discussions. 15 participants were chosen to represent governments, tourism industries, community leaders, NGOs, and academics. And the way this thesis chose the participants used purposive sampling as explained above. As to the two groups chosen (government and community) were set up to see the different perceptions from the policy makers and the public. It is believed that government and public have always seemed to be in two different point of views (Rahmawati, 2017).

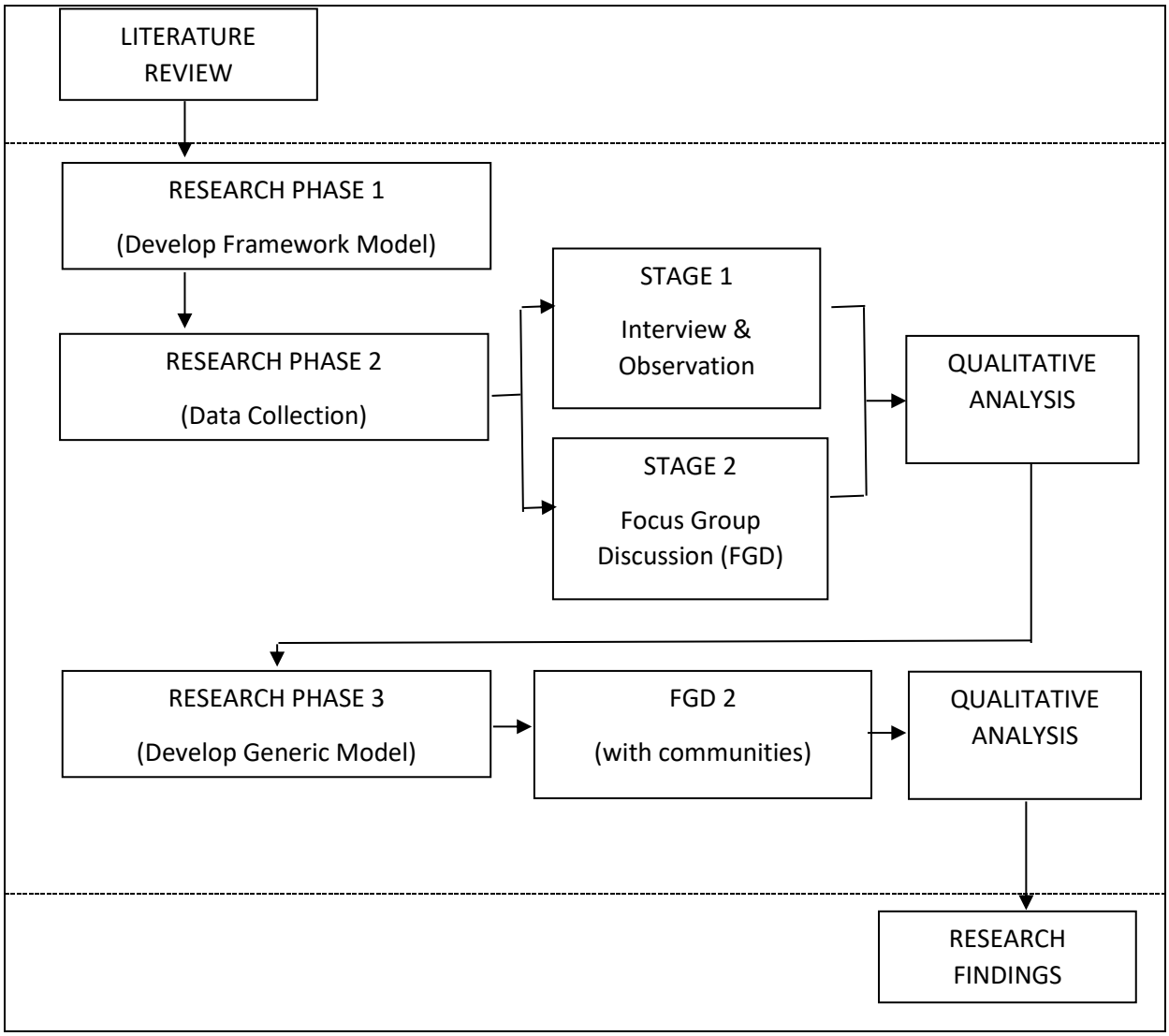
Table 3.3 The Sample of Participants

Sample Group	Number of Respondents			Code		
	Interview	FGD 1	FGD 2	Interview	FGD 1	FGD 2
Government representatives	-	10	-	-	1,2,3,4,5,6,7,8, 9,10	-
Tourism industries	5	-	2	11,12,13 ,14,15	-	16,17
Community leaders	5	-	3	18,19,20 ,21,22	-	23,24,25
Non-governmental organisation	3	-	1	26,27,28	-	29
Academic	2		2	30,31	-	32,33
Total	**15**	**10**	**8**		**33**	

3.5 Data Collection

Data were gathered from multiple sources at various time points during the 2017–21 academic years. This study involved three phases. The first phase encompassed developing a conceptual framework based on a literature review; the second phase involved conducting interviews, observations and focus group discussions guided by the conceptual framework; and the third phase involved developing a framework based on the data analysis (see Figure 3.2).

Figure 3.2 Research Phases



The first phase involved developing a conceptual framework based on the literature review. This phase was conducted at Victoria University, Footscray campus from February 2018 to April 2019. Literature on sustainable tourism, green economy and diffusion theory were reviewed, especially in the tourism context. Intensive discussion was conducted with supervisors in developing framework. Once the conceptual framework was developed, the research instruments for this research were also constructed. Following that, human research ethics approval was being applied to Victoria University's Ethics Committee. It took 6 months to be approved prior to the empirical data collection which was conducted in September 2019. The research was considered as a high-risk tourism research by the committee.

The second phase of the research was field data collection in Wakatobi Island, Indonesia during September to November 2019. The in-depth interviews with tourism businesses in the second

phase were conducted to address the second and third research objective. The participants included community leaders, tourism businesses (the private sector), government, members of community groups, academics and NGOs. Tourism industries chosen for this study range from non-star hotels, diving operators and tourism operators. The location of these firms spread in all Wakatobi's districts from Wangi-wangi, Kaledupa, Tomia and Binongko (those districts abbreviated to be Wakatobi), to gain a comprehensive understanding of all Wakatobi's stakeholders and their perspectives. Further, community groups and NGOs were selected based on their involvement in tourism and environment activities.

To access respondents, co-operation was required from the hotel and restaurant association in Wakatobi as well as other tourism industry associations. Therefore, networking was an important role at this point. However, most were approached through WWF staff who have good relationships with almost all stakeholders in the island. Connection with WWF was built initially online through their environmental work.

Although the connection built with WWF seems to give benefits in accessing respondent, thi thesis has anticipated the potential of bias in selecting the sources. In that regard, it is important to develop a data gathering protocols and instruments (as detailed in section 3.6) (Chenail, 2011). Along with that, the investigation also has undergone a pilot study to get the feasilibity of data.

Semi-structured interview questions and focus group guidelines were developed based on ian ntensive literature review to create the research instrument. On-site interviews were conducted and mostly followed respondents' schedules for maintaining convenient discussions. Assistance from academics with expertise in this field was sought to review the instruments. To ensure the reliability of the instruments, a pilot study was employed. Feedback from the pilot study was used to revise the instruments for the second step of data collection. Detail about instrument construction is provided in section 3.6.

In addition, focus group discussions (FGD) were conducted for this research. It was conducted twice and took place all in Wangi-wangi, Wakatobi. The first one was held in the office of local development agency with government and national park office representative. As suggested by Dwyer et al. (2012), a focus group discussion involves sharing knowledge, which becomes the foundation of community empowerment and increasing the community's level of awareness of tourism issues. A good relationship which followed by a coordination with local government was the key to obtain permission to conduct FGD in their territory. The second FGD involved

tourism experts from industry associations, NGO, academics (scholars of academy of community and fishery in Wakatobi), community leaders and community of fishermen. The interviews and the first FGD results were key inputs for drafting the next focus group discussion. The second FGD was held in a restaurant in Wangi-wangi city. Although it seems that focus groups contain of a mixture of community members and personnels, the feasibility data can remain be reached. In this context, the selected sources in the focus groups have been undergone a pilot study which was tested beforehand to set the credibility and reliability of sources.

3.6 Instrument Construction for Primary Methods

3.6.1 In-depth interviews

For the first field visit, in-depth interviews were conducted to gather information from respondents to address the second and third research objectives. The in-depth interview was conducted because there is limited secondary data regarding the implementation of green economy strategy in Wakatobi. Interviews were conducted during September to November 2019 in all districts of Wakatobi (Wangi-wangi, Kaledupa, Tomia, Binongko) and were on average 60 minutes in length. Most interviews were conducted in respondents' offices, such as local government and NGO offices. Dates and times for each interview followed the respondents' schedules to ensure their comfort. A voice recorder was used to record conversations with permission from respondents. Table 3.4 provides an example of interview questions. Slightly different questions were asked based on the respondent's role and position (e.g., questions for government were more about policy while questions for tourism operators were more about sustainable tourism-related activities).

Table 3.4 Examples of Interview Questions

Respondent groups	Questions
Government	1. In your opinion, what are the key issues related to tourism developments in Wakatobi? 2. Could you please explain the strategies for tourism development in Wakatobi? Short term? Middle term? And long term? 3. How do you see the growth and economic development in Wakatobi? 4. How do you explain the contribution of tourism to the growth and economic development in Wakatobi? 5. Could you please explain the sustainability and green economy issues in tourism in Wakatobi? 6. What policies and regulations have been made by government in dealing with sustainability and green economy issue in tourism? 7. Could you please explain the role of government in mitigating environmental threat in tourism in Wakatobi?

	8. How does government involve other stakeholders in dealing with sustainability issue in tourism? 9. Are there any programs that can encourage government, companies and society to collaborate in dealing with climate change risks? 10. What do you think about green economy concept in tourism? (Probe the dimensions of green economy concept of 7 pillars green economy framework).
Tourism operators	1. What do you think about tourism development in Wakatobi Island? 2. What do you think about sustainable tourism? 3. To what extent is tourism and innovation sustainability factors implemented in Wakatobi? - Probe: current implementation of sustainable and green economy tourism in your organization. 4. What do you think about green economy in tourism? 5. How do you see the implementation of green economy in tourism in Wakatobi Island? - Probe: current implementation of climate resilience (adaptation) and managing the low-carbon transition (mitigation). - Probe: current implementation of natural resource dan waste management, which includes biodiversity conservation. - Probe: current implementation of product development and destination management. - Probe: current implementation of branding, marketing and e-distribution. - Probe: current implementation of capacity-building and green jobs. - Probe: current implementation of infrastructure, technology dissemination and communications. - Probe: current implementation of policy reform, public private partnership (PPPs) and finance and innovation.

6. To what extent is the approach of government (both central and regional) in socialising sustainability in Wakatobi?
7. To what extent is the approach of government (both central and regional) in socialising green economy in Wakatobi?
8. What do you think encourages tourism business owners to move towards green economy in Wakatobi?
9. What do you think discourages tourism business owners to move towards green economy in Wakatobi?

3.6.2 Focus groups

Two focus groups were conducted; both had a different audience and objectives. The first focus group's objective was to gather data that could complement the interviews, which were mainly conducted by tourism operators. By involving representatives of local government from various agencies and national park representatives in the discussion, the research could present broader perspectives from various tourism stakeholders. The results of the first focus group discussion provided a balance of information between data presented by tourism operators during interviews and information from community members at the grass-root level. The second focus group's objective was to explore perspectives around green economy implementation from NGOs, community leaders and academics. It probed for more understanding to compare with government perspectives.

3.7 Data Analysis

Data obtained from in-depth interviews and focus group discussions needed to be transcribed and translated from Bahasa Indonesian into English. A thematic approach was used to analyse data. In thematic analysis, once data is collected, it is coded to search for similar themes and patterns and to explore how the categorisations are presented case to case, from setting to setting (Füssel, 2007).

According to Füssel (2007), data analysis can be divided into three activities: First, conducting early data analysis, which includes memo writing, analytic files and creating a monthly report; second, entering code names; and finally, presenting the data. Similarly, Veal (2006) notes that

the main activity of qualitative analysis is reading of notes, documents and transcripts, listening to the interviews and focus groups records, transcribing the data, and coding sorting and organising data. Similarly, Crowther and Lancaster (2008) assert that analysing qualitative data involves three steps: data reduction, which means the researcher organising data into clear patterns; data display, which is analysing qualitative data in a way the reader can understand and evaluate; and conclusion drawing and verification. Although data reduction has been said as one of the methods of analysing qualitative data, the thesis would not necessarily take this into account. In this context, data collected are managed and organised in order to reach credibility and reliability. Further, the final step involves comparing data against initial theories, and then verifying them more through detailed examination.

In this research, NVivo was used to help analyse the data. As suggested by Veal (2006), NVivo is the most widely used program to aid in shaping and understanding data, and has the capacity to help form and test theoretical assumptions about the data. NVivo is a tool to help the researcher to manage, explore and find patterns in the data – although it cannot replace the analytical expertise of researchers. It helps organise the data collected in a more structured way. Moreover, NVivo helps find similar patterns in the data so that the researcher can answer the questions of 'why' and 'how' relating to the sources of data through data queries.

According to Edhlund and McDougall (2019), there are some key concepts in NVivo software. The material of the research is called sources, including documents, PDF files, videos, audios, pictures, memos, and framework matrices. Coding is a process that helps organise the data by topic, case or theme. Nodes are similar to a folder in a computer program; it is useful for material to be in one place and makes it easier to pull together similar patterns and ideas. Source classification allows the researcher to classify the data based on their source. Node classifications help in recording data about people or place or case; for example, demographic data of the respondents.

The first step in data analysis was listening to the voice recorder, transcribing the data and then saving it into a Word document. As the interviews were conducted in Bahasa Indonesian, the researcher translated and transcribed the interview data into English. In this context, the thesis hire a sworn translator (certified translator) to set data collected are credible and reliable. Similarly, the memos from the observations were translated into English so that it was easier to undertake the next steps. Once data were transcribed, the next step was developing codes. According to Hennink, Hutter, and Bailey (2020), "a code is an issue, topic, idea, concept, or process that is evident in the data". Codes are distinguished into two types: deductive and

inductive codes (Hennink et al., 2020). Deductive codes originate from the researcher and can be developed from an interview guide derived from the literature review. Inductive codes come directly from reading the data that reflect participants' views.

This research's data were coded deductively. An extensive list of codes was developed as a starting point for data analysis based on the seven pillars of green economy (DeLacy et al., 2014): (1) climate resilience (adaptation) and management of low-carbon transition (mitigation); (2) natural resource and waste management (i.e., biodiversity conservation); (3) product development and destination management; (4) branding, marketing and e-distribution; (5) capacity building and green jobs; (6) infrastructure, technology dissemination and communication; and (7) important means of implementation such as policy reformation, PPPs, finance and innovation. The dimensions and practices of the framework served as codes for this research. Some codes for diffusion theory were also identified based on literature review. For example, Rogers (2003) types of communication channels, mass media and interpersonal channels. Once codes were developed, they were kept in a code book as the central reference to make the data coding consistent. Coding data is a process that involves reading data carefully and organising them into appropriate codes (Hennink et al., 2020). New codes can be added to a codebook if they are identified during the coding process.

3.8 Data Storage and Confidentiality

It is the responsibility of the researcher to maintain confidentiality of data and store data in a safe and secure place. According to Gillham (2005), there are several guidelines for conducting interviews: designing informed consent forms, storing and analysing data, respecting safety and well-being of the respondents, and protecting the identity of information. This research followed these guidelines to ensure all data were kept confidential and secure. In particular, identities of the participants were separated from their answers. The participants' data will never be given to clients or other people (Glesne, 2011). Further, research data and primary materials were stored in safe and secure storage. The computer used to store the data was locked so that only the researcher had access to it. Data were backed up in Dropbox and Skydrive. Data will be held securely for five years at Victoria University.

3.9 Limitations

Data collection was undertaken overseas, with limited time and money to spend in the field. International flights and local transport costs were costly. This affected the methods undertaken

for this research. Combining in-depth interviews and focus groups minimised the cost without reducing the quality of data gathered.

Furthermore, managing time to conduct in-depth interviews with tourism stakeholders in Wakatobi was problematic. Time management was a crucial factor in the availability of sources to be interviewed. While some appointments for interviews needed to be readjusted because of the delayed ethics approval, a number of prominent sources (i.e., representatives of government and businesses) resisted giving approval. As such, strategic effort was needed to manage the interview with stakeholders.

The location of the research itself was problematic. Wakatobi consists of four different islands, each of which exists as a different district. It took two to four hours by motorboat to travel between these islands. The transport schedule and weather were difficult to predict and led to more adjustments to interviews.

Despite the challenges of data collection, problems were managed to facilitate data collection. Time management became very flexible to allow for contingencies. Also, good relationships with all stakeholders supported necessary changes in the data collection schedule.

3.10 Chapter Summary

This study was grounded in the interpretive research paradigm. A qualitative method was considered the most appropriate approach to achieve this study's research objectives of the study. Data for this research were collected using primary methods of in-depth interviews and two focus group discussions, and secondary methods consisting of content analysis of secondary data and observations made in field diaries.

Chapter 4 Wakatobi Tourism and Sustainability

4.1 Introduction

This chapter introduces the case study of Wakatobi Islands and places this destination into its tourism and sustainability context. This chapter is divided between three main sections. Following the introduction, the first section overviews Indonesia in terms of its politics, economy, culture and environment. The second section identifies the components of the Indonesian tourism system and assesses how the system is addressing sustainability and the UN SDGs. The third section describes Wakatobi Islands as one of the leading tourism destinations in Indonesia. It also examines how tourism planning is being implemented based on observation and literature.

4.2 Indonesian Overview

4.2.1 Geography, natural resources and environments

Indonesia is the biggest nation out of the 10 members of the Association of Southeast Asian Nations (ASEAN) (Artner, 2017) (Figure 4.1). It is located between the continents of Asia and Australia and is divided between Malaysia, Singapore, Brunei, the Philippines, Timor-Leste and Papua New Guinea. Indonesia shares four islands, Borneo (Kalimantan island), Sebatik, Timor and New Guinea, with neighbouring countries (Cribb & Ford, 2009).

Figure 4.1 Map of Indonesia

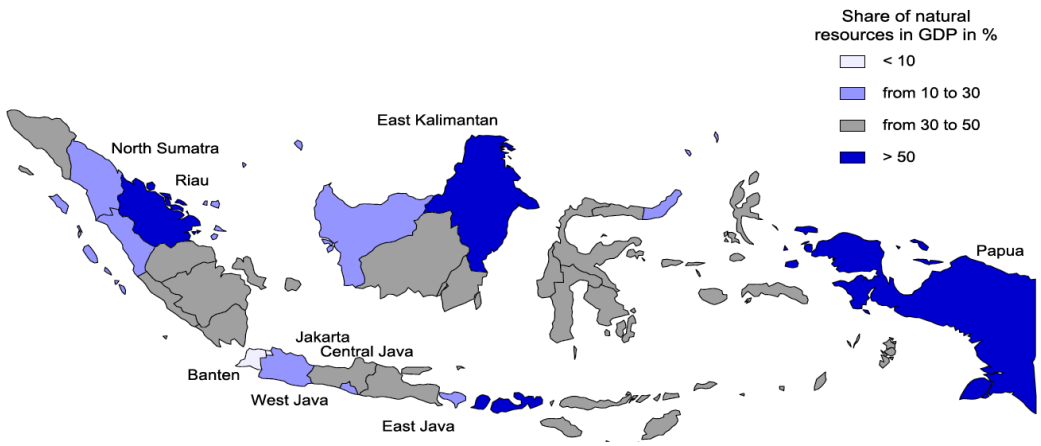
Source: lonelyplanet.com

Indonesia is the largest archipelagic state, consisting of approximately 17,500 islands (Wisesa, 2010). It also consists of more than 600 ethnic groups and tribes spread over the islands (Pitoyo & Triwahyudi, 2017). According to the Statistics Agency of Indonesia (BPS, 2020), the population in Indonesia has reached nearly 300 million people, up from around 220 million people in 2010. Indonesia is the world's fourth largest country by population (Kemlu, 2020). The bulk of Indonesia's population lives on the western islands of Java, Bali and Madura. However, population growth in Java has been significantly slower than in outer islands (Indraswari & Yuhan, 2017). According to Statistics Agency Bureau (2013), the number of people living in Java Island decreased gradually by 57.4% from 2010. In contrast, the number of people living in other islands, Sumatera island (21.3%), Kalimantan island (6.6%), increased significantly.

Indonesia abounds with natural resources especially minerals, coals and forests (Ulum, Rizqiyah., & Jati, 2016). Indonesia is the world's largest exporter of steam coal, refined tin and nickel ore. Further, it is the world's leading palm oil producer and exporter (Dutu, 2015). It is also the second-largest producer of rubber, Robusta coffee and fisheries products, and holds 40% of the world's geothermal energy reserves (Dutu, 2015).

Dutu (2015) notes that the regional distribution of natural resources is not uniform in Indonesia, whose share of natural resources in GDP mostly derives from direct exploitation of coal in two large islands, Kalimantan (approximately 75%) and Papua (more than 80%) (Figure 4.2). Bali island generates substantial revenue from tourism (Dutu, 2015).

Figure 4.2 Map of Share of Natural Resources in GDP



Source: Adapted from Dutu (2015).

According to the World Bank (2021), although Indonesia has the world's third largest forest coverage (944,320 km^2) located mainly in Sumatra, Kalimantan and Papua, it has been decreased significantly to 49.1% in 2020. Agricultural land covers 536,000 km^2 and consists of arable land (44%), permanent crops (35%) and permanent pasture and meadows (21%). In terms of renewables, water resources in Indonesia are slightly less than the United States with 8,500 m^3/capita/year (Dutu, 2015). According to Ma'mun (2020), this is considered sufficient to meet population and economic growth demands in Indonesia, including its agricultural sector and especially through the production of rice. However, it seems that water management has yet to be improved as it fails to be distributed equally to all Indonesian regions (Dutu, 2015; Ma'mun, 2020).

According to Poernomo and Kuswardani (2019), Indonesia ranks second in global production of marine fish and cultured fish. Its coastal zone is home to 2,500 species of mollusc, 2,000 species of crustacean, 6 species of sea turtle, 30 species of marine mammals and over 200 species of fish. Further, Indonesia's oceans provide an important source of protein that traditionally has been a major food source (Poernomo and Kuswardani, 2019). Indonesia's marine and coastal vegetation are significant contributors to the global oxygen supply and to carbon dioxide absorption. Along Indonesia's coastline are the world's largest mangrove forests, with an area of 3.2 million hectares (ha) (Poernomo and Kuswardani, 2019).

In terms of environmental protection, the Indonesian government showed its concerns by enacting Law No 4 of 1982, which is the Basic Provisions for the Management of Living Environment. This Law was then improved and superseded by Law No 23 of 1997 concerning the Management of Environment. This has been amended by Law No. 11 of 2020 of The Job Creation and Environmental Law (or Omnibus law), which regulates environmental protection in Indonesia and establishes the Ministry of the Environment and Forestry to be the principal regulator of all environmental explorations (Ministry, 2020).

Indonesia's land management system, as part of its environmental management system, is managed by the National Land Agency of Indonesia (BPN). This body has been responsible for developing and implementing medium and long-term strategic plans to support the improvement environmental quality and management of natural resources. In this context, the National Planning Development Agency (BAPPENAS) is responsible for supporting this work. Indonesia faces many constraints in its efforts to improve environmental regulations and policy and their application (ADB, 2015; Bank, 2014). According to an Asian Development Bank Report (ADB, 2015), Indonesia has lost over 40% of its total forest cover over the past 50

years. Indonesian forests are threatened by logging and agricultural clearance that results in deforestation.

In terms of water availability, Indonesia struggles to provide clean water for human consumption and adequate water supply for industry and agriculture. There is a shortage of surface water supply especially during dry seasons. ADB (2015) reports that there is a lack of adequate wastewater treatment and sanitation facilities in urban centres, and wastewater is thrown directly into rivers and canals. In terms of air pollution, the transportation sector has contributed the most (80%) to air pollution followed by emissions from industry, forest fires and domestic activities. The large number of vehicles together with lack of infrastructure results in major congestions, resulting in high levels of air polluting substances, which have a significant negative effect on public health, quality and quantity of crops, forests buildings and surface water quality (ADB, 2015).

The World Bank (2014) estimates that over 70% of all coral reefs in Indonesia are damaged. Overexploitation of natural resources, rapid deforestation, unsustainable coastal and economic development (housing, industrial development) and poor environment management are some of the causes of loss of biodiversity and ecosystem services. Further, key ecosystem services (i.e., carbon sinks and carbon sequestration) are declining, as rainforest and peat swamps are degrading, leading to more greenhouse gas emissions.

Due to its geographic location, composition and demography, Indonesia and its population are highly vulnerable to disasters. Indonesia is situated within the 'ring of fire' and is very susceptible to disasters including floods, earthquakes, tsunamis and landslides. Therefore, it is critical for the country to have a reliable disaster management to prevent loss of life and other negative impacts (Stott, 2020)

There is considerable evidence that one of the significant elements related to Indonesian environmental system is climate change (Rahmawati, 2014; Suwarno, 2016; World Bank, 2014; ADB, 2015). Indeed, Indonesia is one of the most vulnerable countries to climate change (Rahmawati, 2014; Suwarno, 2016). Although there have been a number of components of climate change that put Indonesia at risk, it is believed that sea level rise and drought have been the top two factors of climate change (Rahmawati, 2017).

4.2.2 Environmental Protection and Sustainability

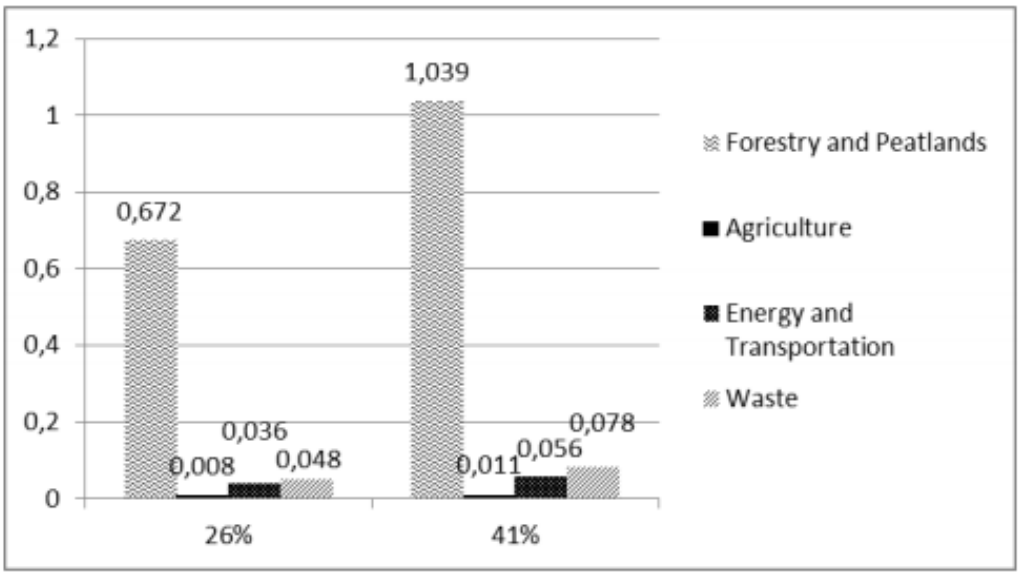
According to Suwarno (2016), the government of Indonesia has been responding to environmental concerns since the 1970s, when the international community gained greater

awareness of protecting the global environment, demonstrated by the 1972 United Nations Conference on the Human Environment held in Stockholm, Sweden. In 1978, the Indonesian government first established its Ministry of Development Monitoring and Environment to address environmental issues (Wicaksana, 2015).

Indonesia showed its first concerns on climate change in 2007 when it hosted the United Nations Climate Change Conference (UNFCCC) COP13 in Bali. The profile of climate change issue has increased considerably since then, where it gained a nationwide recognition as one of national development agendas (Suwarno, 2016).

The Indonesian government, under Soesilo Bambang Yudhoyono's (SBY) administration, announced the country's commitment to addressing climate change to reduce national emissions by 26% and pledged even higher to 41% in total by 2020 (Suwarno, 2016). This emission reduction target is distributed to address the rapid deforestation in Indonesia and restore forest ecosystems through the improvement of sustainable forest management (Suwarno, 2016). The forestry sector is among five targeted sectors required to contribute to reducing greenhouse gas emissions (Figure 4.3). To achieve this target, climate change has become a national program that is integrated into the 2010–2014 National Medium-Term Development Plan (Rahmawati, 2017). It shows that emissions reduction in forestry and peatlands are targeted to reach 41% during the period (Bappenas, 2012).

Figure 4.3 Emission Reduction Targets



Source: Adapted from Bappenas (2012)

A range of policies relevant to climate change aim achieve the targeted GHG reduction Rahmawati (2017). The National Action Plan of Greenhouse Gas Emissions Reduction, or RAN-GRK, 2013, and Indonesia National Action Plan on Climate Change Adaptation, or RAN-API, 2013, are considered national policies pertinent to climate change mitigation and adaptation for the tourism sectors (Figure 4.4).

Figure 4.4 National Policies Pertinent to Climate Change Mitigation and Adaptation for the Tourism Sector

Policies	**Goals**	**Types of action to climate change**	
		Mitigation	Adaptation
The Indonesia Climate Change Sectoral Roadmap (ICCSR) (2009)	Provides a long-term development plan in several sectors (e.g., water, marine and fisheries, agriculture, health, industry and transport) in addressing climate change challenges.	√	√
The National Action Plan of Greenhouse Gas Emissions Reduction (RAN-GRK), (2013).	Provides a policy framework for government (national a*nd* regional level), industries and other key stakeholders in implementing actions to reduce GHG emissions during the period of 2010–2020 according to the long-term development plan.	√	
Nationally Appropriate Mitigation Actions (NAMA) for Indonesia (2013).	A set of programs and activities to reduce the GHG emissions in Indonesia, particularly in forestry and peat land, agriculture, energy, industry and transportation as well as waste sectors.	√	
Indonesia National Action Plan on Climate Change Adaptation (RAN-API) (2013).	Provides guidance for sectors, local government and other stakeholders in implementing adaptation activities.		√

Green Growth 2050 Roadmap for Bali Sustainable Tourism Development (Ministry of Tourism and Creative Economy of Republic Indonesia, 2012).	The roadmap is focused on achieving five objectives: 1) improved livelihood; 2) growing visitor economy; 3) better environment; 4)r educed carbon; and 5) an authentic Bali.	√	√

4.2.3 Society and politics

The Indonesian social system incorporates a number of elements that are constructed on common norms, trusts and networks (Rachmawati 2014). Islam is the predominant social system in Indonesia (Kahn, 2009). However, Indonesia is not a Muslim state – indeed, there are six official religions in Indonesia (Noor, 2018).

Indonesia adopts *trias politica* as the political system with powers of the state divided into three institutions: legislative, executive and judicial body (Siallagan, 2015). The basis of the constitution is the philosophical theory of the Indonesian state: the concept of *Pancasila*, which encompasses the belief in one and only God, a just and civilised humanity, a unified Indonesia, a democracy led by the wisdom of the representatives of the people and social justice for all Indonesians (Sulardi. & Tegnan, 2018). The enactment of the 1945 Constitution implemented a presidential system in Indonesia, in which political powers and government agenda are concentrated in the hands of the president (Sulardi and Tegnan, 2018). However, an amendment took place in 1999 leading to power decentralisation (Kuswanto, 2018). Administrative decentralisation is being implemented, transferring much of the central government's authority to regional governments. As a result, regional governments are able to control natural and mineral resources in their region (Akiko, 2016).

4.2.4 Economy

According to (Sinaga, 2017), the modern era of economic development in Indonesia was started in the era of New Order under the President Soeharto administration in 1966. Industrialisation took in place as President Soeharto established a new system of development by making a long-term plan of development (*Repelita*) in 1966. This plan allows for foreign investment, which is regulated by the Ministry of National Development Planning or *Bappenas* (Khaliq & Noy, 2007). Khaliq and Noy (2007) note that Indonesia has since been largely perceived as an attractive destination for foreign investment. As a result, Indonesia's economy has expanded strongly over recent decades (Elias & Noone, 2011).

4.2.4.1 Economic growth and sustainability in Indonesia

According to Kurniawan and Managi (2018), there is a positive correlation between economic growth and sustainability. They argue that economic growth in Indonesia has caused the depletion of many natural resources and the deterioration of various environmental services. Further, Hasan, Mahlia, and Nur (2012) note that it can be seen from the country's energy consumption which depends on non-renewable energy such as crude oil, coal and natural gas as sources of energy.

According to the Statistic Agency of Indonesia (BPS, 2020), in the early era of economic development, Indonesia's export sector dominated by commodities which depends on non-renewable energy, including coal, oil and mineral ores. However, Cabinet secretary of Indonesia office Setkab (2017) note in 2012 a shift in Indonesia's export sector took in place as tourism industry was the biggest contributor to Indonesia's foreign exchange defeating palm oil and many other non-renewable energy sectors. As a result, the tourism industry has been a major economic driver for Indonesia (Setkab, 2017).

4.3 Tourism System and Sustainability in Indonesia

In 2016, Indonesia's foreign exchange earnings from tourism totalled USD6.3 billion (de Haan, 2018). De Haan (2018) note that when indirect and induced incomes from travel and tourism were included the figure increased to USD72.4 billion or approximately 6.2 per cent of GDP in 2016. This level ranks Indonesia's tourism industry as the twenty-second largest in the world, according to World Travel & Tourism Council (2017). It is larger than the average tourism industry in South-East Asia, but smaller than those of Australia, Thailand and the Philippines (WTTC, 2017). It seems that strong growth is expected for Indonesian industry, with direct and induced incomes predicted to reach USD141.3 billion annually by 2027 (WTTC, 2017).

In 2017, the government of Indonesia made a new direction in economic development by setting 10 new destinations in 10 different regions (Table 4.1) (Ollivaud & Haxton, 2019), including Borobudur (Central Java), Mandalika (West Nusa Tenggara), Lake Toba (North Sumatra), Labuan Bajo (East Nusa Tenggara), Morotai (North Maluku), Mount Bromo (East Java), Tanjung Kelayan (Belitung), Tanjung Lesung (Banten), Thousands Islands (DKI Jakarta) and Wakatobi Island (Southeast Sulawesi) (as detailed in Figure 4.5). The decision was made to grow the tourism industry, in which Bali has long been the principal destination of foreign tourists (Kemenparekraf, 2019).

The context of the Wakabobi Islands being a tourist destination priority in Indonesia will be discussed in detail in section 4.4.

Table 4.1 Ten New Priority Destinations in Indonesia

DESTINATIONS	PROVINCE	2019 TOURIST TARGET
Borobudur	Central Java	2,000,000
Mandalika	West Nusa Tenggara	1,000,000
Lake Toba	North Sumatera	1,000,000
Labuan Bajo	East Nusa Tenggara	500,000
Morotai	North Maluku	500,000
Mount Bromo	East Java	1,000,000
Tanjung Kelayan	Belitung	500,000
Tanjung Lesung	Banten	1,000,000
Thousands Islands	DKI Jakarta	500,000
Wakatobi Island	Southeast Sulawesi	500,000

Source: Ministry of Tourism (2018).

Figure 4.5 Ten Priority Destinations in Indonesia

Source: Ministry of Tourism of Indonesia (2017).

According to Westoby, Gardiner, Carter, and Scott (2021), new directions in Indonesia's tourism industry has had significant impacts on sustainability, including the need for complex destination management and balancing stakeholders. Westoby et al. (2021) note that these new destinations are likely to cause natural capital degradation. Further, for tourism to flourish and meet SDG aspirations in Indonesia, nuanced understandings of external control versus local and community ownership are needed , as is a critical view of power and social and cultural impacts.

Accordingly, the following discussion reflects the articulation of Indonesia's tourism system and its promotion of environmental protection. According to (C. Michael. Hall, 1995), a number of components of tourism define the concept as a system with a set of elements. A tourism system combines its interrelated parts to form a complex role. According to (Leiper, 2004), every tourism system consists of five basic elements:

1) Tourists – Human element: people on tourist trips
2) Traveller-generating regions (TGRs) – Geographical element: places where a tourist's trip begins and normally ends
3) Transit routes – Geographical element: places where a tourist's main visiting activity occurs
4) Tourist destination regions (TDRs)- Geographical element: places where a tourist's main visiting activity occurs
5) Tourism industries – Organisational element: collections of managed organisations in the business of tourism, working together to some degree in marketing tourism and providing services, goods and facilities.

This research uses Leiper's tourism system elements to identify components of Indonesia's tourism system.

4.3.1 Tourists

Indonesia attracted 16.2 million international tourists and 283 million domestic tourists in 2019 (BPS, 2020a). However, numbers dropped significantly, by 74.84% to 4.1 million international tourists in 2020 (Kemenparekraf, 2021) due to the Covid-19 pandemic which has caused significant disruptions in tourism both in Indonesia and globally (UNWTO, 2021). Meanwhile, the Tourism Ministry of Indonesia noted that although there were no details on domestic travel, it predicted it dropped to 140 million domestic travel points in 2020 (Arieza, 2021). In Bali

island, which has been a well-known leading tourism sector, the number of international arrivals decreased by 100% (BPS, 2020b). A similar trend was seen in the other nine priority destinations (including Wakabobi Islands) as the government of Indonesia closed its international borders (Lokadata, 2020). However, the details are yet to be provided to the public.

According to Sarkodie & Uwusu. (2021), the closure of international borders led to a decline of energy demand and industrial output, hence affecting environmental quality. For example, in China, it was reported that coal-fired power generation declined by 50% (Sarkodie & Owusu, 2021). Further, nitrogen oxide emissions dropped by 70% due to reductions in the consumption of fossil fuels during the lockdown period (UCAR, 2020). Similarly, data show there was a significant increase in environmental quality in Jakarta, Indonesia as the nitrogen dioxide (NO_2) and suspended particulates with a diameter of 2.5 micron (PM2.5) decreased (Kompas.com, 2020). However, there is insufficient data on the consumption of energy in regard to travel and tourism in Indonesia during the pandemic.

According to the Minister of Tourism of Indonesia, the number of international tourist arrivals will bounce back in 2024/25 as international flights resume (Kompas.com, 2020). A solution made by the government of Indonesia to address this situation is to produce a clean, health, safety and environment certificate, known as a CHSE certificate (Kompas.com, 2020). The objective of it is to support Indonesian government for reviving tourism in the country (Jakarta Post, 2021).

4.3.2 Traveller-generating regions (TGRs)

According to the Statistics Agency of Indonesia (2020), there were only five traveller-generating countries to Indonesia in 2020, namely Timor Leste, Malaysia, China, Philippines and Papua New Guinea (Table 4.2). In contrast, in 2019, there were 55 traveller-generating countries to Indonesia contributing 16.2 million arrivals (Table 4.3). At that time, ASEAN region countries contributed most to international tourist arrivals in Indonesia (with 6.2 million arrivals), with African regions contributing the least (with only 99,000 arrivals) (Statistics Agency of Indonesia 2020).

Table 4.2 Five Traveller-Generating Countries to Indonesia in 2020

International tourists	**Percentage**
Timor Leste	51.46

Malaysia	39.15
China	1.29
Philippines	0.97
Papua New Guinea	0.79

Source: Statistics Agency of Indonesia (2020).

Figure 4.6 Percentage of Traveller Countries to Indonesia in 2020

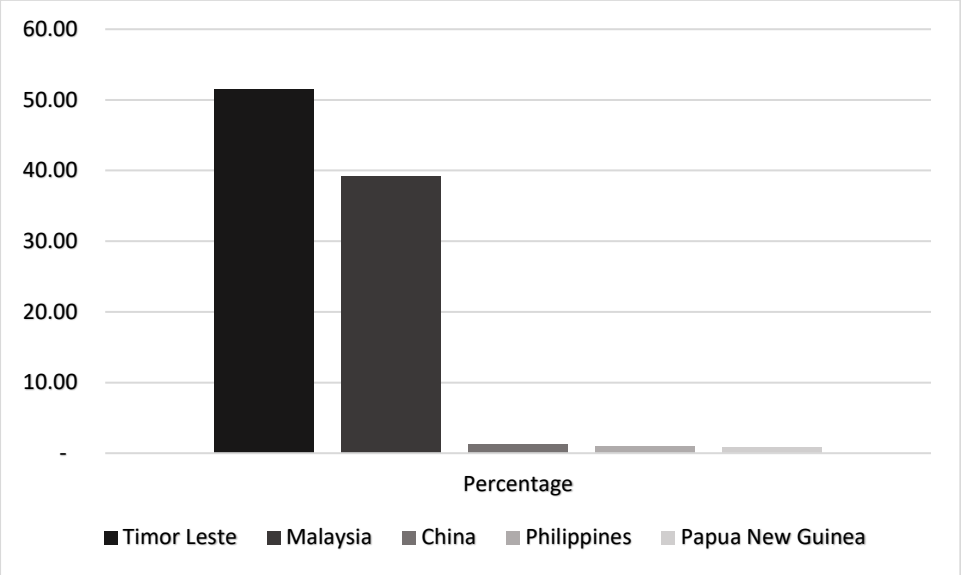


Table 4.3 Fifty-Five Traveller-Generating Countries to Indonesia in 2019

International Tourist	Number
Brunei Darussalam	19,278
Malaysia	2,980,753
Philippine	260,980
Singapore	1,934,445
Thailand	136,699
Vietnam	96,024
Myanmar	46,381
Other ASEAN Countries	682,630
Hong Kong	50,324
India	657,300

Japan	519,623
South Korea	388,316
Pakistan	14,663
Bangladesh	59,777
Sri Lanka	28,907
Taiwan	207,490
Chinese	2,072,079
Timor Leste	1,178,381
Other Asian Countries	68,062
Saudi Arabia	157,512
Bahrain	2,631
Kuwait	5,762
Egypt	21,354
United Arab Emirates	9,065
Yemen	9,221
Qatar	1,989
Other Middle East Countries	56,389
Austria	28,476
Belgium	46,780
Denmark	45,090
France	283,814
Germany	277,653
Italia	91,229
Netherlands	215,287
Spain	83,373
Portugal	35,434
Sweden	56,402
Swiss	57,484

England	397,624
Finland	22,665
Norway	23,886
Other West Europe Countries	35,272
Russia	158,943
Other East Europe Countries	216,452
United States of America	457,832
Canada	103,616
Central America	2,786
South America	65,630
Other American Countries	19,039
Australia	1,386,803
New Zealand	149,010
Papua New Guinea	78,433
Other Oceanian Countries	2,987
South Africa	47,657
Other African Countries	51,262
Grand Total	**16,106,954**

4.3.3 Transit routes

Tourists travel to and from Indonesia by air or sea. According to the Ministry of Tourism, there are five main entries visited by international tourists namely: Juanda, Tanjung Uban, Batam, Soekarno Hatta and Ngurah Rai (Table 4.4). All of those are international airports located in five large cities in Indonesia (Statistics Agency of Indonesia, 2017). As of 2020, President Jokowi indicated there would be five new super priority destinations which would serve as other entries to welcome international tourists, namely: Danau Toba, Likupang, Borobudur, Mandalika, and Labuan Bajo. Sandiaga Uno is targeted to be ready for use in 2021 (CNNIndonesia.com, 2020).

For tourists who travel by sea, there are five principal seaports: Bali, Komodo, Semarang, Lombok and Jakarta (Nugraha, 2016). These are mainly cruise destinations.

Table 4.4 Five Major Port of Entries in Indonesia

Airports	Region	Number of Tourists
Juanda	East Java – Surabaya	247,000
Tanjung Uban	Bintan island – Riau island	371,000
Batam	Batam	1,564,000
Soekarno Hatta	Jakarta	2,749,000
Ngurah Rai	Bali	5,682,000

Source: Statistics Agency of Indonesia (2017).

4.3.4 Tourist destination region (TDRs)

According to the Ministry of Tourism of Indonesia (travel., 2020), tourist destination regions in Indonesia are defined as six main regions: Java, Maluku & Papua, Bali & Nusa Tenggara, Sulawesi, Kalimantan and Sumatra. Each region offers a scenic natural landscape blended with the unique culture of its people (Table 4.5).

Table 4.5 Tourist Destinations in Indonesia

Provinces	Destinations	How to get there
Java	Yogyakarta	Daily flights from Jakarta, Surabaya and Bali to Yogyakarta's Adisucipto International Airport. Regular train service between Yogyakarta and other neighbouring major cities.
	Bandung	From the capital city of Jakarta, Bandung is also accessible via a toll road that allows visitors to reach the city i na 2.5-hour drive (barring traffic jams).
	Jakarta	Jakarta as the capital city has two international airports, one is the larger Soekarno-Hatta International Airport, located in Tangerang, now in the neighbouring province of Banten. The other is the smaller Halim Perdanakusuma Airport, which is reserved for limited domestic flights.
Maluku & Papua	Jayapura	As a capital city of a vast province, Jayapura is well connected to many large cities in Indonesia by air and by sea. All flights land and take off at Sentani Airport, located around 40 kms (25 miles) from Jayapura.

	Baliem Valley	The only access to the Baliem Valley is by flying to the town of Wamena. It is a seven-hour flight from Jakarta to Jayapura and takes two more hours to fly to Wamena from Jayapura.
	Raja Ampat	To get to Raja Ampat it can be reached by a flight from Jakarta or Makassar to Sorong. There are small aircraft to Waisai, the capital of the district of Raja Ampat.
Bali & Nusa Tenggara	Bali	Most visitors coming to Bali will arrive at Ngurah Rai International Airport, located in Tuban between Kuta and Jimbaran, roughly 15 km from Denpasar or about 30 minutes' drive.
	Lombok	There are daily flights between Denpasar, Bali and the capital of Lombok, Mataram.
	Labuan Bajo	The flight from Denpasar or Labuan bajo to Flores takes about 1 hour.
Sulawesi	Wakatobi Islands	No direct flights to reach Wakabobi Islands from Jakarta. It takes two transit flights namely Makassar and Bau-bau airport before getting there.
	Tana Toraja	To get to Tana Toraja travellers must fly to Sultan Hasanuddin airport in Makassar, capital of the province of South Sulawesi. There are no flights between Makassar and Toraja.
	Bunaken	The island of Bunaken is easily reached from Manado by motorized boat, departing from Manado harbor, Molas, Kalasey and Tasik Ria beach.
Kalimantan	Balikpapan	Balikpapan is easily reached from all major cities in Indonesia. Most airlines have flights to Balikpapan, including from Jakarta, Surabaya, and Makassar.
	Banjarmasin	There are daily flights from many Indonesian cities including from Jakarta, Surabaya, Bandung, Balikpapan, Sampit and Pangkalan Bun to Banjarmasin's airport of Syamsuddin Noor (BDJ) .
	Pontianak	Pontianak is accessible by air, sea, and land. Supadio Airport is the main airport connecting Pontianak with the rest of the cities in and outside Kalimantan.

Sumatra	Weh Island	From Banda Aceh, one can take a ferry in the morning in Ulee Lheue Sea Port and arrive in Gapang Beach.
	Lake Toba	Located in Medan, North Sumatera. And it is the most iconic destination in Medan.
	Batam and Bintan	Located in Batam island and can be reached directly from Jakarta.

Source: Indonesia.travel (2020).

4.3.5 Tourism industries and organisations

According to the Law of Tourism number 10 of 2009, it is imperative to accommodate groups of associations or organisations in tourism across Indonesia to support the development of tourism industry. As a result, the government of Indonesia, through the Ministry of Tourism, assists 25 sector associations to represent tourism business at national level (see table 4.5) (Kemenparekraf, 2019). These sector associations play an important role in developing sustainable tourism as well as improving Indonesia's tourism image at the international level. Each association has a specific role in helping the government achieve Indonesia's SDGs through the tourism sector by supporting conservation of the environment and cultural assets (Rahmawati, 2015).

Table 4.6 Tourism Associations in Indonesia

Association Name	**Association Name (Translation)**	**Key roles and responsibilities**
Asosiasi Pelaku Pariwisata Indonesia (ASPPI)	Indonesian Tourism Business Association (ASPPI)	Developing all tourism business related in enhancing the quality of tourism service in Indonesia.
Asosiasi Pengelola Pusat Belanja Indonesia (APPBI)	Indonesian Business Centre Association (APPBI)	Supporting all business centre in growing the economy in Indonesia.
Asosiasi Pengusaha Hiburan Indonesia (ASPEHINDO)	Indonesian Entertainment Business Association (ASPEHINDO)	Supporting economic growth through entertainment business in Indonesia.
Asosiasi Perusahaan Pameran Indonesia (ASPERAPI)	Indonesian Showbiz Association (ASPERAPI)	Supporting economic growth through show business in Indonesia.

Asosiasi Pengusaha Perjalanan Indonesia (ASITA)	Associations of the Indonesian Tours and Travel Agencies (ASITA)	Improving Indonesia's tourism image by providing satisfaction, security protection and guarantee to the service users without compromising the interest of fellow members.
Asosiasi Spa Indonesia (ASPI)	Indonesian Spa Business Association (ASPI)	Supporting economic growth through spa business in Indonesia.
Perhimpunan Hotel & Restoran Indonesia (PHRI)	Indonesian Hotel and Restaurant Association (PHRI)	Developing the potential of PHRI members; providing guidance, consultation, protection and promotion; conducting research and planning.
Dinas Pariwisata Daerah (Diparda)	Regional Tourism Agency (Diparda)	Coordinating all local and regional tourism activities including conserving environment and cultural assets.
Badan Promosi Pariwisata Indonesia (BPPI)	Indonesian Berau of Promotion for Tourism (BPPI)	Coordinating all promotion for tourism activities in all over Indonesia.
Gabungan Industri Pariwisata Indonesia (GIPI)	Indonesia Tourism Industry Association (GIPI)	Supporting economic growth through tourism business in Indonesia.
Gabungan Pengusaha Angkutan Sungai, Danau & Ferry (GAPASDAF)	Indonesian Transport Support & Ferries Association (GAPASDAF)	Supporting economic growth through transport business in Indonesia.
Gabungan Usaha Wisata Bahari & Tirta Indonesia (GAHAWISRI)	Indonesian Marine Tourism Association (GAHAWISRI)	Supporting economic growth through marine tourism business in Indonesia.

Himpunan Lembaga Pendidikan Tinggi Pariwisata Indonesia (HIDIKTIPARI)	Indonesian Education Centre for Tourism Association (HIDIKTIPARI)	Supporting education quality in tourism in Indonesia.
Indonesia Congress & Convention Association (INCCA)	Indonesian Congress & Convention Association (INCCA)	Supporting economic growth through MICE (Meetings, Incentives, Conferences, Exhibitions) business in Indonesia.
Indonesia National Air Carrier Association (INACA)	Indonesia National Air Carrier Association (INACA)	Supporting economic growth through air tourism transport business in Indonesia.
Jakarta Convention Berau (JCB)	Jakarta Convention Berau (JCB)	Supporting economic growth through MICE (Meetings, Incentives, Conferences, Exhibitions) business in Indonesia.
Masyarakat Pariwisata Indonesia (MPI)	Indonesian Tourism Society Association (MPI)	Coordinating all society of tourism related activities in all over Indonesia.
Perhimpunan Usaha Taman Rekreasi Indonesia (PUTRI)	Indonesian Tourism Business Centre Association (PUTRI)	Supporting economic growth through tourism business centre in Indonesia.

Source: Tourism Ministry (2020).

4.3.5.1 Indonesian tourism and the promotion of environmental protection

The tourism sector has long been a significant sector that supports the development of Indonesia (Judisseno, 2015; Ollivaud & Haxton, 2019). Historically, this can be seen by the number of developments made by government. Tourism destination priority has increased significantly from the ‘Bali First Policy’ (which prioritised only Bali island from 1967) to 10 new tourism destinations (including Wakabobi Islands, in 2017) (Ollivaud & Haxton, 2019). Ollivaud & Haxton (2019) note that the government of Indonesia has also selected 50 tourism destinations nationwide to be developed by 2025.

The Indonesian government has demonstrated their awareness of the impact of tourism development on sustainability (Kodir et al., 2020; Nugroho, Pramukanto, Negara, Wulandari, & Purnomowati, 2016). This can be seen by how government has managed access to natural resources and environments in many destinations, including by designing conservation areas totalling 28 million hectares (Prawiradilaga & Herwasono, 2013). According to Ministerial Regulation No 82 of 2019, the Ministry of Environment and Forestry of Indonesia is responsible for leading and coordinating all environmental protection, especially conservation activities across Indonesia. This ministry plays a significant role in regulating and developing the preservation of ecosystem all over Indonesia, including tourism destinations (No5, 1990).

In this context, this role played by Ministry overlaps with other authorities in many hotspots that are usually controlled by the local government (Kodir et al., 2020). A barrier to the development of tourism destinations, including protection of ecosystems, seems to be that it has fallen under the ministry. In other words, the overlapping roles in managing and controlling the development of tourism hotspots related to environmental protection needs to be improved (Kodir et al., 2020).

According to Rahmawati (2017), there are sets of policies that are pertinent to the tourism sector to develop sustainable tourism. Those policies play significant roles in mitigating and adapting to climate change. One of the policies released by the Ministry of Tourism and Creative Economy in 2012 is *The Green Growth 2050 Roadmap for Bali Sustainable Tourism Development* (Kemenparekraf, 2017). The focus of the roadmap is to achieve five objectives, including: (1) improved livelihood; (2) growing visitor economy; (3) better environment; (4) reduced carbon; and (5) an authentic Bali (DeLacy et al., 2014).

4.4 Wakatobi Islands

4.4.1 Geography, natural resources, environment

This case study was conducted in Wakatobi Island, Southeast Sulawesi Province, Indonesia, which is a tourist destination and nature conservation area known as the Wakatobi National Park (WNP). WNP is one of seven Marine National Parks (MNP) in Indonesia, and consists of 823 km^2 of land and 18,377 km^2 of sea area. Therefore, 97% of Wakabobi Islands are ocean (WakatobiTourismOffice., 2019).

In 2019, 96,000 people lived in Wakatobi. Among these, 52% of live in the capital of the regency, Wanci of Wangi-wangi island. Binongko island has the fewest inhabitants (14%). The original tribe of Wakatobi people is Bajo. In the 1950s, the Bajo people lived on houseboats

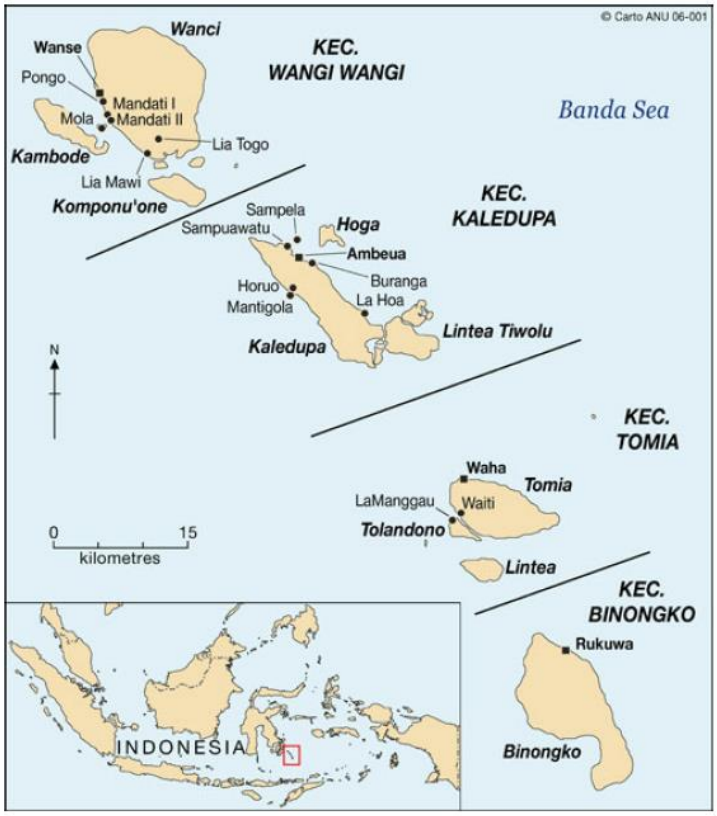
and roamed the open seas around the region (Soedjak, 2012).Currently, they live in stilt houses over the sea. Most Bajos are Moslems; 99% of all Wakatobi people are Moslems (Wakatobi, 2019).

Although the destination is surrounded by water, the local economy has not relied solely on the water-related economy sector. According to Statistics Berau of Wakatobi (2019), Wakatobi employment is dominated by the agricultural sector, with 18,743 workers out of 41,421 in the labor force working as farmers by planting crops. The agriculture sector has made the highest contributions to the Gross Regional Domestic Product (GRDP) worth 881 million rupiahs (53.42%) compared with other sectors, such as construction (16.31%), mining and quarrying (16.13%) and wholesale and retail trade (14.14%).

Wakabobi Islands was stipulated as a MNP by the Minister of Forestry of Indonesia through a Decree of The Minister of Forestry of Indonesia No.393/KPTS-VI/1996 in 1996 (Wakatobi Tourism Agency, 2017). This was in recognition of Wakatobi region's coral reefs, which are home to over 390 species of hard *hermtypic scleractinian* coral belonging to 68 genera and 590 fish species (Turak, 2003). In terms of its marine ecosystem, Wakabobi Island consists of two main ecosystems (natural and artificial) (Ramadhan, L., & Kurniasari, 2017). The coral reef has dominated Wakabobi Islands as a natural ecosystem (von Heland & Clifton, 2015). Meanwhile, Ramadhan et al. (2016) note the artificial ecosystem consists of pond, dyke and residential areas. The government aims to conserve the destination by making it a marine protected area, with the intention of emphasising economic development through the promotion of tourism (Elliot et al., 2001).

Wakatobi consists of four islands: Wangi-wangi, Kaledupa, Tomia and Binongko. Wanci is the regency's capital, located in Wangi-wangi island (Figure 4.6). These islands are surrounded by barrier reefs, fringing reefs and separate off-shore atolls teeming with marine life (Pet-Soede, Horuodono, & Sudarsono., 2004). Wakatobi is also surrounded by 43 non-inhabited, smaller islands (Statistics of Wakatobi Regency, 2017).

Figure 4.7 Map of Wakatobi



Source: ANU Press (2018)

4.4.2 Social, cultural, political, economics

Socially, Wakatobi people consist of a vast variety of tribes (Zuada, Suaib, & Syifatu, 2016), which can be classified into two native ethnic groups: the Butonese ethnic group and the Bajo people (Wisesa, 2010). The Butonese people are named after an area where they used to live, Buton district, before it was eventually expanded by central government to the Wakatobi District in 2003 (Zuada et al., 2016), and they speak a native language called *ciacia* (Zuada et al., 2016). The Bajo people live in the ocean using houseboats and are labelled by some as sea nomads or sea gypsies (as can be seen in Figure 4.7) (Wisesa, 2010; Von Helanda & Clifton, 2015). They speak the Bajo language, which has 10 different dialects (Wisesa, 2010).

Figure 4.6 Bajo People and Their Houses

Source: thepinthemapproject (2016).

Wakatobi people rely on natural resources for their living (Soedjak, 2012). Many of them fish, as 97% of the area consists of the ocean. However, they are also involved in the agriculture sector (Kasmiati., Dharmawan, & Bratakusumah, 2016; Wakatobi, 2019). Most people in Wakatobi (99%) are Moslem (BPS, 2019). However, they maintain many of the cultural beliefs and social practices of their ancestors, based on the sea and its inhabitants (Soedjak, 2012). The tourism industry is yet to become the main source of income for the people of Wakatobi (BPS, 2019).

The destination has a unique system of politics, with two kinds of governance institutions in the national park. As part of the decentralisation program of the Indonesian government in 2003, the Wakatobi District was separated from the larger Buton District and became Wakatobi District (Wisesa, 2010). Wisesa (2010) notes that the Wakatobi District government has since had the independent authority to manage the district. In 2003, Hugua was elected as the first regent of the Island under the new political system of Wakatobi as an independent regency as stipulated by Law No. 29. He was acting as the head of the destination or district, or Regent (or *Bupati* in Indonesian). Regent Hugua has led Wakatobi Island for 10 years from 2006–2016, during two consecutive periods. Politics has been important in Wakatobi Island's development, playing a key role in delivering improvements to the livelihood of people on the

islands. According to Zuada et al. (2016), there was a positive correlation between the governance of the regency of Wakatobi and the rise of economy growth. Economic growth of Wakatobi skyrocketed by 10% under the governance of Regent Hugua (Zuada et al., 2016).

However, there have been conflicts of political interest between local and central government in managing the tourism sector in the MNP. Although the local government has some powers to manage the area as part of Indonesian decentralisation policy, the Central Government of Republic of Indonesia maintains overall authority for administering Wakabobi Islands. The National Park Authority (Balai Taman Nasional Wakatobi or BTNW) under the Indonesian Ministry of Forestry, which is part of central government, is responsible for all national park management throughout Indonesia, including in Wakatobi (Ministry of Forestry and Environment, 2017).

As previously described, WNP has been designated a marine protected area requiring management by the BTNW as the representative of Ministry of Forestry. The key problem with this situation is that the capacity of the BTNW to manage the marine protected area, especially with respect to tourism, is debatable, as they have insufficient resources. According to Adimu et al. (2017), there is a significant gap of cultural understanding between the government-related stakeholders and communities, such as fisherman communities. As a result, resistance has been high to conservation activities. Further, there has been lack of knowledge and skill among the BTNW staff, specifically in relation to tourism (Marlina., Sumarmi., Astina, & Susilo, 2021). In contrast, the tourism ministry of the central government and Wakatobi tourism agency of the local government, which by law (no. 10, 2009 of tourism) emerged as parties to manage tourism activities, does appear to be resourced with sufficient capacity and capability (Kodir et al., 2020).

Having realised its lack of tourism capacity, on 8 November 2017, BTNW began to develop a collaborative project around nature-based tourism (locally known as *Forum Pariwisata Alam*). It aims to be a collaboration with local stakeholders of the Wakatobi tourism sector, including Wakatobi Tourism agency and Destination Marketing Organizations (DMOs). The aim of this collaboration is to improve tourism while at the same time achieving conservation outcomes in Wakabobi Island (Marlina et al., 2020).

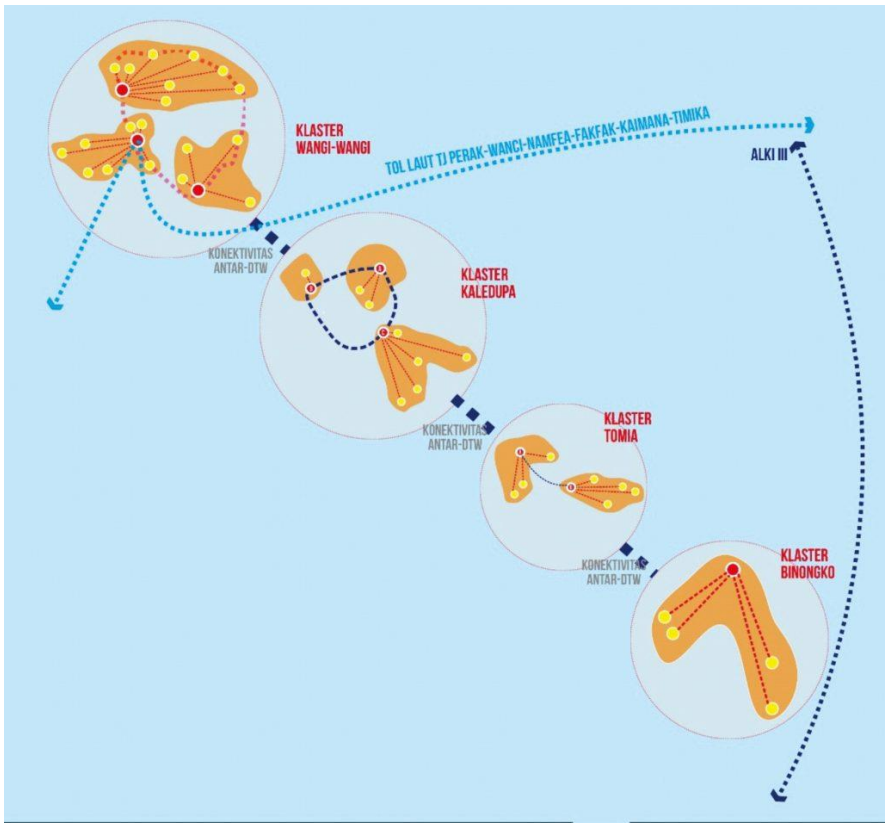
The vision of the current Wakatobi Island administration is to be a successful and competitive marine regency (Wakatobi Tourism Regency, 2017). Further, as 1 of 10 priority destinations, Wakatobi Island has developed substantial infrastructure, such as 640 new roads

(Merdeka.com, 2019). The administration has also issued a local government, medium-term development plan (or known as RPJMD) for 2017/21, covering three main sectors: local development planning, inter-cooperation strategy and research. Tourism is also part of local development planning for Wakabobi Islands (Wakatobi Tourism Regency, 2017).

Civil society organisations are active, with two non-governmental organisations (NGOs) having a strong relationship with the regional government of Wakatobi to develop the destination in a sustainable manner. The Worldwide Fund for Nature (WWF) and The Nature Conservancy (TNC) have been collaborating with the government to build the WWF-TNC Joint Programme to develop the tourism sector. The program seeks to develop a sustainable tourism framework for the National Park and its inhabitants (Wisesa, 2010).

In terms of economic development, evidence seems to show that there are significant developments in terms of tourism in Wakabobi Islands (Wisesa, 2010; Soedjak, 2012). The destination currently has its own airport, Matahora Airport, which was built in 2007 under Regent Hugua's administration (Asmiani & Hayari, 2018). However, it needs to be improved to compare favourably with other destination infrastructure (Umar, 2018). The central government, through the Ministry of Public Works and Public Housing, has allocated a special budget to develop the infrastructure in Wakatobi (Liputan6, 2019). One of the Wakatobi development plans is to build smart cities that enable all of four Wakabobi Islands to be connected to one another (Figure 4.8) (Liputan6, 2019).

Figure 4.7 Wakatobi Infrastructure Development Photo Plan



4.4.3 Tourism

A range of attractions on Wakabobi Island could be developed for tourism. Wakabobi Islands offer a range of cultural and ecological tourism attractions. Marine tourism is the most notable enticement for tourists as it is located in the heart of coral triangle, which UNESCO declared as a world biosphere reserve on April 2012 (Wakatobi Regency, 2014). According to Elliot et al. (2001), reef-based tourism activities have been the main attraction for international tourists as the four main islands of Wakatobi offer many exotic underwater hotspots. Therefore, diving and snorkelling have been the most prominent tourism activities in Wakabobi Island. According to the Wakatobi Tourism Regency (2017), there are 20 hotspots for diving in Wangi-wangi island, which offer remarkable underwater views. Sombu village and Patuno village have exceptional diving sites with reef plates and drop off (Figure 4.4).

Photo 4.1 Photo of Diving Spots in Wakabobi Islands; Diving Hotspot in Sombu Beach, Waha Village; (right); Example of Reef Organisms Found Under the Water of Kapota Beach in Wangi-wangi Island (left).

Source: Personal collection (2018).

Wakabobi Island also provides cultural attractions, such as fortresses and dances. An example is Tindoi Fort, which is located at Wanci, the capital of the regency. It is believed by local people that it has a mystical spirit (Wakatobi Tourism Regency, 2017). The people of Wakatobi also have a traditional dance, Lariangi dance, which was initially used by members of the kingdom of Buton, Southeast Sulawesi in 1634. However, currently both the fort and traditional dancing have failed to attract tourists as maintenance has been neglected by authorities.

4.4.4 Tourism impacts, conservation, sustainability

The tourism plan that set Wakabobi Islands as one of the 10 new destinations in Indonesia has attracted scrutiny, especially regarding its environmental impacts Lee and Syah (2018). The concern is that when tourism growth is realised, it will lead to an increase environmental degradation. Lee & Syah (2018) note that it is fundamental for policymakers to mitigate those negative impacts. In response, Wakabobi Islands have implemented a set of policies that are pertinent to the tourism sector around sustainability (Table 4.7) (Owners, De Lacy, & Jiang, 2019). Green Budget Tagging was initiated by WWF Indonesia in 2017 in collaboration with the Ministry of Finance of Indonesia. Policy plays a significant role in promoting green transformation, generating growth and increasing pro-green employment resulting in environmental and social benefits, as well as inclusive development (Djalante, Jupesta, & Aldrian, 2021).

Table 4.7 National policies pertinent to green economy for the tourism sector.

Policies	Goals
The Green Economy Strategic Plan and Budgeting for Sustainable Development in Indonesia in 2015–2019.	Provides indicators of infrastructure and investment cluster, offering a strategic financing facility to underpin green growth development.
Strategic Plan of Sustainable Tourism and Green Jobs for Indonesia.	Provides a policy framework for sustainable tourism planning to create more green jobs.
Green Budgeting Tagging in 2017.	A set of guiding policy for local or regional leaders in Indonesia in achieving sustainable development in the tourism sector.

Although a number of researchers have proposed Wakatobi is an Indonesian destination that has implemented sustainable tourism (Kodir et al., 2020; Marlina et al., 2020), the understanding of Wakatobi's stakeholders about green economy in tourism seems to be lacking (Owners et al., 2019). According to Liu (2003), information gaps are a significant factor that contribute to poor understandings of sustainability in tourism. Further, Baggio and Cooper (2009) suggested that knowledge creation about sustainable tourism plays an important role in developing understanding of sustainability in tourism. Wakatobi's stakeholders seem to show a lack of information about green economy in tourism. Most sustainability-related information in Wakatobi is limited to sustainable tourism, and conservation seems to be the main information topic recognised by stakeholders (Minsaris et al., 2019; Kodir et al. 2020).

Using Rogers' framework of diffusion theory (as discussed in Chapter 2), this research seeks to address gaps in information transfer linked to green economy in tourism in Wakatobi.

4.5 Chapter Summary

Wakabobi Islands has been chosen as the case study of this research as it is 1 of the 10 new destinations chosen by the Indonesian government to be a successor of Bali Island. It is interesting to investigate Wakatobi as it gains more visitors along with its development as a destination. A corollary to its development is potential decline in the quantity and quality of the environment and ecosystem. Data project potential deterioration of hotspots, reflecting that sustainability has not yet been implemented. Lack of information about the implementation of

green economy strategy in Wakatobi has been a crucial factor in stakeholders' destination. Further, this chapter highlighted the dissemination of information and knowledge about the green economy strategy in Wakatobi.

Chapter 5 Awareness of Stakeholders of Green Economy Strategy in Wakatobi

5.1 Introduction

This chapter presents the findings of this investigation, guided by the seven pillars of the green economy model. It aims to address the second objective of this thesis, which is to determine the awareness of stakeholders about the green economy strategy in Wakatobi. To achieve this aim, this chapter is divided into four main sections. Following the introduction, the second section describes stakeholders' understanding of the green economy in tourism. It explores stakeholder perceptions of the implementation of the green economy. Findings suggest that most stakeholders have high level of knowledge of sustainability and can recognise the practice of sustainable tourism. However, the term green economy is less likely to be understood or applied.

The third section identifies government and community responses to the green economy in tourism. In this section, seven subsections reflect the results of the thematic analysis, drawing collectively from semi-structured interviews and focus groups. Thirty-three respondents from government representatives, tourism industries, community leaders and NGOs were interviewed from September to November 2019. Different questions were asked based on the respondents' occupational backgrounds. Examples of those questions were described Chapter 3. Findings suggest that most community members in Wakatobi indicate they have strong knowledge of sustainability, consistent with seven pillars of green economy framework in tourism. Findings also suggest that they could identify gaps in terms of implementing dimensions of green economy.

The final section provides a summary chapter to conclude these research findings.

5.2 Understanding Green Economy in Tourism

The main objective of this section is to address the level of awareness of destination stakeholders of green economy strategy in Wakatobi. In this context, 33 participant stakeholders were asked about green economy-related concepts around tourism and its implementation in Wakatobi. These participants were numbered 1 to 33 and categorised into two groups (government and community) when participating in focus groups. Community members represented tourism industries, community leaders, non-governmental organisations, academics (Table 5.1).

Table 5.1 Sample of participants in this research

Sample Group	**Number of Respondents**			**Code**		
	Interview	FGD 1	FGD 2	Interview	FGD 1	FGD 2
Government representatives	-	10	-	-	1,2,3,4,5,6,7,8,9,10	-
Tourism industries	5	-	2	11,12,13,14,15,	-	16,17
Community leaders	5	-	3	18,19,20,21,22	-	23,24,25
Non-governmental organisation	3	-	1	26,27,28	-	29
Academic	2		2	30,31	-	32,33
Total	**15**	**10**	**8**		**33**	

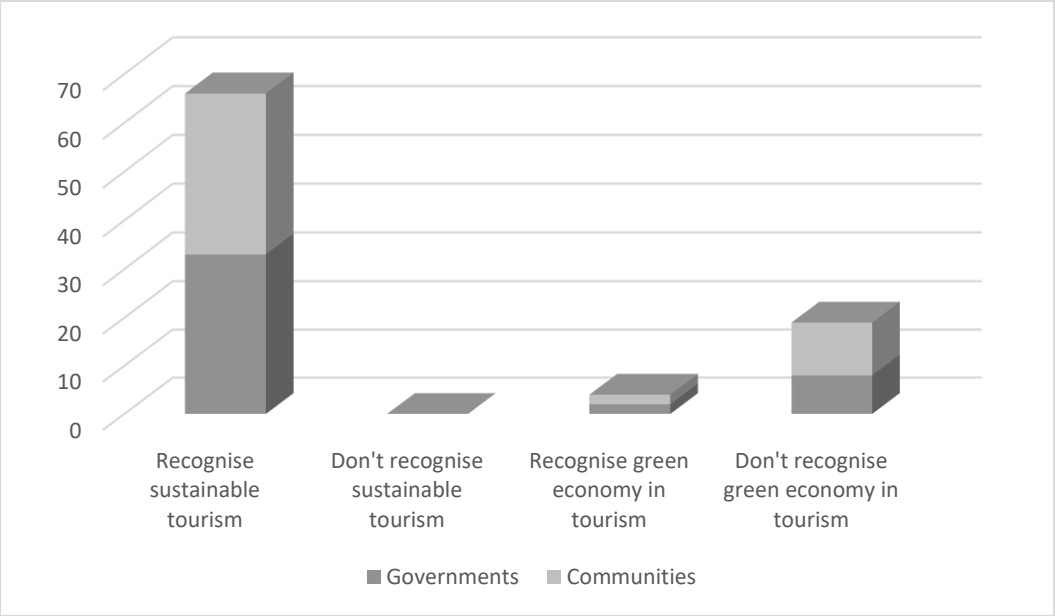
A consistent finding from all participants was that sustainable tourism, including the term sustainability, is not a new concept: it has been recognised for many years. Participants were told by their forefathers to not cut down too many trees since 'they are the lungs for their life'. Moreover, respondents suggested the concept has been implemented in their land by their ancestors, although it was referred to using different terminology:

> *When we talk about sustainability, we talk about conservation. And our ancestors have introduced it to our grand-grand parents as parts of local wisdom that regulated in our norms. We call it Humali, meaning sort of dos and don'ts for the people in the neighbourhoods to keep our natural resources from extinction* (19).

The above findings play significant role developing a comprehensive understandings of sustainable development in tourism. As Griffin and Stacey (2011) noted, although the people in destination live in tourism area, it does not necessarily mean that they fully understand about the concept of sustainability in tourism. Further, the findings would play significant tools in supporting policy makers to develop local and national policy agenda in relation to sustainable tourism.

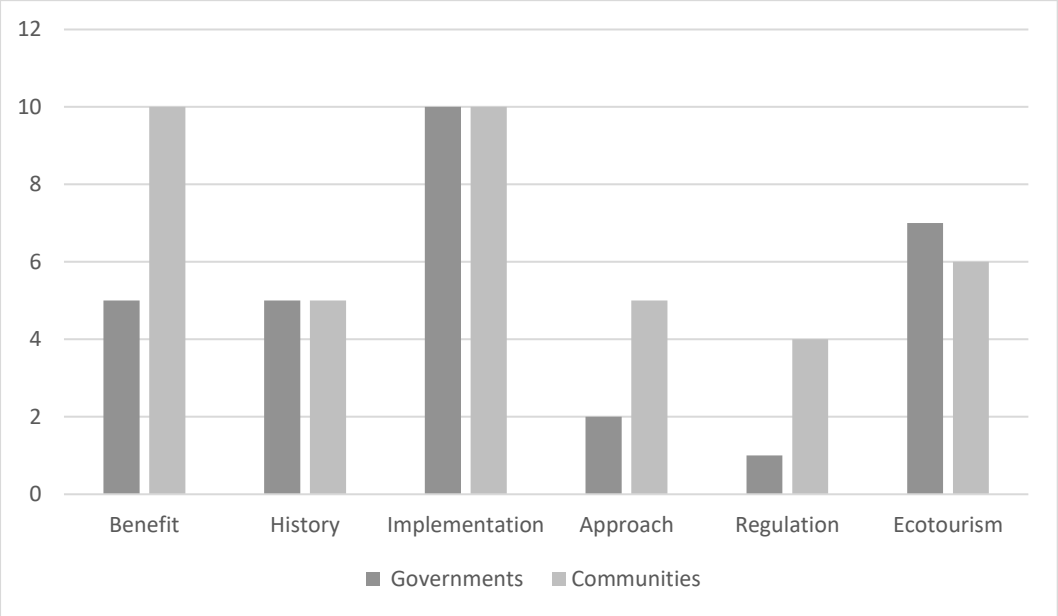
Respondents were also asked if they recognised the term green economy, with only two representatives of local government agreeing they did. Only two representatives of NGOs, among the 33 participants interviewed, stated they recognised the term, with the remaining participants having no recognition of the term, or indicating they had never heard the term before (Figure 5.1). This finding suggests that while the term 'green economy' is being used in government and/or policy making circles, it is yet to infiltrate the community.

Figure 5.1 Stakeholders' Understanding of Green Economy in Tourism Concept



In terms of their perceptions of the sustainable tourism concept, six factors were identified by Wakabobi Islands stakeholders: benefits, history, implementation, approach, regulation and ecotourism (Figure 5.2).

Figure 5.2 Sustainable Tourism Concept



In response to the question, "What do you think about sustainable tourism?", most respondents indicated that the concept is beneficial and has been implemented in Wakatobi. As one respondent noted:

> *Well,* Alhamdulillah *(praise the Lord), we have enlightened by the benefits of sustainable tourism as it was campaigned by government and WWF couple of years ago* (18).

Another community member reflected on the benefits of preserving the environment:

> *Thanks to the environment that has given us food after all. Therefore we need to be always maintaining the way we explore it* (23).

As a representative of government noted:

> *We need to work hand in hand in conserving our nature as we all know the destination is quite unique, consisting of 97% of water and only 3% of land" (1) and "..more development of sustainable tourism practices needed, including to maintain our coral reef so that they keep giving us the future* (3).

The concept of sustainable tourism was also considered part of the history of the community as it has been communicated by their ancestors that it is important to preserve the environment. One community leader noted:

> *We noticed the concept of sustainability since long time ago as our parents and great-grand parents showed us how to catch fish with bamboo (traditional tool for fishing)*

unlike the one you may hear now there are fishermen using bomb for fishing for the sake of boosting revenue (23).

Further, another community leader indicated:

We can trace back the current regulations to maintain the nature are coming from our norms that very concern about the future of our natural resources (24).

Many respondents further suggested that the approach of sustainable tourism strategy was initiated by local government, who collaborated with NGOs. One community member said:

Thanks to WWF and National Park office for their campaign on coral reef. Now we know how to conduct coral reef transplantation" (25)

We were also being involved in preserving mangrove as we have been told that by doing so could help us in getting more result in fishing (26).

Interestingly, government and community representatives shared similar opinions around the knowledge of existing regulations as an inseparable part of the sustainable tourism concept in Wakatobi, which encouraged them to fight extinction.

*We have developed special regulations for the destination as it became one of national parks in Indonesia in 2002. We developed zoning system in the ocean to regulate the exploration of the destination (*6).

One community member detailed regulations around sustainable tourism, as part of a standard of operating procedure (SOP):

I think the concept of sustainable tourism is a mixture of regulation and SOP. What we understand after all in this destination is there are a number of authorities in charge in supervising the regulations. I know there is national park office, also there is local tourism office. We do also have our community leaders that concerns to reduce the exploitation of fishing especially for Laloa fish (24).

Moreover, some respondents suggested the term sustainable tourism is associated with ecotourism. A member of the community described:

What I know about sustainable tourism is something like ecotourism as they told me we need to develop more ecotourism towards sustainability. Also, they said that it based on community which need to have sort a self-finance system to be succeeded (5).

Another community member noted:

> *We were trained to develop ecotourism in our village as part of sustainable tourism* (19).

5.3 Government and communities' responses to green economy in tourism

A range of responses were identified and categorised, which led to the emergence of the following seven themes that reflect the dimensions of the green economy framework (DeLacy et al., 2014).

5.3.1 Climate resilience and low carbon

In Wakatobi, symptoms of climate change have occurred, such as rising sea temperatures, sea level rise and increasing storm frequency (Firmansyah et al., 2016). Respondents were asked to indicate whether there has been implementation of climate adaptation. It was evident that climate resilience has been serious issue in Wakatobi as this member of the community indicated:

> *What I can observe there have been significant changes in our climate. It is obvious that coastal abrasion is happening here in Wakatobi ocean as strong waves come along with wind blows from the west* (12).

Further, there was discussion of the significant correlation between strong waves and tourism:

> *We once experienced unexpected thing as we were closing down the resort for two months long couple years ago in regard to the unusual weather that caused strong wind and waves* (12).

Another participant suggested that climate change seems inevitable, and is a factor that hindered growth.

> *We are as fishermen have been suffering for this uncertainty caused by the climate change. It is quite hard for us now to get fish* (5).

Moreover, participants highlighted significant loss around their work in the ocean:

> *We totally devastated as our seagrass have been dying. I think the wind caused so many rubbish that covered all the seagrass* (5).

Fishermen in Wangi-wangi (one of the four islands in Wakatobi) suggested that the impacts of climate change are being felt in their ocean, which is a factor threatening their jobs:

> *We have been fishing since 1986 and we are also seaweeds farmers. But what we have experienced in the last decade is most all seaweeds are dying. We don't know what cause this. In fact, it is obvious that we feel hotter and hotter every single day. And now all of our seaweeds are gone* (25).

The findings implied that local people were aware about climate change mitigation. They felt that mitigating the causes of climate change should be a key component of sustainability strategy:

> *We cannot be passive over these issues. We need to find way out as to deal with the rapid changing of the climate which is devastating our seaweeds, and soon will destroy our fish too* (24).

These issues were followed-up in the interviews, but respondents seemed to struggle with questions about current implementation of climate resilience. One community member indicated:

> *I think it is urgent for the governments to seek what is happening in the ocean. How we are really suffering and need help. We need real way out for this* (11).

5.3.2 Natural resource and waste management

Another aspect of the green economy framework identified by respondents was natural resources and waste management. The general perception of interviewees was that natural resource and waste management did feature in daily life as it was part of their history and they recognised it as inseparable to their land (1–5, 10, 12, 13, 23, 24, 30, 31). It was described:

> *This land* (referring to Wakabobi Islands) *is relatively new. But for us, this has been our homeland from long before it became Wakatobi as a new administrative district. We used to be Bau-bau people as the name of this used to be Bau-bau district. This is the land our ancestors with so many natural resources specifically those underwater. And we rely so much to it as we need to keep it to be existing for our life.* (3)

In terms of the system of preserving natural resources, local people suggested they have known how to 'behave' with the environment as their great-grandparents have told them to do so. It seems that protecting the woods has been their priority for natural resource protection:

> *How we manage the exploration of the nature has been rooted long before Indonesia gained its independence. It was* Kadiye *Kingdom here in Wakatobi and all exploration-related in woods need to be in line with our norms and traditions* (23).

The fishing community understand the land they are living on is a tourism destination that relies on underwater activities (23–25). They showed concern for preserving natural resources in the ocean, as it was part of local wisdom and supported tourism sustainability.

> *Our parents have taught us to only use fishing tools that are eco-friendly (24); We see that tourism spot every day and we need to protect it as it is part of our life, including the beach* (10).

Findings revealed that participants felt it is important to manage the environment towards sustainability. They discussed natural resources protection that connects to the action of mangrove conservation:

> *I am totally agree that we need to protect our nature. Therefore, we are initiatively taking action in preserving the nature as we realise our live is extremely dependent on it. We have also been experiencing how nature brings significant impacts to other creatures (5); The largest mangrove area is here in Kaledupa (island) that is why we notice so many concerns given by government and NGO to protect this site* (11).

As for government, the understanding of sustainability did feature as a priority in terms of natural resources in Wakatobi. A significant implementation around achieving sustainability can be seen in the establishment of the national park of Wakatobi in 2002 (7). Further, representatives of government highlighted the development of zoning systems in relation to the action of natural resources protection. Representatives of government said:

> *It is important for us to limit the exploration of the ocean that has been grown up rapidly so that we still have the future. Therefore, we came up with the idea of zoning system along with the make of this national park. We incorporated all communities and fishermen to understand how the zoning system works by developing many socialisation programs. We also collaborated with NGOs to socialise the benefits of this system so that all people know what benefits they may get in the future (9).*

> *We also developed carrying capacity program together with WWF to decide which diving spots that are part of zoning system. We also label the name on new diving spots as part of the revision of zoning system* (8).

For most interviewees, the issue of waste management was a priority. Respondents referred to the fact that waste is scattered all over the destination and needs to be managed professionally.

> *We are so desperate living in this area with rubbish everywhere, plastic waste specifically. We see it every day on the beach and keep coming constantly from elsewhere along with the wave of the ocean.* (20).

Another representative of government went on to note that the actions and behaviours of the community and tourists play an important role in environment protection. Respondents understood the connections between policy and implementation of sustainability in tourism.

> *In terms of waste issues, we have declared clearly that here in Wakatobi we developed waste management program called waste bank which is a pro active waste collection from each household to be recycled in order to get added value (8); "We do also have regulation under national park authority to manage the behaviour of tourists. So, we encourage all diving operator to limit plastic-contained things in their diving trip. Also, we remind tourists to not touch the coral reef and all underwater animals* (10).

However, some acknowledged it remained difficult to put into practice, given environmental protection was mostly regarded as a regulation without law enforcement. As a representative of a tourism operator noted:

> *Well, what I can see in practice mostly tourists show positive attitude towards sustainability. But when it comes to the need of law enforcement on any disrespected attitudes on environment, I think that is the point to be improved* (13).

Waste management implementation was another aspect noted and discussed by representatives of academia in Wakatobi. It seems that they have showed a strong concern around cleaning up the beach.

> *We think there are issues on waste management in Wakatobi that need to be managed seriously. Once the government set this land as a hotspot then waste management become a critical point to be taken care. In fact, lots of improvement needed. Even we as academic community have already taken part with the students to clean up the beach, which also collaborating with Lepamola – local community* (30)

Further, data management was raised by academics, who indicated that the main problems with waste management are in the reliability and credibility of data linked to waste management itself.

> *In terms of the number of waste in Wakatobi, it has been debatable. I found there was lack of reliable data management on how waste collection works. I am afraid what they have published about data of waste volume is not valid. (31); We have realised there is problem with data on waste in Wakatobi. That is why we take our part to contribute to this land by making a model on waste collection data so that we can predict the total volume of waste in Wakatobi, which also can be the basis for local government to take action and make policy* (30).

It is interesting to note that water management also emerged as a theme. One government official suggested:

> *This islands* (Wakatobi) *have implemented technology of desalination of seawater as we can find it on Hoga Island that is lacking of clean water. And it uses solar-powered energy* (10).

While community and academics considered waste management practices as problematic, local government felt it has been taken care appropriately:

> *We always managed to clean up the hotspots. Even more, our households have been our concerns regarding the waste collection to be don regularly* (12).

5.3.3 Product and destination management

The third element of the green economy framework identified by respondents was product and destination management. Findings from the interviews suggested that the authentic Wakatobi product, which showcases the uniqueness of Wakatobi as a tourism destination, is diving. The experience of meeting visitors who are going dive, established diving tourism as top of mind.

> *Well, we all know that Wakatobi brand is diving. People are keen to come here for having the underwater experiences. Also, snorkelling. But mainly underwater tourism destination* (11).

This suggests intrinsic links between diving tourism and the need to develop conservation to protect marine biodiversity:

Like it or not, Wakatobi is selling its underwater uniqueness, including marine biodiversity. I am personally ready to support this situation with conservation. Because we need to think about the sustainability of this site. Otherwise, no more tourists coming here (2).

Findings indicated local people are concerned with the sustainable tourism business. A suggested strategy to protect the coastal environment was to link it to economic value from the perspective of industry:

As of the resort operator in Wakatobi our leaders have always reminded us to think about sustainable tourism. We can do conservation, social charity or something that might be useful for business sustainability (13).

Another interviewee cited connections to government programs to encourage quality and authentic products of Wakatobi:

Well, it is obvious that Wakatobi is different and unique. As we know this place has been listed as one of the top ten destinations by tourism ministry. That's because we have distinctive diving spots (11)

We all know Wakatobi has been awarded as world's biosphere reserve by UNESCO (15).

Regarding Wakatobi's brand, which is well-known nationally and internationally, participants noted the need to increase the hotspot as it has been centred on limited islands (namely, Tomia island):

I think it is time for the government to develop other hotspots because people have only come to Hoga island which as we all now can see many coral reef on that site are devastated (14).

I think it would be great for Wakatobi if there is sort of policy that directs tourists to visit other site than Tomia (2).

5.3.4 Brand, marketing and e-distribution

Brand, marketing and e-distribution were identified in interviews and focus group discussions. The vast majority of respondents recognised Wakatobi as a tourism destination (1–5,8–11,15,18–21). One respondent argued:

I know Wakatobi is a tourism destination. But still we need to improve, perhaps we can learn from more established destination like Bali (19).

This suggested the intrinsic links between the Wakatobi brand and promotion:

Our government knows it very well that our land is a hotspot and they have promoted all over the world as well. But in practice, information about Wakatobi and how to enjoy is still lacking. I have seen many tourists complaining about how they get information to go to Kaledupa (island) (20).

Respondents noticed government did have aggressive marketing and promotion on Wakatobi. One tourism operator noted:

Wakatobi participated in many international events to promote diving hotspots. I was incorporated in promo team in Germany couple years ago as representative of Wakatobi along with other representatives from the new top ten destinations (19).

However, it seems that the way the government manages promotion can be improved. Tourism business representatives in Wakatobi indicated incentives across marketing practices should be increased:

I think to include us as tourism operator in international event to promote Wakatobi is undeniably positive. But, we feel less in support when it comes to the financial support. Only covering the accommodation and transportation during the international event is far away from enough. We need support for communication, internet connection and many more promo related activities in this digital era (19).

In terms of certification and promotion of the Wakatobi brand, certification should be improved. Participants felt confused when asked about certification in regard to sustainable tourism and suggested certification on types of transport instead:

We need to provide certified boats for taking tourists from one island to another. Also, needed certified crew with offshore risk management protocols, which costs a lot. Otherwise they will feel not safety traveling in Wakatobi (10).

5.3.5 Capacity building and green jobs

This section reviews the results in relation to capacity building and green jobs associated with a transition towards a green economy. Findings from the interviews suggested that the inherent link between capacity building and green jobs was recognised but seen as a dilemma in terms of action:

> *We were trained to have a homestay by local government and WWF. They say we can empower our own house to welcome tourists here in Binongko island. But not so many people interested. Because we don't think it is worthy* (21).

> *Having trained by WWF staff, we are able to run our own homestay which giving us income. Although it seems promising for us not all of our community member could benefit from this homestay. It was because there are significant gaps of visitors to our homestay compared with other islands such as Tomia and Wangi-wangi* (22).

It is also apparent that capacity building links to conservation. Local people indicated workshops have been an inseparable part of capacity building, specifically in the context of skill development of green jobs:

> *WWF also have trained us, the community fishermen here in Binongko to protect the ocean. We were involved in planting 1000 mangrove plants the other day* (22)

> *I think another NGO staff once came here to give workshop to make souvenir and we have sold it but not much* (23).

Another respondent suggested that concern around developing the knowledge of the community about environment was coming from the national park office. It appeared that information about zoning systems was prioritised in every message they delivered.

> *We usually invited to group discussion to be informed the zoning system in Wakatobi. Because they say we need to manage the way we explore the ocean towards sustainability* (23).

However, tensions appeared to arise from a lack of understanding of the links between capacity building and conservation in terms of economic value:

> *Many of our friends resist to this (conservation) program. They feel attacked by this as it is limiting the way they get more money from fishing* (21).

They think zoning system is a threat for their life. Many of them say no need to regulate us. Fish is limitless. So don't teach us how to do it (23).

5.3.6 Infrastructure and communications

Another element of the green economy framework identified by respondents was infrastructure and communications. Findings from the interviews suggested that Wakatobi needs more improvement on infrastructure (9–11, 18). One participant suggested that a considerable number of promotion links to the development of infrastructure in terms of giving economic benefits:

Indeed we need significant improvement on infrastructure to give maximum satisfaction to visitors in Wakatobi. Otherwise, no one wants to come here (18); I think the number of infrastructure development is way too small compared to what government has promoted Wakatobi as a world's biosphere reserve after all. It's ashamed to find international tourists experiencing not safety boat, not to mention only Tomia island that seems leading in infrastructure development (5).

Specifically, one respondent in Binongko indicated the need to improve the pace of infrastructure development of electricity and communications:

We feel different here in Binongko. Although there has been development on electricity but it just came up the last two year while Wakatobi has long promoted the destination years before (11).

Another respondent reflected a desire for specific improvement:

It is sad finding our place to have poor communication system. We are experiencing on and off network when making phone call. And we think it is bad for tourism business (9).

One tourism operator representative suggested the need to develop an SOP for infrastructure development.

We really need to develop standard operating procedure in terms of hotel development. Many of hotel owners in Wakatobi seem to go with their desire to get lots of money and don't really care with sustainability (10).

Interestingly, planning on tourism development was identified as a driver. One representative of local government indicated systematic tourism planning in Wakatobi has been developed:

> *We have range of planning for tourism development starting from national level to local one* (5); *As of we have collaborated with WWF Wakatobi to launch green budgeting tagging in 2017* (29).

5.3.7 Policy reform, finance, public private partnership and innovation

Policy reform extending green economy strategy on waste management was a significant theme. The reduction of plastic use consistently featured as a primary strategic priority for tourism, with many local government events setting targets.

> *We just ratified Regent decree in 2018 that regulates the use of plastic in many local government events. No more plastic glass, or plastic water bottle. And we encourage community to participate in doing the same* (18).

It seems that the findings show a significant evidence related to the understanding of waste management as the local regulation manages the use of plastic. However, it is important to always incorporate the interaction and involvement of the regulation itself to be effective (Bramwell and Meyer, 2007). In this context, it is suggested that all stakeholders be included from the beginning process of development of the regulation, not to mention the socialisation of the law as well. Community members and leaders in Wakatobi acknowledged the new policy on waste management was a way to achieve sustainability (2,3,5,18). However, questions arose around the commitment to implement this policy and incorporate all communities, given there is no clear punishment for any infringements. One representative of community leader suggested:

> *We are really supporting the idea and the implementation of this new regulation as we realise the benefits that we will have especially in the future. But, how can this be an effective way to achieve it if there is no punishment? We need strong commitment here* (18).

Another respondent of the tourism industry indicated that the new policy links to another similar policy made by the national park office that suggests all visitors to the Wakatobi ocean should be briefed in terms of the need to protect underwater assets:

> *We do also have national park decree that acts as the norms in the ocean. It gives diving operators direction on how to reduce the use of plastic by using water gallon instead of plastic water bottle. Also, it guides us how to interact with underwater wildlife* (9).

Businesses expressed confusion regarding the implementation of these policies, which they felt overlapped and placed businesses in an unfavourable position:

> *As of we, diving operators, focus on to support how to conserve the environment such as rehabilitating coral reef in Sombu area. But things got hard when it comes to the need of having permission from both local government and national park offices. Which one should we priorities to make our action easier?* (24)

In terms of PPP, one participant indicated that local government and national park offices have strong relationships with NGOs and could establish a sustainability financing facility to underpin green growth development:

> *WWF in Wakatobi have published green budgeting tagging in 2017* (29).

The findings showed that there is a strong connection between local authorities and NGO in order to move to sustainability. In the context of green budgeting tagging that released by WWF as mentioned by respondent, it seems that local authorities collaborate closely with NGO in a way to evaluate data linked to the implementation of Green Economy National Strategy. Further, the report also reflects that in some degree, local authorities are open to NGO to be monitored on the public expenditure on natural capital protection. In this context, it implicates that further action could be taken in order to improve the actions linked to sustainability in destination.

5.4 Discussion of Stakeholders Perspective of Sustainability

These findings suggest that the stakeholders of the destination have a high level of knowledge of sustainability. Each party acknowledged the concept of sustainability linked to the history of Wakabobi Islands and their understanding of the benefits that the concept of sustainability may provide them in the future, especially for the tourism sector (19, 23, 24). Further, they highlighted that regulations are an inseparable part of sustainable tourism in Wakatobi. In this case, the flow of information transfer among stakeholders seems to show positive results. However, concerns exist around how best to integrate this awareness to move into a green

economy. It seems that all stakeholders' knowledge needs to be redefined to reach the UN's targets for tourism and SDGs. Specifically, the awareness of sustainability concept and a number of actions that linked to it seem to be more integrated and holistic in a way to transition to a green economy with the understanding of the green economy strategy.

According to Byrd, Cárdenas, and Greenwood (2008), there are a number of factors that stakeholders of destinations should take into account to understand and meet SDGs around tourism, including community involvement and social and cultural interactions between all stakeholders. They argued that awareness plays a significant role in encouraging stakeholders to move towards sustainability. To be able to achieve this, Baggio, Scott, and Cooper (2010) argued the transmission of knowledge about sustainability is crucial. It is important to set a plan to develop awareness of stakeholders by delivering sufficient information and knowledge about the concept.

The development of tourism planning in Wakabobi Islands appears to still be lacking. Although local people are aware of ecotourism as it linked to the practice of sustainable tourism, they question how this might benefit their community. As one member of Sombano village indicated:

> *I think we are familiar with term sustainable tourism. Because we have ecotourism village namely Taduno that just initiated by national park Wakatobi (11). But some of us still confused about what do we really get from that (11).*

However, respondents indicated they think this is mere jargon of the 'sustainable tourism project' as there was no significant progress of development that provided direct positive impacts to the community, which link to generating money:

> *I don't think the Taduno ecovillage is developing as I don't notice much people visit this destination. It is hard to reach here as you can see the road is not that accessible (11). Some of us complaint that we have less money from tourists as it is hard to be here (11).*

According to DeVito (2001), effective communication could be achieved by developing large, overlapping areas of experiences. They argued that delivering messages by highlighting content helps develop understanding. In this case, tourism planning has not been shared, so knowledge led to misunderstanding among stakeholders. The implication is it is important to

develop strategic tourism planning as an effective message to target all stakeholders to encourage transformation into a green economy.

It is also noted that local government and community in Wakatobi are aware of green economy-related concepts, as they listed a number of dimensions of the green economy framework, including climate resilience and low carbon; natural resource and waste management; product and destination management; branding, marketing and e-distribution; capacity building and green jobs; infrastructure and communications; and policy reform, finance, public private partnership and innovation. Although a number of findings showed that local people understand about the concept of green economy-as can be seen from actions that linked to the dimensions of green economy strategy, the comprehensive of green economy concept is necessarily needed to be informed and maintain it consistently. In this context, education and capacity building for the stakeholders plays a vital role to enable them to address tourism sustainability (Law et al., 2016). According to Law et al. (2016), the improvement of education and training systems would lead to continuous learning and skill improvement among the tourism sector.

Another finding that emerges from the analysis is that destination stakeholders clearly recognise climate change as they identify a number of related outcomes (5, 11, 12, 24). However, this recognition of climate change is not supported by sufficient understanding. As a representative of local government highlights: *We know about that climate change. But I think national has managed it* (2). It seems that there is a gap of understanding about climate change, especially between the local people and the authorities in national level, and how it should be managed. As such, this misunderstanding needs to be addressed, and more knowledge is needed around the gap of information related to climate mitigation and adaptation strategies. According to S. Becken, Whittlesea, Loehr, and Scott (2020), it is critical to integrate climate mitigation and adaptation strategies, including climate policy integration. Climate change phenomena are complex. Therefore, integration of cross-sectoral and multi-level actions to tackle climate change needs to be structured comprehensively.

In terms of infrastructure and communication around the green economy, most respondents pointed out infrastructure plays an important role in the destination. Infrastructure needs to be improved in a way that achieves the national government target to make Wakatobi a top 10 destination in Indonesia. According to Waldron and McCallum (2021), integrated infrastructure development, including sustainable transport systems, is key in this regard. To

this end, stakeholders' understanding of infrastructure issues needs to be improved to move towards a green economy. However, effective knowledge creation regarding understanding of sustainable tourism will be successful only if information related to it is transferred effectively through clear channels of communication (Dabphet, 2010).

Finally, this research found that no research or document reported the implementation of sustainable tourism and green economy-related policies. Participants of interviews became confused when addressing questions of measurement of sustainability policies. An academic described the difficulties they have in supporting the implementation of sustainable tourism in Wakatobi due to the lack of data availability. In this context, further analysis showed that there is no sufficient documents linked to green economy implementation policy in Wakatobi Islands. In particular, there is no reliable data for waste management. As he argued:

> *It is really hard for us to know the real condition of this destination. We apparently seeing waste every day but we don't know the exact data about it. Then, what to expect to develop a reliable waste management policy?* (29).

This reflects the need to further investigate knowledge gaps among the stakeholders in Wakatobi. In particular, knowledge gaps about the policy between local and national government might be addressed by developing a strategic communication practice that encourages mutual understanding for all parties (Halloran, 2007). Also, it would be beneficial to develop a greater data transparency and an improved monitoring methodologies linked to sustainability policy.

5.5 Chapter Summary

From the findings discussed in this chapter, it can be concluded that destination stakeholders in Wakabobi Islands recognise the concept of sustainable tourism as they identify a range of experiences linked to sustainability practices, including stories of conserving the land inherited from their ancestors. Most respondents have difficulty defining the concept of 'green economy'. However, they have sufficient knowledge around the dimensions of the green economy framework. In terms of climate change, the responses of participants seem to be divided into two categories, whereby (a) the respondents are aware of climate change and the importance of the need to take actions to tackle of it; or (b) respondents acknowledge the scope of climate change actions, including mitigation and adaptation strategies associated with the

authorities of national government. Respondents discussed the availability and reliability of data linked to the actions of sustainability programs. In this context, it is critical to support the destination with sustainability-related data as it is promoted to be a top 10 destination in Indonesia. Strategic communication practices are still lacking – information about sustainability-related issues has not been transmitted effectively to all stakeholders.

Chapter 6 Drivers and Barriers To Diffuse Green Economy Strategy in Wakatobi

6.1. Introduction

This chapter addresses the third research objective of this thesis, to identify drivers of and barriers to the diffusion of the green economy strategy in Wakabobi Islands. Through analysis of the collected data, key themes were generated (Figures 6.1 and 6.4). To achieve this aim, this chapter is divided into four main sections. Following the introduction, the second section identifies drivers for diffusing green economy strategy in destination and then assesses how those factors contribute to transmission of knowledge of and information about the green economy concept. The third section presents empirical data related to the barriers encountered by stakeholders during information transfer around the green economy. Finally, the fourth section provides a summary of the chapter.

6.2 Drivers for Diffusing Green Economy Strategy in Wakatobi

The transmission of knowledge or concepts from one source to another requires a set of supporting systems to be successfully adopted (Rogers, 2003). These systems include the elements of innovation, communication channels, time of diffusion and social systems. According to Rogers, the process of transmission of knowledge or innovation is a dynamic action. Although the steps of implementation of innovation occur in a chronological sequence i.e. started from innovation/knowledge to persuasion (through communication channels) up and ended in implementation-as detailed in Chapter 2, the elements of process could take place interchangeably (Rogers, 2003). In this thesis, findings reveal that a number of factors contribute to the process of dissemination of green economy concepts among local people in Wakabobi Islands, Indonesia. It is evident that all factors found overlap with elements of diffusion theory of Rogers, including innovation (of green economy strategy), communication channels and implementation as detailed in Figure 6.1. Motivation, awareness, social systems and access to information were dominant drivers for disseminating green economy concepts as a new innovation in tourism in Wakatobi (Figure 6.1). Most respondents recognised sustainable tourism concepts (as discussed in Chapter Five) and support their practice. In this chapter,

findings are described based on interviews and focus groups with 33 people of stakeholders in destination. These findings will be linked to the wider literature in the next and final Chapter.

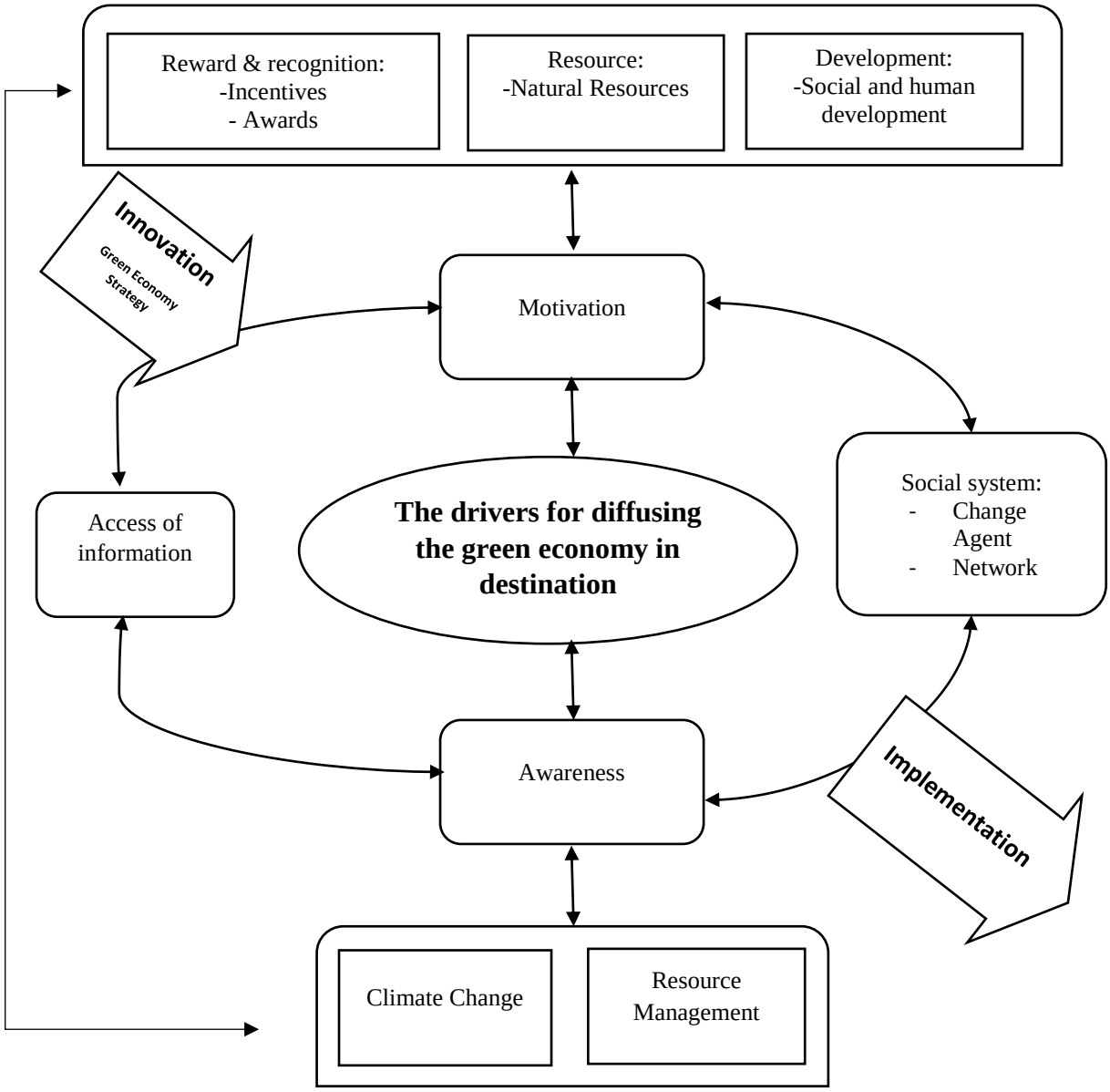


Figure 6.1 Themes of Drivers for Diffusing Green Economy Strategy in Wakatobi.

Nine sub-themes emerged from interviews and focus groups (Table 6.1), including incentives and awards (theme: motivation); natural resources (theme: resource); social and human development (theme: development); change agent and network (theme: social system); social capital (theme: access of information); and climate change and resource management (theme: awareness).

Table 6.1 Factors that Contribute to Transmission Knowledge and Information about Green Economy

Drivers for transmitting green economy strategy in destination	**Interview (INTW)**						**Focus Groups (FGD) 1**							**Focus Groups (FGD) 2**								
	11	12	13	14	15	18	1	2	3	4	8	9	10	16	17	20	23	24	25	29	32	33
Motivation																						
Reward & recognition																						
- Incentives	√	√	√	√	√	√	√	√	√	√	√	√	√	×	√	√	√	√	√	√	√	√
- Awards	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Resource																						
- Natural resources	√	√	√	√	√	√	√	√	√	√	√	√	√	×	×	√	√	√	√	√	√	√
Development																						
- Social & Human Development	√	√	√	×	√	√	√	√	√	√	√	√	√	√	√	√	×	√	√	√	√	√
Social system																						
- Change agent	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√	√
- Network																						
Access of Information																						
- Social capital	√	×	×	√	√	√	×	×	×	×	√	√	√	√	√	√	√	√	√	×	×	×
Awareness																						
- Climate change	√	×	×	√	√	√	√	×	×	×	×	√	√	√	√	√	×	×	√	√	√	√
- Resource management	×	√	√	√	√	×	√	√	√	√	×	×	√	√	√	√	√	√	×	×	√	√

The findings show in Table 6.1 were coming from interview and focus groups linked to data that drive the transmission green economy strategy in Wakatobi Islands. Initially, all data were inputs to be analysed. However, the coding data analysis showed that a number of data interviews were not reliable. As such, the presentation of data linked to drivers for transmission green economy strategy consists of selected number of data, namely: 1,2,3,4,8,9,10,11, 12, 13, 14, 15, 18 16,17,20,23,24,25,29,32, 33.

6.2.1 Motivation

Motivation was identified as one of the key drivers for disseminating the concept of green economy in tourism in Wakabobi Islands. In this context, motivation refers to groups of sub-themes including reward and recognition, resources and development. The following section discusses each of the themes in turn.

6.2.1.1 Reward and recognition

The findings indicate that there is a relationship between a number of rewards given by authorities and encouragement of sustainable tourism awareness and activities. Participants felt that local government supported community members in identifying the benefits of preserving nature in the destination. Further, rewards encourage community members to change the way they live into a more sustainable one. Non-government representatives encouraging people to develop a set of actions linked to natural resources preservation.

A consistent finding from interviews and focus groups was that a number of actions in protecting environment were linked to tangible rewards. A community member in Wangi-wangi island indicated that they received cash from a bank managed by government to set up conservation programs, including dolphin watching and a Mola cultural walking tour:

> *We were informed that our local government would facilitate our community members who come with proposal of environment conservation. And we, as part of Bajo people in Mola proposed tourism activities that environmentally friendly like dolphin watching and also offer activity that can protect marine resource by using traditional boats called Leppa* (11).

> *One state-owned bank (Mandiri Bank) supports our program by giving us a financial plan. We are really motivated to keep working on this and try to make it a sustainable program. Because we think this is worth to maintain for the growth of our community.* (18)

Further, tourism operators in Wangi-wangi Island highlighted the importance of incentives given by local government for tourism businesses to preserve natural resources. Participants referred to tourism industries to advertise conservation not only to local but also international visitors.

We are encouraged to do more in campaigning environment protection to all visitors. Couple years ago I personally invited to talk in one of tourism exhibitions in Germany. I shared about our actions in preserving underwater tourism, especially in conserving the coral reef by conducting coral reef transplantation (25).

Well, I am so happy to be involved in government's program to spread the message of maintaining the future of our natural resources. It was part of government's efforts in promoting Wakatobi as a sustainable tourism with its distinctive underwater scenery. But I think that the program could be improved to be more generous in particular in giving us financial supports (25).

Participants suggested that other institutions also contribute significantly to encouraging people in destination to take action to achieve sustainable tourism. There were direct links between encouragement given by NGOs and natural resources in destination and the local people's knowledge of sustainability. NGOs play a significant role in motivating community members to understand the importance of preserving the environment. A community member in Kaledupa island discussed the incentives they had for their place to be developed and transformed into eco-village tourism area.

Here in Kaledupa we have Sombano community. And people of Sombano were unfamiliar with concepts related to sustainable tourism until WWF came to give us knowledge how we can transform our village into an eco-village. They provide us the tools and programs how to achieve that with a number of financial support for sure (19).

However, when asked about their support for the program, participants were more negative. Respondents described the challenges that need to be confronted to make the program sustainable.

The fact that we take benefits from the development of eco-village for a short-term period has been a significant challenge for us in this village. We are totally new to this kind of concept. And having support in finance seems to put us dependent on it. On the other hand, World Wild Life Fund for Nature (WWF) told us that this eco-village program apparently wants to empower our community. And I think we need more than usual incentives to be lasting longer. (20).

Other participants also highlighted the contribution of NGOs in motivating people to understand the green economy concept. People in Binongko island are aware of the concept of

homestays, as NGOs along with local government provide a number of incentives. The community member of Binongko started to realise another way to generate money from tourism by empowering themselves.

> *We were supported by WWF in using our house as a homestay for their guests. We were quite surprised as those people were coming to our house just for a short period but bringing us a significant amount of money, which we never knew beforehand that this is going to happen.* (3)

> *We were also encouraged to empower our family member in giving service to those visitors in our house. Although my wife could only cook simple dishes but it was significantly acceptable for the guests and they appreciated it* (5).

Further, academics can motivate people in destination to understand the importance of conserving environments. The collaboration of lecturers and students at a higher education institution in Wakatobi plays a significant role for local people. In particular, academics support tools and data of natural resources conservation.

> *We found that there are significant gaps in the community related to the supply data of environment protection, which we think it would affect their behaviour in a way to deal with implementation of sustainable tourism.* (30).

> *For example in dealing with waste. It was found that existing data were not accurate not to mention the action taken to cope with that findings. We provide system on how to calculate it in order to get the best recommendations to be implemented to achieve sustainability. But for this stage we start with a small sample in one of villages in Wangi-wangi island before moving on to all of the other three island in Wakatobi.* (31)

Participants did express acknowledgement of tourism businesses; in particular, hotel management in Tomia islands which provide a CSR program in a way that encourages community to understand the significance of the implementation of the green economy. One respondent described a program to recycle waste in their area.

> *We were supported by Hotel Tomia to understand the different types of waste. They supported us with trainings on how to separate waste so that it could be recycled. We also received financial support to maintain our environment to be clean* (23).

Most stakeholders demonstrated a positive attitude to the label attached to Wakabobi Islands. The label of Wakatobi as a biosphere reserve in UNESCO's World Network of Biosphere Reserve given in 2013 plays a significant role in motivating people to understand the importance of sustainability. A community leader expressed commitment in protecting natural resources to support the destination's sustainability.

> *Of course we are so proud for this recognition as our place are well known internationally for its rich sources of underwater ecosystem. We think we need to maintain it to be lasted forever. Otherwise, no more beauty of tourism in our land*. (3)

This subsection has presented the results of discussion with stakeholders, including local government, community members, NGOs and academics on the topic of diffusing the concept of green economy in Wakabobi Islands. Local people highlighted the importance of motivation, including rewards and recognition, for the dissemination of sustainable tourism concepts in destination. A number of programs, which are focused on preserving the environment, approach local community in an effective way by providing incentives, including cash.

6.2.1.2 Resources

Recognition of the need to conserve and protect natural resources as a driver for diffusion was a key theme to emerge from interviews and focus groups. Participants noted that natural resources had a direct link to knowledge around preserving the environment. In particular, they highlighted the rituals they inherited from their ancestors around fishing the ocean. As one member of Liya community in Wangi-wangi Island described:

> *We know that the ocean is our life. And fishing is our everyday job. But we were familiarised with an environmental friendly way of getting fish from the ocean by using* sero *(a local word of bamboo-made fishing gear). Because we were told to make a good friendship with underwater life in the hope that we are going to get everlasting life.* (18)

> *But it is kind of hard to consistently do* sero *for fishing as it takes longer time compared to the use of machine or even chemical materials. And as time goes by many people think that it is not worth to do* sero *again remembering the result it gives not as much as those modern fishing tools give*. (18)

Respondents also acknowledged their access to the underwater environment. They believed everything in the environment is free to access as it is part of their lives, and they are not limited

in terms of exploring the ocean. In this sense, they get information related to preservation of environment from the nature itself, not mediated by other persons or group of persons. As one community leader in Wangi-wangi island reflected:

> *We are very lucky to live surrounded by the ocean. We can get fish as much as we like. And we can do it anytime as it is just a step away from our house. Not only that, we can also do business from this underwater sources like growing and selling seaweed, including tourism which is currently so happening as government support Wakatobi to be one of the priority hotspots.* (19)

It seems that it against the essence of green economy activity that encourages people to manage natural resources towards sustainability. However, other respondents went on to note that access to underwater life needs to be managed effectively as they had noticed significant changes to the ocean's ecosystem. They seem to understand that the exploration of nature links to sustainability. A leader of community in Wangi-wangi island suggested:

> *It is undeniable that our land is so rich with natural resources, especially with the ocean. But mostly we become lulled into exploring it without limit as we feel we have all the access needed. No rules to be abided. Even if there are ones, then again, we say this is our land, our motherland. I think there is something that is not right here. Because what we experience currently is getting fish from our ocean is not that easy as it used to be. And there also goes to our coral reefs. They are disappearing significantly. We need to take some actions upon this.* (18)

A suggestion involved the exploration of natural resources on land, such as woods. People appeared aware of the enormous richness of flora and fauna in Wakabobi Island. In this sense, the ability to identify the source in the destination has been a strong point to disseminate the knowledge of sustainable tourism. However, they also identified significant changes over the land they have explored:

> *We are so blessed with so many natural resources here in Wakatobi as we also have woods in our land. And we used to get so many results from exploring it until we find difficulties in getting woods nowadays. Something has been going on to this nature and we need to act accordingly otherwise our life and ecosystem will not be balanced.* (18)

Respondents also felt that the people of Wakatobi have been granted the richness of Bajo culture. Although Bajo is linked to a small number of local people in Wakatobi, they seem to

be a prominent source of culture in terms of their unique way of living on the ocean. As one community leader described:

> *We have Bajo people here. And the way they live is different with common people. They are known as boat people as they build the boat for their shelter, using traditional tools and relying on nature to survive. I think this is very valuable source for our land, considering nowadays most of the visitors coming here asking about them and put them as tourism object.* (21)

Further, respondents indicated significant changes had emerged linked to Bajo-related activities: they are becoming 'normal' people, as many Bajo people are becoming more attached to land activities instead of their more traditional ocean activities. As another community leader commented:

> *If you come to Mola, where Bajo people mostly living, you would see their house. Many of them are now shifting from living on the boat to houses. They build wooden houses on the ocean by stacking solid rocks on the water and became a land for their house foundation. It is not the origin of Bajo culture that I know. And I am afraid, there will be a time that we find very difficult to look for the unique traditions of Bajo culture as it is no longer existing.* (22)

This subsection has presented the results of discussion with stakeholders around the topic of disseminating the concept of green economy in Wakabobi Islands. Local people reflected that resources, including natural and cultural resources, were connected to the way they obtain information about sustainability in tourism. Natural resources, including access to explore it, have direct links to the knowledge of people specifically around preserving the environment.

6.2.1.3 Development

Findings from the interviews suggested that the implementation of development in the destination plays a significant role in driving understandings of the green economy concept. In this context, the development has strong connections to social and human development, including infrastructure and human skill development. Further, the emerge of development issue as integrated part of sustainability in destination plays a significant role in showing evidence that in some degrees there is link transmission of knowledge of development in community. Local people raised the issues of the impacts of development linked to move into sustainability in tourism. As one representative of local government highlighted:

As you can see here in Wakatobi, there have been a substantial number of developments made by government, especially in infrastructure. We can easily notify significant difference of Wakatobi development before and after being stipulated as a new district with authority to oversee their natural resources independently. And I think we need to protect this and our environment as well so that this is not only for a short-term development. (10)

Although the participant described development and his understanding of the need to protect the environment, he raised the issue of the number of infrastructure developments. It seems that the development has been focused on the capital of the island, which is Wangi-wangi island. In this sense, the information of sustainability has yet to be transmitted equally along with the development of infrastructure. He argued it might limit the understanding of sustainability to people in that area:

I think there are lots of homework to be done for this infrastructure development. Wanci (the capital city of Wangi-wangi island) people seem to enjoy most this development, especially the electricity and road development. Also we can see that development of beaches, which are the significant points of tourism in Wakatobi are only focused on the capital of the island. I am afraid people in other islands might not feel the same way and yet don't understand the concept of sustainability. (10)

Similarly, other participants highlighted developments around ocean-related infrastructure and the social lives of local people. Participants discussed the imbalance of development in terms of support given by local people. As one representative of tourism operator reflected:

I think the development in Wakatobi needs to be focused especially when it comes to the labelled given by central government for the destination to be one of the top ten and to replace Bali Island. This is far from expected to be marine tourism where there are less infrastructure to support it. You can see our beach, it needs to be developed immediately, not to mention the skill of people in destination. (12)

People here seem to be not encouraged by the tourism industry itself as they see less evidence of development of tourism in their homeland. And we need to work hard to close this gap if we still believe in the label of Wakatobi as one of top ten destination. (10)

Another respondent argued that development is a key way to motivate local people to implement sustainability in destination. In this context, development refers to the development of capacity of the people to identify sustainability-related actions:

> *If you notice, people don't seem to understand that the way they are dumping waste could affect sustainability. What I see is people treat all wastes as usual which is irresponsibly taken and have no idea about tourism. If only their knowledge and capacity are developed, I think we would see a different good story.* (13)

This subsection has presented the results of discussion with stakeholders in destinations, including local government, community members, NGOs and academics on the topic of diffusing the concept of green economy in Wakabobi Islands in relation to the implementation of development in destination, including social and human development. The findings reveal that the development of destination contributes to the awareness of people in driving sustainability practices in tourism.

6.2.2 The social system

Another key issue arising from the interview and focus groups linked to factors in creating knowledge about green economy strategy in destination is the social system. Findings indicate that change agents and networks were the most important elements of social systems when it came to facilitating dissemination of the green economy concept, with 28 people interviewees highlighting it. As discussed in Chapter 2, change agents play significant roles in transferring information and knowledge to change certain behaviour. In this context, agents of change appear to be part of a movement towards the green economy. It was evident that opinion leaders, including community leaders, local government officers and NGOs play significant roles as agents of change.

Table 6.2 Social Systems as Factors to Disseminate Knowledge about Green Economy Concept

Respondents	Change Agents	Networks
Government	12	9
Community	10	12
Academics	1	2
NGO	4	2
Business / Tourism operators	1	3

TOTAL	**28 people**	**28 people**

As discussed in Chapter Two, a change agent has a strong influence on increasing awareness and knowledge of a concept (Rogers, 2003). Change agents usually work with opinion leaders, including government, community leader and media in transmitting information (Rogers, 2003). As Figure 6.2 shows, change agents were cited frequently both by community and government. Respondents acknowledged the ability and capacity of change agents in transferring knowledge about sustainability concept. A few respondents from NGOs, academics and tourism operators also considered change agents as valuable in generating understanding about green economy concept.

One interviewee referred to a representative of the local tourism office as a social agent in terms of transferring knowledge around the concept of sustainability. He indicated that the definition of sustainable tourism was raised by local government through meetings with local people, as follows:

> *I knew about what sustainability in tourism is as I attended community meeting held by local tourism office. At the time the head of office explain about the importance to keep our environment clean as we are living in a tourism destination. He said that tourists like a clean destination and many will come here because of that.* (18)

Participants in the interviews indicated that the role of change agents in developing their awareness about sustainable tourism was also played by another representative of government, the national park office. Those agents play a crucial role in sharing knowledge to implement sustainability. As members of communities described:

> *We never cared about the ocean and the life underneath until they informed us that all ecosystem in the ocean have limits and we need to manage it by preserving it. What we used to know was our ocean (and also land) is very rich. They give us all we need and we just take it freely. But the information explains to us about how to get into sustainability.* (19)

> *People of national park office shared with us information about the ecosystem life underneath the ocean, including coral reefs which most of us were taking that for granted. We just realised that the way we exploit the ocean mostly breaking coral reefs, which apparently it will take a long time to recover.* (20)

It was clear from the evidence that the representative of government plays significant role in disseminating green economy strategy to the community of the destination. Respondents also highlighted the role of national park office in transmitting information about new regulations linked to ocean preservation. In this context, the information was considered something new that disrupted the 'status quo'. As several community members reflected:

> *They shared with us the information about zoning system that regulates people here in a way to take benefits from the ocean. They convinced us this is good for us for our destination, which will lead us to move into sustainability.* (21)

> *But sharing those information affects our life. We feel it threatens us instead of giving us benefits. Because it set us into a zoning system which limits us exploring the ocean. Many of us felt uncomfortable with this.* (18)

Respondents also identified the role of local government and NGO in transferring knowledge about environment conservation. They felt the way those agents disseminated information was straightforward and applicable. As community members highlighted:

> *They taught us how to conserve coral reefs in a simplest way. Also, they provide all materials needed for free. We feel those NGOs people are so informative. They provide programs related to our daily activities and mentor us regularly.* (19)

In terms of the role of NGOs as change agents in disseminating information, respondents of government appreciated their work. NGOs conducted breakthrough conservation-related activities, evidenced by local people being well-informed about the move to a green economy. As one government representative reflected:

> *We really appreciate the work of WWF and friends as they spread the info about sustainability to our people with a unique program. In Kaledupa island, for example they initiated program of eco-village which was welcome by local people as it gives them capital to grow. They also monitor the program regularly.* (10)

A number of respondents on this point considered networks of friends, relatives and neighbours as elements that facilitate information and knowledge about green economy in tourism, as the following responses attest:

> *I know information about conservation because our* Sarano Wali *(native language of Wakatobi meaning community leader) explain the concept as we were fishing together in*

the ocean. He also encouraged me to attend sustainability-related meetings that held by tourism office the other day. (19)

We are shifting to not fishing with bombs and chemicals again as our friends convinced us that it will ruin the ecosystem but also our life. We cannot supply our people with poisoned fish as it is morally incorrect. And also, they inform us the risk for us to get caught by authorities as we are breaking the rules by using it. (18)

My neighbours told me that they got another income from participating homestay program here in Kaledupa island. I started to try to empower my house and also my family to join the program as they detailed how this program could benefit us and our community. (22)

This subsection has presented the results of discussion with stakeholders in destinations, on the topic of diffusing the concept of green economy in Wakabobi Islands in relation to social system, including change agents and network. The findings reveal that change agents play significant roles in disseminating green economy concept in destination.

6.2.3 Access to information

Another factor that drives the understanding of green economy concept is access to information. Findings reveal that access to information overlaps with a number of elements, including social structure in social system as discussed previously, social capital linked to access to resources in their network and media referred to as a communication channel. In other words, access to information is also linked to social capital, as discussed by interviewees in both interviews and focus groups.

Social capital can be associated with the characteristics of individual people's social networks and their size and/or intensity (Finsveen & van Oorschot, 2008). The size or intensity of people's social network can be measured by identifying the number of people in community, the frequency of contact people have with family members or communities and how active they are in the associations they are members of.

According to national statistics (BPS, 2022), the size of the population in Wakabobi Islands is 52,884 people. They live in eight different subdistricts across four Wakabobi Islands (Figure 6.3).

Table 6.3 Eight Subdistricts of Wakatobi Islands.

No.	Subdistrict	Island	Total Area (square km)	Population density (per square km)
1.	Binongko	Binongko Island	68.3	149
2.	Togo Binogko	Binongko Island	43.85	128
3.	Tomia	Tomia Island	32.82	244
4.	East Tomia	Tomia Island	46.02	200
5.	Kaledupa	Kaledupa Island	35.18	338
6.	South Kaledupa	Kaledupa Island	56.08	146
7.	Wangi-wangi	Wangi-wangi Island	67.49	423
8.	South Wangi-wangi	Wangi-wangi Island	123.55	254

Each subdistrict has its own community leader who is either traditional or religious. Community members of each area are familiar with their leader as they interact regularly at local meetings in the context of traditional or religious meetings. Messages around environmental protection and government-related regulation are commonly delivered as they meet at those regular events. These meetings are intensive as they occur in the mosque for regular Islamic prayer five times a day. As respondents reflected:

> *We know our* Kadie *(leader tradition) as they guide as regularly in every rites of our life starting from baby born to wedding or even the death of our family members. When we are confused about the sustainability-related information* Kadie *pro-actively approach us in a way to clarify and make us understand of the importance to implement sustainability concept.* (23)

> *When most of us disregard the new regulation of zoning system made by government to protect the environment,* Kadie *discuss with most of us intensively in order to make us aware what the intention of those regulations, not to mention our Islamic priest which also involved in every dissemination of information regarding environment protection.* (18)

Khotib usually told us information about the importance of environment protection as he preaches us in every regular sholat jumat *(native language of Friday prayer of Islamic regular time of praying in mosque).* (25)

Findings also reveal that although the intensity of the meeting between local government and community members is moderate, they can meet in a local government office without any difficulties, as there is less protocol that needs to be abided. As one member of community described:

As long as the representative of local government is not away, then we could easily meet them to ask anything related to conservation program. But usually, we make appointment beforehand or we come along with the representative of NGOs. (25)

The representatives of local tourism were quite friendly to meet us in the office to talk about conservation program. But we usually come in a group of Pokdarwis (an abbreviation of local language meaning tourism-related group of community developed by local government). (23)

This subsection has presented the results of discussion with stakeholders around access of information. Local people interact with their leaders, including traditional and religion leaders through special and unique meetings. A number of intensive meetings have been effectively used to disseminate information about sustainable tourism, including regular prayer times in mosques.

6.2.4 Awareness

The interviews and focus groups also captured participants' view on factors that affect their awareness of the green economy concept in tourism. In this context, it refers to groups of sub-themes: climate change and resource management. Change agents also play a significant role to disseminate knowledge in relation to those sub-themes. The following section presents a detailed discussion of these two sub-themes..

6.2.4.1 Climate change

Comments by respondents highlighted the dissemination of information linked to factors that affected the change of climate that has direct impacts on local people. Information distributed by change agents to community members focused on weather and the ocean. As respondents highlighted:

We were informed that currently there is climate change going on. We could not totally rely on the weather to get the best result for our seaweed farming. This answers our questions as to why we keep failing in harvesting the seaweed over the last two years. (21)

We have also got information about the change of wind direction in the ocean which make us more understand about the situation that is going on. I think is this is very important for us to help our routine job in fishing thanks to WWF people that have mentored us about how to anticipate the extreme change weather lately. (18)

Although climate change-related information emerged as part of information that was disseminated by change agents in destination, some participants suggested this information should be distributed more frequently and practically. As respondents argued:

I think they need to discuss with us more often about this climate change. Because this is very important remembering the negative impacts that it will bring in the future if we are not fully prepared to deal with it. Also, not all our community members understand about how to adapt to climate change. (21)

Similarly, academics suggested the need for support to disseminate information to all community members in all four Wakabobi Islands. It seems that there is a significant gap of knowledge regarding climate change in local people. As they noted on this point:

Kaledupa and Binongko island seem to have the least population (this refers to the above discussion that most development that followed by dissemination of information usually performed in major islands i.e. Wangi-wangi and Tomia). But it doesn't make them to be abandon from getting info regarding climate change. Because we observe that research and other projects seem to be focused in the capital of Wakatobi, which is Wangi island. (30)

As for us, we have developed programs regarding this climate change like the introduction of coral reef bleaching phenomena. We also have incorporated local people especially in Kaledupa island. We inform them the current situation of the nature around us and how we could adapt. But we need more than that because the islands are extremely large and quite challenging to reach. So, integrated policy regarding climate change is a must do immediately. (31)

From a government perspective, participants suggested there have been a number of programs creating and transmitting knowledge of climate change across all Wakabobi Islands, including the socialisation of zoning system to coral reef transplantation. They argued that people seemed to show positive attitudes around conserving the environment:

> *Here are some lists that we have done. We gather them in meetings to talk about the current situation of the nature in our area. We also invited their representative to come to Wangi-wangi island to inform them in that meeting the importance of keep our environment. We also let them know about alternative solutions as to adapt to the situation, including how to transplant coral reef. And I think it all takes time to get the results.* (10)

> *We also collaborate with many NGOs to help spread the information about preserving the environment. Thanks to those NGOs that brought up ideas and programs that support our action to create awareness to all people in all Wakabobi Islands.* (5)

This subsection has presented the results of discussion with stakeholders in relation to climate change. There were direct links between the implementation of programs related to climate change and the local people's awareness of sustainability in destination.

6.2.4.2 Resource management

A number of respondents considered the way authorities manage resources plays significant role in facilitating the creation and sharing of information about sustainable tourism. In this context, findings related to resource management. The findings implied that fisheries management and waste management have been dominant dimensions of the green economy concept. The geography of the destination has affected the choice of focus of messages. As this representative of NGOs suggested:

> *We realise the land that we live in is mostly water. And fishing and all ocean-related activities are their main jobs. So we put our efforts in delivering messages on that side which is how to make our ocean sustainable.* (26)

> *We develop programs in line with our mission to make all stakeholders aware about the sustainability, including tourism. Especially when it comes to the label that attached on Wakatobi lately as top ten destination in Indonesia, we create program that create knowledge of how to move into sustainable tourism.* (27)

Further, respondents discussed the dissemination of information about zoning systems as part of regulations in relation to preserving underwater ecosystem. Transmitting those messages involves formal and informal communication, as well as creativity. As respondents highlighted:

> *We inform about zoning system to all people of Wakatobi in many ways. Although mostly we gather them from all communities in all 4 islands in a formal meeting, we also communicate with them informally with the help of community leader to send effective messages in a creative way. We try to be creative to develop their awareness about this regulation because of the initial implementation of this has been rejected significantly by mostly fishermen.* (27)

> *We believe that the awareness of the regulation affects the understanding of the people of sustainability. So that, they would support it by taking actions that align with it.* (25)

A further theme related to the transmission of information about waste management. Respondents argued that it is important to understand how to manage waste, in particular in destination. This is illustrated by the following comments:

> *Wakatobi ocean, especially the beaches have suffered from the climate change as to affect the number of waste caused by the wave. If people generate the waste by doing not environmentally things we will never be move into sustainability. The beauty of destination is just for a short-term period. That is why we develop training to transfer knowledge of sustainability specifically in waste management.* (3)

> *How to identify waste has been one of our key messages in delivering information about sustainability to all people. We believe it will bring positive attitude towards sustainability. For example, they know how to separate recycle and non recycle waste, which will be followed by knowing how to recycle it to generate another income.* (3)

Respondents on this point indicated that they received information about waste management. However, they were critical about the quantity and quality of the dissemination, which was mostly delivered through environmentally friendly-related programs i.e. waste recycling program run by office of tourism. It was suggested authorities improve the way they transfer this knowledge. Comments from respondents on this issue included following:

> *Some of us have been incorporated with government in programs containing how to understand our environment and also protect them to be sustainable. But, it was just*

some. Only some little parts of representative of our community members. Many of us need to know about it. (5)

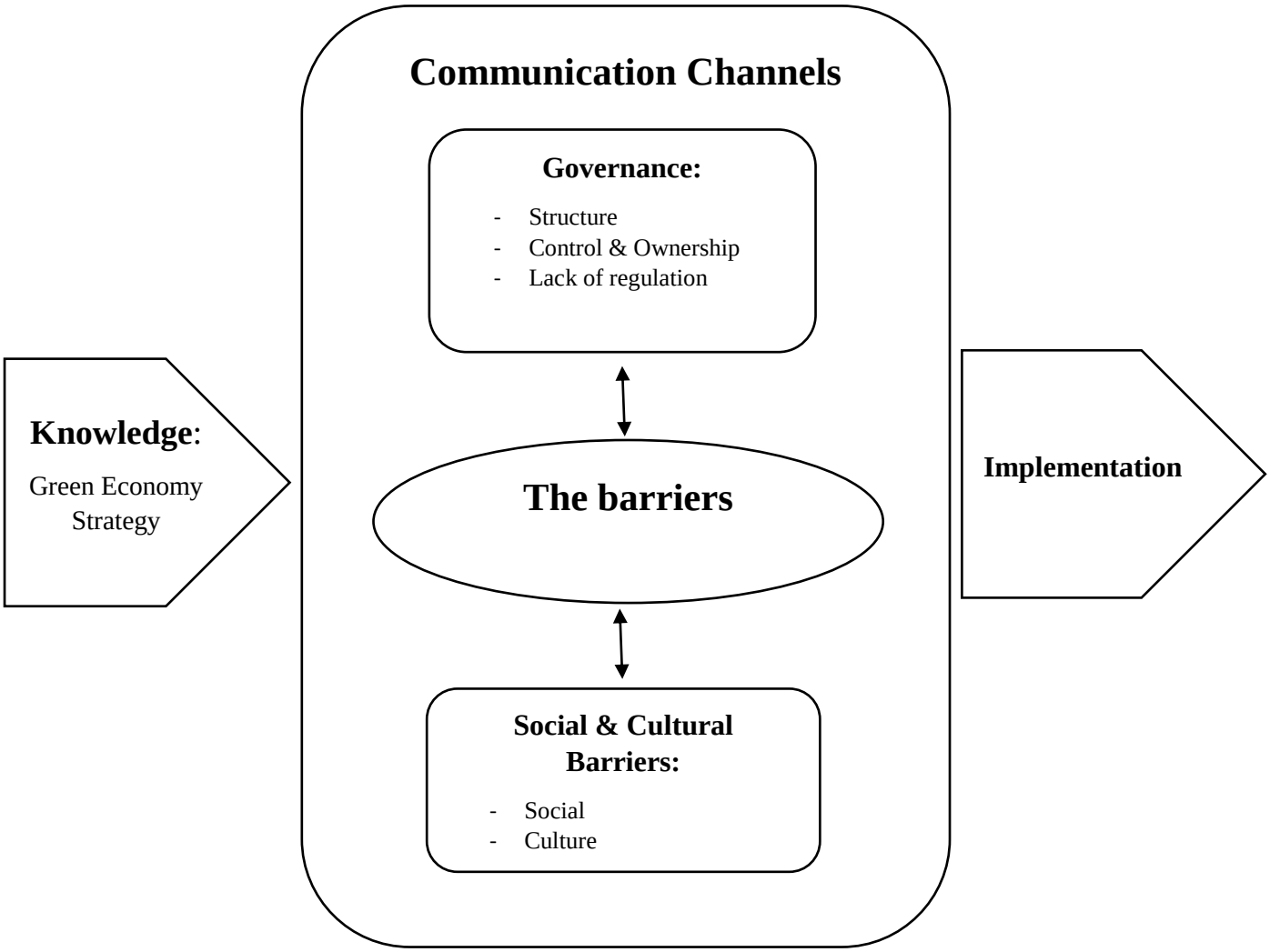
I think the soul of transmitting knowledge about sustainability needs to be improved. Because what I see and feel it appeared the programs were done like a routine parts of their duty not aiming to really transfer the knowledge to the people so that we can truly achieve sustainability in tourism. (18)

This subsection has presented the results of discussion with stakeholders in relation to resource management. A number of programs linked to resource management, including waste management and preservation of the ecosystem, have been considered effective for creating knowledge about sustainable tourism in destination.

6.3 Barriers for diffusing green economy strategy in Wakatobi

Interviews and focus groups conducted with 33 stakeholders found two major barriers preventing transmission of knowledge and information about the green economy concept: governance and social and cultural barriers. Barriers directly correspond to the drivers described in the previous section, specifically those linked to social systems, access of information and awareness. Within the governance theme, there are three sub-themes: structure, control and ownership and lack of regulation (Figure 6.2). In this sense, barriers in diffusing knowledge of green economy strategy in destination correspond to communication channels. Data showed from interviewed that people find it difficult to access and receive an integrated information of green economy concept. As a result, the green economy concept has yet to implement comprehensively in Wakatobi islands. The following section presents a detailed discussion of these sub-themes.

Figure 6.2 Themes of Barriers for Diffusing Green Economy Strategy in Wakatobi.



6.3.1. Structure

When probed more about factors that constrain knowledge creation pertaining to green economy strategy, respondents implied there were gaps in social structure. In this context, the structure of social amongst community seems segregate governments and member of community linked to the ability to elaborate the understanding of sustainable tourism actions. Further, community and governments representatives suggested that it linked to overlapping of authority in the destination. Participants felt confused about the messages created to develop understanding of green economy concept. As respondents noted on this point:

> *Actually, I am aware about sustainable tourism as representatives of local governments frequently invited us to discussion about that topic. But that's it. I just know the concept as the concept discussed. How I should do regarding to that it still not clear to me because I received information from many sources of authorities. It is confusing to me.* (3)

More specifically, community respondents reported that the two main authorities (local tourism office and National Park) compete to influence community members when disseminating information about sustainable tourism. Respondents questioned the credibility of the messages:

> *I think there is something wrong with the way the authorities creating knowledge about sustainability here in Wakatobi. As for me it's kind of show off of power instead. They seem to highlight their superiority to others than to transfer knowledge about green economy in tourism. And to me it makes them less credible.* (3)

Respondents also highlighted the messages delivered by authorities, in particular linked to regulation of the zoning system. Authorities competed with one another to influence their people:

> *They deliver messages about zoning system, which is a system that built to support the protection of environment, especially the ocean. But, we mostly interpret it as an act of performance of a more powerful organisation in delivering messages about regulation.* (5)

This subsection has presented the results of discussion with stakeholders in destinations, including local government, community members, NGOs and academics on the topic of social structure. The structure of the local social system requires a strategic communication practise

to amplify information about the green economy system, specifically in relation to the socialisation of zoning systems.

6.3.2 Control and ownership

Other factors that prevent the creation of knowledge and information about sustainability in tourism are control, monitoring and ownership, which are linked to the governance theme. There appears to be a lack of coordination in creating understanding about sustainability. As a community representative highlighted:

> *I think there are a number of programs that developed in a way to transfer knowledge about sustainability in our area. But those programs seem to run with less control, not to mention lack of evaluation.* (5)

> *We were also involved in conservation-related programs. But it is like their programs not ours. Because we did not feel belong to that program as the results show not expected ones.* (18)

The findings show that it is important to set a specific evaluation system to support the actions to move towards a green economy. In this context, a sustainable tourism indicator that plays a significant role in achieving sustainability seems to be inevitable (Becken and Miller, 2016).

Respondents felt that natural resources and related ecosystem belong to them. They consider that they are the owners of the destination despite government regulation that manages the ownership of the hotspot. As one of member of community noted:

> *We do not need to be informed anything as all belong to us. This has been inherited from our ancestors. There is no doubt about it. And nothing can change it as well*. (18)

In this context, these findings suggest the need for the development of effective and coordinated communication strategies to enhance mutual understanding among destination stakeholders.

6.3.3 Lack of regulation

The data showed that a number of respondents reported limited knowledge in terms of regulations linked to the traffic of information about sustainability in community. People felt excluded from developed programs. Further, they felt the dissemination of information about sustainability in tourism missed the target, as the following responses attest:

I think we are relatively new to this sustainability concept. And we appreciate the information given along with so many programs in our community. But we don't exactly know about how the programs regulated. What we know is that we have heard that in a number of meetings we were introduced with regulations related with environment protection like zoning system. It seems that there is something missing here with the information transfer. (5)

What we feel is so many parties try to convince us about the sustainability, not to mention media that most of our community member nowadays can access easily as they are using smartphone with internet access. It just feels like there is no integration in delivering messages about sustainable tourism. (20)

Similar to previous findings that indicated barriers, it is imperative that dissemination information about regulation and policy be developed in an effective way. As Gill, Singh, and Marwah (2010) noted, an environmental socialisation through effective dissemination of information would lead to favourable attitudes. In this context, the data showed that there is a link between the use of media and the awareness of environment regulation in destination. However, it seems that the effectivity of the dissemination of information through media needs special attention as there have been no evidence that shows directly to the quality and quantity of information received through media used that linked to behavioural changes towards a green economy.

6.3.4 Social and cultural barriers

Interviews and observations also identified social and cultural barriers. In terms of social barriers, the different use of language seems to be a significant problem in the dissemination of knowledge about sustainability in tourism. This arises from the number of native languages and tribal differences across the four different islands. Community and government representatives suggested that it is important to find an effective approach to overcome this. As respondents suggested:

When we speak to people in Wangi-wangi island it seems that we chat to other common people as they speak Bahasa Indonesia, not to mention their own language. But when it comes to talk to people in Kaledupa we need to adapt with their language otherwise they don't understand completely our objectives. (18)

> *When they firstly came to our land to introduce the zoning system, many of us resisted. Even chaos with violence emerged wildly. I think the deliver a message with their perspective neglecting the local wisdom, which is our native language.* (5)

In terms of cultural barriers, respondents suggested information about sustainability be disseminated using a cultural approach. Further, they indicated they value traditions and cultural practices in every human interaction:

> *I think it would be so much effective if the transmission of knowledge about sustainable tourism is delivered by cultural approach. Local people cannot accept you if you don't understand their roots and traditions. And they are quite sensitive about those cultural matters.* (5)

6.4 Chapter Summary

This chapter has explored drivers of and barriers to the transmission of information and knowledge about green economy strategy in Wakabobi Islands. It can be concluded that a range of drivers and barriers exist related to the transfer of information about green economy strategy in Wakabobi Islands. Most respondents reported that the major factors driving the dissemination of information about sustainability in tourism are motivation, including reward and recognition, resource and development, social systems, access to information and awareness, including information on climate change, and resource management. Barriers to the creation and transmission of the green economy concept include governance, including structure, control and ownership and lack of regulation, and social and cultural barriers.

Chapter 7 Channels of Communication in Diffusing Green Economy in Wakatobi

7.1 Introduction

This chapter addresses the fourth research objective of this thesis, which is to identify the communication channels used to diffuse information about and implement green economy strategy. To achieve the aim, this chapter is divided into three main sections. Following the introduction, the second section identifies channels of sustainability communication that carry messages with or without feedback. It reveals four thematic categories, including interpersonal communication, group communication, mass communication and special event communication. The third section explores empirical data related to channels communication in diffusing green economy in destination. Further, the chapter presents the channels that successful in disseminating knowledge of green economy concept to stakeholders, namely mass communication and special event.

7.2 Channels of Sustainability Communication

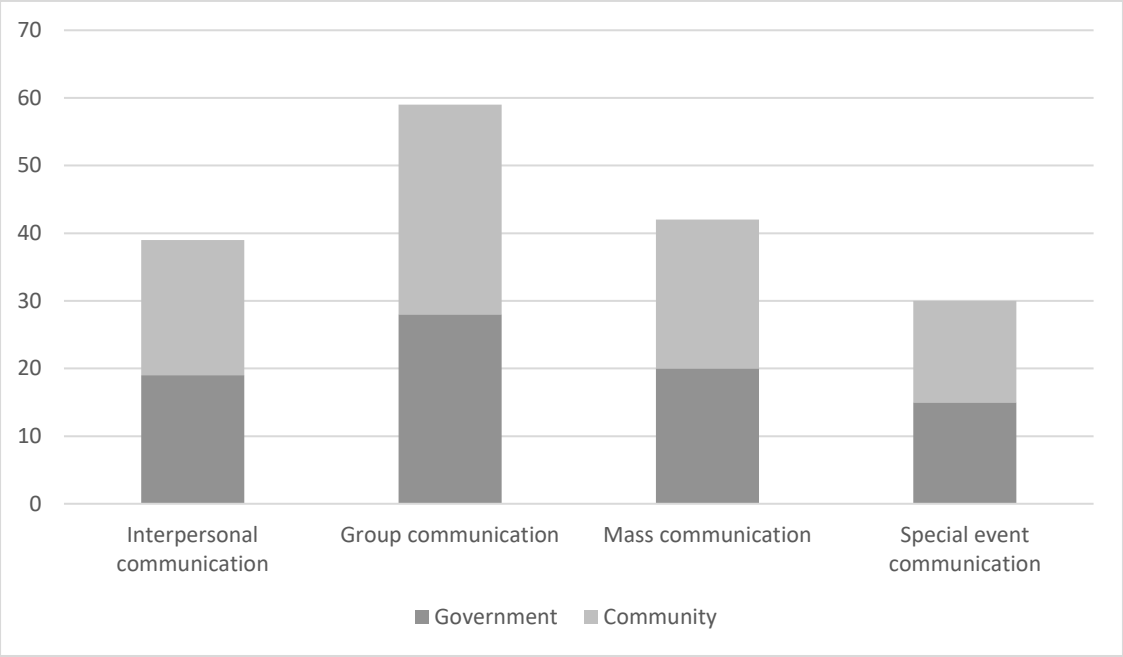
Effectively communicating information and sustainability innovations can be challenging (Tölkes, 2018). This particularly pertains to the use of communication channels to deliver messages that contain environmental information, including sustainable tourism-related messages (Dabphet, 2010). According to Rogers (2003), mutual understanding would be effectively achieved if it was followed by the process of effective transmission of messages. In this context, the use of communication channels plays a significant role. Therefore, it is important to determine the effective and efficient communication channels (Rogers, 2003).

The 33 stakeholder interviews revealed a range of understanding around the implementation of green economy strategy in Wakabobi Islands, linked to the types and effectiveness of communication channels in delivering those understandings. Four broad themes emerged from the analysis, including: (1) interpersonal communication; (2) group communication; (3) mass communication; and (4) special event communication (Figure 7.1).

The interviews revealed that most respondents recognise the sustainable tourism concept, as discussed in Chapter Five. Also, they are involved in a number of practices to protect the environment, as discussed in Chapter Six. Respondents suggested that they obtain information about the concepts and practices of the green economy in a variety of ways. The most

frequently cited communication channel among communities and governments was group communication. Interpersonal and mass communication played a significant role in delivering messages containing sustainability-related information, with 20 interviewees mentioning it. Special event communication was also highlighted by stakeholders (15 from community and government). The following section presents a detailed discussion of the four themes.

Figure 7.1 Types of Communication Channels that Diffuse Green Economy Strategy



7.2.1 Interpersonal communication

In the context of this study, interpersonal communication refers to a form of human communication whereby information is processed and created between two or more individuals to achieve mutual understanding (DeVito, 2016). Findings show that interpersonal communication plays a significant role in transferring information linked to sustainability. When participants were probed regarding how this channel would lead to understanding, they discussed (1) trust, (2) persuasion, and (3) relationship commitment.

In terms of trust, respondents revealed that their understanding of sustainability, which moves them into action, was encouraged by the initiative taken by the community leader, who approached them personally. They trusted this information because it was explained by a person who leads the community (*Kadie*):

> *Implicitly, we already know about sustainability. But it was still unclear as we just heard it from untrusted sources. When* Kadie *talked to me personally, I welcomed him openly and started to recognise the importance of sustainability as it impacts my daily work, our environment and also our future* (23).

The transfer of information about sustainability links to the use of native language. One participant revealed that he understands what to do because the messages are delivered in *Cia-cia* language (the native language of Wakatobi people): *"We talked about sustainability in person using Cia-cia, otherwise I don't understand about the concept"* (24). According to one community leader, people from NGOs had come to the community to talk about sustainability. However, it seemed that, in this case, there was less mutual understanding in how to move the community in Wakatobi to preserve the environment:

> *It was hard for us to talk to those people as we once tried it using Bahasa Indonesia (Indonesian language), instead. Besides, we are not native people of Wakatobi so they resisted to open the conversation, specifically the one regarding sustainability* (26).

Respondents also suggested that initial information on environmental protection came from authorities, who promised to support daily activities of communities around exploring natural resources. But people found a number of restrictions instead.

> *We feel betrayed by the authorities as they told us that we will be allowed to gather fish in the ocean and chop woods. But some of our people were caught when fishing in the ocean* (3).

Respondents were resistant to any sustainability-related information that came from people associated with authority.

> *Some of our friends resist to welcome authorities. When they found some people with uniform came to their house to talk about the regulation and zoning system, no one wants to see them. But things a bit changed when they were accompanied by representatives of NGO which are members of our communities. We started to listen and open discussion to the message of zoning system that regulates the way we explore the natural resources* (18).

In terms of persuasion, stakeholders acknowledged that the approach of community leaders or NGO representatives regarding environment preservation was effective as they persuaded them to come to a group meeting to discuss new regulations. In this context, information was

delivered in an informal way involving emotional messages. As one community member reflected:

> *Of course we feel comfortable to talk openly with them (NGO representatives who are also part of community). They talked to us nicely with our language and no boundaries at all. We are equal in that conversation and we can share our mind freely without being intimidated. And we agreed to come to the meetings where they say more details will be explained regarding the rules to protect the environment and what kind of things and areas that we should comply with* (19).

It appeared that respondents were encouraged to move to another stage of action in terms of environmental preservation as the messages were delivered with a level of intimacy:

> *We feel as a family with them. They talk to us in an equal position not acting like a boss or government. Because when we heard about something related with regulation we prefer do not want to talk about it. Perhaps a bit scared. That is why some of us also show not interesting feeling to the idea to come to a group meeting to talk about environment* (18).

> *They started the conversation by asking our feeling and exploring what hopes we want to have. And even more they ask about our problems and what is to be done. And it is really comforting us. Because they want to listen first instead of telling us what to do with this new regulation* (19).

Participants appreciated the new perspective offered by government and NGO representatives who came personally to them to see the future of community life by not undermining the history of the community itself. As one community member argued:

> *What I and many of my friends feel was at first this regulation is something that tries to destroy us. This is our land and our tradition by exploring the resources freely. But when they explain about what might happen to our children if this goes unregulated opens our mind. I think something needs to be changed here* (19).

Information delivered in person was clearly an area of interest and participants expressed commitment to gradually change their behaviour:

> *We understand that something wrong that has been long going on with the way we exploit the nature as we were informed thoroughly by NGO representatives. And of course we*

want to change. I personally have moved to explore the ocean under the zoning system. But some of our friends still tempted to break the law. I have tried to encourage them and the responses were good as they showed commitment to change. But I think it is not that simple to change our culture and habit in exploring the nature (20).

A few comments reflected a desire for answers and relevance:

But I need to tell you this that the coming of National Park by telling us to do this and not to do that bring a kind of traumatic feeling for us. As it was sort of order for us that have long been living with our culture and our own way, that kind of thing feels not right for some of us especially the older people. I believe we are all have one in common to have a better life especially for our future. But we need more explanation to be really committed to a new regulation of this environment protection (21).

But we are committed to always keep our neighbourhood clean especially from plastics made rubbish as we respect local government (23).

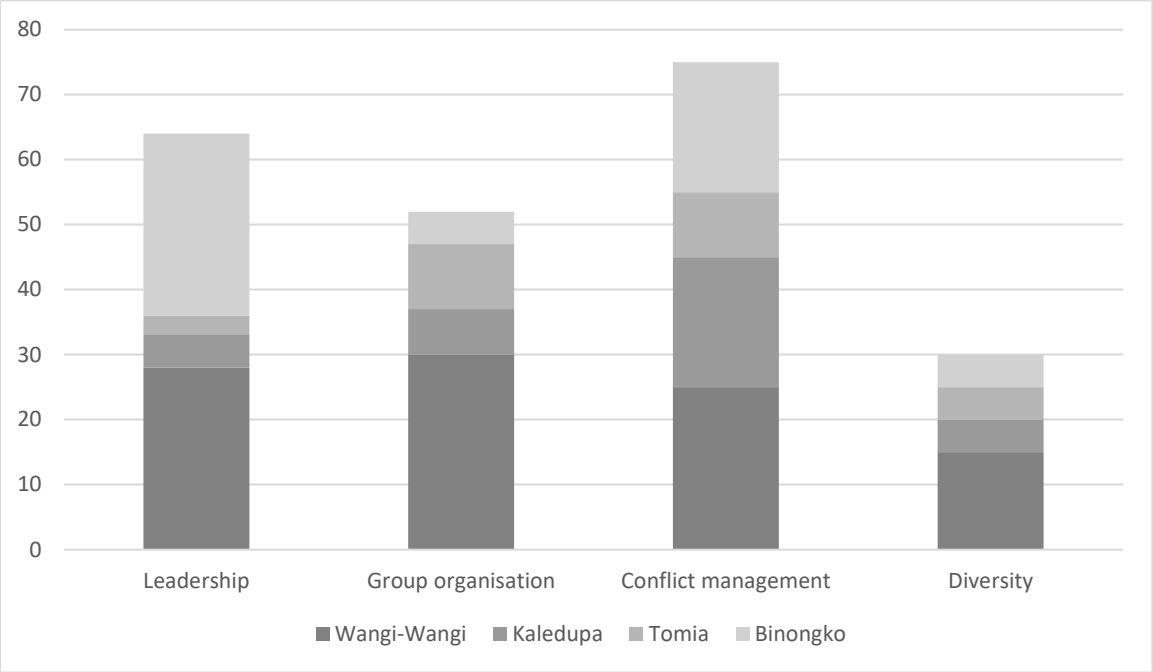
7.2.2 Group communication

Group communication was another form of communication channel highlighted by respondents. When the participants were asked about how they get information about sustainability-related topics, the respondents commented (1) group meetings; and (2) virtual meetings. The following provides a discussion of the results for each.

Group meetings

In terms of group meeting, four sub-themes emerged from the analysis: (1) leadership, (2) group organisation, (3) conflict management, and (4) diversity (Table 7.1).

Figure 7.2 Group Meeting Categories



A range of responses were provided in relation to the dissemination of sustainability-related information across the four islands of Wakatobi. Respondents in Wangi-wangi Island, which is the capital of Wakatobi, dominated recognition of the issues more than participants from any other place, with more than 20 interviewees mentioning leadership, group organisation and conflict management. Issues of group organisation and diversity were the least highlighted by interviewees in Binongko and Kaledupa island (by only five people).

Respondents suggested that community leaders played a significant role in terms of moving community member to a group meeting to discuss environmental protection issues, implying the existence of a social hierarchy in the community. As one respondent of Wangi-wangi Island reflected:

> *We are all here respect very much our community leader. They are all as if our parents whose words will always be followed. What I noticed was some of our friends who was resistant to come to the meeting in turn changed their mind as being encouraged by our community leader* (11).

In addition, respondents suggested that the community leaders usually took part as speaker in a group meeting along with representatives of local government and NGOs:

> *What I experienced from attending several group meetings was that it looks like a group panel meeting with a couple of people being speakers and we just sit and listen to them speaking, or we talk also if they asked us to do so* (13).

Although the involvement of community leaders seems to be effective in encouraging community members to discuss sustainability-related topics, some respondents explained they were confused about the concept that being discussed. As one respondent indicated:

> *Yes we are aware about sustainable tourism. Most of us know it has something to do with our future. But other than that I am afraid I don't get it* (15).

Respondents suggested group meetings could be improved in the way information is delivered. They highlighted the top-down communication that leads to unfavourable feedback:

> *We just mostly listen to them like a lecture. And I think it is boring for me especially because we are being gathered in weekdays and at the time we usually working in the field. Being sat down and listen to this is just something that we don't really like. Probably if it could be modified and as the result it would be different. Because I am not a "discussion" person and probably it goes the same with others* (11).

In terms of leadership shown by local government, respondents noted that the way they deliver the information is considered more as an order. Respondents also added government tends to speak in a formal way, especially in group meetings. A representative of a diving operator argued:

> *I rather go to accompany my clients or event potential client than to attend that (group) meeting as to many formal talk over there while here we need something more realistic. We need to as many as possible to go to the field to see what is happening instead of being lectured by them. Just try ask more people do they get the message of tourism sustainability? I bet you won't get it* (2).

When probed more about messages regarding sustainability, a respondent described some of the concept but claimed it was more his initiative to research the concept and what is important:

> *I read a lot. I also attended many seminars including in Jakarta and Bali, especially when national scale meeting of sustainable tourism invited me. So I know more than most "average" people here. But how about the others? They*

only know about the regulation that prohibit them to gather fish from the ocean in the name of zoning system (2).

The respondent suggested that it is imperative for the government to not only rely on group meetings:

> *We need more than a group meeting. We need more breakthrough in delivering message about sustainability (2).*

As for participatory observation results, it appeared that most group meetings were led by local government to talk about certain topics in relation to sustainability in a formal way, as illustrated by photos below.

Photo 7.1 Group Meeting of Tourism Stakeholders in Wakatobi

Photo taken with permission in September 2019 as part of the fieldwork conducted in Wakatobi. The deputy of Wakatobi Regency (centre, a man wearing a black hat) chairs the meeting, accompanied by local government staff and NGOS at Wakatobi Tourism office in Wangi-wangi.

Respondents identified three major themes arose in every meeting they attended, including: (1) zoning system; (2) waste management; (3) others (Table 7.1).

Table 7.1 Theme of Messages in Group Meetings

Respondents	Zoning system	Waste management	Others
Government	√	√	√
Academics	√	√	
NGOs	√	√	√
Tourism industries	√	√	
Community	√	√	

For most interviewees, the issue of zoning system featured as the top-of-mind topic, as it emerged in every group meeting they attended. Zoning systems have been the main focus of sustainability-related messages designed by local government for community in Wakatobi (1–8,10–13, 15, 26, 27, 30, 31).

Waste management was another theme of group meetings (18, 19, 20, 21). Respondents indicated that waste management-related topics link to the socialisation of new regulation developed by Wakatobi Regent regarding the reduction of plastics in local government areas. One representative of the community reflected: "We notice that rules (Wakatobi Regent Decree of plastics reduction) as it was explained a lot in many (group) meeting" (5).

In terms of other topics, a special event agenda for the celebration of traditional days, socialisation of Wakatobi logo as part of top 10 destination, and UNESCO biosphere reserve were also discussed in a number of group meetings. However, when asked more regarding the specific policy of climate change and low-carbon, respondents appeared confused.

Participants identified two groups that were being organised by local government, including a group meeting that links to a panel group consisting of 10–30 people from all parts of Wakatobi and a small working group in many suburbs of Wakatobi, labelled in Bahasa Indonesia as *Kelompok Sadar Wisata* (Pokdarwis). Both groups, developed by local government, disseminate tourism activities-related agendas, including sustainability-related information. It appeared that financial support of those groups link to local government budgets. As one representative of local government indicated:

> *We are very concerned with the development of the group especially with Pokdarwis. Because it touches the ground of sustainable tourism in destination and we assist them the strategy of tourism sustainable development, including financial support* (10).

As a result of participatory observation, findings revealed that respondents showed practical activities in relation to mitigate climate change. It appeared those respondents are part of community: Pokdarwis. They suggested that that community in Binongko Island who is grouped in a Pokdarwis had implemented the homestay project. Although it was linked to actions of emissions reduction, respondents seemed to feel confused in terms of climate change actions. As one community member of Binongko island asserted:

> *We just told by local government and also WWF staff that doing this homestay would be beneficial for us. They say that this is good for us in terms of to have financial support from tourism activities in Binongko. But as far I could remember, no one told us about climate change or low carbon* (18).

> *They also taught us the strategy to manage this homestay as they also arranged our homestay to have visitors coming to Binongko. Because only a small number of tourists coming to Binongko, they usually visited Wangi-wangi island or Tomia, instead* (19).

Group meetings have been one of the approaches initiated by local government to incorporate tourism stakeholder links to manage conflict. There appeared local government collaborating with leaders of community to develop an understanding by discussing the issues link to conflict in a number of series of discussion. As one leader of community suggested:

> *We get together several times along with all communities, including government to settle down the issues. We try to find the way out, making peace in the neighbourhood by discussing what best for our destination*. (5)

Further, a larger scale group meeting was initiated by local government or national park to find a favourable solution for all parties. In the beginning of the implementation of the zoning system, local government and national park office were involved in a physical conflict with local residents. As one representative of the national park in Kaledupa described:

> *It was horrible remembering how we try to explain about the zoning system here in Kaledupa. I experienced the tense was so high as the local residents were resistant to the coming of national park office. They came here to do bad things as threats arose which our office would be burnt down* (3).

The respondent continued to comment:

> *It takes time for us to be accepted. We finally managed the situation by inviting them to our (group) meeting which later followed up by developing a small working group to help us to implement the zoning system* (3).

Although the participants of group meeting are tourism stakeholders of Wakatobi, they show a significant level of diversity in terms of the ability to comprehend the sustainability-related information. However, evidence seems to show that the message delivered in group meetings was conveyed in one approach, using formal conversations and jargon in relation to the sustainability concept. As one respondent stated:

> *Usually in a larger group meeting there were up to 30 people coming. Most of them are like me member of community. And we feel like in a classroom listening to the lecture in a formal way with so many concepts being explain* (23).

> *I can understand the big idea of the (group) meeting but feel a bit hard to catch up the details* (24).

Findings revealed that local government realised the reality of tourism stakeholders that have different identities and backgrounds. They suggested they need an effective channel that accommodates the information to all member of stakeholder. As one representative of national park indicated:

> *Of course we know all people that we invited to this meeting. Because we wanted to deliver the massages of environmental preservation to as many as community member in Wakatobi so that we are fully understand how to protect our destination* (10).

The respondent continued to explain that meeting in a larger group is not the only approach. A number of small group meetings followed up the understandings that were delivered in previous meetings:

> *We have small groups of community that we initiated to be developed to reach all community member in all parts of Wakatobi. In that regard, we offered mentoring program to all small group meetings in a way to enable them to make actions in preserving the destination* (10).

Another respondent experienced small group meetings as an effective way to build their capacity to preserve the environment:

We are group in a small group in our area. We were trained many things by national park staff and also NGO representatives, starting from how to manage seagrass up to involving in many national park operation to monitor the ocean from any destructive actions. Usually, we look after the fish bomber in the ocean (19).

Virtual meetings

Interview and focus groups results suggested that stakeholders acknowledge that information about sustainability and sustainable tourism links to a number of discussion forums (1–7,11–19, 21–23,30, 31). The findings on this point indicate that exchanging information in discussion forums occurred virtually. In this context, the sustainability-related information channelled by using interactive media linked to Internet. Further, it was evident that this channel incorporated both interpersonal communication and group communication which includes a number of communication means or tools, including: (1) email; (2) WhatsApp group; (3) Facebook group.

A number of respondents considered the use of emails linked to coordination on a project or special project in relation to conservation. One representative of NGOs mentioned emails functioned mostly to invite stakeholders to a group discussion to discuss a specific topic.

We usually invited all stakeholders to come to talk about something in a group discussion. For instance, we once held a carrying capacity program that incorporated local government and community and invited them using emails (3).

But mostly we coordinated about sustainability-related events internally in our office using emails while to reach community we prefer to come personally (1).

The use of emails is limited to a number of people or group. Participants felt emails categorised a specific tool with specific skills in terms of to be able to use it regularly.

Well, we do share info about conservation via emails. We talked about zoning system also by using emails. But not everyone is used to do that. It is a kind of high-tech tools to communicate. Indeed, it is effective to share info but only to specific stakeholders (3).

From participatory observation, it was evident that community members such as fishermen and farmers were not receptive to email communication. It was suggested that training in using technology of communication should be provided to develop community capacity in disseminating sustainability-related information.

Well...you know we are not used to use emails. But I think it is good for us to learn more about it so that we can be more ready to participate in conservation or any others activities (20).

The use of WhatsApp, however, was positively received and was apparently effective in communicating sustainability and sustainable tourism-related messages. (5, 11,12,13,18,19,21,23,30,31). All stakeholders were users of smart phones linked to the WhatsApp group. As one fisherman mentioned:

Well, we all here in Kaledupa use smartphone and are used to use WhatsApp in messaging. It is user friendly communication technology for us as we can do coordination amongst us effectively in terms of conservation (18).

It is a kind of relatively cheap tools to communicate to others in this island although sometimes we are having technical issues with (telecommunication) signal which makes us hard to catch up the info (19).

The respondents implied an improvement in the infrastructure of telecommunication to support all conservation-related activities.

I think this needs more attention to be improved. Because it also affects others such as tourists who also use internet connection and WhatsApp (18).

Another respondent went on to explain that the WhatsApp group plays a significant role in linking all stakeholders to sustainability related information. Further, she mentioned that WhatsApp was set up to reach various stakeholder segments in order to exchange specific information.

We have WhatsApp group named Kamelia which stands for Komunitas Pencinta Alam (a native language of Wakatobi which means a community of environmentalists). We think this has successfully channelled many messages regarding conservation as it involved specific members such as national park staff, NGO officers and also Kadie (a native language meaning community leaders) (19).

An identified benefit of the use of WhatsApp was that it updated information effectively. As a community leader mentioned:

I know right away what is happening in the field when a program of conservation is being executed. When the joint operation between national park and our community in the

ocean to stop fish bombing was happening, it was updated immediately in WhatsApp group. And it's good for us here (5).

It was apparent from the interview that the WhatsApp group was developed in 2016 by a representative of NGO and was set to channel all information in relation to conservation in Wakabobi Islands. Further, it was also evident that most of the stakeholders made favourable gestures when discussing the WhatsApp group.

Another respondent argued that the topic of WhatsApp group linked to the role of community empowerment to support socialisation of waste management actions. Members of the tourism community, namely Pokdarwis, noted that the action to clean up the neighbourhoods was mostly channelled through WhatsApp.

We are very familiar with WhatsApp as we always informed about the action to clean up the waste in our neighbourhoods using it. Usually one of the management level of local tourism office took the lead to socialise about the agenda for us. And of course we can directly response to it. (21).

Similar to that, respondents from Binongko Island noted that WhatsApp group also played significant role in supporting the practice of homestays. One respondent discussed how they manage the bookings for the homestays using WhatsApp:

Our homestays are not that established. We still developing as we learn the concept. As for that we rely very much to the inputs from WWF people as they were previously the ones who initiated this program. And we use WhatsApp to coordinate about it including bookings from potential visitors that usually recommended by WWF staff from Wangi-wangi island and also Jakarta (22).

Participants also identified that another role played by WhatsApp group outside sustainability-related issue. It appeared that they mentioned it channelled social activism in the neighbourhoods.

I think WhatsApp is really helpful for our community in getting to know each other. Not only what other is doing in terms of conservation but only in other social activities. I remember we were helping one of our community member in Liya who is sick by getting blood donor for him. And we did it using WhatsApp (19).

Although WhatsApp was highlighted as an effective communication tool, some of the comments suggested the need for improvements in terms of the use that channel.

> *Thanks to WhatsApp that enable us to easily get info related to our homestay. But I think we need to think to use it in a more interactive one. I mean perhaps we can use video call with the potential visitors as they could experience the look of the homestays for inspection* (21).

7.2.3 Mass communication

As highlighted in Figure 7.1, respondents considered mass communication plays a key role in channelling information and knowledge about sustainable-related topics. In this context, mass communication refers to source of public information and knowledge about environmental-related issues (Hansen, 2010). It appeared that participants revealed experiences exposure to messages of mass communication in terms of waste management. As one representative of a local sanitary agency mentioned:

> *As for we of the government are fully aware about the significant role of waste management in a way to keep our destination clean. And we want to have similar awareness with all community of Wakatobi that is why we use mass media to disseminate the info* (2).

The use of mass communication initiated by local government refers to the need of local government to promote sustainable tourism-related policy.

> *We diffuse all info about how to make our place clean as it is a line with Wakatobi Regent direction to spread all the info* (2).

It seems that the use of mass communication linked to the campaign of sustainability practices.

> *We let the community understand that they will be benefiting something from keeping up their place clean* (2).

Through in-depth interviews and focus groups, this research found that mass communication considered as means or tools to diffuse information from one source to many receivers, including: television, billboards, and flyers.

In terms of mass-communication channels, findings indicate there are many tools used to diffuse information from one source to many receivers. One of the dominant tools of communication to reach the public in destination was television. In this context, almost all

community members represented by respondents in the research confirmed that they received information about sustainability in destination from television.

One representative of local government revealed that there is a strong role for local television in Wakatobi for building awareness around the need for sustainable tourism.

> *We prioritise to spread the info of sustainable tourism related issues using local television as it belongs to us. As it is under the local government budget and supervision then we can effectively utilise it to support all government actions especially in relation to protecting the environment in Wakatobi* (3).

It seems that the local news program emerged as a dominant approach to increasing people's awareness and encouraging them to develop related action.

> *We set many press conferences to deliver info about sustainability, including by inviting local tv. Once we also let people now about the progress of Regent regulation especially related with plastic use policy* (3).

Other participants agreed. "Of course we had watched news about sustainability info on TV" (21). However, confusion arose when probed more about climate change-related info.

> *I am not sure if I ever watch about climate change on tv. But I remember I watched mostly about government ceremonial events instead of our problems in protecting environment* (21).

In terms of billboards, one participant noted that issues of sustainability exposed by using billboard which set in city centre such as Wangi-wangi.

> *We can see it clearly everyday that big billboard informs us about how to keep our place clean* (1).
>
> *But I think it was more a social campaign from government for us to be aware of waste (management)* (3).

In terms of flyers, it appeared that local government mentioned about it in terms of informing community the details of waste collection time.

> *We regularly collected waste from local households. We picked it up every day at 5 am. And we inform them to prepare it by using flyer* (2).

Interestingly, it was also argued that while there is a link between a number of means and mass communication, public information related to environmental protection needs to be linked to the internet. As one representative of community leader mentioned: "We have seen the updates about zoning system from national park website" (5). In addition to that, one representative of Wakatobi national park mentioned about the newly development of internet application to support the dissemination of sustainable tourism information especially to potential visitors.

> *We just developed e-tour. It's a kind of internet application which intended to give potential tourists related info about Wakatobi* (18).

7.2.4 Special event communication

One interesting finding is that participants mentioned special events as a significant channel for diffusing information and knowledge about sustainability-related issues (Figure 7.1). In this context, special events play a significant role in transmitting messages as they provide opportunities for attendees to have memorable experiences (Hede & Kellett, 2011).

Participants identified that one of the largest special events in Wakatobi was Lalo'a festival, which played significant role in information sharing about environment conservation (5, 21, 22, 23, 24, 25, 27, 28). The Lalo'a festival is an annual traditional festival linked to the peak migrating period of *baronang* fish (rabbit fish) across Wakatobi ocean. In this season, which occurs in November, almost all people of Wakatobi benefit more income from fishing those lalo'a fish. One respondent mentioned that local government NGO and community leaders used the event to promote sustainable fishing as they mingled with the community in celebrating this special moment.

> *We all get together to celebrate Lalo'a festival by coming down to the ocean. And we manage to remind all people to limit their fishing. We emphasise that all fishes with eggs on it need to be released free to the ocean otherwise it affects the future of the number of fish ecosystem* (3).

The community provide positive feedback about this approach. They were aware of the message to protect the fish's ecosystem. However, it was suggested that this information transfer could be expanded to a larger community:

> *We understand about the importance of keeping those fish ecosystem. But if you look at the market the day after the festival people are still buying for fishes with eggs as it considered more delicious for meals* (3).

A local government representative highlighted another special event called Hari Peduli Sampah Nasional (or National Waste Awareness Day) (1). Local government leveraged this event to be in Wakatobi. “We employ Hari Peduli Sampah Nasional to accelerate the program of waste sanitation in Wakatobi” (1). The respondent explained that the event had media exposure as they invited local journalists to cover it.

> *We used the day to also promote about Regent concern about the reduction of plastic use materials in Wakatobi as we invited press to come* (1).

7.3 Discussion of Communication Channel in Diffusing Green Economy

Findings revealed several channels are used to deliver messages linked to the implementation of green economy in Wakatobi Islands, including: (1) interpersonal communication; (2) group communication; (3) mass communication; and (4) special event communication. According to Cooper et al. (2006), new tourism knowledge is disseminated between the community and tourism sector using personal communication and media. In this context, channels play a significant role in delivering message about green economy concepts, and findings indicated different channels have different impacts or influence.

In terms of interpersonal communication, it was found that elements of interpersonal communication, including trust; persuasion; and relationship commitment contribute to developing the understanding of stakeholders to implement green economy concepts. Local people suggested the approach conducted by government seemed to be acceptable as it was delivered in a face-to-face conversation, as one respondent mentioned: “We feel as a family. They talk to us (personally) in an equal position not acting like boss or government” (18). According to (Kirchmajer, 2011), interpersonal communication in delivering messages relies on the interconnectedness of inherited elements, including credibility, trust, persuasion and commitment. These elements of interpersonal communication occur during conversation and dialogue between two individuals. As such, it can be one of the keys driver of changes in behaviour.

In terms of group communication, findings suggest two forms of group communication channels are important in disseminating knowledge linked to the implementation of green economy concepts: group meetings and virtual meetings. Both forms play a key role in channelling information from government to community. Community leaders play a significant role by inviting community members to a group meeting to discuss environmental protection issues, as a local community mentioned:

> *We are all here respect very much our community leader. They are all as if our parents whose words will always be followed. What I noticed was some of our friends who was resistant to come to the meeting in turn changed their mind as being encouraged by our community leader* (11).

According to Matteson (2009), group leadership contributes significantly to interactions. Further, the role of leader in any group interaction determines the communication behaviour of the group. It seems that the findings of this current study corroborate the concept of leadership in a group interaction, as participants acknowledged the vital role of the community leader in developing their understanding.

In terms of mass communication channels, findings indicate there are ranges of tools linked to mass communication used to diffuse information from one source to many receivers. One of the dominant tools of communication to reach the public in destination was television. In this context, almost all of community member represented by respondents in the research confirm to receive information linked to sustainability in destination from television. It appeared that local government utilised television to channel information in relation to waste management, as a representative of government mentioned:

> *We prioritise to spread the info of sustainable tourism related issues using local television as it belong to us. As it is under the local government budget and supervision then we can effectively utilise it to support all government actions especially in relation to protecting the environment in Wakatobi* (3).

According to Nistor and Nedelea (2019), mass communication plays a vital role in channelling information related to tourism development and has credibility with large numbers of people. There are a number of other forms of mass communication channels that can be used to disseminate information. However, television and the internet are the two dominant types of effective mass communication channels. According to Rogers (2003), television plays a significant role in channelling information to change behaviour. Rogers suggested that the influence of television to affect opinion leaders might lead to behaviour change. In this context, there is an overlapping role for the use of mass and group communication channels. In particular, leaders of the community seem to play significant role in both mass communication and group channels as they know and understand the community and its members.

Regarding special events, this study has revealed a connection between the understanding of sustainability and the important element of special events, which is memorable experience. A

number of traditions in Wakatobi play a significant role in channelling the information in relation to environment conservation, as one respondent mentioned:

> *We all get together to celebrate* Lalo'a *festival by coming down to the ocean. And we manage to remind all people to limit their fishing. We emphasize that all fishes with eggs on it need to be released free to the ocean otherwise it affects the future of the number of fish ecosystem* (3).

According to McDonnell, Allen, and O'Toole (1999), there is a positive relationship between special events and tourism impact. Special events, such as festivals, lead to economic benefit for the stakeholders. However, in terms of understanding of sustainability, Tolkes and Butzmann (2018) argue the use of special events is positively correlated with pro-sustainable behaviours. Events related to sustainability seem to affect stakeholders' consciousness, which may lead to behavioural change. In relation to findings that Lalo festival has been a significant event to transfer information relating to conservation of natural environment, it is important for decision makers to set this event as an effective moment to regularly disseminate any updated information towards a green economy. And by taking that into account, it would provide opportunities for stakeholders to have memorable experiences (Hade&Kellet, 2011), which are moving towards a green economy.

7.4 Chapter Summary

The chapter has presented findings from tourism stakeholders in relation to the identification of communication channels used to diffuse information and implement the green economy strategy. Section 7.2 demonstrates a range of communication channels along with communication means and tools that can be used to build awareness of local people and encourage them to move into practices of sustainability. Findings suggest interpersonal communication and mass communication play significant roles in channelling information and knowledge of sustainability-related issues to destination stakeholders. Community leaders play a significant role in approaching all tourism stakeholders.

Chapter 8 Discussion and Implications

8.1 Introduction

This chapter brings together research findings to explore implications for the dissemination of the green economy concept to achieve sustainability in tourism in Wakatobi. This chapter is organised into two sections. The first section discusses respondents' understanding of concepts and practices of green economy. It explores what needs to change for green economy implementation, including tourism planning policy. This discussion is structured using DeLacy et al.'s (2014) seven pillars of green economy. The second section considers the key elements necessary to diffuse green economy strategy into practice. Applying diffusion theory, the discussion explores how the ideas to inform the implementation of a green economy strategy can be diffused among stakeholders in an emerging destination, such as Wakabobi Islands.

8.2 Respondents' Understanding of Concepts and Practices of Green Economies

The following discussion addresses the second research question around awareness of stakeholders of the green economy concept in Wakatobi. This was an essential part of the research that needed to be explored before examining diffusion strategies and their effectiveness. A key finding was that stakeholders perceived the concept of sustainable tourism as important and beneficial. The over-riding belief was that it is necessary for all tourism stakeholders to participate in protecting the environment in a way that achieves sustainability. As one participant noted:

> *If you asked me if I am aware about the sustainable tourism concept, then the answer is yes. Because it is important for the future of our destination. What I understand is sustainable tourism encourages us to maintain our natural resources to be lasting forever.* (3)

There are a number of programs currently in place aiming to decrease the negative impacts of tourism development, such as a coral reef plantation program, a mangrove plantation program and the socialisation of zone system regulation that manages fishing exploration (as discussed in Chapter Five.) Kisi (2019) argues that to achieve sustainability in tourism a series of sustainable tourism development actions must be undertaken within an integrated framework. The existence of these programs indicates that some action is being taken and the programs

align with the three dimensions of economy, society and the environment (Reichel et al. 2008; UNWTO 2021).

However, the extent to which programs are implemented within a clear framework is unknown and respondents indicated they merely were going with the flow rather than seeing their efforts as contributing to a larger goal. It seemed that practice-related sustainability in tourism has a close connection with instructive communication:

> *We just follow the instructions as what our bosses told us to do so. We just do the mangrove conservation. Or we do coral reef plantation as they suggested us to do so* (18).

These findings play significant role in setting the fundamental role of innovation from the perspective of diffusion theory. The mechanism that emerged from the interview linked to the process of getting information would be worth support the process of message development linked to moving towards a green economy. Knowing the efficacy of the instruction process for stakeholders, it is suggested that local authorities might need to deliver more up-to-date information in relation to sustainability. As such, the local people would not merely receive updated information about the green economy concept but they would act on it accordingly.

When probed more about the planning and design of all sustainability-related practices in tourism, a local tourism office representative referred to national documents linked to tourism planning. Similarly, a national park representative indicated that all programs in connection with sustainability in Wakatobi were believed to be linked with national programs of sustainability (Ministry of Environment and Forestry). This reflects a gap in knowledge and information about the planning and strategies of tourism, including around sustainability. In this sense, there is a lack of understanding about planning for sustainable tourism in destination. An implication of these findings is that it is necessary to develop a system of information dissemination that could bridge these attempts at knowledge transmission, in particular about tourism planning and strategy.

Although respondents discussed sustainability in tourism in connection with national planning documents, there was no indication that these documents were relevant to Wakatobi. Further, there were no clear priorities for sustainable tourism development implementation. As one representative of tourism business mentioned:

> *We seem to acknowledge the sustainable tourism concept. And you can also see the evidence in the field. We gather a few times to discuss about sustainability. We established programs related to it. But I am kind of difficult to find to which area exactly we are heading off as there seems no priorities in every actions we make in terms of sustainability.* (15)

In terms of the green economy concept in tourism, respondents were confused about the term. This is perhaps unsurprising given that it is a relatively new concept related to sustainable tourism, with only a few studies in the literature that applying the term to tourism (Law, 2014).

Despite limited use of the term, the findings nonetheless show that there were a number of green economy-related actions established in Wakatobi (as discussed in Chapters Five and Six). Many of those were perceived by respondents to be part of sustainable tourism programs. Destination stakeholders were not only aware of the concept of green economy but also had implemented it in various ways. In this sense, there appears to be considerable opportunity to disseminate green economy strategies as stakeholders are supportive of this. As Fisher and Hawes suggest (1971), it is necessary to engage people to achieve understanding, and interaction is the key to deliver messages effectively. In this case, the process of implementing actions is aligned with Fisher and Hawes's interaction system model of communication (1971). In more current findings, it was evident that it seems more effective to change attitudes that are based on message dissemination with emotional strategies (Petty et al., 2012). In this context, actions related to green economy in tourism would seem to be beneficial to develop if it were approached with emotional strategies than with more cognitively rational ones. In more current findings, it is evident that it is more effective to change attitudes that are based on message dissemination with emotional strategies (Petty et al., 2012). In this context, it would be beneficial to develop actions relating to the green economy in tourism if they were developed using emotional rather than cognitively rational strategies.

DeLacy et al.'s (2014) green economy framework is applied in the following discussion as a lens to explore how green economy initiatives are being implemented in Wakatobi. According to the framework, the green economy in tourism can be identified using seven themes: (1) climate resilience and managing the low-carbon transition; (2) natural resource and waste management, which includes biodiversity conservation; (3) product development and destination management; (4) branding, marketing and e-distribution; (5) capacity building and green jobs; (6) infrastructure, technology dissemination and communications; and (7)

important means of implementation, such as policy reform, PPPs, finance and innovation. This framework has been previously applied to examine the transition of tourism to a green economy in Bali island, Indonesia (Law, et al., 2014). This seven pillar perspective provides a framework to interpret the existing application of sustainable tourism programs and categorise findings from this thesis. The following sections further examine the seven pillars perspective and provide the basis for the diffusion of green economy strategy framework proposed in Chapter Two.

8.2.1 Climate change and implication

Addressing climate change issues is a critical step in moving towards a green economy. Study findings suggested that local people in Wakatobi acknowledge the negative impacts of climate change. They considered it as a threat to their future as is now well established by science (Loehr & Becken, 2021).

Findings reveal that respondents had already actively participated in a number of programs to mitigate climate change, including coral reef transplantation and mangrove conservation. This indicates that there has been a significant process of transfer of knowledge and information about climate change issues. Despite the existence of the programs, however, there was little coordination between the programs or understanding of their objectives as being part of a wider plan. People located across the four different islands were not strongly connected in terms of developing climate change programs. Further, most programs were developed in the capital of the islands, Wangi-wangi island. There was little community engagement in the program design other than in the capital island of Binongko island, which is located approximately six hours (across the ocean) from Wangi-wangi island. In this context, green economy progress in terms of climate change mitigation is very limited and poorly integrated in policymaking, policy development and governance structures, despite being advocated for in the wider green economy literature (Becken et. al., 2020).

There have been a number of policy developments linked to climate change mitigation in Indonesia. According to Rahmawati (2017), the Indonesian government has actively participated in developing and ratifying climate change related documents since the new order of Indonesian government led by President Soeharto in 1967. However, when participants were questioned about their knowledge of climate change policy in the destination, confusion seemed to arise. Similarly, local government respondents struggled to explain regulations pertaining to climate change, including those linked to tourism. This suggests a lack of

knowledge and information about climate change policy and strategic planning. Further, none of the participants acknowledged that climate change policy is connected to tourism. When probed about it, participants felt this had something to do with central government instead of Wakatobi administration. In other words, coordination on climate change policy between central and local administration appears problematic. An implication is that the implementation of climate change action needs significant improvement, particularly in relation to the transmission of knowledge about climate change regulations. It also suggests that tourism development scattered all over Indonesia might not be effectively working to achieve common sustainability goals in terms of climate change resilience.

As discussed, one of the drivers for action on climate change and sustainability was the availability of finance. Financial support, however, has been primarily provided by NGOs. Interview and focus group respondents named NGOs in relation to almost all conservation programs. As one respondent described:

> *Yes, we have developed programs to protect our environment, thanks to WWF that has already given mentorship for us for those programs. They gave us practical advice and also financial support* (15).

This signals a significant challenge for Wakatobi to manage information about climate finance to move to a green economy. According to Nascimento (2016), climate finance and tourism adaptation development have been significant factors that need to be understood in an integrated way. However, as discussed, knowledge on climate change finance remains problematic and there is little knowledge on where and how to identify financial support for adaptation and mitigation programs. According to the Ministry of Finance of the Republic Indonesia (DDTC, 2021), climate finance has been effectively addressed by central government through the development of carbon tax regulations. There is a potential income from the application of this tax, which is worth up to 12 trillion rupiahs or 10 billion US dollars (DDTC, 2021). In this context, it is important for all stakeholders to receive updated information to encourage efforts linked to climate change resilience in Wakatobi.

8.2.2 Natural resources and waste management and implication

Another key finding was that stakeholders acknowledged that the protection of natural resources and waste management are significant factors in achieving sustainability in tourism. It was evident that local people are aware that all activities linked to the exploration of natural resources, including tourism, would affect their future. They have had access to information

about consequences that might be taking place in their land, including negative impacts that might threaten their future.

Findings also showed the importance of knowledge from ancestors in relation to how to manage the environment. This ancestral knowledge is closely aligned with sustainability principles, meaning that sustainability is not a new concept for respondents. However, they acknowledged that sustainability in tourism *is* considered a new term for the community. While the concept of sustainability emerged in many publications in the 1970s (WCED, 1972; Bramwell and Lane, 2005), Wakatobi people have understood the importance and significance of preserving the environment for future generations for centuries. Thus, there are favourable conditions in the community for active support of sustainability in tourism.

Local people showed concern for protecting natural resources and particularly the marine environment. They suggested that the ocean ecosystem gives them life, as they are reliant on fishing as a main source of income. The ocean and its experiences are central to tourism development. As a representative of community leader argued:

> *We have no more choices than to protect our ocean because we need them for our work and also for our life. That is why we participated in many environment conservations such as mangrove preservation or coral reef plantation. And I think that will bring a positive impact to the tourism as well.*

On this point, Wakatobi stakeholders are prepared and ready to green the destination (Wong et al., 2011). It was obvious that there is a positive connection between sustainability knowledge and the actions that need to be taken to achieve it. However, to achieve biodiversity conservation, a sympathetic policy environment is required (Wong et al. (2011). Surprisingly, although environment-related policies exist, most are central government initiative-based policies (Owners et al., 2019). This creates policy gaps and disconnection between central and local government. Successful diffusion strategies and integrated environment protection actions require policy integration if there is to be a substantial move towards a green economy.

Waste management, waste collection, rubbish on the beach and policy on waste management were other issues identified by research participants. According to the UNEP (2003), a significant factor for moving a destination into sustainability is its ability to manage waste. It is important to take into account waste management processes, including to understand principal and technical issues linked to waste management plans, such as waste reuse and

recycling, waste recovery and waste disposal (UNEP, 2003). In this regard, there was no evidence of comprehensive stakeholder acknowledgement around waste management.

Surprisingly, considering there was no reliable data for waste management in the destination, academics suggested it is important for the island to re-develop the waste management strategy in a way that achieves sustainability. They argued that inaccurate data around waste collection could be fatal to the protection of the destination. As one academic representative argued:

> *It is impossible that a destination could be managed into a sustainable way based on inaccurate data. How come they will survive with false data of waste collection. We raised this issues as we found from our latest research by making a data simulation that all existing data that have been reported are not reliable* (30).

These findings align with the literature that emphasises the importance of reliable data on waste to plan for sustainability in tourism (UNEP, 2010; Chen MC et al., 2005; Shamshiry et al., 2011). This is key to the development of an effective and efficient strategy of waste management, which has become an important determinant factor for many destinations around the globe (Phu et al., 2019; UNEP, 2010).

8.2.3 Product and Destination Management and implication

In-depth interviews and focus groups demonstrated that most stakeholders know that Wakabobi Island is a tourism destination. Further, a number of respondents showed specific knowledge about the uniqueness of Wakatobi's tourism product: underwater or marine tourism. Respondents listed the distinctive characteristics attached to Wakatobi, such as the UN Global Biosphere Reserve. It seems that stakeholders understand their position as an inseparable part of a tourism product. According to Leiper (2004), a tourist destination is a product that incorporates multidimensional aspects, including business strategy and planning, and policy that guides and supports growth. In this sense, stakeholders of Wakatobi understand the nature of tourism products. However, there were no indication that local people felt familiar with other types of tourism products (i.e., cultural tourism, culinary tourism or ecotourism) This suggests that it is necessary to increase stakeholder knowledge about the tourism potential of Wakatobi.

According to DeLacy et al. (2014) a tourism product is merely one of the foundations that need to be integrated to move towards a green economy. Referring to data based on Bali island, they argue that it is important to develop a specific tourism strategy, as a destination is perceived as

a unique product that reflects different characteristics. As findings revealed, respondents showed knowledge about Wakatobi, where diving has been a main attraction, which seems to reflect the uniqueness of a tourism product. However, there are a number of similar diving hotspots scattered all over Indonesia, including the phenomenal Raja Ampat islands in Papua and Weh Islands in Aceh (Conservation atlas, 2018). This finding highlights the issue of transmission of knowledge to all stakeholders in Wakatobi about what makes Wakatobi diving sites different from others.

In exploring the knowledge of Wakatobi as a tourism product, this research probed destination stakeholder perceptions of the concept of green economy. As discussed in Chapter Five, most respondents were more aware about the concept of sustainable tourism than green economy. Regarding the link between the development of tourism and sustainability, local people listed a number of infrastructure developments. At the same time, others, including academics and tourism operators, highlighted that many gaps for development could be filled. As one representative of tourism operators argued:

> *We have strength as a distinctive destination. As you have known we are surrounded by many diving hotspots. That is why also I believe that it set this destination as one of the top ten destination in Indonesia. But that it is. I feel like it is just a label without any further significant development. I one heard complaint from visitors about how challenging to reach us. Long trip by plane from Jakarta has been a serious issue that needs to address. Not to mention when those tourists landed here they looked like confused as to what to explore as we have no integrated information like what existing in Bali, for instance. Also, local transportation condition to reach the hotspots feels like not align with the objective to bring satisfaction to people coming here (13).*

These different perspectives on tourism product development and its connection with sustainability could be seen through the lens of tourism planning that has been developed in destination (Andriotis, 2001; Hall, 2000; Inskeep, 1998) and suggest that tourism planning is closely connected with sustainable development. Respondents have a different orientation on the priority of tourism development. Further, the transmission of knowledge about data of tourism development, including development strategy and policy in tourism, is problematic. McGrath et al. (2015) noted that it is important to integrate all supporting systems in tourism destinations to develop green economy planning, suggesting that data are necessary to support tourism system planning. In addition, it is necessary ensure that all stakeholders have access to

this data (Baggio & Cooper, 2010). Comprehensive understanding by the tourism destination would benefit the strategy of tourism development.

Evidence-based destination management is also necessary to manage change (Paddison, 2018; Bornhorst et al., 2010; Howie, 2003). According to Wray (2009), the capability of stakeholders in managing a destination is closely connected to the quality of related policies. They argue that it is imperative to develop and apply a strategic tourism development policy to move towards sustainability. Wakabobi Islands is a relatively new destination that has been set as a new administrative region, which, by law, acquired independent authorities to manage the district (Kodir et al., 2017). Therefore, the destination needs more time to wholly understand effective and efficient ways of strategic tourism development. However, conflict between authorities, the local tourism office and national park, have presented a challenge that needs to be addressed strategically (Kodir et al., 2017; Owners et al., 2019; Wisesa, 2010). A strategic policy is needed to cope with those conflicts and to manage the destination's move to sustainable tourism development (Kodir et al., 2017).

A barrier to planning is that there is little knowledge of sustainable tourism indicator systems to measure what has been developed in the move towards a green economy. In this respect, there is a gap between the implementation of sustainable tourism development and the approach to performance measurement. According to Whittlesea (2016), it is important for a destination to develop an effective carbon footprinting measurement to achieve a reduction in GGE, and measurement tools are necessary along with tourism policy and strategic planning. There is a need to generate a new indicator framework in Indonesia, specifically Wakatobi, as an inseparable part of destination management to help identify and direct the policy to achieve growth that balances economic, environment and sociocultural interests (Whittlesea et al., 2019).

8.2.4 Brand, marketing and e-distribution and implication

All stakeholders were aware that Wakatobi is a tourism destination, as per the central government's intention for Wakabobi Islands to be a top 10 destination in Indonesia (Westoby et al., 2021). Members of the local community had participated in a number of tourism attractions in destination. While some members of the community seem to have benefited from destination, other community members remained isolated and reported experiencing seemingly insurmountable hurdles to stimulate economic growth. Community in Kaledupa and Binongko Islands have not been developed equally with that of the capital island, Wangi-wangi (Minsaris

et al., 2019). In this sense, the distribution of tourism remains problematic. According to Milne and Nowosielski (1997), it is important for strategic development to achieve a sustainable form of tourism including by addressing inequitable distribution of tourism; parameters of success should be identified.

The first head of administration of Wakatobi launched tourism promotion of the destination all over the world. Initially, he introduced the enormous richness of Wakatobi's underwater life to potential visitors at a number of international tourism exhibitions, which established Wakatobi as a distinctive hotspot. As one of community leader described:

> *The first Regent of Wakatobi knows exactly the selling point of Wakatobi especially those underwater. He went diving and captured so many ecosystem in the ocean and show it to many international tourism exhibition. That is how Wakatobi firstly promote itself as tourism destination. And we are here starting to get used to welcoming many visitors as we notice our land has been an hotspot.* (15)

The main purpose of destination branding is to achieve economic benefits. Local people did not seem to have knowledge about actions around promoting the destination as an environmentally-friendly hotspot. In other words, there is no evidence of the promotion of Wakatobi as a green destination. Branding a destination is a significant element in developing sustainable tourism (Saleem et al., 2021; Ahn and Back; 2018; Hollebeek et al., 2014). However, it is imperative for a destination to implement a sustainable tourism framework as part of that process. The development of tools and resources to better promote the destination as a green product are also an important part of implementation (DeLacy et al., 2014).

According to a number of researchers (Kehrs, 2021; Lesar et al., 2020), destination brands are also closely connected to tourism certification and potential visitors value destinations that provide environmentally-friendly tourism activities and accommodation (Campelo et al., 2014). In this sense, tourism certification is significant. However, respondents had little knowledge or awareness of these certification programs. Further, stakeholders appeared confused about the concept of tourism certification as a tool to measure destination sustainability. Most respondents suggested that knowledge about tourism certification is limited to the label attached to the destination of Biosphere Reserve, which was given by the UN in 2012. As a respondent described:

> *We are very proud with the label given by UNESCO as one of Biosphere Reserve in the world. And I think it will bring impact to tourists behavior. But I am not sure with those*

tourism certification. Perhaps we have it also or central government did take responsibility on it? (5)

There is a need to disseminate information about tourism certification. As Honey and Stewart noted (2002), it is important for a destination to apply for tourism certification as it contributes to building market access for business enterprises. Also, it supports the efforts of stakeholders, specifically government, to develop favourable policies towards the green economy. In this sense, it would support the aim of the Indonesian government to promote Wakatobi as one of the leading attractions, as an alternative to the famous Bali island.

Field observations suggest that only Wangi-wangi island and Tomia island have experienced significant development. This is well-supported by data from interviews and focus groups, where infrastructure development was highlighted. As discussed in Chapter Five, local people felt that there is a significant gap in tourism development in Wakatobi. As a result, they suggested a balanced and significant improvement of tourism development is urgently required. These results confirm previous research that pointed to the significant improvement of tourism development distribution in Wakatobi (Wijaya & Damanik, 2020; Nasrun, 2016). There is a need to improve tourism development distribution, specifically in ecotourism-based hotspots (Wijaya & Damanik, 2020). Others highlight the importance of visitor dispersal in a destination (Schott, 2007; Andrade, 2018) and that tourism distribution (or distribution channels) is an important strategy for sustainable destination management.

8.2.5 Capacity building and green jobs and implication

The development of green jobs is another important element of sustainability, including jobs associated with protecting and restoring the ecosystem and biodiversity, reducing energy consumption, decarbonising the economy and minimising the generation of all forms of waste and pollution (Luu, 2021; Collins et al. 2010, ILO, 2008). Findings reveal that local people have a certain level of knowledge about the application of homestays. It was noted that the implementation of homestays on two islands, Binongko and Kaledupa, were associated with the creation of green jobs. According to Cohen (2022), the concept of a green economy delivers new opportunities by creating jobs that benef the environment. It is believed that green jobs, as one of dimension of green economy concept, are considered important to transition to a green economy as they produce goods or provide services that benefit the environment or conserve natural resources. It seems that homestay is considered a services in tourism sector that is linked to the act of benefiting the environment. Further, as discussed in Chapter 5, participants

suggested that homestay businesses were useful not only for generating income but also protecting the ecosystem. They argued that the existence of homestays would benefit the environment as they empower local people to utilise existing buildings as commercial accommodation. In addition, it is also noted from the evidence that the actions to sell souvenirs that use recycled materials generate significant income to the community in Wakatobi Islands.

While homestays are considered a contributor to green jobs creation (Karki et al., 2019), they are not sufficient to transform the destination towards a green economy. According to Montt et al. (ILO, 2018), the transition to environmental stability requires significant changes in a number of job sectors, specifically the energy sector. The transformation of jobs in the energy sector to renewable energy sources affects job creation, which is predicted to reach more than 2.5 billion jobs in 2030. In this respect, there is great potential for green jobs creation to support the move to a green economy. Opportunities exist for stakeholders in destination to take this into account, along with the development of tourism planning and strategy. Further, with the support of the integrated communication strategy (Rossiter and Steven, 2005) to disseminate this information, it seems likely that Wakatobi could achieve sustainability in tourism.

According to Robertson and Barling (2013), efforts to create green jobs, which lead to increased employment, require a number of factors to be successful. The development of systematic and integrated policies is essential for jobs creation. The implementation and success of green jobs creation also need to be measured and monitored (Chen and Chang, 2013). However, as discussed in Chapter Five, local people have little knowledge of policies pertaining to the development of green jobs in destination. It was also evident that knowledge about any related measurement of green jobs remains lacking. In this context, it is necessary to inform and support stakeholders on how to create green jobs – this is a critical element in the transmission of knowledge towards a green economy.

Findings also provide understanding of the importance of capacity building to achieve sustainable development in tourism. The results indicate that local people are aware of the concept of sustainable tourism. They also suggested a number of workshops held by local government have had a positive effect on increasing knowledge about sustainability, which also encouraged the implementation of a number of sustainability-related programs. These findings are consistent with previous research (Ghaderi et al., 2018), which found there are positive correlations between the application of capacity building and the understanding of

concepts. The conduct of workshops was considered an effective tool enhancing the understanding, skill and knowledge of community in destination.

Although findings indicated that workshops have been important for building stakeholders' skills (Higgins-Desbiolles and Monga, 2021), the scope and content of these workshops were unclear. For example, there was little content related to integrated strategy and planning, and workshops were designed and delivered primarily by NGOs rather than government. Although it was evident that the work of NGOs correlates positively with the development of policy, NGOs do not have responsibility or authority over policy. Further, as suggested by Higgins-Desbiolles and Monga, (2021) to build a focused and effective workshop for capacity building in sustainability, there has to be clear aims and program design.

According to Aref et al., (2010), it is important to understand the characteristics of the destination to be successful in capacity building. For example, in specific destinations such as marine protected areas (MPA), programs need to be customised to address the challenge and necessity of balancing biodiversity protection and sustainable use (Caffyn and Jobbins, 2003). In this sense, sustainable tourism development curriculum with a specific use of a framework for MPA would support long-term capacity development. Although there were a number of training programs linked to develop skill connected to conservation, there was little innovation or connection with sustainable transformation. Local people suggested that they did the training programs with relatively low motivation as they felt unclear about a number of the workshops. As one respondent reflected:

> *Well, we attended several time to workshops. Because, we were told to do so by our leader, which they say it is important for us and our future. Basically, I know about sustainable tourism and I think it is a good thing. But some workshop that held for us seems like is just a ritual program. I think it could have been interesting and also effective for us there are some improvement with it. They asked us to come to workshops by sacrificing our working time with a kind of unclear direction. I think something needs to be improved here* (15).

Clearly, while findings suggested that local people have a certain level of knowledge about capacity needed to move to a green economy, there is room for better understanding of the stakeholders in destination. In this sense, an attempt to address the motivation of community to achieve sustainability should be highlighted. Setting a clearer direction of types of

capacity needed to achieve sustainability and its prioritisation seem necessary to advance the transition to a green economy (Caffyn and Jobbins, 2003).

8.2.6 Infrastructure and communication and implication

Another key feature attributed to the understanding of concepts and practices of green economy in tourism revealed by this study is that of infrastructure and communication. As discussed in the previous chapter (Chapter Five), a number of stakeholders have acknowledged Wakabobi Islands as a leading Indonesian tourism destination. They suggested that the destination showed a number of changes in terms of infrastructure, since the local tourism office started to advance the promotion of Wakabobi Island as one of the top 10 destinations in Indonesia. There is a level of knowledge about the tourism destination and the infrastructure attached to it, implying favourable conditions necessary for moving towards a green economy.

As Iribar et al. (2020) noted, one of the factors that successfully drives the effort to reach the SDGs is knowledge about the elements needed to achieve it. Further, the development of infrastructure seems to be crucial to advancing movement to sustainable tourism development (Malogdos and Yujuico, 2015). According to Iribar et al. (2020), developing infrastructure for sustainable tourism requires an integrated sustainability optimisation tool for infrastructure projects. There are two pre-conditioning factors required to achieve this: (1) the creation of an infrastructure project sustainability performance prediction model; and (2) the development of an optimisation model with specific criteria. However, there was no evidence that the destination has the tools needed to develop infrastructure projects in a sustainable way. This infrastructure is required, given feedback from visitors who felt the reality of the destination does not match the information they received promoting it.

Another noticeable finding is that there has been considerable communication innovation in the destination. In this context, a number of communication channels such as billboard, television, and internet appeared to be parts of media that used by local people in a way to receive information linked to sustainability. In that regard, one of interesting findings show that almost all local people in the four islands of Wakatobi are familiar with the use of internet and smartphones. On this point, local people play significantly as the adopter of communication innovation. According to Gavurova et al., (2021), the development of communication innovation and infrastructure (i.e., road, electricity, and other amenities) play a significant role in driving action for sustainable tourism development. In particular, communication

development is considered an important factor in generating growth as it links to the marketing of tourist destinations.

Although stakeholders seem to have sufficient knowledge about infrastructure and communication, they appeared to have a little information about how tourism is supported by policy. Most stakeholders suggested that they are the object of policy rather than being engaged as an important stakeholder and that policies are created by central government. According to Yuksel et al., (2012), knowledge about policy instruments in developing infrastructure and communication is a crucial factor in sustainable tourism. Actions in policy decision making related to infrastructure and communication are important determinants of the success of the tourism destination. There is a need for Wakatobi's stakeholders to disseminate information about the benefits of participation on policy development decision-making in a way that develops better infrastructure and communication to achieve sustainability in tourism destination.

8.2.7 Policy reform, finance, PPP and innovation and implication

Local stakeholders of Wakatobi have positive perceptions and understanding of policy reform linked to waste management. As discussed in the previous chapter (Chapter Five), the development of new regulations on the reduction of plastic use in Wakatobi came as 'top of mind' for respondents in terms of knowledge about policy linked to environment protection. The dissemination information about waste regulations appears to have been effective. According to Dabphet et al., (2012), the effective design of information dissemination programs plays a key role in closing understanding gaps among stakeholders in tourism destination. They argue that the integrated elements of knowledge creation (i.e., trustworthy opinion leader, effective social network and communication channel) determine the success of the transfer of understanding among stakeholders.

Although waste management regulations were understood, stakeholders were confused when probed on the other policies related to the improvement of the tourism destination. This appears to reflect two assumptions: (1) the focus of information dissemination about policy is exclusively set in Regent Decree in 2018, or (2) there appear to be no other policies that have been developed in destination. According to Pan et al., (2018), effective policy framework plays an important role in achieving sustainable tourism. They argue that developing an effective policy framework should integrate all factors of sustainability to align it with tourism strategy. In this sense, the emergence of Regent Decree in 2018 would seem to be only one

part of systemic sustainable tourism development actions, as it only addresses waste management. The implication of this is it is imperative to set a strategic tourism plan focusing of development of tourism policy reform in destination to move to a green economy.

In the case of finance, this research found that local people felt that NGOs play a key role in transferring information about the sustainable tourism concept in destination, including supporting all related actions financially. Therefore, NGOs are important elements in moving towards sustainable tourism. However, while it was evident that participants were aware of the role of NGOs in supporting the financial sector linked to sustainable tourism programs, there is no sustainability financing facility to underpin green growth development. This suggests a gap in understanding of the importance of strategic green economy financing. According to the data found in the case of the implementation of a green economy in tourism in Bali island, (DeLacy et al., 2014), it is imperative to incorporate the investment cluster in a tourism plan to move towards a green economy. The implementation of carbon pricing systems that are in line with national carbon commitments and polluting vehicles requires a set of integrated price regulations to support actions to advance the transition towards a green economy.

8.3 Key Elements to Diffuse Green Economy Strategy into Practice

A key finding was that stakeholders perceived a number of elements in social systems to be important and beneficial. They felt that the people involved in the system provided a strong influence in transmitting information about the green economy in tourism. Those people include government, community leader, academics and NGOs (Chapter Six), who some scholars labelled as change agents (Rogers, 2003; Cho, 2005; Dabphet, 2012). Further, respondents considered a number of communication channels that play significant roles in disseminating knowledge about the green economy concept in the destination (Chapter Seven). Surprisingly, it was evident that there was significant overlap in terms of the information transfer process that connect social systems and all elements that drive the dissemination of knowledge about green economy, including communication channels. The following section presents a detailed discussion on the diffusion of green economy strategy among stakeholders in Wakatobi.

8.3.1 Social systems and change agents and implication

This section addresses the third research question, around to what extent diffusion drivers have been utilised and how might barriers of green economy strategy diffusion be overcome.

As explained in Chapter Two, Roger's framework provides four main principles of diffusion process, namely: (1) the innovation; (2) the communication channels employed; (3) the relative time of diffusion and adoption, and (4) the social system. (Communication channels will be discussed in the following section.)

In discussing the principle of innovation as part of Rogers' framework (2003), respondents also indicated that the zoning system, which is a policy to manage inhabitants exploring the ocean, was something new. It seems that they considered it to be an idea that would lead to change. While Rogers (2003) noted that innovation incorporates any new ideas, thoughts, or concepts, including policies, local people seemed to accept information about the zoning system as an innovation that would change their lives. Further, it is also evident from the findings that the emergence of a new regulation in 2018 (the Decree of Regent of Wakatobi Number 12) linked to waste management actions could be considered a new idea in achieving sustainability in destination.

Findings suggested that social systems and change agents are strong drivers in the dissemination of knowledge about sustainable tourism in Wakatobi. Respondents linked all other encouraging factors for the diffusion of the concept to parts of social systems and change agents. Community leaders and NGO staff are the most impactful elements of social systems and change agents to create knowledge. These two elements overlapped with other factors that motivated participants to expose themselves to something relatively new in terms of sustainable tourism and participate in actions linked to it.

> *From the beginning, we do know that our ocean needs to be protected as it happened like a myths for us here. But why exactly it needs to be protected and how, all was coming from our leaders in community. They also encouraged us to have an open-minded as the era has changed and promised us to get incentives of cash in one of sponsored programs.* (5)

> *We are fishermen who work in the ocean. It is kind of bizzare for us to come to a meeting for having a workshop of sustainability. But we did it as our leaders convince us something good from it. Although, it is undeniable some of us remain resistant to not coming along with* (13).

In line with the study of Rogers (2003), information flows through networks and change agents who play a crucial role in determining the information to be sent. Further, information can influence people to adopt something new. Findings suggested that local people perceived

information about sustainability in tourism as a new matter. While they were aware of the concept of environment protection, as inherited by older generations, they recognised current knowledge highlights sustainability in tourism.

In discussing the principle of innovation as part of Rogers' framework (2003), respondents also indicated that the zoning system, which is a policy to manage inhabitants exploring the ocean, to be something new. It seems that they consider it to be an idea that will lead to a change. While Rogers (2003) noted that innovation incorporates any new ideas, thoughts, concepts, including policies, local people seemed to accept the information about zoning system as an innovation that will change their life. Further, it is also obvious from the findings that the emerge of new regulation: Decree of Regent of Wakatobi number 12 in 2018 linked to waste management actions could be considered as new idea in achieving sustainability in destination.

Respondents also indicated that change agents, such as NGO staff, were linked to the actions of knowledge creation, including training on how to empower households and families to participate in homestay tourism. Local people found a new experience in the tourism sector by commercialising their houses and leveraging hospitality skills to move to sustainability. The way change agents disseminated information about homestays reflects a certain type of persuasion on behalf of the stakeholders. In this context, findings are consistent with Dabphet (2012), who found that persuasion plays a significant role in delivering effective communication to provide new information about sustainability in tourism.

When it comes to the time factor of diffusion, overlapping roles between change agents and other drivers that motived local people to move to sustainability (i.e., the need to preserve natural resources) were obvious. The respondents indicated it took a relatively long time for them to understand new information about zoning systems that were initially launched in 2008 along with the formation of Wakatobi National Park. Since then, the national park office collaborated with NGOs and community leaders to transfer information about the new policy. While most local people received this information, a number remain confused, and seem to resist its implementation. Mansfield (1961) reported similar findings, with time a significant factor influencing people to move to a certain behavior. He argued that the duration of the innovation-decision process is often fairly lengthy and there is no defined time duration to transfer information.

In terms of barriers to diffusing the green economy strategy in Wakatobi, findings revealed that cultural factors seemed to be a major element hindering the transmission of knowledge and

information about green economy strategy. The involvement of NGO staff as experts of sustainability in tourism plays a significant role in knowledge creation. However, a number of local people seemed to question the approach of information transfer as it was delivered by people with different cultural backgrounds. According to Feng (2015), it is important to address cultural gaps in developing effective communication. He argued that cultural gaps should be considered noise in the process of message transmission, which can lead to ineffective communication. This would suggest the importance of local culture in knowledge transfer. The involvement of local people builds the credibility of the sender of information.

8.3.2 Communication channels and implication

The fourth research question was concerned with identifying the channels used to diffuse information and implement green economy strategy. Findings linked to communication channels used in diffusion green economy strategy in Wakatobi were detailed in Chapter Seven, This section attempts to address the channels that might need to be amplified to develop effective communication for disseminating green economy strategy.

The findings revealed that change agents play a crucial role in delivering messages of sustainability in tourism in Wakatobi (see section 8.3.1). It was also evident that there were a number of communication channels used by change agents in the diffusion process of knowledge about the green economy strategy, namely interpersonal communication, group communication, mass communication and special event communication (as discussed in Chapter Seven). This finding has parallels with relevant literature claiming that there is a strong positive relationship between communication channels and opinion leaders in terms of change agents in community (Rogers, 2003; Dabphet 2012). While opinion leaders can be sender and receiver of information or messages, they also can be the channel to deliver knowledge to certain types of people.

There are a number of important factors in the person-to-person dissemination of information, namely trust, persuasive and relationship commitment. It was clearly noted from interview and focus groups that respondents welcomed information transfer involving change agents, as they trust them. In this context, change agents represent reliable messengers for local people. According to Shanon (1984) the people carrying messages are often considered part of the messages for message receivers. He argued that people receiving messages decoded the messages from the sender and the information, using verbal and non-verbal communication.

Further, receivers give meaning to messages they decoded, as the senders develop trust and credibility in transferring information.

In terms of group communication, leadership plays a crucial role in the process of information transfer. Respondents were motivated to attend the group meeting in their village as their community leader took the initiative to gather people to discuss sustainability in tourism. This seems to support El-Sofany et al.'s findings (2014) whereby a critical competency necessary for effective group communication is leadership. They argue that leadership in group communication reflects the skill of communication and credibility that are needed to transmit messages to a group of people.

While leadership is a significant elements of group communication, other scholars identified conflict management as an inherent factor in group communication that plays an important role in developing effective message transmission (Keyton, 2017). Keyton noted that the process of communication in groups or organisations covers a wide variety of communicative action across all group members, including management of conflict. The nature of the group, with communication of different perspectives, provides opportunities for members to interact and negotiate with one another, which helps to achieve consensus. As such, conflict can be reduced. In this study, zoning systems were frequently highlighted, and dissemination of information about zoning as part of sustainability-related policy in destination was considered problematic. While a number of local people received and understood the aim of the policy (as discussed in Chapter Seven), others resisted it, and a few were confused about it. Surprisingly, attempts to approach those with different views were made using group communication channels. Although it seemed effective to transmit the message because zoning systems were accepted as a new public policy in destination, conflicts remained. Further, it was evident that this conflict harmed policy makers and local people. In this case, the communication process using group channels seemed to be inconsistent with other research.

In addition to the use of group communication, respondents indicated their mixed feelings around the use of virtual meetings. National data suggests that internet users have increased significantly as Indonesia Internet Service Provider Association (APJII) mentioned that there were 196.71 million people using the internet in Indonesia in 2019, a growth of approximately 8.9% compared to 2018. However, there is no evidence that local people in Wakatobi have had access to the internet. While a number of respondents showed their support in relation to the phenomenon of growth of people using internet in destination, it remains unclear as there is no statistical data that could support those findings. Access to electricity in destination remains problematic and caused disruption of the use of internet-based communication, including virtual meetings. According to Agbi (2018), virtual communication within groups appears to be challenging. They argue that unprecedented barriers may lead to misunderstandings amongst the participants. This seems to be rising as the world is currently moving to the new era of 'virtual life', where many interactions are made virtually. It also leads to the need to develop policy addressing internet access and supporting elements linked to it.

In terms of mass communication, information about sustainability-related policy emerged through many types of mass media (i.e., billboards and television). Respondents suggested the information they received were mostly about waste management (i.e., the campaign to reduce the use of plastic in destination) (as detailed in Chapter Seven). This corroborates findings from Neuman and Guggenheim (2011), who argued mass media is an effective way to deliver messages to large numbers of people. The authors describe that the effects of media mimic the work of a needle and propose a 'hypodermic needle model'. While the needle is infusing something into the body, and rapidly spreads all over the body, the message of media is targeting awareness to unlimited receivers.

While transmission of knowledge about sustainability was demonstrated by the use of media as part of communication channels, there was no evidence that public policy related to the use of media support this. According to Chivers (2021), media policymaking plays a powerful role in influencing people's behavior. Policy appears to frame the strategic message targeting people's awareness. In this case, policy could strongly advance knowledge creation about green economy strategy in Wakatobi. This appears to be an implication that could be addressed in an integrated way. It is obvious that local government has full authority to develop media policy as the destination takes possession of power linked to it (Kodir et al., 2017).

In discussing the role of special events in channelling information about sustainability in tourism, respondents indicated their understanding of sustainable tourism derived from an iconic traditional event, namely Lalo'a festival (Chapter Seven). This event contributed to the process of information transmission about sustainability by providing a favourable moment. While information transfer was accommodated by the event, it required other factors to support the flow of communication from sender to receiver. In this regard, change agents appeared to be a crucial element for disseminating the concept of sustainable tourism. In this case, the overlapping roles of change agents with communication channels appeared to be inextricable. This supports the argument made by this thesis that change agents are central to any attempts to use various channels to disseminate green economy strategy.

Further highlighting the issue of special events when it comes to diffusing green economy strategy, it appeared that this channel did not show integrated information linked to sustainability in tourism. Field observations revealed special events i.e. Lalo'a festival seemed to be an event with less meaning although it showed a number of people gathered in the field. It felt like a 'local party' that used change agents (mostly local government and NGOs) to make an announcement about how to protect the ocean environment. According to Moriarty (1996), to achieve effective communication using a special event, it is critical to integrate various elements, including media and related tools. While all media are integrated strategically in one special event, it is necessary to strategically set the content of messages in a well-planned design. This reflects an implication that stakeholders in destination should develop a well-planned message of green economy to be transmitted to all local people using events and related channels.

8.4 Document analysis

In this thesis, there is only one local policy emerged from the interviews with stakeholders in destination, which has direct link to the action of environment preservation. It was the decree of Regent of Wakatobi number 12 in 2018. The policy explicitly mentions the essence of environment preservation. Further, it regulates specifically the conduct of waste management in destination. It is evident from the document mentioned the concept of 3R (reduce, re-use, recycle) in relation to waste management. Further, it is also evident from the document that local people are encouraged to not use any plastic materials which may cause environmental destruction.

This research focuses on how this document may affect the awareness of stakeholders. With regard to the data shown above (see section 5.3), a number of respondents reacted positively to the emergence of the policy. Although the ratification of the regulation had just occured (the law was ratified in 2018, while the interviews were conducted in 2019), it shows that there dissemination of information about the policy was only needed a few times. However, it is suggested to undertake another evaluation of policy dissemination in order to understand the quality of information that stakeholders received about it.

In terms of the timing of the policy launch, it appears that the policy can be considered as a new concept in sustainable tourism. In that regard, the policy seems to fit with the concept of novelty linked to innovation (Rogers, 2003). Further, the implication is how to measure the effect of the policy in order to move towards a green economy. In this sense, law enforcement seems to play significant role.

8.5 Significance of the Study

8.5.1 Contribution to Knowledge

This thesis makes both a theoretical and practical contribution to knowledge. This thesis has several theoretical contributions to knowledge. First, this research takes a different angle than previous research on diffusion theory in sustainable tourism. While many previous studies focused on how to disseminate knowledge about sustainable tourism, this research focusses on the transmission of knowledge about green economy concept. Further, this thesis focuses on the use of communication channels in disseminating a green economy strategy in Wakatobi Islands. Also, this thesis investigates all factors that drive and hinder the transmission of knowledge of the green economy.

Second, this research fills the knowledge gap in the literature where research on tourism and diffusion of innovation theory is still very limited.

8.5.2 Practical Contribution

This thesis also has several practical contribution. The conceptual framework of diffusion of green economy in destination presented in this thesis is intended to be use as a practical tool to understand how dissemination of information of a new concept in tourism namely green economy can be conducted effective and efficient to move towards a green economy.

The empirical data presented in this research are relevant for policy makers in designing future policy or regulation on sustainable tourism and green economy.

8.6 Recommendations

8.6.1 For Policy Makers

Considering green economy implementation in Indonesia is important, this research suggests the government should play a mandating role in creating a system to encourage, control and monitor the implementation of green economy in Wakatobi Islands. Further, it is evident from the findings that there are three main things that need to be take into account in moving towards a green economy, namely (1) development of human resources in relation to the building of capacity of all stakeholders; (2) the development of infrastructure in relation to establishing physical infrastructure in all areas of Wakatobi; (3) appropriate law enforcement. In this context, it is necessary to also take into account the support and guidance from national government to enable local authorities to work in partnership with other stakeholders (Bulkeley & Kern, 2006). It is also important to develop a regulation that is managing the process of messages development and transmission among stakeholders in destination in a way to coordinate all the information linked to the dissemination of green economy strategy.

8.6.2 For Businesses

This study revealed that all stakeholders play significant role in order to achieve the sustainability of tourism in destination. In the context of businesses, it is important to set up an integrated technical strategy that enables all of tourism industry players in Wakatobi to take part as change agents to move towards a green economy. In this context, the development of incentives as a strategic seem to play an effective role.

8.7 Summary

This study sought to examine the dissemination of a green economy strategy in destination. The investigation focused on the way concepts of green economy are transmitted to all stakeholders and the effectiveness of information transfer in encouraging implementation of a green economy.

This research involved three phases of investigation to address four research questions. The first phase developed a conceptual framework that addressed the first research question. The second phase was focused on data gathering, using interviews, focus groups and field

observations. Findings were analysed using a green economy framework to seek understanding of stakeholder awareness about the green economy before undertaking an examination of the diffusion of green economy strategy.

The third phase elaborated on these findings through comparison with related literature. To address the diffusion process within the green economy in a tourism context, the study aimed to identify the intrinsic elements that drive the transmission of knowledge about green economy. Findings can be categorised in three ways 1) awareness of stakeholders of green economy strategy in Wakatobi; 2) factors that drive and hinder the diffusion of green economy strategy in destination; and 3) channels of communication related to diffusing information about the green economy in Wakatobi.

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Appendices

Appendix 1. Supporting Letter for Participants

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

16 Mei 2019

Kepada:

Badan Penelitian dan Pengembangan
Provinsi Sulawesi Tenggara
(The Office of Research & Development of
Southeast Sulawesi Province)
Komplek Bumi Praja Anduonouhu
Kendari City, Southeast Sulawesi Province
Indonesia

Perihal: Permohonan Pelaksanaan Penelitian Studi Doktoral

Kepada Yth
Pimpinan Badan Penelitian dan Pengembangan
Provinsi Sulawesi Tenggara di tempat,

Dengan ini, kami mengajukan surat pengantar penelitian atas nama Pir Owners (dengan nomor mahasiswa: S4576367), selaku mahasiswa doktoral (PhD) dari Victoria University Melbourne, Australia. Bahwa benar, dapat kami konfirmasi, yang bersangkutan sedang menjalani penelitian untuk disertasi doktoralnya yang berjudul "*The diffusion of a green economy strategy in a tourism destination: A case study of Wakatobi Islands*, Indonesia".

Adapun penelitian yang bersifat kualitatif ini akan dilakukan dengan cara wawancara mendalam dan *focus group discussion* kepada beberapa orang perwakilan dari kantor Dinas Pariwisata Wakatobi dan kantor Taman Nasional Wakatobi. Rencananya, penelitian akan dilaksanakan pada bulan Juni 2019. Oleh karena itu, kami memohon izin kepada pimpinan Badan Penelitian dan Pengembangan Provinsi Sulawesi Tenggara agar kiranya berkenan membantu memfasilitasi dan mengarahkan proses pengambilan data untuk penelitian tersebut.

Besar harapan kami, bapak/ibu pimpinan Badan Penelitian dan Pengembangan Provinsi Sulawesi Tenggara berkenan memberikan izin untuk perihal tersebut. Atas perhatian dan kerjasamanya kami ucapkan terimakasih.

Hormat kami,

[redacted]

Professor Terry DeLacy

Principal Supervisor

Institute of Sustainability, Industries and Liveable Cities

Victoria University Research Group,

College of Business Victoria University Melbourne

16 May 2019

To:

The Office of Research & Development of
Southeast Sulawesi Province
(Badan Penelitian dan Pengembangan
Provinsi Sulawesi Tenggara)
Komplek Bumi Praja Anduonouhu
Kendari City, Southeast Sulawesi Province
Indonesia

Re: Request to conduct research

I am writing to confirm that Mr Pir Owners (student ID: s4576367) is a PhD candidate in Institute of Sustainability, Industries and Liveable Cities, College of Business at Victoria University Melbourne, Australia.

Mr. Pir Owners intends to carry out a qualitative research at your institutions namely The Office of Tourism of Wakatobi Islands and The Office of National Park of Wakatobi Islands to gather data by conducting indepth interview and focus group discussion.

The title of the research is "The diffusion of a green economy strategy in a tourism destination: A case study of Wakatobi Islands, Indonesia". As it planned, it will be conducted in June 2019. I would appreciate any support from you and your institution to facilitate the data collection process for Mr. Owners' research.

Should you require any additional information, please do not hesitate to contact me.

Thank you very much in advance for your assistance.

Yours sincerely

Professor Terry DeLacy

Principal Supervisor

Institute of Sustainability, Industries and Liveable Cities

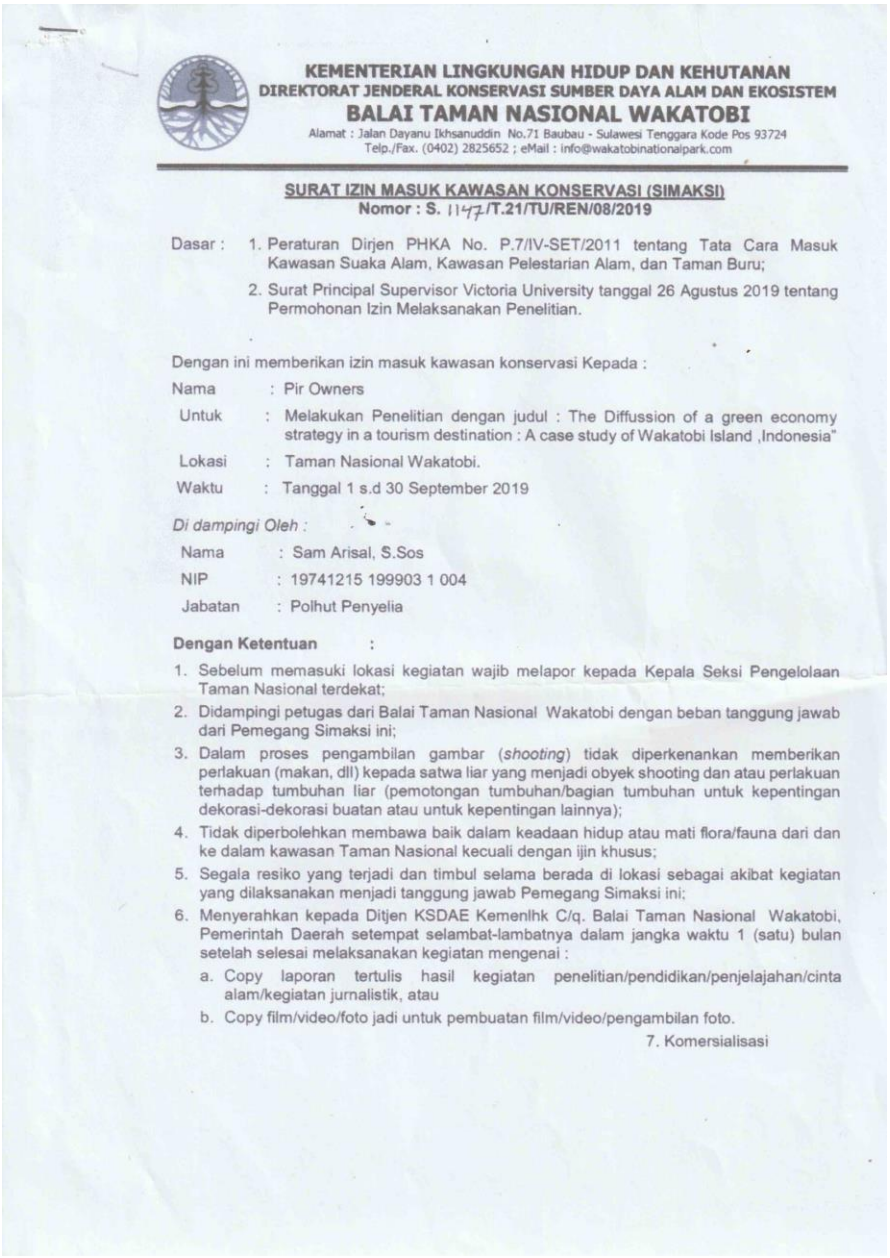
Victoria University Research Group,

College of Business Victoria University Melbourne

Terry.delacy@vu.edu.au

+61429662020

Appendix 2: Approval letter for data collection in National Park Wakatobi



KEMENTERIAN LINGKUNGAN HIDUP DAN KEHUTANAN
DIREKTORAT JENDERAL KONSERVASI SUMBER DAYA ALAM DAN EKOSISTEM
BALAI TAMAN NASIONAL WAKATOBI
Alamat : Jalan Dayanu Ikhsanuddin No.71 Baubau - Sulawesi Tenggara Kode Pos 93724
Telp./Fax. (0402) 2825652 ; eMail : info@wakatobinationalpark.com

SURAT IZIN MASUK KAWASAN KONSERVASI (SIMAKSI)
Nomor : S. 1147/T.21/TU/REN/08/2019

Dasar : 1. Peraturan Dirjen PHKA No. P.7/IV-SET/2011 tentang Tata Cara Masuk Kawasan Suaka Alam, Kawasan Pelestarian Alam, dan Taman Buru;
2. Surat Principal Supervisor Victoria University tanggal 26 Agustus 2019 tentang Permohonan Izin Melaksanakan Penelitian.

Dengan ini memberikan izin masuk kawasan konservasi Kepada :

Nama : Pir Owners
Untuk : Melakukan Penelitian dengan judul : The Diffussion of a green economy strategy in a tourism destination : A case study of Wakatobi Island ,Indonesia"
Lokasi : Taman Nasional Wakatobi.
Waktu : Tanggal 1 s.d 30 September 2019

Di dampingi Oleh :

Nama : Sam Arisal, S.Sos
NIP : 19741215 199903 1 004
Jabatan : Polhut Penyelia

Dengan Ketentuan :

1. Sebelum memasuki lokasi kegiatan wajib melapor kepada Kepala Seksi Pengelolaan Taman Nasional terdekat;
2. Didampingi petugas dari Balai Taman Nasional Wakatobi dengan beban tanggung jawab dari Pemegang Simaksi ini;
3. Dalam proses pengambilan gambar (*shooting*) tidak diperkenankan memberikan perlakuan (makan, dll) kepada satwa liar yang menjadi obyek shooting dan atau perlakuan terhadap tumbuhan liar (pemotongan tumbuhan/bagian tumbuhan untuk kepentingan dekorasi-dekorasi buatan atau untuk kepentingan lainnya);
4. Tidak diperbolehkan membawa baik dalam keadaan hidup atau mati flora/fauna dari dan ke dalam kawasan Taman Nasional kecuali dengan ijin khusus;
5. Segala resiko yang terjadi dan timbul selama berada di lokasi sebagai akibat kegiatan yang dilaksanakan menjadi tanggung jawab Pemegang Simaksi ini;
6. Menyerahkan kepada Ditjen KSDAE Kemenlhk C/q. Balai Taman Nasional Wakatobi, Pemerintah Daerah setempat selambat-lambatnya dalam jangka waktu 1 (satu) bulan setelah selesai melaksanakan kegiatan mengenai :
   a. Copy laporan tertulis hasil kegiatan penelitian/pendidikan/penjelajahan/cinta alam/kegiatan jurnalistik, atau
   b. Copy film/video/foto jadi untuk pembuatan film/video/pengambilan foto.
7. Komersialisasi

7. Komersialisasi hasil kegiatan penelitian/survey (penggandaan buku hasil penelitian/survey yang dijual kepada umum) dan kegiatan pengambilan gambar/shooting harus seizin Instansi yang berwenang dan wajib menyetor hasil komersialisasi kepada negara yang besarnya sesuai ketentuan yang berlaku melalui rekening kas negara pada Bank-Bank Pemerintah;
8. Khusus untuk pembuatan film/video wajib membuat tulisan Direktorat Jenderal KSDAE, logo Kementerian Lingkungan Hidup dan Kehutanan dan logo Taman Nasional Wakatobi dalam film/video yang dibuat;
9. Mematuhi dan membayar pungutan PNBP Rp 100.000,- (Seratus Ribu Rupiah).
10. SIMAKSI ini berlaku setelah pemegang izin membubuhkan tandatangannya di atas materai Rp. 6.000 (enam ribu rupiah)

Demikian Simaksi ini dibuat untuk dipergunakan sebagaimana mestinya.

Dikeluarkan di : Baubau
Pada Tanggal : 26 Agustus 2019

Pemegang SIMAKSI,

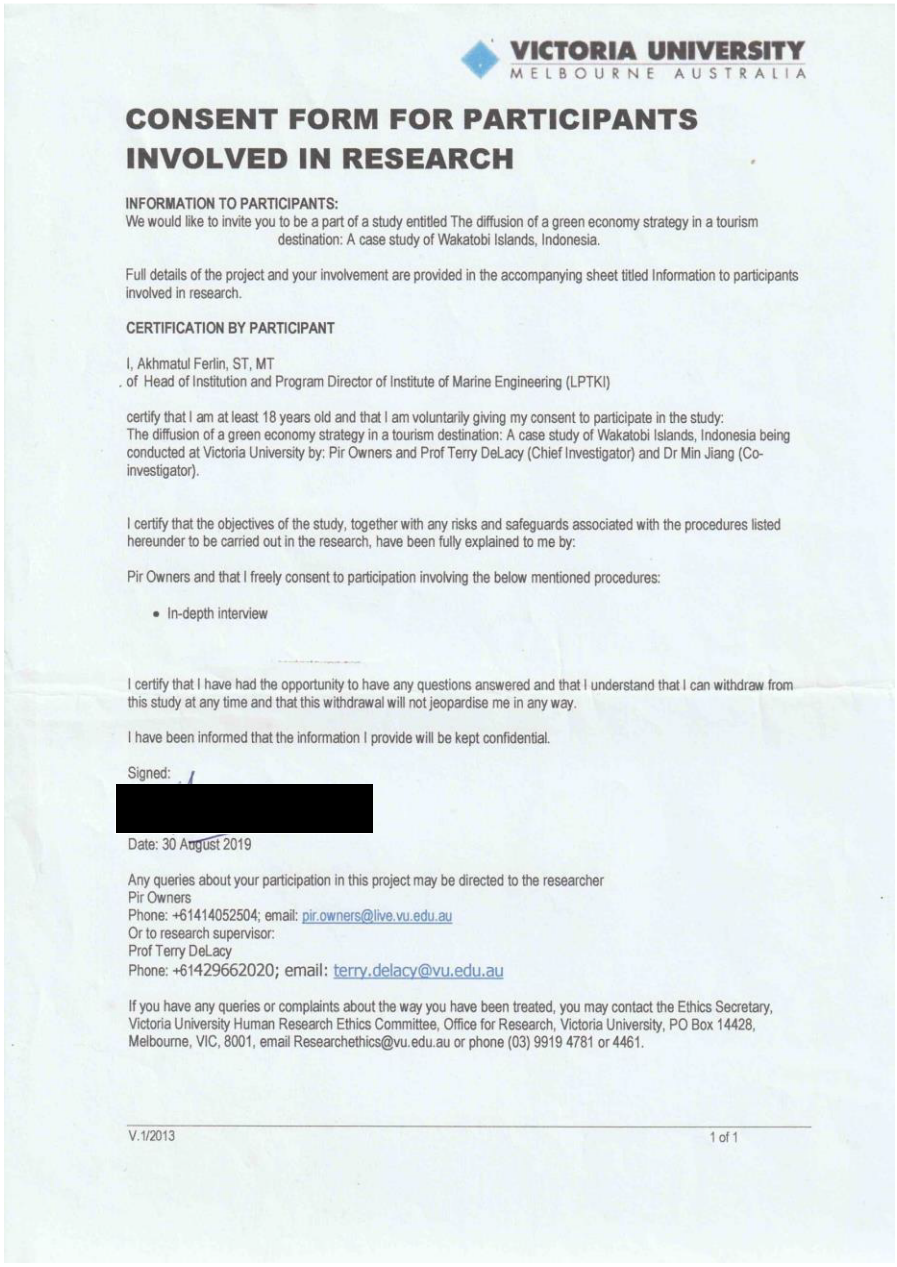
[redacted]

Plh. Kepala Balai,

Abdul Azis, S.P.
NIP. 19790515 199903 1 002

Tembusan :
1. Sekretaris Direktorat Jenderal KSDAE Kementerian Lingkungan Hidup dan Kehutanan;
2. Bupati Wakatobi; Cq. Kepala Badan Kesbang, Politik dan Linmas Kab. Wakatobi;
3. Kapolres Wakatobi;
4. Kepala Seksi Pengelolaan Taman Nasinal Wilayah I di Wangi-wangi;
5. Kepala Seksi Pengelolaan Taman Nasional Wilayah II di Kaledupa;
6. Kepala Seksi Pengelolaan Taman Nasional Wilayah III di Tomia.

Appendix 3: Consent form from participants



VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH

INFORMATION TO PARTICIPANTS:
We would like to invite you to be a part of a study entitled The diffusion of a green economy strategy in a tourism destination: A case study of Wakatobi Islands, Indonesia.

Full details of the project and your involvement are provided in the accompanying sheet titled Information to participants involved in research.

CERTIFICATION BY PARTICIPANT

I, Akhmatul Ferlin, ST, MT
of Head of Institution and Program Director of Institute of Marine Engineering (LPTKI)

certify that I am at least 18 years old and that I am voluntarily giving my consent to participate in the study:
The diffusion of a green economy strategy in a tourism destination: A case study of Wakatobi Islands, Indonesia being conducted at Victoria University by: Pir Owners and Prof Terry DeLacy (Chief Investigator) and Dr Min Jiang (Co-investigator).

I certify that the objectives of the study, together with any risks and safeguards associated with the procedures listed hereunder to be carried out in the research, have been fully explained to me by:

Pir Owners and that I freely consent to participation involving the below mentioned procedures:

- In-depth interview

I certify that I have had the opportunity to have any questions answered and that I understand that I can withdraw from this study at any time and that this withdrawal will not jeopardise me in any way.

I have been informed that the information I provide will be kept confidential.

Signed: [redacted]

Date: 30 August 2019

Any queries about your participation in this project may be directed to the researcher
Pir Owners
Phone: +61414052504; email: pir.owners@live.vu.edu.au
Or to research supervisor:
Prof Terry DeLacy
Phone: +61429662020; email: terry.delacy@vu.edu.au

If you have any queries or complaints about the way you have been treated, you may contact the Ethics Secretary, Victoria University Human Research Ethics Committee, Office for Research, Victoria University, PO Box 14428, Melbourne, VIC, 8001, email Researchethics@vu.edu.au or phone (03) 9919 4781 or 4461.

V.1/2013 1 of 1

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

LEMBAR PERSETUJUAN UNTUK PARTISIPAN YANG BERPARTISIPASI DALAM PENELITIAN

INFORMASI UNTUK PARTISIPAN

Kami mengundang Anda untuk menjadi bagian dari penelitian berjudul "Difusi strategi ekonomi hijau di tujuan wisata : studi kasus Pulau Wakatobi, Indonesia.

Detail lengkap proyek dan partisipasi Anda disediakan di lembar terlampir yang berjudul "Informasi untuk partisipan yang berpartisipasi dalam penelitian".

SERTIFIKASI OLEH PARTISIPAN

Saya "(Klik disini & ketik nama partisipan)" Lacode Muhammad Syafruddin, SH

dari "(Klik disini & ketik nama partisipan)" Dinas Pariwisata Kab. Wakatobi,

menyatakan bahwa saya berumur setidaknya 18 belas tahun* dan saya secara sukarela memberi izin untuk berpartisipasi di studi: Difusi strategi ekonomi hijau di tujuan wisata : Kasus Pulau Wakatobi, Indonesia. Studi dilaksanakan di *Victoria University* oleh Pir Owners dan Prof Terry DeLacy (*Chief Investigator*) dan Dr Min Jiang (Co-investigator).

Saya menyatakan bahwa tujuan studi, bersama dengan segala risiko dan usaha perlindungan yang diasosiaskan dengan prosedur yang tertulis di bawah ini dan akan dilaksanakan dalam penelitian, telah dijelaskan sepenuhnya kepada saya.

Pir Owners dan bahwa saya setuju untuk berpartisipasi dalam penelitian yang mencakup prosedur yang tercantum di bawah ini:

- Wawancara mendalam
- Diskusi fokus secara berkelompok (*Focus Discussion Group*)

Saya menyetujui bahwa saya telah mempunyai kesempatan untuk menjawab seluruh pertanyaan dan bahwa saya dapat mengundurkan diri dari studi ini kapan pun saya ingin untuk mundur dan bahwa pengunduran diri ini tidak akan membahayakan saya dalam cara apa pun.

Saya telah diberi tahu bahwa informasi yang saya sediakan akan dijaga kerahasiaannya.

Tanda Tangan: [redacted]

Tanggal: 4 September 2019

Pertanyaan apa pun mengenai partisipasi Anda dapat ditanyakan kepada peneliti
Pir Owners
Telepon +61414052504; alamat surat elektronik : pir.owners@live.vu.edu.au
Atau ke pengawas peneliti
Prof Terry DeLacy
Telepon +61429662020 ; alamat surat elektronik : terry.delacy@vu.edu.au

Jika Anda memiliki pertanyaan atau keluhan tentang cara Anda diperlakukan, Anda dapat menghubungi Sekretaris Etika, Komite Etika Penelitian Masyarakat *Victoria University*, Kantor Penelitian *Victoria University*, PO Box 14428, Melbourne, VIC, 8001

WILLIAM RUDY SOESMARTO
ENGLISH -> INDONESIAN
VALID TO 30/06/2020
SIGNATURE [redacted]
TRANSLATION DATE 03/09/2019
CERTIFIED TRANSLATOR

VICTORIA UNIVERSITY
MELBOURNE AUSTRALIA

LEMBAR PERSETUJUAN UNTUK PARTISIPAN YANG BERPARTISIPASI DALAM PENELITIAN

INFORMASI UNTUK PARTISIPAN

Kami mengundang Anda untuk menjadi bagian dari penelitian berjudul "Difusi strategi ekonomi hijau di tujuan wisata : studi kasus Pulau Wakatobi, Indonesia.

Detail lengkap proyek dan partisipasi Anda disediakan di lembar terlampir yang berjudul "Informasi untuk partisipan yang berpartisipasi dalam penelitian".

SERTIFIKASI OLEH PARTISIPAN

Saya "(Klik disini & ketik nama partisipan)" HELMI SYARIFUDDIN, ST

dari "(Klik disini & ketik nama partisipan)" KABID. LITBANG, BAPPEDA KAB. WAKATOBI

menyatakan bahwa saya berumur setidaknya 18 belas tahun* dan saya secara sukarela memberi izin untuk berpartisipasi di studi: Difusi strategi ekonomi hijau di tujuan wisata : Kasus Pulau Wakatobi, Indonesia. Studi dilaksanakan di *Victoria University* oleh Pir Owners dan Prof Terry DeLacy (*Chief Investigator*) dan Dr Min Jiang (Co-investigator).

Saya menyatakan bahwa tujuan studi, bersama dengan segala risiko dan usaha perlindungan yang diasosiaskan dengan prosedur yang tertulis di bawah ini dan akan dilaksanakan dalam penelitian, telah dijelaskan sepenuhnya kepada saya.

Pir Owners dan bahwa saya setuju untuk berpartisipasi dalam penelitian yang mencakup prosedur yang tercantum di bawah ini:

- Wawancara mendalam
- Diskusi fokus secara berkelompok (*Focus Discussion Group*)

Saya menyetujui bahwa saya telah mempunyai kesempatan untuk menjawab seluruh pertanyaan dan bahwa saya dapat mengundurkan diri dari studi ini kapan pun saya ingin untuk mundur dan bahwa pengunduran diri ini tidak akan membahayakan saya dalam cara apa pun.

Saya telah diberi tahu bahwa informasi yang saya sediakan akan dijaga kerahasiaannya.

Tanda Tangan: [redacted]

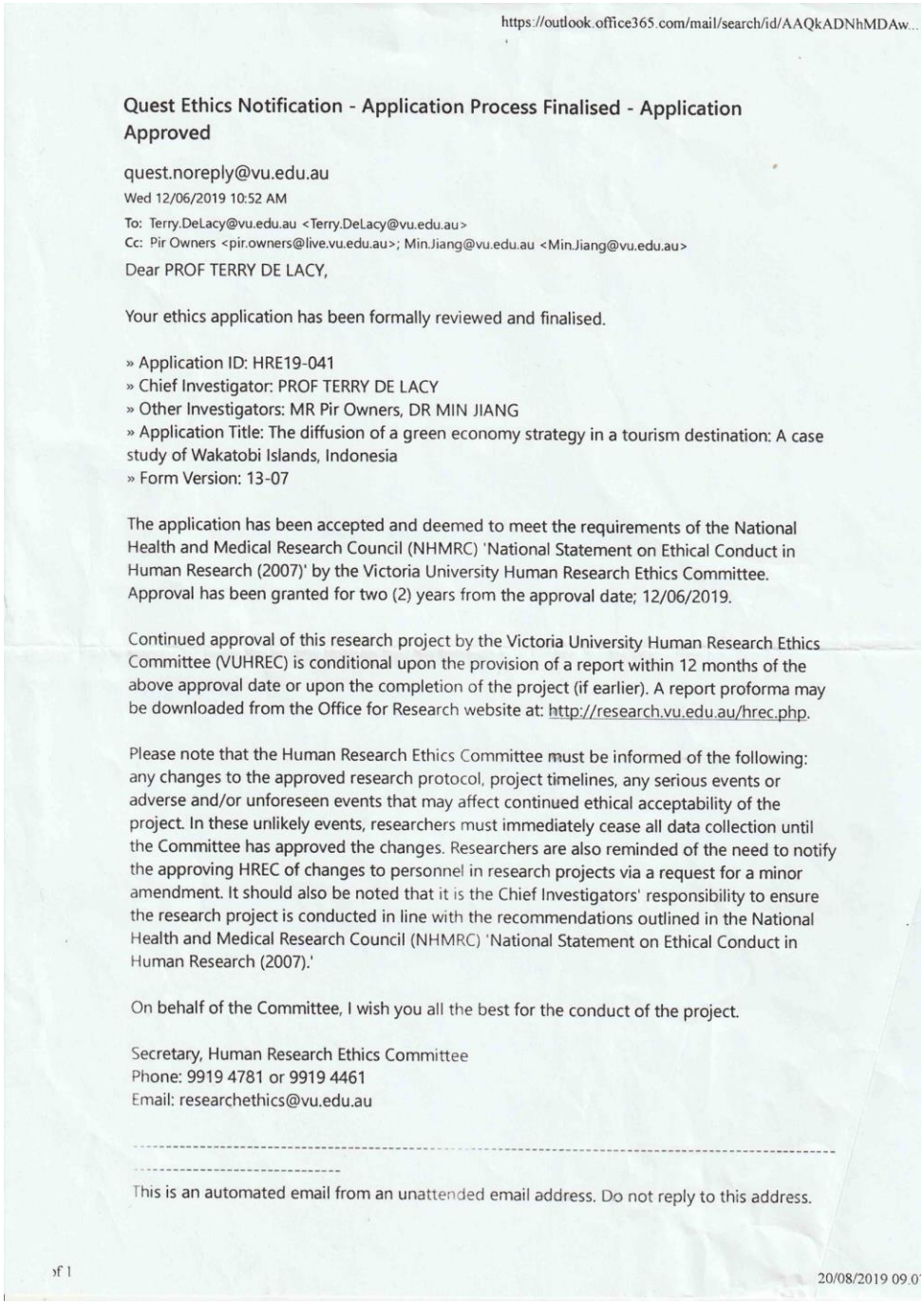
Tanggal: 04 SEPTEMBER 2019

Pertanyaan apa pun mengenai partisipasi Anda dapat ditanyakan kepada peneliti
Pir Owners
Telepon +61414052504; alamat surat elektronik : pir.owners@live.vu.edu.au
Atau ke pengawas peneliti
Prof Terry DeLacy
Telepon +61429662020 ; alamat surat elektronik : terry.delacy@vu.edu.au

Jika Anda memiliki pertanyaan atau keluhan tentang cara Anda diperlakukan, Anda dapat menghubungi Sekretaris Etika, Komite Etika Penelitian Masyarakat *Victoria University*, Kantor Penelitian *Victoria University*, PO Box 14428, Melbourne, VIC, 8001

WILLIAM RUDY SOEGIHARTO
ENGLISH -> INDONESIAN
VALID TO 31/08/2020
SIGNATURE: [redacted]
TRANSLATION DATE 03/09/2019
CERTIFIED TRANSLATOR

Appendix 4: Ethics Approval from Victoria University Melbourne



Quest Ethics Notification - Application Process Finalised - Application Approved

quest.noreply@vu.edu.au
Wed 12/06/2019 10:52 AM
To: Terry.DeLacy@vu.edu.au <Terry.DeLacy@vu.edu.au>
Cc: Pir Owners <pir.owners@live.vu.edu.au>; Min.Jiang@vu.edu.au <Min.Jiang@vu.edu.au>

Dear PROF TERRY DE LACY,

Your ethics application has been formally reviewed and finalised.

» Application ID: HRE19-041
» Chief Investigator: PROF TERRY DE LACY
» Other Investigators: MR Pir Owners, DR MIN JIANG
» Application Title: The diffusion of a green economy strategy in a tourism destination: A case study of Wakatobi Islands, Indonesia
» Form Version: 13-07

The application has been accepted and deemed to meet the requirements of the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007)' by the Victoria University Human Research Ethics Committee. Approval has been granted for two (2) years from the approval date; 12/06/2019.

Continued approval of this research project by the Victoria University Human Research Ethics Committee (VUHREC) is conditional upon the provision of a report within 12 months of the above approval date or upon the completion of the project (if earlier). A report proforma may be downloaded from the Office for Research website at: http://research.vu.edu.au/hrec.php.

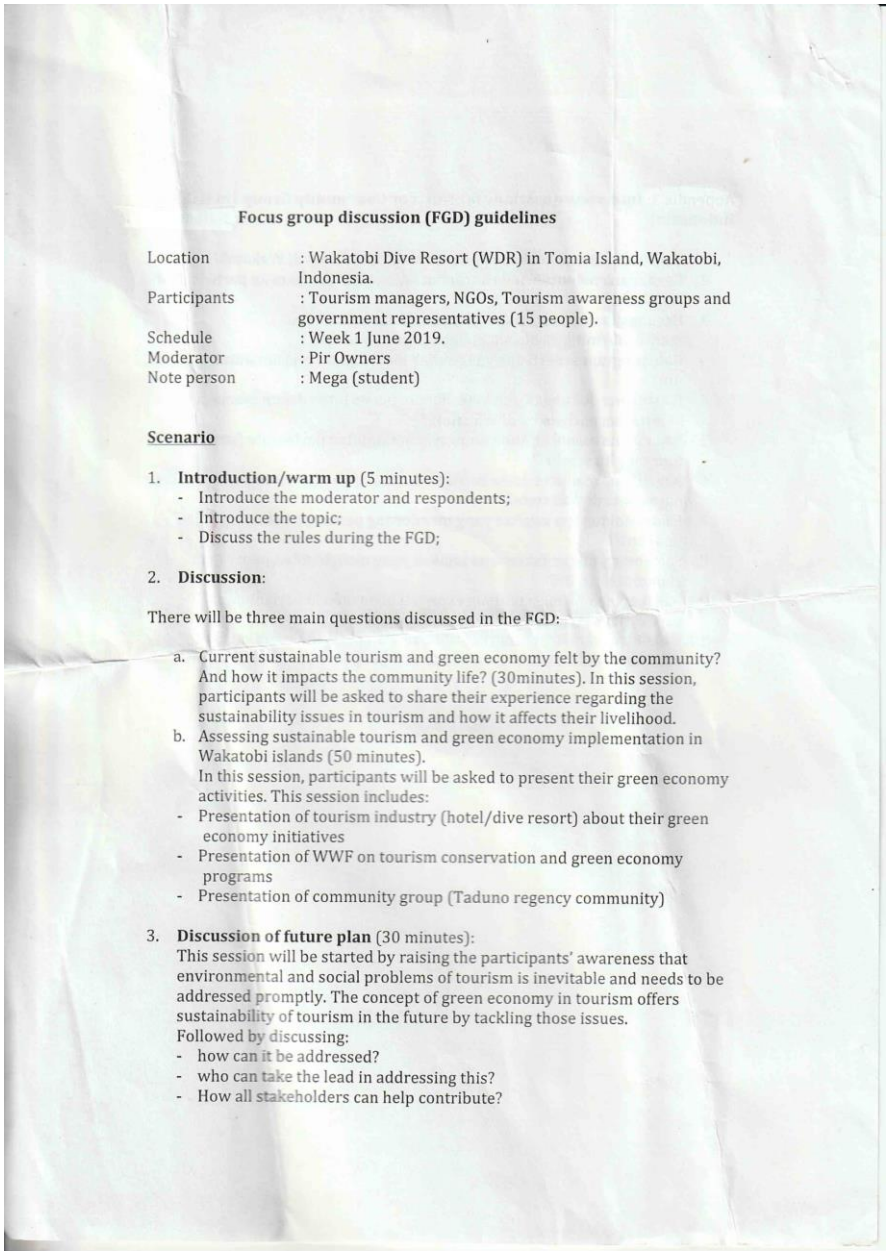
Please note that the Human Research Ethics Committee must be informed of the following: any changes to the approved research protocol, project timelines, any serious events or adverse and/or unforeseen events that may affect continued ethical acceptability of the project. In these unlikely events, researchers must immediately cease all data collection until the Committee has approved the changes. Researchers are also reminded of the need to notify the approving HREC of changes to personnel in research projects via a request for a minor amendment. It should also be noted that it is the Chief Investigators' responsibility to ensure the research project is conducted in line with the recommendations outlined in the National Health and Medical Research Council (NHMRC) 'National Statement on Ethical Conduct in Human Research (2007).'

On behalf of the Committee, I wish you all the best for the conduct of the project.

Secretary, Human Research Ethics Committee
Phone: 9919 4781 or 9919 4461
Email: researchethics@vu.edu.au

This is an automated email from an unattended email address. Do not reply to this address.

Appendix 5: Focus Groups Guidelines



Focus group discussion (FGD) guidelines

Location	: Wakatobi Dive Resort (WDR) in Tomia Island, Wakatobi, Indonesia.
Participants	: Tourism managers, NGOs, Tourism awareness groups and government representatives (15 people).
Schedule	: Week 1 June 2019.
Moderator	: Pir Owners
Note person	: Mega (student)

Scenario

1. **Introduction/warm up** (5 minutes):
   - Introduce the moderator and respondents;
   - Introduce the topic;
   - Discuss the rules during the FGD;

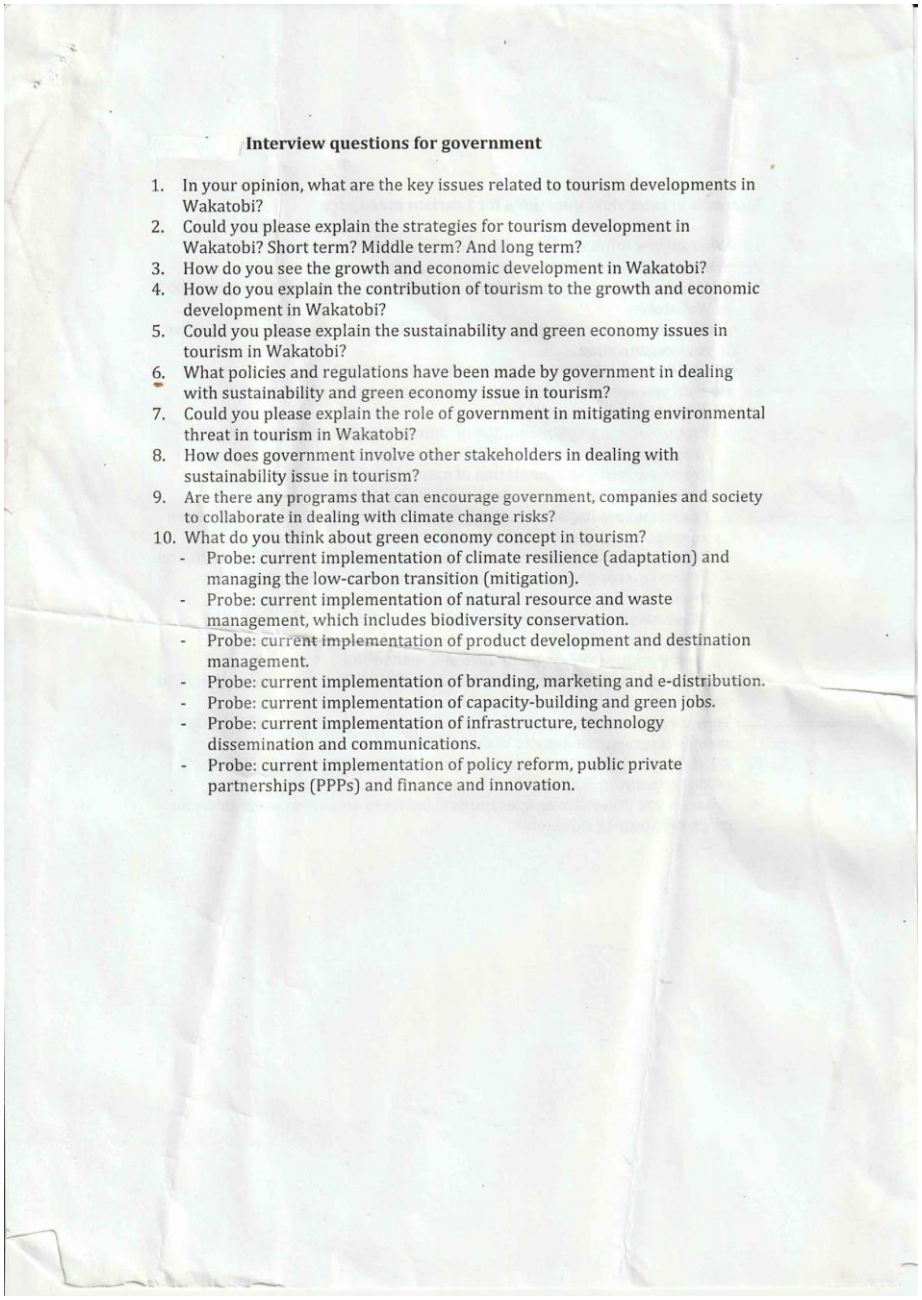
2. **Discussion**:

There will be three main questions discussed in the FGD:

a. Current sustainable tourism and green economy felt by the community? And how it impacts the community life? (30minutes). In this session, participants will be asked to share their experience regarding the sustainability issues in tourism and how it affects their livelihood.
b. Assessing sustainable tourism and green economy implementation in Wakatobi islands (50 minutes).
In this session, participants will be asked to present their green economy activities. This session includes:
   - Presentation of tourism industry (hotel/dive resort) about their green economy initiatives
   - Presentation of WWF on tourism conservation and green economy programs
   - Presentation of community group (Taduno regency community)

3. **Discussion of future plan** (30 minutes):
This session will be started by raising the participants' awareness that environmental and social problems of tourism is inevitable and needs to be addressed promptly. The concept of green economy in tourism offers sustainability of tourism in the future by tackling those issues.
Followed by discussing:
   - how can it be addressed?
   - who can take the lead in addressing this?
   - How all stakeholders can help contribute?

Appendix 6: Interview Questions for Government



Interview questions for government

1. In your opinion, what are the key issues related to tourism developments in Wakatobi?
2. Could you please explain the strategies for tourism development in Wakatobi? Short term? Middle term? And long term?
3. How do you see the growth and economic development in Wakatobi?
4. How do you explain the contribution of tourism to the growth and economic development in Wakatobi?
5. Could you please explain the sustainability and green economy issues in tourism in Wakatobi?
6. What policies and regulations have been made by government in dealing with sustainability and green economy issue in tourism?
7. Could you please explain the role of government in mitigating environmental threat in tourism in Wakatobi?
8. How does government involve other stakeholders in dealing with sustainability issue in tourism?
9. Are there any programs that can encourage government, companies and society to collaborate in dealing with climate change risks?
10. What do you think about green economy concept in tourism?
    - Probe: current implementation of climate resilience (adaptation) and managing the low-carbon transition (mitigation).
    - Probe: current implementation of natural resource and waste management, which includes biodiversity conservation.
    - Probe: current implementation of product development and destination management.
    - Probe: current implementation of branding, marketing and e-distribution.
    - Probe: current implementation of capacity-building and green jobs.
    - Probe: current implementation of infrastructure, technology dissemination and communications.
    - Probe: current implementation of policy reform, public private partnerships (PPPs) and finance and innovation.

Appendix 7: Interview Questions for NGO (in English and Bahasa)

Interview questions for NGOs or Community Group (in English)

1. In your opinion, what do you think about tourism industry in Wakatobi?
   - Probe: the growth of tourism compared with previous years.
2. What do you think about the threat linked to environment in Wakatobi?
3. What do you think to mitigate those threats?
   -Probe: actions taken related to it.
4. What do you think about the support given by government to conserve environment in Wakatobi?
5. What do you think about the concept of sustainable tourism?
6. What do you think about the concept of green economy in tourism?
7. To what extent is the factors that drive the implementation of green economy in destination?
8. To what extent is the factors that hinder the implementation of green economy in destination?
9. How could you receive information related to green economy in tourism?
10. To what extent is the factors that encourage community members in participating actions of green economy?

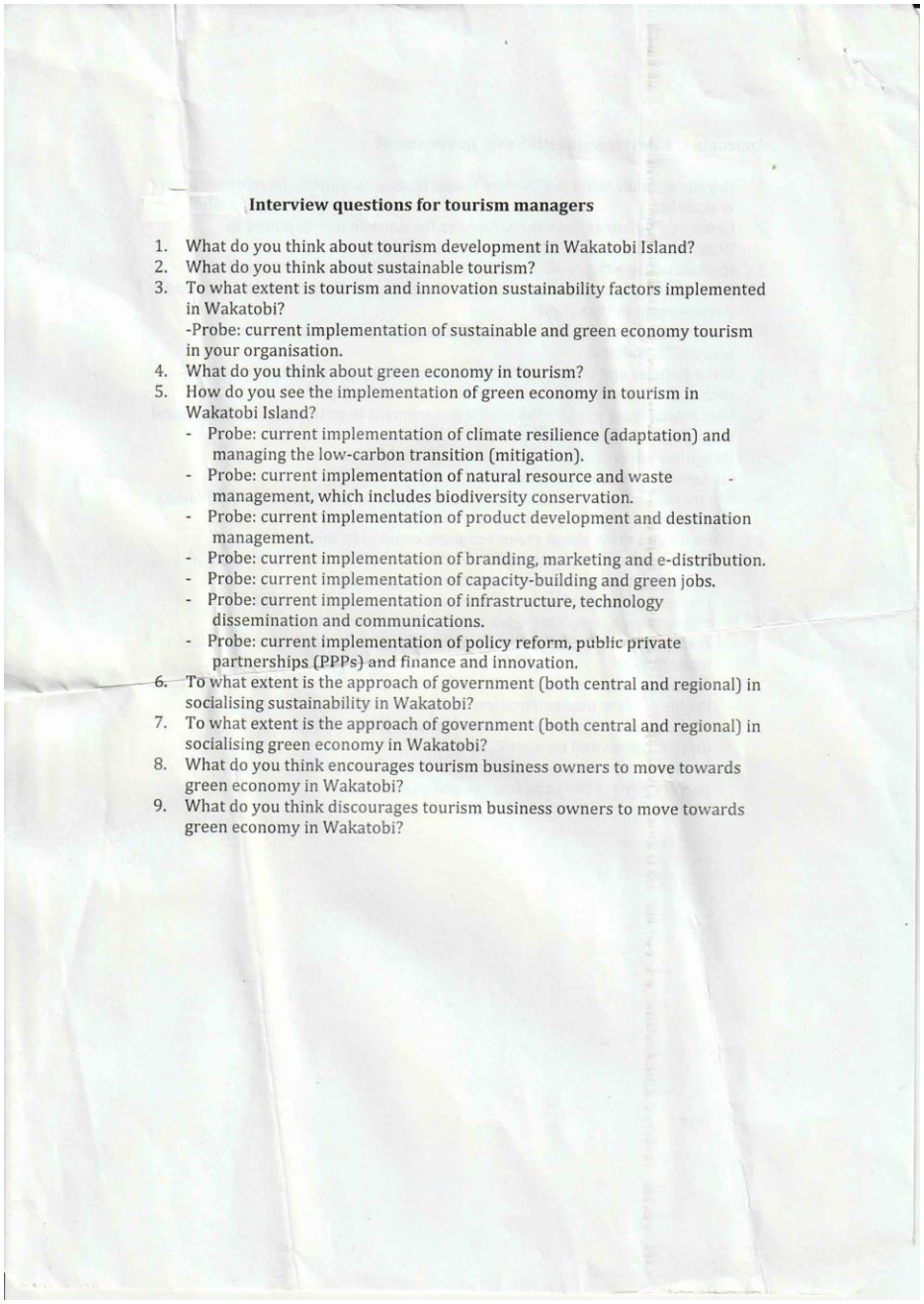
. Interview questions for NGOs or Community Group (in Bahasa Indonesia)

1. Bagaimana menurut Anda pertumbuhan pariwisata di Wakatobi?
2. Bagaimana menurut Anda ancaman lingkungan dari dan ke pariwisata di Wakatobi?
3. Bagaimana menurut Anda upaya untuk mengatasi dan mencegah/mitigasi ancaman lingkungan tersebut?

- Gali: program seperti apa yang sudah dan akan dikerjakan untuk mitigasi itu?

4. Bagaimana dukungan dan keterlibatan pemerintah dalam menjaga kelestarian pariwisata di Wakatobi?
5. Bagaimana menurut Anda konsep keberlanjutan pariwisata (sustainable tourism) itu sendiri?
6. Bagaimana menurut Anda konsep ekonomi hijau (green economy) dalam pariwisata di Wakatobi?
7. Faktor-faktor apa sajakah yang mendorong penerapan ekonomi hijau tersebut?
8. Sementara, faktor-faktor apa sajakah yang menghambat penerapan ekonomi hijau itu?
9. Bagaimana informasi tentang ekonomi hijau atau keberlanjutan pariwisata di Wakatobi ini bisa Anda peroleh?
10. Bagaimana menurut Anda keterlibatan dan peran masyarakat atau komunitas dalam penerapan ekonomi hijau pariwisata di Wakatobi?

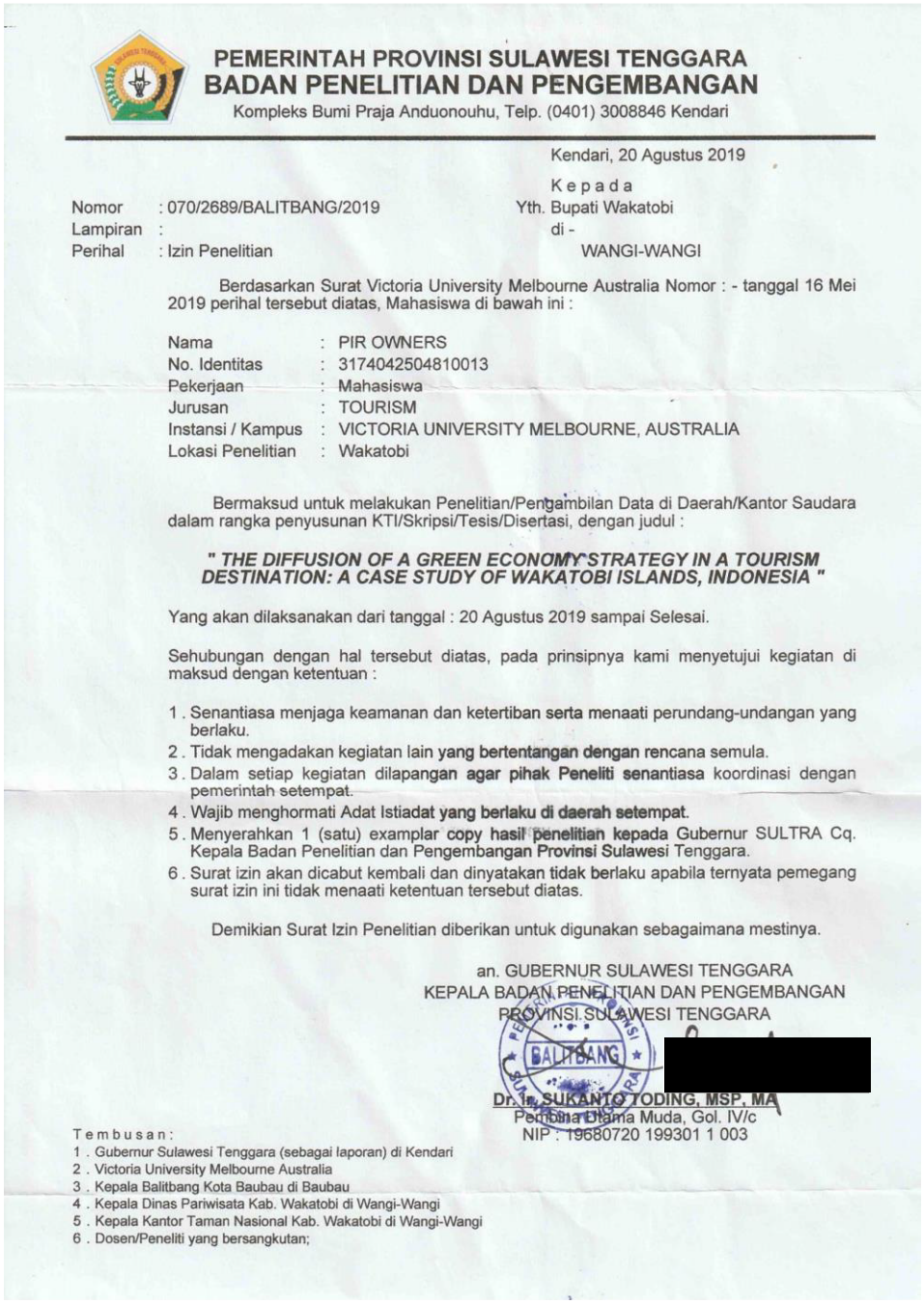
Appendix 8: Interview Questions for Businesses



Interview questions for tourism managers

1. What do you think about tourism development in Wakatobi Island?
2. What do you think about sustainable tourism?
3. To what extent is tourism and innovation sustainability factors implemented in Wakatobi?
   -Probe: current implementation of sustainable and green economy tourism in your organisation.
4. What do you think about green economy in tourism?
5. How do you see the implementation of green economy in tourism in Wakatobi Island?
   - Probe: current implementation of climate resilience (adaptation) and managing the low-carbon transition (mitigation).
   - Probe: current implementation of natural resource and waste management, which includes biodiversity conservation.
   - Probe: current implementation of product development and destination management.
   - Probe: current implementation of branding, marketing and e-distribution.
   - Probe: current implementation of capacity-building and green jobs.
   - Probe: current implementation of infrastructure, technology dissemination and communications.
   - Probe: current implementation of policy reform, public private partnerships (PPPs) and finance and innovation.
6. To what extent is the approach of government (both central and regional) in socialising sustainability in Wakatobi?
7. To what extent is the approach of government (both central and regional) in socialising green economy in Wakatobi?
8. What do you think encourages tourism business owners to move towards green economy in Wakatobi?
9. What do you think discourages tourism business owners to move towards green economy in Wakatobi?

Appendix 9: Approval Letter for Data Collection in Wakatobi



PEMERINTAH PROVINSI SULAWESI TENGGARA
BADAN PENELITIAN DAN PENGEMBANGAN
Kompleks Bumi Praja Anduonouhu, Telp. (0401) 3008846 Kendari

Kendari, 20 Agustus 2019

Nomor : 070/2689/BALITBANG/2019
Lampiran :
Perihal : Izin Penelitian

Kepada
Yth. Bupati Wakatobi
di -
WANGI-WANGI

Berdasarkan Surat Victoria University Melbourne Australia Nomor : - tanggal 16 Mei 2019 perihal tersebut diatas, Mahasiswa di bawah ini :

Nama	:	PIR OWNERS
No. Identitas	:	3174042504810013
Pekerjaan	:	Mahasiswa
Jurusan	:	TOURISM
Instansi / Kampus	:	VICTORIA UNIVERSITY MELBOURNE, AUSTRALIA
Lokasi Penelitian	:	Wakatobi

Bermaksud untuk melakukan Penelitian/Pengambilan Data di Daerah/Kantor Saudara dalam rangka penyusunan KTI/Skripsi/Tesis/Disertasi, dengan judul :

" THE DIFFUSION OF A GREEN ECONOMY STRATEGY IN A TOURISM DESTINATION: A CASE STUDY OF WAKATOBI ISLANDS, INDONESIA "

Yang akan dilaksanakan dari tanggal : 20 Agustus 2019 sampai Selesai.

Sehubungan dengan hal tersebut diatas, pada prinsipnya kami menyetujui kegiatan di maksud dengan ketentuan :

1. Senantiasa menjaga keamanan dan ketertiban serta menaati perundang-undangan yang berlaku.
2. Tidak mengadakan kegiatan lain yang bertentangan dengan rencana semula.
3. Dalam setiap kegiatan dilapangan agar pihak Peneliti senantiasa koordinasi dengan pemerintah setempat.
4. Wajib menghormati Adat Istiadat yang berlaku di daerah setempat.
5. Menyerahkan 1 (satu) examplar copy hasil penelitian kepada Gubernur SULTRA Cq. Kepala Badan Penelitian dan Pengembangan Provinsi Sulawesi Tenggara.
6. Surat izin akan dicabut kembali dan dinyatakan tidak berlaku apabila ternyata pemegang surat izin ini tidak menaati ketentuan tersebut diatas.

Demikian Surat Izin Penelitian diberikan untuk digunakan sebagaimana mestinya.

an. GUBERNUR SULAWESI TENGGARA
KEPALA BADAN PENELITIAN DAN PENGEMBANGAN
PROVINSI SULAWESI TENGGARA

BALITBANG

[redacted]

Dr. Ir. SUKANTO TODING, MSP, MA
Pembina Utama Muda, Gol. IV/c
NIP : 19680720 199301 1 003

Tembusan :
1. Gubernur Sulawesi Tenggara (sebagai laporan) di Kendari
2. Victoria University Melbourne Australia
3. Kepala Balitbang Kota Baubau di Baubau
4. Kepala Dinas Pariwisata Kab. Wakatobi di Wangi-Wangi
5. Kepala Kantor Taman Nasional Kab. Wakatobi di Wangi-Wangi
6. Dosen/Peneliti yang bersangkutan;