

Collaborative Environmental Governance Networks in Small Indonesian Island Tourism Destinations

Charlie

S.E., M.Bus.

Thesis submitted in fulfilment of the requirements
for the degree of Doctor of Philosophy

Centre for Tourism and Services Research
College of Business
Victoria University
Melbourne, Australia

November 2014



Abstract

The natural environment plays a major role in determining destination attractiveness, particularly in the case of small island destinations characterised by sparse natural resources and a limited environmental carrying capacity. When uncontrolled tourism development occurs in such settings, environmental degradation may occur, thereby reducing destination attractiveness. This pattern is particularly prevalent in small island destinations within developing countries, where the capability of the local government is often lacking, and where resident populations have limited environmental awareness and education. The recent literature on sustainable tourism has embraced a holistic view of tourism systems that acknowledges the need for joint management by stakeholders, including tourism business operators, local government, ecosystem ecologists, non-government organisations (NGOs) and local residents. This view considers that effective environmental conservation in small island tourism destinations within developing countries requires collaboration between relevant stakeholders. This should include the creation of networks and the development of a shared understanding about the collaborative actions governing environmental conservation.

Some of small island destinations in developing countries have developed collaborative Environmental Governance Networks (EGNs) through which island stakeholders can pool their resources for mutual benefit. However, until now, discussion of EGNs within the literature has been predominantly theory-based, with few insights into how such networks operate. Case study applications have been few in number. To develop a deeper understanding of how environmental conservation can accompany tourism development, further study is needed on the application of theories related to EGNs in small island tourism destinations.

This research investigates EGNs in two Indonesian case study destinations, Nusa Lembongan Island and Gili Trawangan Island.

The research has four main objectives. Firstly, it develops a conceptual framework for the operation of EGNs. Secondly, it investigates the operation of EGNs and their role in

the governance of small island developing destinations (SIDDs). Thirdly, it evaluates and compares the effectiveness of EGN operations. Finally, it synthesises the reaction of locals towards tourism development, with particular reference to the influence of socio-cultural values in the two case study areas. To achieve these objectives, this investigation has adopted a qualitative approach to obtain insightful answers to the applicable research questions. The two case study islands and their EGN operations were observed, relevant documents were analysed and key stakeholders were interviewed in an in-depth, semi-structured style to generate comprehensive data.

Based on relevant theories and a review of the literature, a conceptual framework to understand the operation of EGNs was developed. This conceptual framework is designed to be adaptable for the analysis of existing and prospective EGNs. The proposed conceptual framework was then applied to the selected cases.

Based on the analysis of gathered data, the research describes the characteristics and tensions applicable to EGNs in each case study. Key stakeholders and the power relations between them are also identified. For the purposes of environmental governance, the dominant stakeholder on Nusa Lembongan Island is an international NGO. On Gili Trawangan Island, the dominant stakeholders are the expatriates and the tourism-related businesses that they own and operate. The two examples highlight the rather low commitment by native islanders and local government.

In investigating the parameters of effectiveness and the environmental outcomes of the EGN operations, this research found that the action-oriented EGN practiced on Gili Trawangan Island is more effective than the policy and planning EGN of Nusa Lembongan Island. Specifically, action-oriented EGN produced better stakeholder collaboration and faster results for the island's environment. Moreover, although action-oriented EGN initially lacked local government support, over time policy and legal support was obtained due to proven effective operation and results. This research also found that the government, both at the local and national levels, of these case studies tended to focus more on the process of democracy than on efforts at good governance.

Finally, the perspectives of locals that led to reactions towards tourism development in the two case study islands show a noteworthy comparison. The synthesis particularly

focuses on the socio-cultural values and its impacts on interactions between locals and networks of tourism stakeholders. The inhabitants of Gili Trawangan Island are predominantly Muslim and have to make substantial compromises to accommodate the lifestyle and demands of western tourists. Compromise is less apparent for the predominantly Hindu inhabitants of Nusa Lembongan Island, who are more tourism-ready, and share many cultural similarities with neighbouring Bali Island.

The research results were used to revise the conceptual framework to improve its validity and reliability. The four points of revision are: the inclusion of ‘opinion leaders’ in the key stakeholder group of ‘local people’, and three additional parameters of ‘operational efficiency’, ‘legal and regulatory compliance’ and ‘sustainability of the network’.

Declaration

I, Charlie, declare that the PhD thesis entitled ‘Collaborative Environmental Governance Networks in Small Indonesian Island Tourism Destinations’ is no more than 100,000 words in length, exclusive of appendices and references. 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.



18 November 2014

Charlie S.E., M.Bus.

Acknowledgements

I would like to take this opportunity to express my appreciation to all those who have motivated and assisted me in various ways to undertake and complete this research. First, I would like to thank the Australian Government and the program of Australia Awards Scholarships for the opportunity and financial support they provided to me during my PhD journey.

I would like to sincerely thank my supervisors, Professor Terry DeLacy and Professor Brian King. I would particularly like to acknowledge their valuable time commitment and thank them for providing me with the guidance, feedback and encouragement to keep me moving forward and to have confidence in my abilities to undertake this research. Professor Terry DeLacy has helped me greatly in the dissertation writing process, and has motivated me to be effective and efficient, especially towards the end of my research. Professor Brian King has guided me in numerous ways from the beginning to the end of my PhD journey. He has patiently shared his time and expertise in assisting me through all the changes and challenges in undertaking my research. Professor King has been a great role model in his professionalism and academic success.

I would like to thank Mr Michael Pearlman who supervised me during the first two and a half years of my research until he resigned from Victoria University. I am most thankful to him for his assistance with my candidature, ethics application and publications of my research. I would also like to thank Professor Anne-Marie Hede, Professor Richard Chauvel, Professor Barry O'Mahony and Dr Leonie Lockstone-Binney for their advice on my research, and Dr Olga Junek for the many interesting discussions about qualitative research. Also, thanks to the Victoria University Staff, especially Tina Jeggo, Georgette Karagiozis, Katrina Soitaridis and Margaret Jones, who have made life easier by helping me to navigate through all the important procedures and paperwork.

This research would not have been possible without the help of friends and colleagues on my two case study islands. On Nusa Lembongan Island, many thanks to Kadek Purnayasa and family, Noris, Putu Soma, Nyoman Ujijana, Nyoman Sutrisnawati, Andreas Muljadi and Marthen Welly. On Gili Trawangan Island, many thanks to Delphine Robbe, Anna Walker, Haji Marwi, Ardi, Sarro, Mulyadi and Ririn Karina.

In addition, I would like to acknowledge the support given by a number of colleagues both in Melbourne and in Bali who have motivated and assisted me during the course of my research. These included I Ketut Putra Suarthana, I Nengah Suardhika, Serli Wijaya, Ali Hapsah, Putu Indah Rahmawati, Siriwan Ghuangpeng, Theo and Erin Matondang, Frank Abela, Francisco Simao, Helder and Stevi Iap. Thank you so much. I really appreciate that all of you gave generously of your time and support to enable me to undertake this research. I also acknowledge Dr Lisa Lines from Elite Editing, for editing the thesis according to the Australian Standards for Editing Practice (Standards D and E).

Finally, I would like to express my gratitude to my wife Widya, my daughter Audrey, and my parents Johari and Lana, for their unconditional love and support through the ups and downs of this PhD journey. They encouraged me, believed in me and most importantly were always there when I needed them.

Publications Associated with this Thesis

CHARLIE, C, PEARLMAN, M & KING, B 2011, 'Environmental governance networks in small island destinations: applications in Gili Trawangan and Nusa Lembongan Islands, Indonesia', paper presented at *CAUTHE 2011 National Conference: Tourism: creating a brilliant blend*, University of South Australia, Adelaide, 8-11 February 2011.

CHARLIE, C 2011, 'Collaborative environmental governance networks in small island destinations: applications in Gili Trawangan and Nusa Lembongan Islands, Indonesia', paper presented at *Research Symposium: Sustainability, Collaborative Governance and Tourism*, Southern Cross University, Gold Coast, 17-18 February 2011.

CHARLIE, C, KING, B & PEARLMAN, M 2012, 'The application of environmental governance networks in small island destinations: evidence from Indonesia and the Coral Triangle', *Tourism Planning & Development*, vol. 10, pp. 17-31.

CHARLIE, C, PEARLMAN, M & KING, B 2012, 'A conceptual framework for environmental governance networks: an analysis of small island destinations in Indonesia and the Coral Triangle', in: CA BREBBIA & FD PINEDA (eds.), *Sustainable Tourism V*, WIT Press, Southampton, pp. 189-202.

Table of Contents

| | |
|--|-------------|
| Abstract | i |
| Declaration | iv |
| Acknowledgements | v |
| Publications Associated with this Thesis | vii |
| Table of Contents | viii |
| List of Figures | xii |
| List of Tables | xiii |
| List of Abbreviations | xiv |
| Chapter 1: Introduction | 1 |
| 1.1. Background to the Research | 1 |
| 1.2. Importance of the Research Topic | 3 |
| 1.3. Research Objectives and Questions | 4 |
| 1.4. Research Approach and Method | 6 |
| 1.5. Scope and Limitations of the Research | 11 |
| 1.6. Outline of the Thesis | 12 |
| Chapter 2: Marine-based Tourism and the Environment | 15 |
| 2.1. Introduction | 15 |
| 2.2. Marine-based Tourism | 15 |
| 2.3. Environmental Management | 18 |
| 2.4. Small Island Settings | 24 |
| 2.5. Developing Country Settings | 28 |
| 2.6. Conclusion..... | 34 |
| Chapter 3: Environmental Governance Networks | 36 |
| 3.1. Introduction | 36 |
| 3.2. Governance, Networks and Stakeholders | 36 |
| 3.2.1. Governance | 36 |
| 3.2.2. Networks..... | 37 |
| 3.2.3. Stakeholders..... | 38 |
| 3.3. Political Ecology and SIDD Governance | 41 |
| 3.4. Design and Dynamics of Environmental Governance Network | 44 |
| 3.4.1. Tensions..... | 46 |
| 3.4.1.1. <i>Efficiency versus inclusiveness</i> | 47 |
| 3.4.1.2. <i>Internal versus external legitimacy</i> | 47 |
| 3.4.1.3. <i>Flexibility versus stability</i> | 48 |
| 3.4.2. Characteristics and Orientations | 49 |
| 3.4.3. Effectiveness | 50 |
| 3.5. Conclusion..... | 51 |
| Chapter 4: Methodology | 52 |
| 4.1. Introduction | 52 |
| 4.2. Purpose of the Study | 52 |
| 4.3. Nature of the Study..... | 53 |

| | |
|--|------------|
| 4.4. Research Design | 54 |
| 4.5. Rationale of Using Qualitative Methodology | 55 |
| 4.6. Rationale for the Selection of the Case Studies | 56 |
| 4.7. Data Collection..... | 62 |
| 4.7.1. Textual Analysis | 63 |
| 4.7.2. Observations | 64 |
| 4.7.3. In-depth Interviews | 64 |
| 4.7.3.1. <i>Sampling process</i> | 65 |
| 4.7.3.2. <i>Interview process</i> | 68 |
| 4.8. Ethical Consideration..... | 70 |
| 4.9. Data Analysis | 71 |
| 4.10. Reliability and Validity | 74 |
| 4.11. Conclusions | 75 |
| Chapter 5: Conceptual Framework for the Analysis of Environmental Governance Networks..... | 77 |
| 5.1. Introduction | 77 |
| 5.2. The “Raw” Material..... | 77 |
| 5.2.1. Governance network | 77 |
| 5.2.2. Stakeholders..... | 78 |
| 5.2.3. Tension | 79 |
| 5.2.4. Characteristics..... | 80 |
| 5.2.5. Effectiveness | 80 |
| 5.3. The “Cooked” Framework | 81 |
| 5.4. The Applications | 83 |
| 5.5. Conclusion..... | 84 |
| Chapter 6: Understanding the Operations of Environmental Governance Networks..... | 86 |
| 6.1. Introduction | 86 |
| 6.2. Tourism and Environmental Governance on Gili Trawangan Island | 86 |
| 6.3. Tourism and Environmental Governance on Nusa Lembongan Island | 92 |
| 6.4. Characteristics of the Two Environmental Governance Networks | 99 |
| 6.4.1. Facilitators of the Network | 100 |
| 6.4.2. Network Community | 101 |
| 6.4.3. Location of the Network..... | 101 |
| 6.4.4. Focus of Network Activity | 102 |
| 6.4.5. Resourcing | 102 |
| 6.4.6. Background of the Network Facilitator | 103 |
| 6.4.7. Roles and Responsibilities | 103 |
| 6.5. Stakeholders and Tensions | 104 |
| 6.5.1. On Gili Trawangan Island | 104 |
| 6.5.2. On Nusa Lembongan Island | 108 |
| 6.6. Applied Conceptual Framework for the Comparative Analysis of Environmental Governance Networks in Case Study Areas..... | 110 |
| 6.7. Conclusion..... | 114 |
| Chapter 7: Evaluating the Effectiveness of Environmental Governance Network Operations..... | 115 |
| 7.1. Introduction | 115 |

| | |
|---|------------|
| 7.2. Parameters of Effectiveness | 115 |
| 7.2.1. On Gili Trawangan Island | 116 |
| <i>Transparency and accountability</i> | 116 |
| <i>Vision and leadership</i> | 117 |
| <i>Acceptance of diversity, pursuit of equity and inclusiveness</i> | 117 |
| <i>Developing knowledge, learning and sharing expertise</i> | 118 |
| <i>Clear roles and responsibilities of participants</i> | 119 |
| <i>Clear operational structures and processes of the networks</i> | 119 |
| 7.2.2. On Nusa Lembongan Island | 120 |
| <i>Transparency and accountability</i> | 120 |
| <i>Vision and leadership</i> | 121 |
| <i>Acceptance of diversity, pursuit of equity and inclusiveness</i> | 121 |
| <i>Clear roles and responsibilities of participants</i> | 122 |
| <i>Clear operational structures and processes of the networks</i> | 123 |
| 7.2.3. In Comparison..... | 123 |
| 7.3. Outcomes for the Islands' Environment | 124 |
| 7.3.1. On Gili Trawangan Island | 124 |
| 7.3.2. On Nusa Lembongan Island | 130 |
| 7.3.3. In Comparison..... | 133 |
| 7.4. Stakeholders' Perceptions | 134 |
| 7.5. Local Government Involvement..... | 135 |
| 7.6. Balancing Actions with Regulatory Compliance | 144 |
| 7.7. Conclusion..... | 145 |
| Chapter 8: Synthesising the Reaction of Locals towards Tourism Development on the Two Case Studies | 146 |
| 8.1. Introduction | 146 |
| 8.2. Tourism Development and the Locals on Gili Trawangan Island..... | 147 |
| 8.3. Tourism Development and the Locals on Nusa Lembongan Island..... | 151 |
| 8.4. Synthesising the Differences | 153 |
| 8.5. Conclusion..... | 154 |
| Chapter 9: Conclusions, Implications and Opportunities for Further Research . | 156 |
| 9.1. Introduction | 156 |
| 9.2. Revisiting the Proposed Conceptual Framework | 156 |
| 9.3. Review of the Research Objectives | 160 |
| 9.4. Theoretical Implications | 161 |
| 9.5. Practical Implications | 163 |
| 9.6. Future Research Directions | 164 |
| References | 165 |
| Appendices | 186 |
| Appendix 1. Information to participants involved in research | 186 |
| Appendix 2. Information to participants involved in research (Translated into <i>Bahasa Indonesia</i>) | 189 |
| Appendix 3. Consent form for participants involved in research | 192 |
| Appendix 4. Consent form for participants involved in research (Translated into <i>Bahasa Indonesia</i>) | 194 |
| Appendix 5. Semi-structured in-depth interview prompt list | 196 |

| | |
|--|-----|
| Appendix 6. Permission letter to do research, from Gili Eco Trust (Gili Trawangan Island) | 198 |
| Appendix 7. Permission letter to do research, from Coral Triangle Center (Nusa Lembongan Island) | 199 |
| Appendix 8. Summary matrix of interview results from Gili Trawangan Island | 200 |
| Appendix 9. Summary matrix of interview results from Nusa Lembongan Island .. | 207 |

List of Figures

| | |
|---|-----|
| Figure 1. Investigation flowchart..... | 10 |
| Figure 2. Governance networks on environmental sustainable tourism | 50 |
| Figure 3. Map of Nusa Lembongan Island and Gili Trawangan Island with Bali and Lombok in perspective | 61 |
| Figure 4. Conceptual framework for the analysis of EGNs | 82 |
| Figure 5. Map of Gili Trawangan Island..... | 88 |
| Figure 6. Map of Nusa Lembongan Island..... | 93 |
| Figure 7. Nameplate of the Nusa Lembongan Island community centre..... | 97 |
| Figure 8. Community centre for education and training, Nusa Lembongan Island | 98 |
| Figure 9. Banner of the declaration of launching the Marine Conservation Area..... | 99 |
| Figure 10. Applied conceptual framework for the comparative analysis of EGNs..... | 113 |
| Figure 11. Placard of the Biorock program..... | 126 |
| Figure 12. Erosion was evident on some beaches | 126 |
| Figure 13. Turtles' protection program..... | 127 |
| Figure 14. GET Poster promoting awareness of coral preservation | 127 |
| Figure 15. Three types of garbage bin to separate the trash: paper waste (blue), organic waste (green) and plastics and cans (yellow) | 128 |
| Figure 16. Three types of garbage bin in practice, all being filled with the same type of trash | 129 |
| Figure 17. Landfill, where the garbage from all three types of bin end up..... | 129 |
| Figure 18. <i>Cidomo</i> , the common transportation on Gili Trawangan Island..... | 130 |
| Figure 19. Placard of mangrove forest tour..... | 131 |
| Figure 20. The garbage collection truck | 132 |
| Figure 21. The landfill site | 132 |
| Figure 22. Local Village Office..... | 137 |
| Figure 23. Organisational structure of Island Security, formed by a local initiative.... | 138 |
| Figure 24. Posters with the mobile number of Island Security | 138 |
| Figure 25. The impractical pier | 139 |
| Figure 26. Boats unloading passengers directly onto the beach..... | 140 |
| Figure 27. Asphalt roads all around the island | 141 |
| Figure 28. Police station..... | 141 |
| Figure 29. Local Village Office organisational structure..... | 142 |
| Figure 30. Ticket office for the public boat to Bali | 142 |
| Figure 31. Community health centre | 143 |
| Figure 32. Village credit institution | 143 |
| Figure 33. Poster forbidding tourists from wearing bikinis in the village area..... | 149 |
| Figure 34. Banner of the special rules during the fasting month of Ramadhan | 150 |
| Figure 35. Placard identifying the entrance to 'Pura Segara' (Temple of the Sea)..... | 152 |
| Figure 36. <i>Bale kul-kul</i> , traditional tower for announcement of events..... | 153 |
| Figure 37. Revised Conceptual Framework for the Analysis of EGNs | 159 |

List of Tables

| | |
|--|----|
| Table 1. Research framework..... | 9 |
| Table 2. Preliminary Study Comparing the Two Islands | 58 |
| Table 3. Interviewees on Nusa Lembongan Island..... | 68 |
| Table 4. Interviewees on Gili Trawangan Island..... | 68 |

List of Abbreviations

| | |
|--------|---|
| ASK | available seat kilometres |
| BKKPN | Balai Kawasan Konservasi Perairan Nasional (Agency for national marine protected areas) |
| BKSDA | Balai Konservasi Sumber Daya Alam (Agency for natural resources conservation) |
| CTC | Coral Triangle Center |
| CTI | Coral Triangle Initiative |
| DMOs | Destination Marketing Organisation |
| EGNs | Environmental Governance Networks |
| ESDT | ecologically sustainable development of tourism |
| GBRMPA | Great Barrier Reef Marine Park Authority |
| GET | Gili Eco Trust |
| HRETH | Human Research Ethics Committee |
| KKP | Kawasan Konservasi Perairan (Marine protected areas) |
| LCC | low-cost airline carriers |
| MPA | marine protected areas |
| NGO | non-government organisations |
| PADI | Professional Association of Diving Instructors |
| SATGAS | satuan tugas (task force) |
| SCUBA | self-contained underwater breathing apparatus |
| SIDD | small island developing destination |
| SIDS | small island developing states |
| SITE | small island tourism economics |
| SPN | Satya Posana Nusa |
| TNC | The Nature Conservancy |
| UNWTO | United Nations World Tourism Organization |
| USAID | United States Agency for International Development |

Chapter 1: Introduction

1.1. Background to the Research

When uncontrolled tourism development occurs in small island destinations with limited environmental carrying capacity, environmental degradation may occur, thereby reducing destination attractiveness (Weaver 2006; Williams and Ponsford 2009). This pattern is particularly prevalent in small island destinations in developing countries, where local government capacity is often lacking, resident populations have limited education and environmental awareness is poor (Apostolopoulos and Gayle 2001). In such conditions, effective environmental conservation is likely to require collaboration between relevant stakeholders.

Some of the more frequently applied approaches to environmental conservation include prohibitions on all manufactured activities pending environmental recovery, visitation controls, tougher environmental protection laws or implementing effective environmental management at the site of tourism activity. In the pursuit of preservation, imposing complete tourism shutdowns is difficult because resident human rights need to be considered, particularly where human occupation is long established (Wunder 2003). Limiting visitation may also negatively affect tourism-reliant small island destination economies (Sasidharan and Thapa 2001). Further, stringent environmental protection laws and regulations may be ineffective due to weak enforcement, and resistance from residents, tourists and tourism businesses (Chang, Hwung and Chuang 2012). For example, the implementation of zoning regulations may lead to competition between various stakeholders for access to resources (Halpern et al. 2008). Even in cases in which local residents and tourism businesses cooperate and adhere to the prevailing zoning requirements, inadequate manpower and policing may mean that environmentally destructive practices continue unimpeded (Setiawati 2009a). Other environmental management activities such as site hardening or environmental interpretation require significant financial investment.

Researchers have made increasing use of the tourism systems perspective to investigate and implement sustainable tourism practices. This perspective acknowledges the need for 'joint management' between relevant stakeholders such as 'tourism business

operators, local government, ecosystem ecologists, NGOs [non-government organisations] and local residents' (Farrell and Twining-Ward 2005, p. 117). Soisalon-Soininen and Lindroth (2006) endorsed the shift in approach, noting the important role for collaboration with stakeholders within tourism networks. This approach has involved pooling resources with a view to enhancing destination image. Williams and Ponsford (2009) argued that concerted and collective action is needed at the part of tourism stakeholders if the relationship between tourism and the environment is to be managed effectively. This is likely to involve the creation of Environmental Governance Networks (EGNs) and shared understandings that enhance collaboration and shape environmental conservation practices (Ladkin and Bertramini 2002; Svensson, Nordin and Flagestad 2006).

Some small island destinations in developing countries have formed collaborative EGNs in which island stakeholders pool their resources for mutual benefit (Goreau 2009; Hidayat 2006; Mitchell and Reid 2001). This could involve the creation of networks and the development of a shared understanding of the potential for collaborative actions governing environmental conservation (Ladkin and Bertramini 2002; Svensson, Nordin and Flagestad 2006). To develop a deeper understanding of the extent to which effective environmental conservation can accompany tourism development, this research reviews the existing theories related to EGNs drawing upon the literature from marine-based tourism, and political science, and from coastal and environmental management. The research integrates the various theories into a conceptual framework, which is then tested and refined. In employing this framework, the researcher assess the effectiveness and applicability of different types of EGNs in small island destinations in a developing country setting with application in two case study areas; that is, two small island tourism destinations where different EGNs are in operation.

This research provides insights into how tourism operates within small island communities at the local level in circumstances where the marine environment is the main attraction. Special reference is made to the settings of environmental management through EGNs. The study investigates the characteristics, tensions, effectiveness and environmental outcomes associated with such networks, as well as stakeholder

perceptions. A conceptual framework is proposed with a view to reviewing, validating and supplementing current perspectives of EGNs. It is anticipated that the findings will provide a basis for ongoing research, with particular applicability to small islands that are aiming to develop more sustainable marine-based tourism.

1.2. Importance of the Research Topic

Hall (2001) identified a need for the coastal and marine management domain to incorporate consideration of the dimensions of tourism development consistent with the principles of sustainability. He advocated the search for a better understanding of the ‘institutional and policy dimensions of integrated coastal and marine management’ (Hall 2001, pp. 602, 614). The present study is relevant to the abovementioned statement because EGNs are associations involving stakeholders who pool their resources to produce collaborative policy-like decisions and actions governing environmental conservation. Collaborative approaches are attractive to stakeholders because of their mutual interest in enhancing livelihoods through development of marine-based tourism.

This study is an empirical investigation of EGN dynamics. This represents a unique study, as previous research on EGNs has been theoretical in its orientation (Erkus-Ozturk and Eraydin 2010, p. 123). With special reference to the two case studies, the present investigation provides insights into how marine-based tourism operates at the local level within small island communities in circumstances where the marine environment is the major attraction. The study investigates the characteristics of EGNs, the influence and perceptions of stakeholders, and the applicability and effectiveness of self-regulating action networks compared with policy and planning network models. It also extends understanding of EGNs by reviewing, validating and contributing to current knowledge of the various types, parameters of effectiveness and characteristics of these networks based on the case studies. The findings can serve as a basis for the stakeholders of existing governance networks to review and develop their networks’ effectiveness, and can assist others to develop applicable networks.

The present study is particularly applicable for the circumstances encountered in developing countries such as Indonesia, where island and marine-based tourism

contributes significantly to local economies. Often in these cases, government tourism-management capabilities are lacking, local stakeholder initiatives are un-coordinated and unsustainable tourism developments have given rise to environmental degradation. The results of this study provide evidence that may assist small island and coastal destinations to cultivate local stakeholder networks to develop effective environmental governance; accommodating tourism development while preserving the environment. The study is of particular interest because of the different cultural and religious settings of the two case study sites. It is interesting to observe how socio-cultural values affect the way that locals interact with the network of tourism-related stakeholders. The research also examines how different levels of local government capacity and involvement impacts on island management and environmental protection issues. Thus, the value of this research lies first in its contribution to the knowledge gap about EGN operations, especially in small island tourism destinations within developing countries. Secondly, the research can serve as a reference for tourism stakeholders who are initiating and developing EGNs to support the coexistence of tourism development and environmental preservation within their destination. On this basis, the research makes theoretical and practical contributions.

1.3. Research Objectives and Questions

The aim of the research is to examine the operation of EGNs and their potential to contribute to an environmentally sustainable form of marine-based tourism development in small island developing destination (SIDD) settings. This research investigates how tourism stakeholders can collaborate in preserving island environments, weighed down as they are by the challenging circumstances of SIDDs and the lack of capabilities characteristic of developing countries.

The study reviews the relevant literature and proposes a conceptual framework to analyse EGNs. It then applies the framework to the two case studies and compares the two EGNs.

The specific objectives and research questions developed to guide this research are:

1. To develop a theory-based but adaptable conceptual framework to guide the analysis and formation of EGNs based on relevant literature.

Research question 1a:

What fields of knowledge are relevant to the operation of EGN in SIDD settings?

Research question 1b:

How can the relevant theories and literatures be translated into a conceptual framework that can be adapted for the analysis and formation of EGNs?

2. To investigate EGN operations, with reference to the two SIDD case studies.

Research question 2a:

- What types of EGN orientation are evident in the literature?
- What case studies are appropriate to illustrate the different types of EGN in SIDD settings?
- Is the conceptual framework applicable to the SIDD case studies?

Research question 2b:

- What EGN characteristics are evident in the case study areas?
- Who are the key stakeholders?
- How do power relations operate between them?
- How do EGNs cope with the tensions in SIDD governance?

3. To evaluate the effectiveness of EGN operations, and compare and contrast each type of EGN.

Research question 3a:

- What environmental outcomes from the operations of EGN are evident?
- Based on the applicable parameter, how effective are the two EGNs?

Research question 3b:

- What are the perceptions of stakeholders towards the operations, effectiveness, and outcomes of these networks?
- What are the advantages and disadvantages of each type of EGN?

4. To synthesize the perspectives of locals that led to reactions towards tourism development, with particular reference to the influence of socio-cultural dimensions in the two case study areas.

Research question 4a:

What are the socio-cultural differences between the two case studies?

Research question 4b:

How do socio-cultural values affect local's perspectives and influence the reactions of locals towards tourism development in the two case study areas?

1.4. Research Approach and Method

A case study approach was adopted to examine the application of collaborative EGNs on Gili Trawangan and Nusa Lembongan Islands. This approach was deemed suitable because there is a need to discuss EGN dynamics in particular settings. Chapter 5 discussed the relevant concepts and theories that resulted in a proposed conceptual framework. This is then applied to the two types of EGN in two case study destinations. Based on the main points of the proposed conceptual framework, data collection was conducted using the methods of textual analysis, observation and in-depth interviews. Since the research involved interviews with people and questions about sensitive information, there was a requirement to submit an application for ethics approval along with the research proposal to the Victoria University Human Research Ethics Committee. Approval was subsequently granted for this study.

The perspective adopted in this research is based on the interpretive paradigm. This approach involves an attempt to 'get inside the minds of subjects and see the world from their point of view' (Veal 2006, p. 37). A qualitative approach was adopted for data collection because it suits the interpretive paradigm. The researcher intended to examine the dynamics between stakeholders. This aligns with the statement that 'it helps to understand interaction between members of a group' (Veal 2006, pp. 37, 99). The investigation was undertaken using three techniques:

1. Textual analysis of secondary data that had been gathered from both within and outside applicable governance networks.

2. Direct observation of the islands and of network-related activities.
3. In-depth interviews with EGN management, and with key governance network stakeholders.

In the case of textual analysis, secondary data were analysed to provide preliminary insights into the operation of the governance networks. This included data gathered from newspaper and magazine articles (including The Jakarta Post, Bali Post and Jawa Pos), relevant academic journal articles and book chapters, theses from Indonesian universities, EGN reports and press releases, EGNs websites and local village government reports. This investigation enriched the questions that were asked during the in-depth interviews.

The principle of naturalistic observation was applied to ‘describe the phenomenon of interest and develop explanations and understandings’ (Veal 2006, p. 173) in the case of the characteristics and effectiveness of the EGNs. Data were gathered by following the activities of the network staff/representatives, and by examining the results of the network operations. The observation undertaken within this research includes making reflective diaries and documenting observed information with photographs and audio recordings. The investigation provides useful background understanding and a crosscheck mechanism for the information gathered during the in-depth interviews. Further, the information gathered from textual analysis and observations were used to develop the case studies about the two EGNs.

As potential interviewees, EGN staff was contacted by telephone and e-mail to organise appointments. Even though the research was limited to two EGNs, the selection of suitable interviewees was challenging, due to the fact that appropriate interviewees needed to possess specific knowledge that only applied to a small proportion of network staff/representatives. On this basis, a ‘purposive’ sample technique was considered the most effective means of selecting the key individuals. The resulting sample equipped the researcher with a number of appropriate interviewees from the two EGNs, thereby providing valuable perspectives for the study.

As potential interviewees, key stakeholders were contacted directly during a visit to the islands by the researcher. During this phase, purposive sampling was used to determine

interviewees. This approach involves ‘the researcher deciding about who or what study units will be involved in the study’ (Jennings 2010, p. 140). All of the interviews were conducted in Bahasa Indonesia, each lasted for about 60 minutes. They were recorded with the consent of the interviewee. Chapter 4 provides detailed explanations of the interview process, data analysis and interpretation, which generated a number of noteworthy results. By means of a rigorous process of manual coding, a number of repetitive issues appeared. In the validation stage, the transcripts of interviews as used in the thesis and summary of findings are provided to the interviewees, both to seek their confirmation of accuracy and to seek any final feedback that they may have. These findings helped with the review of the proposed conceptual framework.

Finally, the research questions were considered in the context of analysing the case studies, the research findings and the revised conceptual framework with a view to addressing the research problem: How do collaborative EGNs operate and contribute to a more environmentally sustainable marine-based tourism development in SIDD? While the outcomes could not be applied automatically to SIDDs generally, the approach and method generated valuable information. A detailed explanation of the research approach and method is provided in Chapter 4. To clarify the link between the research objectives, questions, methodology and presentation of the findings in the chapters throughout the thesis, the research framework is given in Table 1. Following this, the investigation process is presented diagrammatically in Figure 1.

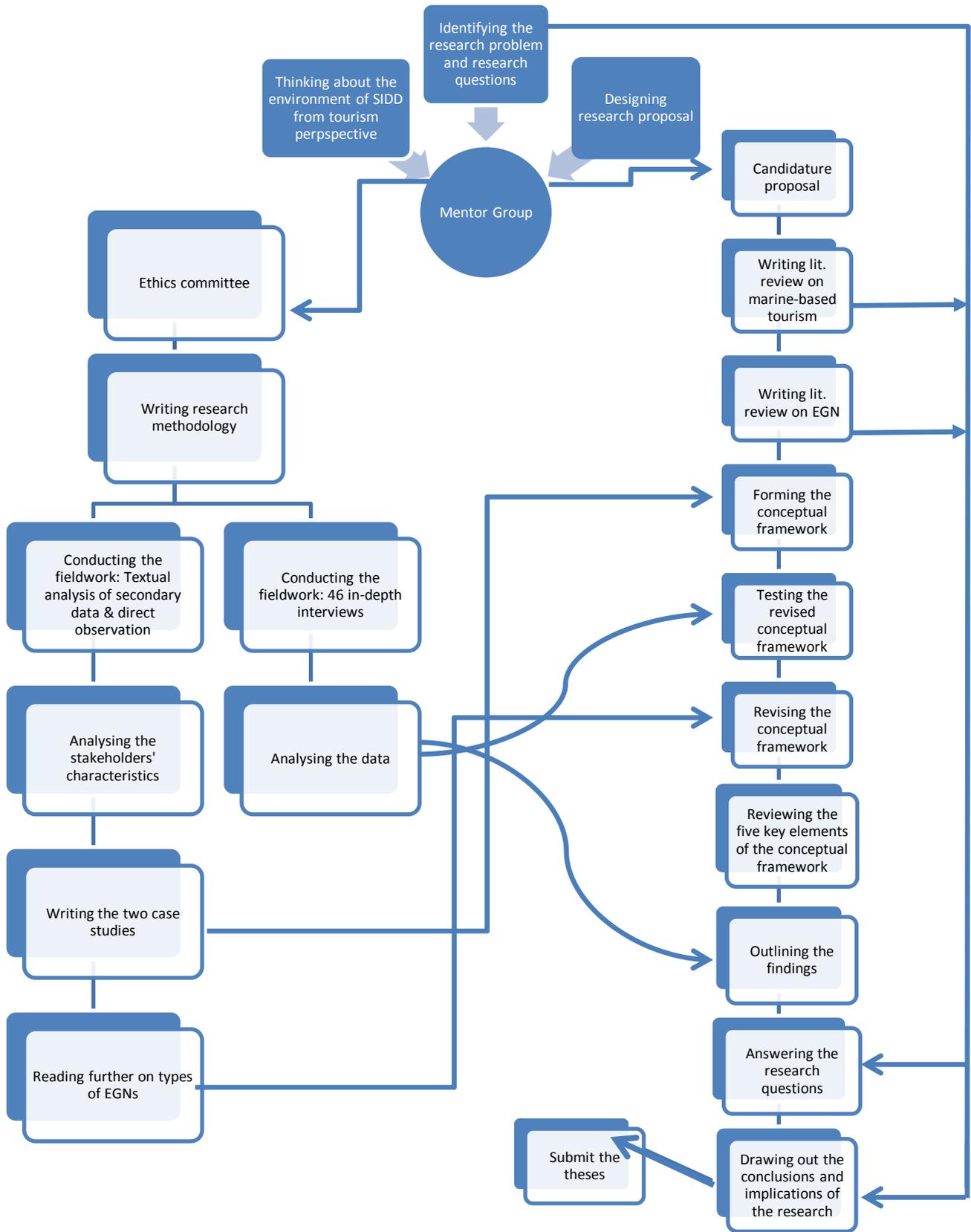
Given the challenges of acquiring reliable information on the operation of the EGNs and tourism-related activities in the two settings, the research draws upon information obtained during the fieldwork at the two case study destinations. The strategic nature of some political and financial issues within the research placed a greater responsibility on the researcher to maintain an objective standpoint. Chapter 4 further explains how the researcher pursued an objective stance when conducting the fieldwork.

Due to the narrowly focused subjects of the research (confined of two case study destinations), the conceptual framework produced for the analysis of these EGNs cannot automatically be generalised to other settings. Every island has unique features that must be considered when analysing an existing EGN, and when commencing the process of developing a new EGN initiative.

Table 1. Research framework

| Research questions: | What information is needed? | How information will be gathered? | Why the method is appropriate? | Thesis chapter |
|---|--|---|---|----------------|
| Research Objective 1- To develop a theory-based but adaptable conceptual framework to guide the analysis and formation of EGNs based on relevant literature. | | | | |
| RQ.1a | What fields of knowledge are relevant to the operation of EGN in SIDD settings? | Literature review | <ul style="list-style-type: none"> It is important to develop a contextual understanding about what has been discussed so far in the literature about EGN in these settings, to familiarise with the current state of knowledge on this topic | 5 |
| RQ. 1b | How can the relevant theories and literatures be translated into a conceptual framework that can be adapted for the analysis and formation of EGNs? | Literature review | <ul style="list-style-type: none"> Literature review helps to synthesise and translate the contextual understanding into a visual framework tool (not just words and paragraphs) to aid understanding of related concepts | 5 |
| Research Objective 2- To investigate EGN operations, with reference to the two SIDD case studies. | | | | |
| RQ. 2a | <ul style="list-style-type: none"> What types of EGN orientation are evident in the literature? What case studies are appropriate to illustrate the different types of EGN in SIDD settings? Is the conceptual framework applicable to the SIDD case studies? | Literature review Secondary data textual analysis Observation | <ul style="list-style-type: none"> Literature review helps to identify different types of EGNs Analysis of secondary data (newspaper articles, websites, press releases, pamphlets, brochures and minutes of meeting) helps in understanding the current dynamics, perspective and people’s opinions in this matter Observations help to compare the literature and secondary data with the reality in the field | 6 |
| RQ. 2b | <ul style="list-style-type: none"> What EGN characteristics are evident in the case study areas? Who are the key stakeholders? How do power relations operate between them? How do EGNs cope with the tensions in SIDD governance? | Secondary data textual analysis Observation In-depth interview Matrixes of interview results Political Ecology approach | <ul style="list-style-type: none"> Triangulation of method in analysing effectiveness prevents bias Secondary data shows the messages sent out by the EGN and public opinion about it Interviews reveal individuals’ views Observations reveal the realities in the field Matrixes help to clarify the findings from the interviews The political ecology approach helps to uncover the reality of how tourism works at the local level | 6 |
| Research Objective 3- To evaluate the effectiveness of EGN operations, and compare and contrast each type of EGN. | | | | |
| RQ. 3a | <ul style="list-style-type: none"> What environmental outcomes from the operations of EGN are evident? Based on the applicable parameters, how effective are the two EGNs? | Observation In-depth interview Secondary data textual analysis | <ul style="list-style-type: none"> Triangulation of method in analysing effectiveness prevent bias Secondary data shows the messages sent out by the EGN and public opinion about it Interviews reveal individuals’ views Observations reveal the realities in the field | 7 |
| RQ. 3b | <ul style="list-style-type: none"> What are the perceptions of stakeholders towards the operations, effectiveness and outcomes of these networks? What are the advantages and disadvantages of each type of EGN? | In-depth interview Matrixes of interview result Political Ecology approach | <ul style="list-style-type: none"> Interviews help to develop rapport and trust with stakeholders, to mine more information on their opinion about the EGNs Matrixes help to clarify the findings from the interviews The political ecology approach helps to uncover the reality of how tourism works at the local level | 7 |
| Research Objective 4- To synthesise the perspectives of locals that led to reactions towards tourism development, with particular reference to the influence of socio-cultural dimensions in the two case study areas. | | | | |
| RQ. 4a | <ul style="list-style-type: none"> What are the socio-cultural differences between the two case studies? | Observation In-depth interview | <ul style="list-style-type: none"> Observations help to gather the realities from the operation of EGNs Interviews help to gather information about implicit socio-cultural influences | 8 |
| RQ. 4b | <ul style="list-style-type: none"> How do socio-cultural values affect local’s perspectives and influence the reactions of locals towards tourism development in the two case study areas? | Observation In-depth interview | <ul style="list-style-type: none"> Observations help to gather the facts from the case studies Interviews help to compare and contrast the two EGNs | 8 |

Figure 1. Investigation flowchart



1.5. Scope and Limitations of the Research

The author is aware that other terms, such as small island tourism economics (SITE) and small island developing states (SIDS), are sometimes used to describe similar object conditions. The former has an emphasis on economic growth in small islands where tourism is the main income earner (Shareef and Hoti 2005). Meanwhile, the latter is a more formalised term, referring to governmental authority over countries and territories. 'SIDS' is particularly complex because it refers to a heterogeneous group, some of which are not 'small', 'islands', 'developing' or 'states' (Wong 2011).

From a tourism planning perspective at the local and regional level, the trend to eliminate the use of intermediaries by instigating transactions directly with consumers has challenged the role of traditional tourism planning hierarchies, and has seen the emergence of the 'destination' as a network of tourism-related businesses and stakeholders (King and Pearlman 2009). This investigation extends beyond economic growth and traditional tourism planning hierarchies. It is not focused on developing states, but on small islands as developing destinations in their capacity as sub-units of a developing state. On this basis, the term 'SIDDD' is used throughout the current thesis and describes small island tourism destinations that are in the process of development within developing country settings.

It was initially the researcher's intention to conduct a more extensive research project involving larger subjects such as a cluster of islands and/or bigger islands. However, it quickly became evident that the researcher should acknowledge some opportunities and constraints. His familiarity with Bahasa Indonesia provided an opportunity to access sources of information and a wider range of subjects, while the constraints of time and the need for cost-effectiveness led to the choice of two smaller islands within the Indonesian Archipelago as the case study sites.

The researcher deliberately chose two islands that exemplify the two types of EGN. Gili Trawangan Island is located in the north-west of Lombok Island. Nusa Lembongan Island is to the south-east of Bali Island. Apart from broad similarities in terms of geographical location, dimensions, prevailing tourism activities and level of tourism development, the selected case studies differ in their involvement of local government

interventions in the management of tourism, and most importantly in their type of EGN. Significant religious influences and socio-cultural differences were also evident. The inhabitants of Gili Trawangan Island are predominantly Muslim, whereas Nusa Lembongan Island is mostly Hindu. Though not directly influential in the selection of the two case studies, such differences provided some interesting contrasts in local–tourist interactions, and ensure that the findings were not highly culture specific.

The fact that the researcher is from Indonesia, a non-native English speaker background, could perhaps hamper the depth and breadth of the English language used throughout this thesis. Nevertheless, the researcher has tried his best in composing this thesis in accordance to the standard of academic writing in British/Australian English.

1.6. Outline of the Thesis

This thesis contains nine chapters plus Appendices. **Chapter 1** starts by briefly introducing the background to the research, its aims, scope and limitations, and its importance both theoretically and practically. The chapter also outlines the research questions, provides a table outlining the research framework and a flowchart of the investigation and a short explanation of the research approach and method adopted.

Chapter 2 positions the research within the wider literature and sets the scene by connecting the global and the local spatial perspectives. The review starts with a discussion of global marine-based tourism development and environmental management. This leads into a review of management practices in small island and developing country settings specifically, comprising economic, environmental, political and social dimensions, with special reference to Indonesia as the case studies locale.

Chapter 3 discusses the relevant literature on coastal and environmental management from a political science perspective, specifically around organisational dimensions. The chapter aims to understand the nature and characteristics of EGNs, including their design and dynamics. The chapter starts by introducing the research setting using a political ecology approach to SIDD governance. The review then explains relevant theories on stakeholders, governance and networks. Following this, the application of

governance networks for environmental conservation purposes, their design and their dynamics are discussed. This leads to consideration about EGN effectiveness.

Chapter 4 starts by restating the purpose and nature of the study, before considering the appropriate research design and the reason behind the choice of qualitative methods and selection of case studies. The chapter also explores the development of the research tool, describes the steps of the data collection process and considers the ethics of the research. The data analysis process is then explained, followed by comments on the reliability and validity of the research.

Chapter 5 starts by outlining the relevant theories and concepts relevant to the operation of EGN in SIDD settings. Then, they are put together into a proposed conceptual framework for the analysis of EGNs operations. The chapter closes with an explanation on the applications of the proposed conceptual framework.

Chapter 6 starts by describing operations of the two EGNs in case studies. Drawing from the data analysis, this chapter explains the characteristics of the EGNs, and identifies the key stakeholders and the power relations between them. Based on the findings of the research, the proposed conceptual framework is then applied to compare and contrast the EGNs in the two case study areas.

Chapter 7 employs the parameters of effectiveness to discuss the EGNs. The environmental outcomes of the EGN operations and the stakeholders' perceptions of the EGNs are considered, as are the effects of local government involvement. The chapter concludes with discussion about the dilemma of balancing action with regulatory compliance.

Chapter 8 synthesises the local perspectives and reactions towards tourism development in the two case study areas. It starts with an investigation of the socio-cultural differences between the two case study areas. It then synthesise how the locals' perspective, which led to reactions towards tourism development in each case, are influenced by their socio-cultural values and backgrounds. The outcome of the chapter is a synthesis of these differences, highlighting the need for EGN initiatives and tourism-related stakeholders to formulate their approaches strategically when operating in SIDD settings.

Chapter 9 starts by revisiting the proposed conceptual framework, revising and improving it based on the application on the two case study areas. Then, the thesis concludes by considering the implications for theories of governance networks and on EGNs operating in SIDDs. A number of opportunities for further research are also proposed.

Chapter 2: Marine-based Tourism and the Environment

2.1. Introduction

Chapters 2 and 3 provide a review of the literature relevant to the investigation. Chapter 2 discusses the relevant literature on coastal and environmental management from a marine-based tourism perspective. This approach positions the research within the wider literature and brings together the spatial perspective within the wider ocean and coastal management literatures specific to small island developing destination (SIDDD) settings. Chapter 3 then discusses the relevant literature on coastal and environmental management from the perspective of the political science literature, and specifically on concepts relevant to Environmental Governance Networks (EGNs).

A range of activities are considered within the ocean and coastal management literature including international trade, shipping and navigation, offshore mining, aquaculture and commercial fisheries, conservation, tourism and recreation. The aspects that are of particular relevance in the tourism and recreation component to this study include marine-based tourism, coastal management, policy and planning development, impacts of tourism, environmental management and marine protected areas (MPAs). The chapter provides context for the study by reviewing the relevant literature on marine-based tourism and environmental management issues and practices, with a focus on SIDDD settings.

2.2. Marine-based Tourism

Defining marine-based tourism is challenging because it must encompass a variety of activities, tourist types and geographical locations. Labelling it simply as ‘marine tourism’ is problematic because the related activities occur not only in marine or ocean environments, but also in coastal areas. In some cases, the activities may occur inland, far from the ocean. In dealing with this issue, Miller (1993) opted for the term ‘coastal and marine tourism’. Likewise, Hall (2001) used the term ‘ocean and coastal tourism’. However, Orams (1999, p. 9) used the shorter term ‘marine tourism’ and extended his definition to include shore and land-based activities:

Marine tourism includes those recreational activities that involve travel away from one's place of residence and which have their host or focus on the marine environment (where the marine environment is defined as those waters which are saline and tide affected).

Though the activity occurs in different forms outside marine environments, the focus or attraction of the tourism and recreation activities in context are still typically marine-based. The present investigation uses the phrase 'marine-based tourism' to describe this segment of tourism. The phrase is suitable for this research because it acknowledges the extended scope of marine-based tourism activities.

Although humans have engaged with coastal areas for many centuries, marine-based tourism has significantly transformed coastlines over recent decades (Miller and Auyong 1991). Marine-based tourism has become the fastest growing sector of the tourism industry (Luck 2008). Works dating back to the 1990s (Orams 1999; Kim and Kim 1996; Miller and Auyong 1991) agree that the marine-based tourism industry has a strong inclination towards quick and constant development. This is particularly true in light of the development of transportation business models, technologies and recreational specific equipment that have expanded leisure activities far beyond coastal resorts and beaches. Developments in low-cost airline carriers (LCCs), cruise shipping, submarines and self-contained underwater breathing apparatus (SCUBA) equipment, for example, have allowed humans to explore planet earth, its island and oceans, and even to visit areas of the remote and previously inaccessible marine arctic (Higham and Luck 2008). On this basis, cruise tourism, diving tourism, recreational boating and the increasing ease of travel should also be considered when discussing marine-based tourism.

Due to the diversity of marine-based tourism, it is difficult to estimate the exact total size of the phenomenon. Nevertheless, Diakomihalis (2007) stated that in 2005 the world's maritime tourism market was worth an estimated €174 billion, which is 10.5% of total tourism expenditure. This does not include all tourism activities occurring in coastal regions (Diakomihalis 2007, p. 421).

As a sub-sector of marine-based tourism, dive tourism alone has recorded substantial growth. A quote attributed to the Professional Association of Diving Instructors (PADI) in Garrod and Gossling (2008, pp. 7–8) estimating that in 2000 there were over 10 million active divers worldwide, growing to around 28 million by 2008. This is substantial growth considering that diving has existed as a recreational activity for the past 79 years (Garrod and Gossling 2008, p. 3). As noted by Barron and Greenwood (2006), the cruise industry has also recorded growth. In 2004, this sector attracted more than 12 million tourists. Recreational boating has also joined the trend, with Australia recording a 36.4% increase in boat ownership to 803,788 in 2009 (from 589,346 in 1999) (Burgin and Hardiman 2011, p. 685). The Bay of Palma in Mallorca, Spain recorded 324,522 recreational boaters in 2008, generating more than €537 million to the local economy (Balaguer et al. 2011, p. 243).

Watching wildlife from viewing platforms has increased in popularity since the 1980s alongside a growing appreciation for marine wildlife experiences (Higham and Luck 2008). Marine animals such as whales, seals, dolphins, sharks, polar bears and penguins have become the main attractions for many destinations, and the numbers of tourists seeking these experiences continue to grow. Hoyt (2001) quoted in Forestell (2008, p. 275) estimated that from its introduction as a marine-based activity in the 1950s, the number of people participating in whale watching internationally was more than 10 million by 2000.

As a variation on the established airline business model, LCC have made a substantial contribution to this growth in visitation by reducing the cost of accessing previously high-cost destinations (Song 2009). In 2010, the output of the United States' (US) LCC market was 5,678 million available seat kilometres (ASKs), which was higher than Europe's 5,114 million ASKs. The volume continues to increase, despite predicted market saturation (de Wit and Zuidberg 2012). The growth of LCCs is particularly interesting from the island and archipelago destination perspective in the Asia Pacific because air travel is generally the most efficient provider of access to this region. Moreover, Southeast Asian markets such as Malaysia, Thailand, Singapore, Indonesia and Indochina are 'predominantly promoting their marine/beach tourism' (Song 2009,

p. 2). On this basis, LCCs have become a major contributor to the growth of marine-based tourism.

Globally there has been a pronounced trend away from packaged tours towards more independent travel, and this has generated a heightened awareness of the need for accurate and reliable information about destinations. The development of travel guidebooks helped to address this need and promoted more travel to previously unknown island destinations across the Asia Pacific region, as well as minimising the risks associated with independent travel (Osti 2007). Lonely Planet is a prominent guidebook producer from the perspective of island destinations in Southeast Asia because its comprehensive range of information assists travellers to be better informed when visiting previously unknown marine-based tourist destinations such as secluded beaches and remote islands. Lonely Planet's 'Across Asia on the Cheap' and 'South-East Asia on a Shoestring' for example, were published in the mid-1970s and have provided comprehensive coverage of developing island destinations in Thailand, Malaysia and Indonesia (Wheeler 2010). Lonely Planet's 2009 edition of 'Bali and Lombok' (Ver Berkmoes, Skolnick and Carroll 2009) contained comprehensive sections on Nusa Lembongan Island and Gili Trawangan Island, and has proven to be a valuable source of information during the fieldwork component of this research. It is evident that the development of travel guidebooks has been a contributor to the growth of marine-based tourism.

The discussion above indicates that marine-based tourism has developed substantially over recent years, both in scale and in variety of activities. The following section discusses managing such developments from an environmental perspective.

2.3. Environmental Management

Researchers have been discussing the relationship between tourism development and environmental conservation for many decades. Academic journals have been established to specifically target this topic, including the *Journal of Sustainable Tourism*, which addresses the issue of how tourism affects environmental, society and traditional cultures (Bramwell and Lane 2012). Though there is a substantial literature on the

interrelationship between tourism and the environment, much of the published research is based on fieldwork undertaken in developed countries.

An early mention of environmental issues from a tourism perspective was Sir George Young's book, 'Tourism: blessing or blight?' (1973), which sparked both negative (Greenberg 1974) and positive (Stansfield 1975) reviews and discussion about controls over the development of tourism and its impacts, including on the environment. In preparing the present chapter some four decades later, it is noted that a seminal study on this topic is Buckley's (2012) article on research and reality in sustainable tourism. His article is critical of tourism industry practices and concludes that the industry is far from achieving sustainability because of the huge gap between the research findings about sustainable tourism and their application in the field (Buckley 2012). Despite the upbeat commentary from economists about the growth of tourism, the literature is replete with concerns about marine-based tourism from an environmental perspective. Such views have been well canvassed in thousands of relevant papers (Buckley 2012, p. 529). The present researcher acknowledges this substantial body of evidence, since it is important to challenge the practices of the tourism sector and pose challenging questions. Nevertheless, 'Tourism reassessed: blight or blessing?', Frances Brown's (1998) reassessment of Young's 1973 publication, offers a more balanced view of the effects of the tourism industry by critiquing the one-sidedness that is prevalent in the tourism literature towards highlighting the negative effects of the industry. Brown's book avoids the dichotomy of judging tourism as sustainable or not. Instead, it examines both the positive and negative effects of tourism, from the economic and political perspectives, as well as from an environmental point of view. This is wise, given that tourism can transform local communities in a positive way, improve living standards and quality of life, and develop new employment and educational opportunities along with international understanding (Dodds, Graci and Holmes 2010). This more holistic and interdisciplinary approach allows for a more open-minded perspective when viewing the interrelationship between marine-based tourism and the environment.

The issues associated with negative tourism impacts are continuing and growing globally, especially from the environmental management perspective. Williams and Ponsford (2009) explained the tourism resource paradox, in which sustained

competitiveness can only occur when the consumption of environmental resources for tourism experiences runs parallel with the protection of ecological integrity. On the one hand, tourism industry development requires an array of infrastructure, consumes natural resources, and generates waste. However, much of this development occurs in environmentally delicate areas, with coastal areas among the most popular.

The paradox is alarming considering the changing land use patterns, whereby large parcels of agricultural land and natural coastal forests are converted into tourism-related infrastructure such as hotels, service buildings, settlements, roads and airports. The literature includes discussion of such development in locations such as Australia (Hardiman and Burgin 2010), Turkey (Atik, Altan and Artar 2010), Spain (Balaguer et al. 2011; Yepes and Medina 2005; Otto, Krüsi and Kienast 2007) and Southeast Asia (Wong 1998).

Another issue concerns the availability of fresh water, which is not only one of the core ingredients of the tourism industry, but also a critical factor for human life and environmental sustainability. Taking the example of the island of Bali in Indonesia, 80% of Bali's economy depends on the tourism industry, which consumes 65% of its water. Uncontrolled tourism industry development on the island is causing water inequity, social conflict and environmental problems. Over-use of ground water by the tourism industry is causing a 'falling water table, salt water intrusion, land subsidence and deteriorating water quality' (Cole 2012, p. 1234). This has primarily occurred in the south (Badung Regency), where most tourism occurs and where the focus is on marine-based tourism and resort-style developments. Exacerbating these factors, there is no effective system of water management, with the traditional 'subak' system paralysed by changes in land use and political interventions in the regulatory environment (MacRae and Arthawiguna 2011). The relationship between fresh water availability and tourism is also a growing concern in other jurisdictions such as Australia (Crase, O'Keefe and Horwitz 2010) and countries along the Mediterranean littoral (Deyà Tortella and Tirado 2011; Rico-Amoros, Olcina-Cantos and Sauri 2009).

Concern also exists on the effects of marine-based tourism on coral reef ecosystems. These effects include damage from boats anchoring on coral reefs, boats in shallower areas, floating platforms, tourists trampling, snorkelling and diving on reefs, and

chemical runoff and waste produced by tourism establishments (Murray 2007; Burke, Selig and Spalding 2002). Destructive fishing practices and the extraction of organisms from coral reef ecosystems for souvenirs and handicrafts, marine aquariums and building purposes have also had a negative impact on reefs (Moberg and Folke 1999). Although marine-based tourism is not the main threat to coral reefs, it has participated in the further degradation of an already threatened ecosystem (Burke, Selig and Spalding 2002). Specifically, studies have shown that coastal and marine environments can be negatively impacted by pollution attributable to tourism activities such as wildlife watching (Haden 2007; Worachananant et al. 2008; Garrod and Gossling 2008), cruise tourism (Borch 2010; Chen 2010; Pinheiro, Joyeux and Martins 2010), dive tourism (Worachananant et al. 2008), recreational fishing (Borch 2010) and recreational boating (Burgin and Hardiman 2011).

A variety of environmental management strategies have been, or are being, developed in response to these environmental concerns. More extreme approaches include prohibiting all man-made activities in an area until the environment recovers. However, this brings the risk of interfering with the human rights of an area's indigenous population, who have a history of occupying the area. From an ethnopedology perspective, indigenous residents have maintained the island environment for generations and possess valuable local knowledge about island-specific environmental management. On this basis, it would be unfair to prohibit all land access (Barrera-Bassols and Zinck 2003).

The study and management of sustainable tourism has progressed to a more expansive view of tourism systems, acknowledging the need for 'joint management' between relevant stakeholders such as 'tourism, local government, ecosystem ecologists, NGOs, [and] local residents' (Farrell and Twining-Ward 2005, p. 117). Williams and Ponsford (2009, p. 396) argued that a 'more collective and vision-oriented approach to tourism industry planning is needed to address broader and more pervasive environmental and sustainability challenges'. Soisalon-Soininen and Lindroth (2006) explained the importance of stakeholder collaborations within tourism networks, especially in combining their resources to enhance destination image. Thus, the current view is that effective environmental conservation in SIDD settings needs collaboration between relevant stakeholders.

Establishing MPAs is a widely applied strategy of space management, the effective implementation of which requires collaboration and the participation of government agencies, the local community and other stakeholders (National Research Council 2001, p. 4). This less-extreme strategy attempts to conserve the environment, while accommodating activities such as fisheries and tourism and recreation. MPA comes in many forms, such as marine parks, marine reserves and sanctuaries, and has been established in many countries over the past few decades (Hoyt 2004). Glacier Bay in Alaska was the first MPA to be established (in 1925), and since the 1990s, the number has grown substantially (Hoyt 2004). Little specific data is however available about the number of MPAs and the proportion of the world's marine areas that is protected by MPAs (Jentoft et al. 2012).

In explaining the drivers behind the formation of MPAs, Oracion, Miller and Christie (2005, p. 395) identified three conservation foundations; namely, extractive conservation (the need to harvest natural resources); aesthetic conservation (the need for environmental appreciation); and biotic conservation (the need for management to leave nature alone). MPAs usually include land and ocean zoning by the relevant authority, thereby limiting human activities to its designated function within each zone. This approach designates specific areas of the marine environment as protected for ecological preservation purposes or sanctuary zones, while also recognising the financial needs of coastal communities by maintaining the productivity of economic activities such as fisheries and tourism activities that effect local livelihoods (Burgin and Hardiman 2011; Hardiman and Burgin 2010; Murray 2007; Northcote and Macbeth 2008; Vignon et al. 2010; Kerr 2005). Sanctuary zones may have short-term negative effects on financial returns, such as a loss in tourism revenue resulting from a downturn in visitor segments associated with recreational activities that are previously popular in that areas. As argued by Northcote and Macbeth (2008, p. 13), '*...such a loss is more than compensated for by the gains in environmental protection and non-extractive based visitation (e.g. eco-tourists and international sightseers) that such protection sustains, which is vital for tourism in the long-term*'. MPAs in Australia have generated significant conservation benefits such as the renowned World Heritage Area of Great Barrier Reef Marine Park in Queensland (GBRMPA 2014), and Ningaloo Marine Park in Western Australia (Northcote and Macbeth 2008).

However well-intentioned and justified an ocean and coastal management strategy might be, it can quickly become controversial if it is not embraced by the totality of stakeholders in an area. This is particularly true in the case of MPAs (Oracion, Miller and Christie 2005). With their many resource related attributes, coastal zones are usually already crowded with public and private interests. Stakeholders may also come into clash because of dissatisfaction about the formation and ongoing decision-making of a particular MPA (Chang, Hwung and Chuang 2012). In Ningaloo Marine Park for example. Although there is no evidence that in the short term expansion of the sanctuary zones had led to any noticeable shift in visitation away from Ningaloo, there is evidence that there has been a moderate disruption of fishing activities that leads to dissatisfaction among segments of the local community and visitor market as explained in the findings of Northcote and Macbeth (2008, p. 33) that among local residents *'...over half of respondents (54.5%) were generally unhappy with the sanctuary zone changes and 57.6% felt that the activities of themselves or household members would be (or had been) affected, with some being forced to shift their boat fishing and cray diving activities'*.

On this basis, whatever strategies and actions are adopted need to be embraced by a range of stakeholders, including individuals, groups, businesses and organisations at the operational level (Kelly, Essex and Glegg 2012). This also means recognising the rights of the local Indigenous population. Great Barrier Reef Marine Protected Areas for example. The region's Indigenous heritage values are acknowledged and protected in the form of 'traditional hunting rights', which is not the same with commercial fishing rights. This right is very important for the Traditional Owners' ability to catch food and maintain their cultural practice, lore and custom, and sites particular cultural significance (GBRMPA 2014, p. 128).

This research considers the applicability of co-governance and stakeholder networks within the context of environmental management strategy. The relevant organisational dimensions will be further discussed in Chapter 3. The development of marine-based tourism and the associated environmental challenges are also a feature of and rising concern in small island settings. This is discussed in the following section.

2.4. Small Island Settings

There is growing interest in the literature about ‘island tourism’ and ‘sustainable tourism’ as research topics. There have been several edited books on this topic, including by Carlsen and Butler’s (2011b) *Island Tourism: A Sustainable Perspective*, Apostolopoulos and Gayle’s (2001) *Island Tourism and Sustainable Development: Caribbean, Pacific, and Mediterranean Experiences* and Briguglio et al.’s (1996) *Sustainable Tourism in Islands and Small States Issues and Policies*. While these have provided insights into the topic from different perspectives, the authors agree about the need for more research regarding sustainable island tourism. On this basis, further research on the island settings is suggested.

Although the research questions investigated by this study focus on the sustainability of an island’s physical environment, one cannot discuss small island settings without a holistic consideration of their economic, social and political outlooks (Butler and Carlsen 2011). This is because the insularity of islands makes the applicable parameters strongly interconnected (Carlsen and Butler 2011a). Carlsen (1998) proposed a systems thinking in understanding the complex ecosystems of ecologically sustainable development of tourism (ESDT). This systems thinking includes a more holistic view of examining the ‘links between social, cultural environmental, economic and political dimensions of tourism’ (Carlsen 1998, p. 1), which is in opposite of the reductionist perspective of narrow trichotomic partial focus only in observable tourism impacts of economic, social, and ecological sustainability (Carlsen 2012).

Small islands, especially those located in tropical climate areas, possess characteristics that are particularly appealing for tourism and leisure activities; that is, they possess natural beauty, an exotic character and white sandy beaches (Archer, Jafari and Wall 1996; Carlsen 2012). The western-perspective derived image of tropical islands as a paradise on earth has been nurtured for centuries through novels, songs and paintings (King 1997). As a result, many tropical islands have developed substantial tourist industries by exploiting their natural advantages and social characteristics (Butler and Carlsen 2011). Islands in the Caribbean, the South Pacific and Southeast Asia have enjoyed their status as well-known tourist attractions, and in many cases, their

economies have come to rely heavily on tourism-related income (Briguglio et al. 1996). At the same time, the social fabric and local culture of a small island can be undesirably affected by tourist behaviour (Coomansingh 2011). The dilemma faced by many small island destinations comes in weighing the economic gain of tourism activity against the preservation of the physical environment and culture of the host island (Hampton 1998). However, the application of strategies to conserve the environment in small island settings is not straightforward due to various considerations, discussed below.

Firstly, there is significant potential for conflict between stakeholders in small island settings. As explained by Carlsen and Butler (2011a, p. 2), in many cases, the development of island tourism may exploit and destroy the already fragile living cultures and traditional ways of life. The small dimensions of many islands bring unique social cohesion arrangements, swift information flow among stakeholders and strong competition for island resources. On this basis, the impacts of strategic decisions are experienced collectively. Although this brings results in easier communication with the totality of stakeholders, dissatisfaction from minority groups can spread easily and generate dissent; potentially sabotaging decision-making and the implementation of strategies (Chang, Hwung and Chuang 2012). To adopt a strategy successfully, it is important to understand the characteristics of the problem to be overcome, to incorporate local stakeholder interests and to understand the tensions within local power relations (Kelly, Essex and Glegg 2012). Local stakeholders can become an essential source of inside knowledge that potentially contributes to the quality of an environmental management plan. Therefore, the formulation of a successful environmental management strategies in small island settings require not only government support, but also participation from local stakeholders to reduce possible misunderstandings and to increase public recognition of consensus about the management plan (Chang, Hwung and Chuang 2012). In addition to hierarchical top-down management, bottom-up participatory management should also be considered. This requires substantial effort and a crisis management plan by the facilitator (Fallon 2004; Cushnahan 2004). As Salazar (2012) explained, real consensus and true local control is not always possible, practical or even desired by some communities. With reference to the two SIDD case studies employed in this research, the dynamic

relationship between island stakeholders and the journey towards a compromised consensus will be interesting to analyse.

The second consideration when applying environmental management strategies in small island settings is that small islands are economically vulnerable (Carlsen and Butler 2011a, pp. 1, 2). Tourism plays a central role in the economic portfolio of many small islands, and related income can account for a significant proportion of export earnings (Kerr 2005). Where tourism dominated, other significant sources of foreign exchange are often absent because of limited land mass and natural resources, and transport and communication problems associated with insularity and inaccessibility (Shareef and Hoti 2005). An absence of economic diversification creates conditions of economic vulnerability where a single external shock or event impacting the tourism industry can easily handicap an island's economy (Shareef and Hoti 2005). Many of the tourist attractions offered by island destinations are small scale and reliant on natural attributes—such as beaches, mountains and lakes—or cultural appeal—such as traditional arts and religious ceremonies. Problems occur when these natural and social attributes are stressed and break down as a result of mass tourist arrivals (Briguglio 1995). This over-reliance on natural and social characteristics as tourist attractions and as revenue earners, and the need to conserve them, has generated considerable debate about sustainable tourism (Weaver 2001).

As part of this issue, the glamour associated with tourism-related work has attracted many to leave their previous sources of livelihood and jump into tourism, resulting in an economic mono-culture (Cole 2012). Although manufacturing and agriculture also provide opportunities for small island economies, the cost of transporting goods, the low image of traditional peasantry as occupations, small internal markets, and the limited availability of land made it very difficult for small island destinations to exploit economies of scale and achieve competitiveness (Archer et al. 1996). Since small islands have limited natural resources, they often rely heavily on imports. Much of the income attributable to tourism is spent on imported goods (Briguglio 1995). Tourists demand has made imports even more imperative, but has also generated the income to pay for those goods and services, and provided higher standards of living than would have been possible without tourism (Hampton and Hampton 2009). Therefore, adopting

a strategy of environmental conservation should avoid unnecessarily impinging on the sources of livelihood of the island's inhabitants. The two case studies in this research provide for discussion on the coexistence of a vulnerable economy and fragile environment in SIDD settings.

Thirdly, the potential effects of climate change on small island destinations need to be considered (Carlsen and Butler 2011a, p. 5). Many small island destinations depend on coastal tourism for their economic development (Orams 1999). Yet, coastal areas are highly exposed to the two main effects of climate change; namely, extreme climate events and rising sea-level (Lipman et al. 2012). These challenges worsen the carrying capacity of these often already highly populated areas (Moreno and Becken 2009). The threats posed by rising sea levels, tropical storms, flooding and erosion on oceanic shorelines are the physical effects of climate change that should be considered (Lipman et al. 2012). Rising sea levels could have catastrophic consequences for coastal resorts, reducing the island's landmass through erosion process, or even obliterating some small islands (Bird 1993). Tropical storms may threaten coastal infrastructures due to storm and flood related damage, and fresh water supplies could be at risk because of rising seawater levels and salt water intrusion in the form of the salinisation of river mouths and the permeation of underground water tables by seawater (Wall 1996).

Small islands also lack the capacity for climate change adaptation, hindering efforts towards sustainable tourism activities from economic, social and environmental perspectives (Moreno and Becken 2009). Therefore, from the behavioural perspective, it is important to understand the civic engagement and pedagogic actions needed before formulating tailored climate change adaptation and environmental management strategies (Jamal and Watt 2011; Jopp 2012; Lipman et al. 2012). The Maldives offer an interesting albeit extreme case study on this issue, with 80% of its land area being less than a meter above sea level, and thus threatened by inundation by seawater. A strong response from the Maldivian government and people has resulted in a strong commitment to effective local sustainable practices (Becken, Hay and Espiner 2011).

Fourthly, tourist perceptions towards the environment and environmental management strategies should be considered. The small size of islands means easy access for tourists to all areas of that island. Tourists can see what is happening to the environment. An

environmental conservation strategy might be effective, but if it is not also aesthetically pleasing for tourists, they could develop a negative image of the island (Dodds, Graci and Holmes 2010). Conversely, where carefully formulated strategy creates positive perceptions, the tourists may themselves become a source of ideas, inputs (Fathilah, King and Ihalanayake 2011), and even fund for the strategy (Curran 2010).

Finally, monitoring and control is essential. Ideally, government should be encouraged to provide practical standards, clear regulations and tough law enforcement for tourism-related activities (Butler and Carlsen 2011). However, often the development of marine-based tourism especially in small island destinations takes place within developing country settings where government lack knowledge and capabilities (Brown 2012; Murray 2007). The following section discusses developing country settings further.

2.5. Developing Country Settings

The definition of ‘developing countries’ is contested within the literature, and the term ‘developing countries’, ‘less-developed countries’ and ‘third world countries’ are used interchangeably. As noted by Tosun (2000), changes in Eastern Europe have transformed geopolitics by rendering the term ‘third world’ redundant now that the ‘second world’ socialist economies no longer exist. The term ‘developing’ offers greater promise by suggesting a process towards higher standards in the future, compared with the phrase ‘less-developed’, which implies a currently deficient state of under-development. Even though it may be regarded as over-generalised, the term ‘developing country’ is used for the purposes of the present research. Tosun (2000, p. 618) adopted the following definition, albeit a simple and over-generalised statement: ‘developing countries ... refer to Asian, Latin American and the former second world countries to distinguish them from the economically advanced “capitalist democratic” countries’.

The nexus between marine-based tourism and environmental management is becoming increasingly complex, including in developing country settings. On the one hand, it is well documented that tourism provides a livelihood for local populations. However, the failures and incapacities of governments and the pitfalls of tourism development have been widely noted. It is noteworthy that developing countries have commonly been characterised as deficient in the practice of good governance and law enforcement,

resulting in endemic corruption and money-oriented politics (Pakdel, Damirchi and Gholizadeh 2012). Political instability and other socio-economic issues have frequently demoted issues of environmental governance and tourism management down the government priority list in developing countries.

After the fall of Indonesia's Suharto regime in 1998, great hopes were held for advances in good governance, to improve the socio-economic situation and living standards across the archipelago (Soesastro, Smith and Ling 2002). The introduction of Laws Number 22 and 25 in 1999, subsequently revised by Laws Number 32 and 33 in 2004, on decentralisation and regional autonomy promised a move towards the devolution of power, with greater local government autonomy (Holtzappel and Ramstedt 2009). However, subsequent failures by successive presidents and cabinets to perform good governance have shown the vulnerability of young democracies (McLeod and MacIntyre 2007).

Further, after the decentralisation of power and granting of regional autonomy, many regional governments proved incapable of implementing the central government's pro-development policies (Pepinsky and Wihardja 2011). This caused instability in the pursuit of political survival and endless conflicts about legitimacy. The distribution of power within communities is frequently dominated by incumbent political factions, wealthy conglomerates and leaders of religious groups (Ramage 2007; Manjunatha 1998). Parts of the Indonesian Archipelago have even questioned the benefits of integration within the Republic (Chauvel 2009). Indonesia's serious socio-political and economic challenges dominate government attention, with little available time remaining for issues such as environmental management and tourism governance. In referring to managing the negative social and environmental consequences of tourism, Cochrane (2009, p. 269) concluded that a 'robust regulatory framework supported by strong political will ... has not been created in Indonesia'.

According to Ramage (2007), both the Indonesian government and civil society have been focusing intently since 1998 on political reform and decentralisation with a view to preventing the return of another authoritarian president to power, and to consolidate the process of democracy. This emphasis on democracy has yielded positive results such as freer and fairer elections (Ramage 2007), a relatively stable political climate, a rising

profile internationally and freedom of the press (Mietzner 2012). Nevertheless, Barton (2008, p. 140), drawing upon the report *Governance Matters 2007: Worldwide governance indicators, 1996–2006*, explained that ‘of the six major indicators measured, Indonesia has declined on five when 2006 figures are compared with those for 1996’. The five indicators on which Indonesia’s score has declined are Government Effectiveness, Regulatory Quality, Rule of Law, Control of Corruption and Political Stability and Absence of Violence. The only indicator on which Indonesia’s score increased was Voice and Accountability.

From an economic perspective, one might also argue that Indonesia’s macroeconomic indicators are strong and showing good and consistent growth. However, Mietzner (2012, p. 126) has argued the opposite, pointing to the high number of poor and unemployed Indonesians (12.5% and 6.6%, respectively, of the 240 million inhabitants in 2011), and also discrepancies between the ‘government’s statistical frontage and the reality on the ground’. Thus, despite all the efforts made in pursuit of democratic consolidation, Indonesia continues to fare badly in terms of good governance.

As discussed in the literature, marine-based tourism can be a vital agent of change for socio-economic progress in developing countries, and especially in SIDD settings. It can facilitate employment creation, income generation, infrastructure, increased living standards, industry diversification and understanding about people from other cultures (Briguglio 1995; Huybers 2007; Lea 1993; Neto 2003). As early as the 1970s, various journal articles recognised the benefits of tourism for the developing country economies (Sadler and Archer 1975). This was confirmed by a recent United Nations World Tourism Organization (UNWTO) report launched at the United Nations Conference on Sustainable Tourism Development (RIO+20), which confirmed that tourism is a vital source of job opportunities, livelihood, foreign exchange and growth for developing countries (UNWTO 2012). The report also stated that international tourist visitation to SIDS ‘has increased by over 12 million in the last decade, to reach 41 million in 2011’ (Karantzavelou 2012). Hence, tourism is important for developing countries in general, and for SIDD settings in particular.

Despite the prospective benefits, researchers have identified a number of pitfalls of tourism development in developing countries. Brohman (1996) has highlighted the

prevalence of inequality in the distribution of tourism benefits, environmental degradation and loss of cultural identities. He also explained that the substantial presence of foreign investors could lead to international leakages and to control of the local tourism industry by foreign powers. Similarly, Sinclair (1998) explained the potential loss of benefits because of unhealthy competition on the supply side, where local businesses lack bargaining power relative to their foreign competitors. This view has been confirmed by Cleverdon and Kalisch (2000) and also by Sasidharan, Sirakaya and Kerstetter (2002), who have drawn attention to the concepts of 'fair trade' and 'tourism eco-labels', with an emphasis on small-scale tourism, poverty alleviation, elimination of intermediaries and the enhancement of bargaining power for local tourism operators. It has also been noted that strong tourism growth in developing countries can lead to over-dependence on tourism incomes as the provider of livelihoods in SIDD settings. Tourism is a very sensitive industry, and un-diversified tourism-dependent local economies have the potential to suffer greatly in times of low tourist arrivals (Shareef and Hoti 2005).

As explained in Laws, Prideaux and Chon (2007), natural disasters such as the 2004 Boxing Day tsunamis in the Indian Ocean, or man-made disasters such as the 2002 and 2005 Bali Bombings, can significantly diminish tourism demand for a particular destination, with the affect touching almost every sector in the case of un-diversified tourism-reliant economies, which most SIDDs are. There is an expanding literature on crisis management (for example, Mansfeld and Pizam 2006; Laws, Prideaux and Chon 2007), with a focus on crisis response and mitigation. Tarlow (2009) has also examined the influence of safety and security in tourism. Meanwhile questions are still being asked from a socio-cultural and environmental perspective about the risks associated with tourism development and whether the term 'sustainable tourism' is an oxymoron (Huybers 2007). Although tourism development can support the maintenance of local cultures and ways of life, it can also lead to demonstration effects. As explained by Fisher (2004, re-visiting Jafari 1974, pp. 439–440), demonstration effects arising from host–tourist interactions are difficult to isolate from other factors such as information technology, but may be de-constructed into 'exact imitation, deliberately inexact imitation, accidental inexact imitation, and social learning'. The effect is likely to be

strongest in developing countries because of the larger economic and cultural gap between tourists and hosts (Jafari 1974).

Picard (2008, p. 155) provided another perspective, arguing that in Bali, tourism ‘neither polluted the culture ... nor entailed its renaissance’. He believed that tourism helps the dialogic construction of local identity, through identification by the locals that they have a culture that is precious but perishable. It will thus be instructive to include a socio-cultural affect component within the present study of marine-based tourism in the two SIDD case studies.

Sections 2.2 and 2.3 on environmental management and small island settings have discussed the development of marine-based tourism from an environmental perspective. However, to evaluate the contribution of tourism to environmental management, it is necessary to explore this issue again in relation to developing country settings, where polarised views are evident in the literature. Baddeley (2004, p. 57) found that there was a negative relationship between aesthetic environmental quality and the willingness of tourists to pay more for room rentals in Krabi Province, Thailand. He interpreted this finding as leading to a ‘vicious circle of environmental degradation and economic decline’. Conversely, a comparative study by Dodds, Graci and Holmes (2010, p. 215) found that most visitors were willing to pay additional taxes to support environmental protection, amounting to 75% more in the case of Koh Phi Phi Island and 95% more for Gili Trawangan Island. If relevant resources are to be harnessed to ensure the willingness of visitors to protect the environment, it will be important to undertake further research.

Since the term ‘developing country’ was formulated with a view to political-economic parameters, governments in such settings often prioritise economic growth over environmental conservation and social preservation (Dodds and Butler 2009). As noted by Butler and Carlsen (2011, p. 229), governments endeavour to avoid prolonged public dissatisfaction with a view to ‘retaining power and winning re-election’, so this is somewhat predictable. As is evident in many developing countries and young democracies, public dissatisfaction over socio-economic conditions can lead to political instability and even to *coups d'état*. This has occurred in the case of Thailand, the Philippines, Fiji and East Timor (McLeod and MacIntyre 2007). Tourism is often

viewed as a tool for bringing about economic development in the form of poverty alleviation, infrastructure investment attraction, income and foreign exchange generation and decreasing unemployment, thereby enhancing the image of the incumbents (Lea 1993). This is particularly the case in countries that already possess appealing tourist destination characteristics such as a warm climate and scenic coastal areas (Briguglio 1995). Unfortunately, environmental and socio-cultural preservation is set aside through the planning and development process when tourism is viewed as an economic 'quick fix' (Butler and Carlsen 2011).

The importance of government involvement in tourism planning and development in developing countries has long been discussed. For example, Jenkins and Henry (1982) explained the active operational and passive ambience-creation types of government involvement, and argued that in the initial stages of tourism development, the absence of an experienced private sector makes it particularly important for governments to be actively involved. This involvement should gradually decrease with the increasing confidence and experience of the private sector. However, not all governments in developing countries possess the resources and knowledge to fully participate in tourism policymaking and planning (Timothy 1999). Some fail to acknowledge the importance of tourism and view it exclusively as a private sector activity (Tosun and Jenkins 1998). As explained by Tosun (2000), this has prompted a high level of involvement by funding organisations and 'experts' from overseas within the formulation of local tourism planning and design. In explaining the evolution of tourism planning in developing countries, Tosun and Jenkins (1998) have attached a considerable portion of the blame to international funding organisations. They argued that it is inappropriate to adopt developed country approaches when designing tourism plans, and that local tourism planning expertise should be developed to allow thorough modification of the planning process to accommodate local socio-cultural and political-economic circumstances.

Similarly, the literature on tourism planning has also acknowledged the growing importance of local and destination-level tourism planning and management due to the progressive reduction in intermediaries and the growth of direct business-to-consumer transactions. In turn, this could shift tourism planning from vertical-hierarchical

approaches towards a more networked type of horizontal stakeholder inclusiveness (King and Pearlman 2009). A growing literature has advocated the deployment of local inputs, to build collaboration and coordination between the various tourism stakeholders (Moscardo 2011; Timothy and Tosun 2003; Ladkin and Bertramini 2002; Brunnschweiler 2010). The need for knowledge and skill building has also been highlighted in the literature through the suggested mechanisms of guidance, communication and local community education (Chang, Hwung and Chuang 2012; Butler and Carlsen 2011; Mwaipopo, Lange and Breton 2010; Brohman 1996; Timothy 1999; Timothy and Tosun 2003). While local community involvement in tourism planning and development in developing country settings can be constrained by prevailing socio-cultural and economic conditions (Timothy 1999), the community participation approach has a long pedigree (Krippendorf 1982). It offers the prospect of minimising local environmental impacts, increasing socio-cultural understanding and community cohesiveness, and improving living standards through poverty alleviation and 'pro-poor' tourism (Neto 2003; Mitchell and Reid 2001; Brunnschweiler 2010; Brohman 1996).

The prevalent critique in the literature has not advocated eliminating economic growth from the political agenda or halting tourism growth to conserve the environment. Rather, it has rather highlighted the potential for tourism to improve living standards in developing countries through the adoption of a balanced perspective (Darma Putra and Pitana 2010). This involves the incorporation of socio-cultural and environmental preservation alongside economic growth within tourism policymaking and planning. It also involves a move towards more collaborative approaches that include stakeholders in the planning and management of tourism.

2.6. Conclusion

This chapter has discussed the relevant literature on coastal and environmental management from a marine-based tourism perspective. The review has provided context for the research within the wider literature and brings together the spatial perspective within the wider ocean and coastal management literatures specific to SIDD settings.

The next chapter (Chapter 3) will review the relevant literature on coastal and environmental management from a political science perspective, focusing on the organisational dimensions.

Chapter 3: Environmental Governance Networks

3.1. Introduction

This is the second chapter of the literature review. The relevant literature on coastal and environmental management is discussed from a political science perspective, focusing on the organisational dimensions. The chapter aims to understand Environmental Governance Networks (EGNs) based on the literature. It starts by introducing the relevant theories of governance, networks and stakeholders, before further explaining the research setting using a political ecology approach to evaluate small island developing destination (SIDDD) governance. The review then discusses the application of governance networks for environmental conservation purposes, building understanding of EGNs, their design and dynamics, and allowing for discussion of their effectiveness.

The previous chapter discussed the nexus between marine-based tourism and the environment in general, narrowing to the context of small island destinations within developing country settings. As was explained in Chapter 1, the phrase ‘SIDDD’ is employed for the purposes of this research to describe these small islands. This term highlights the characteristics of island smallness and development as tourist destinations, while acknowledging the challenges encountered in developing countries.

3.2. Governance, Networks and Stakeholders

The terms ‘governance’, ‘networks’ and ‘stakeholders’ have been used throughout this literature review. The following section aims to examine the theories that underpin these terms and their application, leading to an understanding of the concept of EGNs.

3.2.1. Governance

According to Laws et al. (2011), the concept of governance has been addressed in many academic disciplines, including the social sciences, politics, psychology, political economy, law, corporate affairs, higher education and tourism. Governance is defined as ‘activities of social, political, and administrative actors that can be seen as purposeful efforts to guide, steer, control, or manage societies’ (Kooiman 1993, p. 2). It is closely associated with the concept of government in its capacity as a form of political unit that

exercises authority (Hall 2008). The concept of 'governance' is broader than 'government', because it occurs at various levels from local to global, and in addition to branches or agencies of government, may involve private firms, local communities and even volunteer groups that acknowledge collective interests and operate collaboratively (Kooiman 2003). Bramwell (2011) explained that governance provides a means to drive collective actions in pursuit of sustainable tourism. Thus, the concept of governance has particular applicability to tourism because of its links with sustainability and the social, economic, cultural and environmental impacts of tourism. Scott et al. (2011, p. 205) concluded that 'tourist destination is a useful context to study governance since it is a cluster of interrelated stakeholders embedded in a social network of community relationships'. For the purposes of the present investigation, governance is viewed as collaborative stakeholder efforts to achieve their mutual aims.

3.2.2. Networks

According to Borgatti and Halgin (2011, p. 1169), a network consists of 'a set of actors or nodes along with a set of ties of a specified type (such as friendship) that link them'. They explained two perspectives behind the identification of a 'network'. From a realist perspective, network relationships are already in existence, and network researchers should select the right research questions in attempting to identify the particular network. In contrast, from a nominalist perspective, the researcher's choice of research question produces its own network, with the question creating the ties between the nodes and thus leading to the creation of the network. Further, the relationships or ties between the nodes may be categorised into two types: state and event. State-type ties occur continuously over time. Meanwhile, event-type ties take place at a specific and limited time (Borgatti and Halgin 2011, p. 1170). Adopting a realist perspective is relevant for the purposes of the present research because network relationships are already in existence and even take the form of organisations with specific names. It is also important to acknowledge state-type ties, since a continuing collaborative effort is needed. The 'network' concept is useful for the purposes of the present research because the interest is not confined to the identification of stakeholders in the two SIDD case studies, but also in the interrelations between them in terms of their power relations,

decision-making processes and the overall dynamics and effectiveness of their operation as EGNs.

Kooiman (2003, pp. 97, 104) explained that of the three modes of governance, most observers think about co-governance when referring to governance. Co-governance means ‘utilising organized forms of interactions for governing purposes’, and may be manifest in five different types of co-arrangement, of which ‘networks’ are one. This view is supported by Svensson, Nordin and Flagestad (2006), who noted that governance can manifest itself through networks. A governance network is defined as a ‘select, persistent, and structured set of autonomous firms (as well as non-profit agencies) engaged in creating products or services based on implicit and open-ended contracts to adapt to environmental contingencies and to coordinate and safeguard exchanges’ (Jones, Hesterly and Borgatti 1997, p. 194). Since a network consists of stakeholders, it may promote capacity building, thus confronting challenges that are frequently encountered within poor communities, stimulating more active involvement by small business entities, community groups and local government authorities (Michael 2007).

The governance network concept is particularly applicable in SIDDs because local governments in such settings often lack relevant management competencies (Dahles and Bras 1999). Even where local governments have a genuine interest in addressing the challenges, they rarely have sufficient resources to reach solutions in SIDD settings (Setiawati 2009b).

3.2.3. Stakeholders

Freeman (1984, p. 94) defined stakeholders as ‘a group or individual who has an interest in the actions of an organization and the ability to influence it’. Stakeholder theory is gaining increasing acceptance among tourism researchers as a means of explaining the organisational dimension of sustainability. The need for ‘joint management’ between relevant stakeholders such as ‘tourism business operators, local government, ecosystem ecologists, NGOs [non-government organisations] and local residents’ is acknowledged in the move towards a system approach in managing tourism development (Farrell and Twining-Ward 2005, p. 117). Soisalon-Soininen and Lindroth (2006) endorsed the shift in approach, noting the important role for collaboration with

stakeholders within tourism networks. Hardy and Beeton (2001) applied the concept of stakeholders to determine the sustainability of tourism development in Queensland, Australia, from the tourism perspective. The study highlighted the importance of understanding stakeholder roles and perceptions in creating sustainable but maintainable tourism business. Pforr (2006) examined the role of stakeholders within policymaking in the Northern Territory, Australia. In particular, he observed the interrelationships between stakeholders and the influencing factors. This research has conveyed the importance of understanding the concept of stakeholders and stakeholder networks within the context of tourism governance.

Tourism development is commonly considered as an improvised process involving a regulatory framework and policy strategy towards achieving development objectives (Miller and Twining-Ward 2005). In several cases, the same stakeholders such as autonomous government-sponsored agencies could be involved in both formulating and implementing the tourism policy. In other cases, stakeholders may only be responsible for formulating policy such as government agencies, and others only in implementation such as Destination Marketing Organisations (DMOs) (Miller and Twining-Ward 2005; Timur and Getz 2008).

In all such cases, the process of tourism development comprises stakeholder identification (Freeman 2010; Parmar et al. 2010), designing and managing tourism-related activities (Araujo and Bramwell 1999; Robson and Robson 1996) and ensuring the effective running of the entire tourism network (Mackellar 2006; Scott, Baggio and Cooper 2008). Timur and Getz (2008, p. 446) stated that combining stakeholder and network theories could provide a useful foundation for 'identifying critical stakeholders in destination development', to find 'whether identified critical stakeholders have existing relationships with the other members of destination networks' and to identify the stakeholders who should lead the formation of tourism stakeholder networks.

According to Timur and Getz (2008), stakeholders are more powerful when they possess more 'attributes'. This is because these 'attributes' are associated with their functional roles within the tourism network and their relationship with actors from other industries that are strongly related to or supportive of tourism industry operations. Granovetter (2005) defined 'attributes' as affiliations among stakeholders and

relationships with third parties comprised of formal or strong ties, or informal or weak ties. Through these affiliations, the objective and subjective perspectives of stakeholders create the structure of network relationships. Power relations and stakeholder knowledge can strongly affect the dynamic of these affiliations within tourism policy networks (Mitchell, Agle and Wood 1997; Clarke, Raffay and Wiltshier 2009). Stakeholders, therefore, both individually and collectively, can exercise their power and legitimacy to drive policy formulation and implementation.

The creation of a stakeholder network does not necessarily guarantee effective tourism development because active participation of members does not always occur. Ladkin and Bertramini (2002, p. 74) explained that tensions of power relations and distribution exist between stakeholders in tourism networks, including in relation to who implements the policy and who takes responsibility for the implications. Mistrust and misperceptions among stakeholders may also be present, motivated by traditions of centralised authority, issues of transparent funding management, lack of consensus about standard operational procedures, the limited expertise of tourism planning authorities, lack of commitment from some stakeholders and lack of long-term strategic planning (Ladkin and Bertramini 2002; Wesley and Pforr 2010). Coleman (1988) explained that network structures created for a specific objective may fail if the structures are seized by other stakeholders.

This section has provided an explanation of the theories relevant to EGNs, which can be summarised as follows:

- ‘Governance’ describes the collective efforts of stakeholders to achieve their mutual aims.
- ‘Network’ describes the stakeholders and their interrelationships, including the power relations between them.
- ‘Stakeholders’ are the subjects or actors involved in the governance.
- ‘Environment’ is the object that is to be governed.

Hence, an EGN may also be viewed as a facilitator between the stakeholders and the environment, and among the stakeholders themselves.

3.3. Political Ecology and SIDD Governance

The term ‘political ecology’ was first used by Frank Thone (1935), but without a specific definition. Eric Wolf (1972) was the first to systematically apply the term, and Paul Robbins (2012) more recently gave it a modern perspective. Political ecology involves the application of methods of political economy in the ecological context, with a basic methodological principle being to conduct an analysis of the relevant actors or key stakeholders (Robbins 2012; Gossling 2003c; Cole 2012). Hence, in an environmental study context, political ecology not only employs the political dimension, but also the implicit dimensions of economy and culture. This perspective has been deemed relevant to the aims of this research, because of the intention to fill a knowledge gap about the operation of collaborative EGNs. Political ecology provides a means of deconstructing and analysing the governance process through joint management involving multiple stakeholders. It also allows for an understanding of governance’s potential contribution to environmentally sustainable marine-based tourism development in SIDD settings.

According to Robbins (2012, pp. 14–22), political ecology is a broad trans-disciplinary approach to human–environmental interactions that discusses inequality, hierarchy and power. It has been used in the fields of anthropology, forestry, development studies, environmental sociology, environmental history and geography. An early definition by Wolf (1972) proposes five dominant narratives; namely, degradation and marginalisation, conservation and control, environmental conflict and exclusion, environmental subjects and identity, and political objects and actors. These narratives have some relevance to this research and to the case studies. More recently, Stonich (1998, p. 28) explained that political ecology ‘attempts to understand how environmental and political forces interact to affect social and environmental changes through the actions of various social actors at different scales’. This also includes the identification of key stakeholders and the power relations between them.

Considering the depth, breadth and trans-disciplinary nature of political ecology, this literature review chapter does not explain the overall complexity of the concept. Instead, it highlights the knowledge and information provided by some examples from the

political ecology literature relevant to SIDD governance, with specific reference to its potential contribution to the research. It draws upon journal articles on political ecology (Cole 2012; Stonich 1998), and Gossling's edited book (2003b) 'Tourism and Development in Tropical Islands: Political Ecology Perspectives'. When referring to 'SIDD governance', this research is not speaking of the administrative arrangements in the particular case study island. Rather, it refers to the complex array of tourism-related stakeholders and their interactions.

The political ecology approach allows researchers to explore the complexity of SIDD, and to investigate and identify the stakeholders involved in the governance. In the research examining the relationship between tourism development, water and environmental health in the Bay Islands, Honduras, Stonich (1998) employed a political ecology approach to identify the various stakeholders ranging from poor locals and grassroots organisations, to the Honduras Government and international investors, and their interrelations. Stonich's investigation revealed the power relations in the Bay Islands, including the winners and losers of tourism development. Specifically her research showed how the actions of powerful national and international stakeholders affect the natural environment, and how poor residents are exposed to environmental health risks. Stonich's research encompassed national and international interests, global economic trends, the role of the state, class and ethnic structures, population growth, water quality and access, land ownership, pollution and the health of poor locals. This example demonstrates how a political ecology approach can help to analyse and understand the details of tourism governance in SIDD settings at the local level, particularly where there is strong intervention by global actors.

Cole (2012) applied a political ecology approach to the water-tourism nexus in Bali, Indonesia. The research uncovered interrelated social, political, cultural and environmental factors which have caused a water scarcity crisis. The research also revealed complex and overlapping water management stakeholders, and the ignorance about the water crisis by most stakeholders namely locals, tourism businesses, tourists and the Government. This demonstrates that a political ecology approach can dissect a research problem and investigate deeper, rather than simply attributing the eco-scarcity to population increase (Robbins 2012). A political ecology approach helps the

researcher to examine the multifaceted relations between stakeholders and their perspectives towards the problem at hand by evaluating the complexity of a crisis or an issue.

In the examination of tourism development and conflict among related actors in Zanzibar, Gossling (2003a) found that the benefits of tourism are unevenly distributed with locals acting as low-level workers for tourism businesses and receiving relatively low wages. Zanzibar's economy is undergoing fundamental change from agricultural and fishery activities into an over-reliance to tourism-related businesses. A similar situation was identified by Patterson and Rodriguez (2003) in their research on Dominica using a political ecology approach to investigate the dynamics of tourism in relation to the three scales of domestic, trans-national and international. They found that excessive foreign ownership of tourism businesses resulted in economic leakages and an uneven distribution of benefits. Further, like other Caribbean islands, Dominica was found to rely heavily on tourism as an income generator.

Wunder (2003) concluded that the distribution of benefits from tourism in Ilha Grande, Brazil was relatively more equal, with the people at the local fisher village level enjoying relatively high per-capita tourism incomes. In the case of Ilha Grande, the dominant tourist types visiting the island were students and backpackers, considered as low-income tourists. However, the local population, who already enjoyed a substantial income from tourism-related activities both directly and indirectly, did not desire luxury-level tourism expansion because their participation in luxury tourism might be more restricted. Ilha Grande is also an interesting case because the introduction of tourism helped to diversify the island's economic structure, rather than bringing an over-reliance on tourism as experienced in other cases. As shown by Wunder's (2003) study, adopting a political ecology approach may be useful from an economic perspective in explaining how the governance of tourism development affects the structure of an island's economy, how tourism-related revenues are distributed and whether distribution is equitable.

Wunder (2003) concluded that there was no indication of long-lasting physical deprivation of the Ilha Grande's environment or social deprivation of the island's residents because of tourism development. Wunder also challenged the concept of

tourism carrying capacity, arguing that the environmental problems encountered on Ilha Grande were seasonal rather than caused by tourism, and that they could be addressed by better management and counteractive actions. According to Wunder, only luxury investors continued to raise the issue of carrying capacity due to their vested financial interest in luxury tourism development in Ilha Grande. Similarly, Gossling (2003a) stated that tourism development has to some extent contributed to environmental protection in Zanzibar in the formation of Jozani Forest protected area and the Chumbe Island Reef Sanctuary ecotourism project. Likewise, White and Rosales (2003) viewed tourism as contributing positively to the economies and environment of Pamilacan, Olango, Pescador and Siquijor Islands in the Philippines. From an environmental conservation perspective, adopting a political ecology approach can identify the environmental advantages and disadvantages of tourism development, and any agendas underlying so-called 'sustainable tourism development'.

This section has acknowledged the large body of literature on environmental degradation caused by tourism development, and recognises that the poor governance practices of marine-based tourism development in SIDD settings could and in many cases has strongly contributed to environmental degradation and SIDD economies' over-reliance on tourism-related income. However, the discussion also identifies the potential for the extraction of knowledge and information using a political ecology approach from case studies on tourism governance in SIDD settings. This may help to uncover the reality of tourism at a local level, the stakeholders involved and the power relations among them, thereby revealing the bigger picture of the impact of tourism on SIDDs. As will be shown in the methodology section (Chapter 4), adopting a political ecology perspective was deemed necessary for the purposes of the present research.

3.4. Design and Dynamics of Environmental Governance Network

An edited book worthy of attention for the example of effective networks is '*Networks for Innovation for Sustainable Tourism Case Studies and Cross-Case Analysis*'. Edited by Liburd, JJ, Carlsen, J and Edwards, D (2013). Among the network cases discussed, Ecocean (Hughes 2013), Diablo Trust (Carlsen and Edwards 2013a), Tasting Arizona (Carlsen and Edwards 2013b) and Wenhai Ecolodge (Smith and Du 2013) are

portraying interesting example of effective networks that aims to create financial, social and environmental sustainability. Although none of them is located in an SIDD setting, it is interesting and relevant to look at the design of their networks.

Ecocean is a small not-for-profit marine conservation organisation in Western Australia utilising networks of peer researchers, research funding agencies, media and tourists who are concerned about the well-being of Whale Sharks. Although popular as a tourist attraction, very little is known about its ecology and behaviour. Ecocean developed an identification system using photos taken by tourists swimming with the sharks. Tourists upload their own photos to the Ecocean website. The system uses star mapping technology to map Whale Sharks skin spot patterns that enables individual Whale Shark to be identified and also their sex, age and size. The information is used to understand more about Whale Shark ecology and behaviour, and to increase sustainability of Whale Shark tourism operations (Hughes 2013).

Diablo Trust in Northern Arizona, is a collaborative grassroots land management network with an innovative approach to land protection in the Diablo Canyon Rural Planning Area. Through networking with a range of stakeholders, including local, state and federal agencies, community and conservation groups, the farming families that live next to the Diablo Canyon have remarkably worked towards improving land management practices, conserving habitat for wildlife, maintaining their farming traditions and ensuring that the land remains representative of all of the values for future generations to experience (Carlsen and Edwards 2013a).

Tasting Arizona is a collaborative network of tourism operators, non-government organisation, local and indigenous communities, farmers, academics, and festival and food organizations that aim to deliver 'local flavour'. Tasting Arizona believe that visitors want local flavour from food products that embody the original taste of Arizona. This network has revived the making and consumption of traditional local foods. The benefits of this revival are not only providing visitors with local flavours, but also preserving traditional farming practices, conserving areas for wildlife, educating youth, avoiding food genetic modification, maintaining biodiversity and protecting cultural traditions (Carlsen and Edwards 2013b).

Wenhai Ecolodge in Northwest Yunnan-China is a community operated retreat run by 56 local households with help from a US based The Nature Conservancy. Each household bought shares and participated to the start-up financing through a loan to the Ecolodge. Wenhai Ecolodge uses sustainable energy to decrease the negative impact to the environmental. Ten percent of the profits go to a conservation and community development fund for projects around Wenhai area (Smith and Du 2013).

These four networks portrayed interesting design characteristics in which a network of stakeholders can be relatively traditional and simple in its orientation and characteristics such as Wenhai Ecolodge and Diablo Trust, but effectively generates significant impact to the financial, social and environmental sustainability of their locale. Tasting Arizona, on the other hand, is a state wide network involving multitude of stakeholders. Besides that, Ecocean shows that the use of computer software and the internet can effectively connect worldwide stakeholders under the same concern for Whale Sharks, and linked them into a meaningful and effective network. Therefore, a lot can be explored in the characteristic and orientation, tension and effectiveness of networks.

According to the Competing Values Framework (Cameron and Quinn 2005), organisations with a collaborative orientation fall into the 'clan' type of culture, in which effectiveness is based on the facilitator's capacity to foster participation and involvement from all stakeholders. While the role of a facilitator in the Competing Values Framework refers to an individual, a facilitating organisation can play the role in the case of a destination. However, this could be challenging because every stakeholder will have his or her reasons or agenda for joining a collaborative organisation. Tensions will arise because of the dynamics of operating the network, of the various agendas that are brought by the different stakeholders, and, as explained in Section 3.1.3, because of the power relations between them.

3.4.1. Tensions

Provan and Kenis (2007) noted three potential tensions in networks: efficiency versus inclusiveness, internal versus external legitimacy, and flexibility versus stability. These tensions are intrinsic in network governance, and according to Provan and Kenis (2007)

it is necessary that network managers recognise and respond to those three contradictory logics because these are critical aspects of network life and effectiveness.

3.4.1.1. Efficiency versus inclusiveness

The first refers to the tension between ‘the need for administrative efficiency in network governance and the need for member involvement, through inclusive decision making’ (Provan and Kenis 2007, p. 242). In many cases, efficiency is at conflict with indicators of effectiveness that have long-term implications and could be inefficient in the short run. The literatures on governance network acknowledge the theme of building trust through collaboration (Edelenbos and Klijn 2007). Collaboration among network stakeholders in decision making process is needed to build trust through inclusiveness, but they are rarely efficient because the more members involved the more time consuming and resource demanding the process will tend to be. Having a facilitating organisation as the network facilitator could to some extent assist in establishing structures and representative participation in decision making process for vital strategic matters (inclusiveness), while employing staff to take care the more routine administrative tasks (efficiency), thus a compromise on sustaining inclusiveness while pursuing efficiency

3.4.1.2. Internal versus external legitimacy

The second is the tension that occurs when ‘building external legitimacy involves actions and activities beneficial to the overall network, but not to some individual participants or the internal needs of the network itself’ (Provan and Kenis 2007, p. 243). McEvily and Zaheer (2004) argued that network facilitator plays a role of not only to maintain but also to build trust among participants. Therefore, the facilitator must accommodate concerns about the internal needs of the network and its participants, build collaboration among stakeholders that usually do not work together, and also resolve conflicts between them. As highlighted by Human and Provan (2000), the role of governance for building external legitimacy often includes actions that may advantage the overall network, but not necessarily the individual stakeholders or the internal needs of the network itself. Since network participants or stakeholders have their own internal legitimacy needs as independent organizations with their own goals,

these needs are not always harmonious with the larger external legitimacy needs of the network as a whole. Therefore, this tension is a concern between individual and collective legitimacy, and also between the focus on building network interactions internally and external network credibility.

3.4.1.3. Flexibility versus stability

The third refers to the tension that occurs when a network ‘wishes to balance short-term goals with a long-term focus’ (Provan and Kenis 2007, p.244). This type of tension can influence power relations within the decision-making process, and could worsen any differences between the espoused values and the enacted values of the network. Networks are regularly described as adaptable and flexible (Huxham and Vangen 2005). Flexibility allows fast response to meet changing stakeholder needs and demands, competition, threats, and opportunities. At the same time, networks must also focus on sustainment because stability is critical for maintaining legitimacy. On the other hand, stability is important to ensure consistent responses to stakeholders and for efficient network management in the long run. Creating formal hierarchy is the most basic instrument for maintaining stability. Nevertheless, formal hierarchy leads to bureaucracy and could destroy collaboration and alienating most of the stakeholders. Creating a governance network that is both stable and flexible requires frequent reassessment of structural mechanisms and procedures in the context of new developments, and also willingness to change even if it could be disruptive.

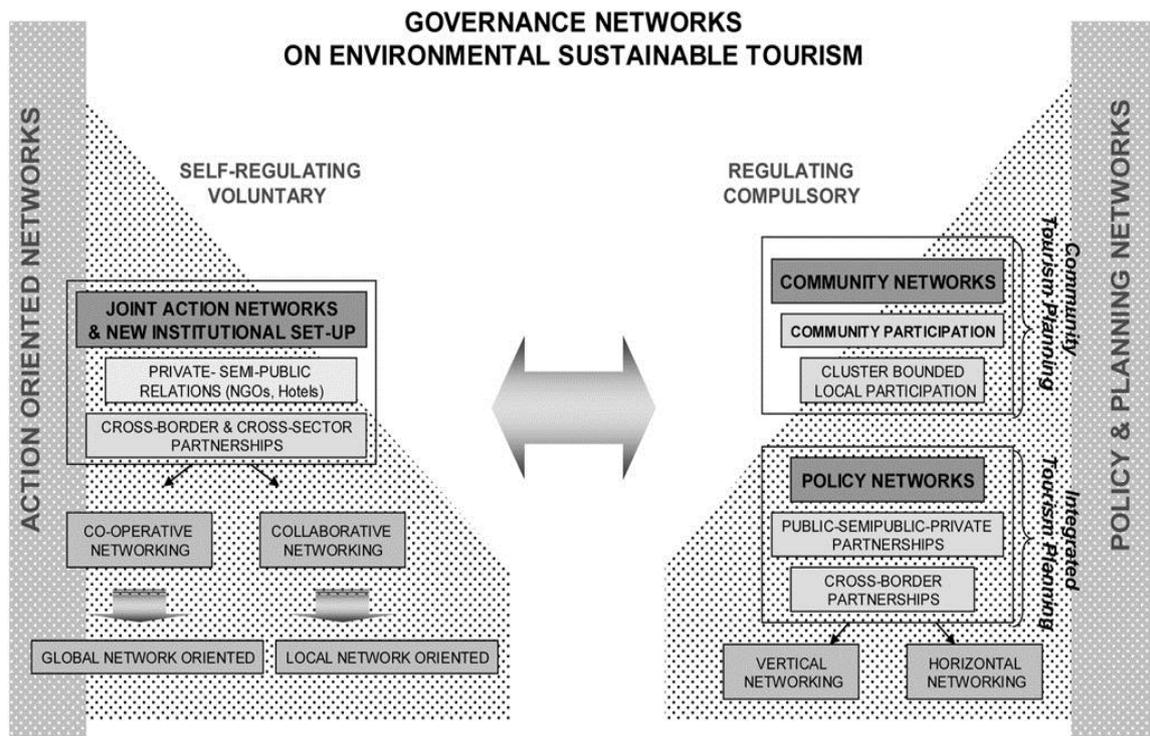
Provan and Kenis (2007) also proposed three alternative network governance designs: centralised lead organisation-governed networks, participant-governed networks, and network administrative organisations. In the first, a lead organisation assumes a coordinating role. The second design is more decentralised and less formal in terms of network member decision making. Finally, in the third, a dedicated entity is established with a view to coordinating the activities. In applying these designs to tourism, Beaumont and Dredge (2010) referred to council-led governance networks, participant-led governance networks, and local tourism organisation-led governance networks. Respectively, these network types describe when a council creates and coordinates the network, when the network is created and coordinated by community members, and when a separate tourism organisation is established for the purposes of coordination.

3.4.2. Characteristics and Orientations

The various network designs display distinct characteristics. One way of examining the differences between the designs is to consider their primary characteristics. Beaumont and Dredge (2010) identified seven: facilitators of the network (the people or institution in charge); the network community (type of community in which the network is located and operated); location of the network (physical areas relevant to the network operations); the focus of network activity (aims and orientation); resourcing (sources of funding, knowledge and manpower); the background of the network facilitator (the nature of the persons or institution in charge); and roles and responsibilities (the main functions of the network).

Nickum and Nishioka (1994, cited in Darlington 1997, p. 254) defined 'environmental governance' as 'the norms, rules, and roles, informal as well as formal, which determine how environmental management is actually carried out'. In an assessment of environmentally sustainable tourism in Turkey, Erkus-Ozturk and Eraydin (2010) proposed two types of EGN orientation. In action-oriented networks, the initiative comes from private and/or voluntary institutions within the same area, with these being self-regulating with the aim of solving specific issues. In policy and planning networks, the government or public institutions initiate and develop collaboration by coordinating relationships with other stakeholders such as NGOs, local business entities and local communities. These two types of network have different orientations (see Figure 2).

Figure 2. Governance networks on environmental sustainable tourism



Source: Erkus-Ozturk and Eraydin 2010, p. 115

Policy and planning networks have a mandatory dimension, because they are initiated by government or by a public institution in which government is the dominant stakeholder. The main purpose is to address the need to generate and implement plans. An action-oriented network, on the other hand, has a stronger voluntary ethos because it is initiated by private institutions and/or members of the community, who collaborate with a view to addressing mutual and specific issues. The main purpose is to engage in direct action with a view to engaging with problems. Erkus-Ozturk and Eraydin (2010) recommended further analysis of the comparative effectiveness of the different types of EGNs in different settings.

3.4.3. Effectiveness

Dredge and Pforr's 'principles of good governance' (Dredge and Pforr 2008, p. 69) proposed seven parameters that were subsequently adopted by Beaumont and Dredge (2010) as the determinants of network effectiveness: positive cultures, constructive communication and engaged communities; transparency and accountability; vision and leadership; acceptance of diversity, pursuit of equity and inclusiveness; developing

knowledge, learning and sharing expertise; clear roles and responsibilities of participants; and clear operational structures and processes of the networks.

Since governance networks typically involve multiple stakeholders, the aims, efforts and results of the network should be inclusive of their interests if legitimacy is to be maintained (Provan and Kenis 2007). Taking account of these interests and ensuring that coordination occurs should assist the pursuit of inclusivity (Cameron and Quinn 2005). This is important because stakeholders have divergent interests and agendas, and may be competitors. On this basis, the success of collaborative EGNs cannot rely exclusively upon positive results towards the physical environment. Success also depends on stakeholder perceptions of the operation, effectiveness and environmental outcomes of the EGN.

3.5. Conclusion

This chapter has discussed the relevant literature on coastal and environmental management from a political science perspective, focusing on the organisational dimensions. The review aimed to understand EGNs based on the literature by introducing the relevant theories of governance, networks and stakeholders, before further explaining the research setting using a political ecology approach to evaluate SIDD governance. The review then discusses the application of governance networks for environmental conservation purposes, building understanding of EGNs, their design and dynamics, and discussion of their effectiveness.

Now that the relevant literatures have been reviewed, the next chapter (Chapter 4) will discuss and justify the research method used in this research.

Chapter 4: Methodology

4.1. Introduction

The main objective of this chapter is to describe and justify the research method used in this study to answer the research questions outlined in Chapter 1. This chapter is divided into sections according to the activities related to the gathering and interpretation of the data. Sections 4.2 and 4.3 explain the purpose and nature of the study. Section 4.4 introduces the research design, Section 4.5 justifies the use of the qualitative methodology and Section 4.6 gives the rationale for the selection of the case study islands. Section 4.7 discusses the qualitative data collection procedures, and Section 4.8 describes the ethical considerations. The procedures used to analyse the data are presented in Section 4.9. Finally, Section 4.10 discusses the limitations of the methodology, including a discussion of the reliability and validity of the method.

4.2. Purpose of the Study

The main aim of this research is to examine the operations of two types of Environmental Governance Network (EGN) in relation to how they can contribute to environmentally sustainable form of marine-based tourism development in small island developing destination (SIDDD) settings. This includes an investigation of how tourism stakeholders can collaborate in preserving island environments in view of the challenging circumstances faced by SIDDDs and the lack of capabilities characteristic of developing countries. To achieve the main aim, this study has four purposes. Firstly, it develops a theory-based but adaptable conceptual framework to guide the analysis and formation of EGNs based on relevant literature. Secondly, it investigates EGN operations, with reference to the two SIDDD case studies. Thirdly, it evaluates the effectiveness of EGN operations, and compare and contrast each type of EGN. Finally, this study synthesises the perception that lead to reactions from locals towards tourism development, with particular reference to the influence of socio-cultural dimensions in the two case study areas.

4.3. Nature of the Study

The literature review in Chapters 2 and 3 described how SIDD destinations can benefit financially from marine-based tourism development, but are often limited in their environmental carrying capacity and management capability, and in most cases are heavily reliant on their environmental characteristics to attract tourists. This situation highlights the need for effective environmental conservation through collaborations between relevant stakeholders. These may be manifest in the form of an EGN. Given the lack of information and understanding of EGN operations in SIDD settings, and the prevalence of uncontrolled marine-based tourism development in these same settings, this research responds to the need to investigate the operation of different types of EGNs, to understand the potential contribution of this collaborative approach to environmentally sustainable marine-based tourism development in SIDD settings.

Providing comprehensive answers to the research problem requires understanding EGNs, which is achieved here by developing a framework, comparing two types of EGN and understanding the dynamics of EGN operation, particularly in terms of characteristics, tensions, parameters of effectiveness and stakeholder perceptions. In Chapters 2 and 3, the relevant literature was reviewed for applicable concepts and theories to facilitate the analysis of EGN operations in the case studies. The relevant literature spanned marine-based tourism and environmental management, and encompassed the organisational dimension of EGN operations to identify the key elements and parameters needed to compare and contrast the case studies.

Although there have been few examples of environmental conservation efforts on the part of tourism-related stakeholders in developing country settings, relevant cases are worthy of consideration. Hence, an exploratory and comparative approach is necessary for this research. The exploratory approach provides insight and understanding into social and human phenomena; that is, the interactions between stakeholders that construct the operation of an EGN. Meanwhile, the comparative approach helps to identify the similarities and differences between types of EGNs, to assess their effectiveness and applicability. Thus, the nature of this study is both exploratory and comparative case study.

4.4. Research Design

This study researched the operations of EGNs and their contribution to environmentally sustainable form of marine-based tourism development in SIDD settings. The investigation focused on how tourism stakeholders—including tourism business operators, government agencies, Non-Government Organisations (NGOs), and local people—can collaborate in conserving island environments.

To achieve the purposes of this study, qualitative methodology and a case study approach were selected for the research work. A case study is described by Yin (2003, p.13) as *'an empirical enquiry that investigates a contemporary phenomenon within its real life context, when the boundaries between phenomenon and context are not clearly evident'*. Yin (2003, p.3) argues that the unique need for case studies rises out of the aspiration to fathom complex social phenomena, and can be exploratory, descriptive or explanatory in nature. Case study can also be used to make generalisations about a population (Stake 1995; Yin 2003). A qualitative research case study is widely accepted in the study of natural resource management, especially in research related to tourism. By employing case studies, *'these efforts tend to inductively follow extensive empirical evidence ... and consequently are clearly analytical'* (Plummer and Fennell 2006, p. 946).

The selection of a case study approach allowed for the use of a range of methods to collect the maximum data for this research. As explained by Travers (2001, p. 2), *'there are five main methods employed by qualitative researchers: observation, interviewing, ethnographic fieldworks, discourse analysis and textual analysis'*. The case study approach can incorporate all of these methods (Yin 1984, p. 51).

This investigation was undertaken using three techniques, as follows:

1. Textual analysis of secondary data, gathered from both within and outside the EGNs
2. Direct observation of the islands and EGN-related activities
3. Semi-structured in-depth interviews with management staff and representatives of the EGNs, and with key stakeholders of the EGNs.

Textual analysis can provide contextual understanding (Veal 2006, p. 203) about the networks and the environments within which they operate. Observation is used to gain a background understanding, and as it is relatively unobtrusive, it reduces the risk of inaccuracy (Veal 2006, p. 173), and is useful for confirming the validity of gathered data (Veal 2006, p. 189). Finally, semi-structured in-depth interviews allow for the collection of thorough and comprehensive information about a subject (Veal 2006, p. 197). Further, semi-structured interview questions are based on a prompt list and ‘are not objectively predetermined and presented, so the researcher is able to ask for further clarification and detail and pursue these issue without negatively affecting the quality of the empirical materials collected’ (Jennings 2010, p. 175). Discourse analysis and ethnographic fieldwork, which require time to complete, were not pursued because of time constraints.

4.5. Rationale of Using Qualitative Methodology

This research focuses on the interactions between tourism-related stakeholders, and on how they collaborate to achieve environmental conservation. The investigation also aims to understand the operation of each EGN in the case studies by applying the conceptual framework proposed in Chapter 5, and to modify, if necessary, that framework based on the results of its application. To achieve these aims, the development of the research tool is crucial because the chosen method should allow both the researcher and the respondent to participate and generate insights with a view to explaining EGN operations.

This research adopts an interpretive paradigm, which requires the researcher to enter the minds of subjects, in this case EGN stakeholders, and see the world from their perspective (Veal 2006; Jennings 2010). As such, at this exploratory stage, it was deemed necessary to acquire information through conversation with local residents, using the qualitative method of in-depth stakeholder interviews. A qualitative approach was adopted for data collection because it suits the interpretive paradigm. In particular, it ‘helps to understand interaction between members of a group’ (Veal, 2006, pp. 37, 99). Further, as explained by Merriam (1991, p. 54), ‘qualitative study is a particularly

suitable methodology for dealing with critical problems of practice and extending the knowledge base of various aspects’.

An alternative approach would have been to gather data using quantitative methods such as a questionnaire-based survey. However, the researcher avoided using quantitative methods, which generate numerical data and statistical analysis where ‘data analysis is abstracted from the real world using numbers and statistical representation’ (Jennings 2010, p. 205). Moreover, considering the relatively informal way of life prevalent in the two SIDD settings, and the low level of education (ability to read and write) of many of the islanders within the community, a quantitative approach might have been daunting for respondents.

Interviews are recommended by many researchers for conducting research with illiterate or semi-illiterate people in developing countries (Elmendorf and Luloff 2001; Kroeger 1983). Likewise, a qualitative method is better than a quantitative method for use in an illiterate or semi-illiterate developing society, to get as close as possible to the reality in the field (Van der Reis 2000). In such societies, quantitative questionnaire survey methods often involve the interpretation of the questionnaire by an interpreter, which could lead the interviewee to answer through the interpreter’s perspective when interpreting the question. Further, additional explanation of survey items might be needed, bringing potential difficulties in maintaining the consistency of a predesigned questionnaire when conducting surveys in developing countries (Newby et al. 1998).

In contrast, local inhabitants of small island settings are generally hospitable towards visitors who ask them questions about their island. They can thus be expected to be less surprised to be asked the open-ended type questions typical of qualitative interview. Therefore, a qualitative methodology was selected to explore EGNs in SIDD settings, to gain sufficient understanding of the issues to respond to the research questions.

4.6. Rationale for the Selection of the Case Studies

The main intention of this research is to examine the interactions of tourism-related stakeholders and their potential for collaboration in achieving the aim of environment preservation. This type of social investigation suggests using the case study approach,

which is particularly suited to when the researcher is mainly asking ‘how’ questions (Yin 2003). The case study approach was also adopted to examine the application of a collaborative EGN approach in case study settings since there is a need for discussion of cases in point of EGN dynamics (Erkus-Ozturk and Eraydin 2010). Analysis of the cases was subject to a process of continual development and refinement based on a combination of textual analysis and direct observation by the researcher in the case study island settings.

The Indonesian islands were selected for the case studies for a number of reasons. The circumstances confronting Indonesia as a developing country consisting of 17,508 islands are particularly relevant to the present investigation. According to a Mintel Country Report, Indonesia is one of the world’s most bio-diverse nations, and it is also the largest archipelago (Ball 2008). The islands in the eastern part of Indonesia, along with Malaysia, the Philippines, Papua New Guinea, Timor Leste and the Solomon Islands, comprise the Coral Triangle Area, which is one of the significant conservation areas globally (Welly 2009). Many of these islands are heavily reliant on tourism revenue (Dodds, Graci and Holmes 2010). However, a combination of inadequate tourism planning, unsustainable tourism practices, destructive fishing methods and coral bleaching is threatening the sustainability of the marine environment in this region, and hence the area’s main tourist attractions (Goreau 2009). Therefore, the islands in Indonesia were considered fitting to the context of SIDD settings. In addition, the data collection and analysis process benefitted from the researcher’s fluency in Bahasa Indonesia.

Patton (2002, p. 230) states that *‘qualitative inquiry typically focuses in depth on relatively small samples, even single cases, selected purposefully... the logic and power of purposive sampling lie in selecting information-rich cases for study in depth’*. Despite some scientists advocating single case studies for in-depth understanding of a phenomenon (Dyer and Wilkins 1991), this research chose multiple cases (two case studies). This is in line with the assertion of other scientists that multiple case studies enable a higher degree of findings and can establish a wider data analysis for one context (Eisenhardt 1989, p. 186; Eisenhardt 1991; Jennings 2010). Further, considering Erkus-Ozturk and Eraydin’s (2010) description of two types of EGN orientation;

namely, action-oriented network and policy and planning network, it was deemed appropriate that two cases be employed, with the condition that each of the cases represent a significantly different type of EGN orientation for the purposes of comparison and contrast. Using Patton's (2002) strategy for purposive sampling, this research could be classified as a critical case. A critical case suggests that the researcher would *'pick a site that would yield the most important information and have the greatest impact on the development of knowledge'* (Patton 2002, p. 236). The two case studies chosen for this research provide an opportunity to investigate and understand the social dimensions and complexities of the use of collaborative EGNs in environmental management. More than two cases were not used because the researcher also considered the time and financial constraints in conducting the research.

As mentioned above, a condition on the selection of the case study islands was their need for similarities yet distinctiveness in terms of having different types of EGN. The researcher suspected that the EGNs of Nusa Lembongan Island and Gili Trawangan Island were suitable for this study. To confirm this, preliminary study was conducted in the form of textual analysis, looking at the websites of the EGNs of both islands, articles, relevant news and press releases (Welly 2009; Robbe 2010; Segre 2010; Setiawati 2009b; Setiawati 2009c; Setiawati 2009a; Purnayasa 2010; Kamsma and Bras 2000; Hampton and Hampton 2009; Woronowycz 2010; Wagey and Suyoso-Marsden 2010; Wardany 2008; Hara 2003; Katz, Gunawan and Djunaidi 2010; Suriyani 2008; Walsh 2010; Sukarsa 2006; Susanta 2003; Guard 2005). Table 2 displays comparison of information gathered from the two islands in this preliminary study.

Table 2. Preliminary Study Comparing the Two Islands

| Basis of Comparison | Gili Trawangan Island | Nusa Lembongan Island |
|----------------------------|--|---|
| Size & Location | <ul style="list-style-type: none"> • Northwest of Lombok Island • 6 Km² | <ul style="list-style-type: none"> • Southeast of Bali Island • 15 Km² |
| Population | 800 inhabitants | 6000 inhabitants |
| Religion/Culture | Predominantly Muslim community | Predominantly Hindu community |
| Economic Activities | Mainly tourism but also fishing | Mainly seaweed farming (85%) but also significant on tourism |
| Tourism Evolution | <ul style="list-style-type: none"> • First tourist arrival 1981 | <ul style="list-style-type: none"> • Backpackers started arriving in |

| | | |
|--|---|---|
| & Market | <ul style="list-style-type: none"> • Backpackers tourism • “Party Island” | <p>1970s</p> <ul style="list-style-type: none"> • Commercial tourism started in 1990 with Bali Hai cruise pontoon |
| Environmental Governance Network (EGN) | <p>Gili Eco Trust (GET)</p> <ul style="list-style-type: none"> • Started in 2002 • Concern on coral reefs due to destructive fishing, unsustainable tourism practices, waste problem. • Collect ‘Eco-tax’ from dive tourists to fund the conservation activities. | <p>The Nature Conservancy—Coral Triangle Center (TNC-CTC)</p> <ul style="list-style-type: none"> • Started in 2000 • In 2007 specific on Nusa Lembongan after the Government’s Coral Triangle Initiative • Aiming to form Marine Protected Area (MPA) protecting the environment while allowing nature based activities to occur. |
| Facilitators of the EGN | Local dive shops | The Nature Conservancy (TNC) |
| Network community | Gili Trawangan Island | The three Nusa Islands * |
| Office location | Main administration office on Gili Trawangan Island | Main administration office on Bali (another island) |
| Focus of EGN activity | Replenishing the local marine area, especially coral reefs | Creating marine protected areas (MPA) on Nusa Lembongan Island, but also throughout Indonesia |
| Resourcing | <ul style="list-style-type: none"> • Eco tax from tourists • Donations • Volunteers • Local NGO | Funding from central and local governments, and international NGOs |
| Roles and responsibilities | <ul style="list-style-type: none"> • Coordinate beach clean-up program • Rebuild coral reef through the Biorock program • Pay the <i>Satuan Tugas/SATGAS</i> (Local task force) for policing the island • Pay local fishermen to desist from destructive fishing methods • Coordinate waste management and recycling | <ul style="list-style-type: none"> • Provide expert advice on the development of MPA plans, locally and nationally • Coordinate the planning process with local government • Create a business plan for the self-sustaining management of the MPA • Coordinate with the local NGO (<i>Satya Posana Nusa/SPN</i>) and local community to conduct environmental awareness education and training for local school |

| | | |
|-----------------------------------|--|---|
| | <ul style="list-style-type: none"> • Provide environmental awareness education and training to local school children and local businesses | children and local businesses |
| Background of network facilitator | Private business entities | US based NGO focusing on environmental protection |

*The phrase ‘three Nusa Islands’, refers to the closely located Nusa Lembongan Island, Nusa Ceningan Island, and Nusa Penida Island. This is one of many EGNs facilitated by TNC around Indonesia.

The Coral Triangle Center (CTC) is an EGN that operates in seven sites around Indonesia (Wardany 2008). One of these includes a group of three small islands south east of Bali Island, comprised of Nusa Lembongan, Nusa Ceningan and Nusa Penida (Welly 2009). This cluster of three islands is administered under the Klungkung Regency, Bali Province, Indonesia (Long and Wall 1996). Of these three, the present case study focused exclusively on Nusa Lembongan Island because tourism is more developed there than on the other islands (Charlie, King and Pearlman 2012).

Gili Eco Trust (GET) is the EGN that operates on Gili Trawangan Island. Located northwest of Lombok Island, the Gili Islands are administered under the Lombok Regency, West Nusa Tenggara Province, Indonesia (Bottema and Bush 2012). Again, this research focused on Gili Trawangan Island because it is more developed from a tourism perspective compared to its two sister islands, Gili Meno and Gili Air (Charlie, King and Pearlman 2012).

This analysis supported the researcher’s estimation that the EGN on Nusa Lembongan Island oriented more to the policy and planning type of governance network, while the EGN on Gili Trawangan Island aligned more with the action-oriented type of governance network.

As shown in Figure 3, both islands are located in Indonesia’s Lombok Strait, between Bali and Lombok Islands. Both islands also possess attractive marine areas, have collaborative EGNs and are attempting to progress from being budget backpacker destinations to having more resort-style accommodation, catering to more affluent visitors (Hampton 1998; Hampton and Hampton 2009; Graci 2012; Ver Berkmoes, Skolnick and Carroll 2009; Dodds, Graci and Holmes 2010; Long and Wall 1996; Guard 2005).

Figure 3. Map of Nusa Lembongan Island and Gili Trawangan Island with Bali and Lombok in perspective



Source: www.gili-islands-online.com

The two islands differ in terms of size, demography, cultural practices, local government participation and prevailing EGN type. However, the EGNs in both settings have replenished the marine environment, while helping local fishers, farmers and tourism businesses to reduce their environmental impacts. While environmental impacts on the marine environment have begun to be addressed, severe land-based environmental issues remain, including an acute shortage of potable water and ongoing problems with sewage and rubbish from increasing visitor numbers. The adoption of a collaborative EGN approach to address these issues is evident on both Gili Trawangan Island and Nusa Lembongan Island.

Finally, significant religious influences and cultural differences are observable for the two islands. The inhabitants of Gili Trawangan Island are predominantly Muslim, whereas the population of Nusa Lembongan Island is mostly Hindu. Though not directly influential in the selection of the two case studies, these differences provide some interesting contrasts on local–tourist interactions, and help to ensure that the findings are not highly culture specific.

4.7. Data Collection

The process of data collection was conducted for two case study islands; namely, Nusa Lembongan Island and Gili Trawangan Island. Prior to the field research, the researcher undertook a preliminary study in the form of textual content analysis, looking at the websites of the respective EGNs, as well as relevant articles, news items and press releases. The researcher also began to establish rapport by corresponding by e-mail with the two EGNs. This effort resulted in the signing of permission letters by the two EGNs to do the field research. These are shown in Appendix 6 and 7.

The field research for this study was conducted over four months, in May–August 2011. Two months were spent on each case study island for data collection. Altogether, 46 in-depth interviews were conducted, along with analysis of relevant texts and observations of the day-to-day life of the locals and the operation and environmental outcomes of the EGNs.

4.7.1. Textual Analysis

In this step, texts relevant to the operations of the EGNs, both from within and outside the networks, were read and analysed. This included newspaper and magazine articles, academic journal articles, relevant theses from Indonesian universities, EGN reports and press releases, EGNs websites and local village government reports. These provided indications that supported the researcher's proposal that the EGN on Nusa Lembongan Island oriented more to the policy and planning type of governance network, while the EGN on Gili Trawangan Island aligned more with the action-oriented type of governance network.

Textual analysis also enriched the background knowledge of the researcher prior to conducting the in-depth interviews, and was a valuable tool for the triangulation of information collected from observations and interviews. Textual analysis was conducted prior to, during and after the field research to ensure the information in the thesis remained current. The documents analysed are as follows:

- Newspaper and magazine articles: Articles from Bali Post, Jawa Pos and The Jakarta Post (Segre 2010; Hara 2003; Setiawati 2009b; Setiawati 2009c; Setiawati 2009a; Wagey and Suyoso-Marsden 2010; 'Warga Nusa Penida Kecewa' 2013).
- Academic journal articles and book chapters that specifically discussed the two case study islands (Long and Wall 1996; Kamsma and Bras 2000; Bottema and Bush 2012; Dodds, Graci and Holmes 2010; Hampton and Hampton 2009; Hidayat 2006; Satria, Matsuda and Sano 2006).
- Relevant theses from Indonesian universities: From Sekolah Tinggi Ilmu Ekonomi Triatma Mulya (Purnayasa 2010), Universitas Udayana (Sukarsa 2006; Susanta 2003) and Universitas Muhammadiyah Malang (Guard 2005).
- EGN reports and press releases (Welly 2009; Woronowycz 2010; Widodo 2012; Robbe 2010).
- EGNs websites: www.giliecotrust.com; www.coraltrianglecenter.com.
- Local village government reports: Lembongan Village Profile (Murta 2010) and Jungut Batu Village Profile (Suliana 2010).

4.7.2. Observations

Direct observations on the two case study islands were conducted throughout the fieldwork period. Observation was chosen because it assists the researcher to acquire background understanding, and is relatively unobtrusive, thereby reducing the chance for inaccuracy (Veal 2006, p. 173). The method is also useful for confirming the validity of gathered data (Veal 2006, p. 189).

This stage of the research was conducted using the principle of naturalistic observation to ‘describe the phenomenon of interest and develop explanations and understandings’ (Veal 2006, p. 173) of the case study islands and the EGNs that operate on them. Data were gathered by following the EGN staff during their performance of their activities, identifying the results of the network operations, observing the island’s environment, observing the daily life of the locals, and observing local–tourist interactions.

The observation undertaken included making reflective diaries and documenting observed information into photographic evidence. The investigation provided useful background understanding and a crosscheck mechanism for the information gathered from the textual analysis and in-depth interviews with the key stakeholders. Further, the information gathered from observations was used to develop the case studies of the two EGNs, and to inform the discussion of findings in Chapters 6, 7 and 8.

4.7.3. In-depth Interviews

A total of 46 semi-structured in-depth interviews were conducted during the four-month fieldwork period. All of the interviews were conducted in Bahasa Indonesia, each lasting for about 60 minutes, and were recorded with a digital recorder device with the consent of the interviewees.

‘An important part of conducting fieldwork is having access to informants who can serve as “guides”, to provide information concerning the research site’ (Hesse-Biber and Leavy, 2011, p.71). The means by which an appropriate sample of stakeholders is identified and engaged is thus a vital component of the research process. Although as a general principle the research frame was restricted to individuals with knowledge and involvement to the EGN since the start of their operations in the case study areas, the

desire to obtain the widest possible range of views called for a sampling method or selection criteria broad enough to capture a variety of stakeholders' perspectives.

Jennings (2010) pointed to a variety of sampling strategies, but suggested that sampling in qualitative research is characteristically purposive in nature in that potential respondents are selected for their knowledge, experience or relevance to a particular setting. Such a process is often, but not always, established on the researcher's familiarity of the persons concerned.

4.7.3.1. Sampling process

This research adopted a 'purposive' technique, whereby the researcher 'uses their knowledge to determine who or what study units are the most appropriate for inclusion in the study based on the potential study units' knowledge base or closeness of fit to criteria associated with the study's focus' (Jennings 2010, pp. 140-141). Even though the research was limited to two EGNs, the selection of suitable interviewees was challenging due to the fact that suitable interviewees needed to possess specific knowledge that only applied in the case of a small proportion of network staff/representatives (Merriam 2002, p. 12).

The criteria are: Interviewees should at present (at the time of the fieldwork) be a member of the EGN management team or representatives of the key stakeholder groups in the case study islands; Interviewees should already be participating or involved with the particular EGN at the case study island since the beginning of its operation; Interviewees should be familiar with the case study island's condition before the particular EGN started its operation, this is to ensure that the interviewees can compare the 'before and after' socio-economic and environmental condition; Interviewees should voluntarily participate to this research (not under pressure or intimidation by the EGN or any of its key stakeholder groups), already read the information form, and signed the consent form before the interview is started. On this basis, a 'purposive' sample technique was considered the most effective means of selecting key individuals to be interviewed (Merriam 2002, p. 148). To ensure that the sample represented all of the key stakeholder groups, the researcher interviewed at least two individuals from each

groups. Ultimately, the resulting sample equipped the researcher with appropriate interviewees from the two EGNs, thereby providing valuable perspectives for the study.

As potential interviewees, the staff of the EGNs was contacted by telephone and e-mail to arrange appointments. In Gili Trawangan Island, the researcher started by sending e-mail to the contact person, who turns out to be the manager of GET, in order to establish rapport and explain what the research is about. Subsequent visits equipped the researcher with list of telephone numbers of the GET staff and key stakeholders. After the conduct of in-depth interview with the manager of GET, the researcher inquired about the 'purposive' recommendations in terms of explanation about the staff and stakeholders that regarded to be knowledgeable enough to be the potential interviewees of this research. The researcher then contacted the recommended staff and individuals that represent the relevant key stakeholders group to establish rapport and to ensure that these potential interviewees meet the criteria. The researcher also uses his prior knowledge about the particular EGN and its key stakeholders to confirm the explanation from the EGN manager in order to purposefully decide the appropriate interviewees. In-depth interviews towards each key stakeholder groups were conducted until a qualitative isomorph of the data collected is reached (Jennings 2010, p. 148). In review of the sampling process in Gili Trawangan Island, researcher's prior knowledge and GET manager's explanation was the significant sources of information for the 'purposive' sampling process.

In Nusa Lembongan Island, the researcher started by sending e-mail to the coordinator of CTC to establish rapport and explain what the research is about. After interviewing the CTC coordinator, who turns out to be residing in the neighbouring Bali Island, the researcher inquired about the 'purposive' sampling recommendations and received the contact numbers of the CTC staff, and also the coordinator of the local NGO, Satya Posana Nusa (SPN) in Nusa Lembongan who is also a teacher at the local high school. After interviewing the local NGO coordinator, the researcher inquired about the staff and stakeholders that regarded to be knowledgeable enough to be the potential interviewees of this research. The researcher then contacted the recommended staff and individuals that represent the relevant key stakeholders group to establish rapport and to ensure that these potential interviewees fulfil the criteria. The researcher also uses his

prior knowledge about the particular EGN and its key stakeholders, to confirm the explanation from the local NGO coordinator in order to purposefully decide the appropriate interviewees. In-depth interviews towards each key stakeholder groups were conducted until a qualitative isomorph of the data collected is reached (Jennings 2010, p. 148). In review of the sampling process in Nusa Lembongan Island, researcher's prior knowledge and SPN coordinator's explanation was the significant sources of information for the 'purposive' sampling process.

Qualitative informational isomorph or data saturation 'is achieved when redundancy with respect to information occurs....the cut-off is not pre-determined, but emerges as an outcome of the research process and concurrent empirical material interpretation' (Jennings 2010, p. 148-149). For this research, it was reached after the conduct of a total of 46 in-depth interviews in the two case study islands. Six interviews were conducted with staff of the EGNs: three interviews with staff of GET, and another three with staff of CTC. Forty in-depth interviews were conducted with representative of key stakeholders groups: 20 with key stakeholders on Gili Trawangan Island, and another 20 on Nusa Lembongan Island.

On Gili Trawangan Island, the researcher also planned to interview the stakeholder group of local farmers. However, it was difficult to find any local farmers during the fieldwork. Further investigation revealed that although coconut farming was a common occupation, it had recently been largely abandoned due to the larger financial benefit and higher prestige of working in tourism-related businesses. Meanwhile, a new branch office of the Balai Kawasan Konservasi Perairan Nasional (BKKPN) (the Office of National Marine Area Conservation, under the Ministry of Marine and Fisheries) had recently opened on the island. Its two staff members (G10 and G23), who are locals and had been familiar with the island and GET operation, were willing to be interviewed. This variation from the original intention to interview local farmers brought advantages and disadvantages. The responses from the staff of the government agency were biased towards creating a positive image about their agency, and it would take extra effort to uncover their underlying agenda. On the other hand, this was an opportunity to discover more about the sudden interest of the Central Government toward Gili Trawangan

Island. Why did it take so long? How will they integrate with the already operational governance network?

Tables 3 and 4 show the number of interviews conducted with the different types of stakeholder on the two islands. In Table 4, it is shown that a larger number of tourism business operators were interviewed on Gili Trawangan Island as compared to Nusa Lembongan Island. This is because data from GET showed more than 124 tourism-related businesses operating on Gili Trawangan Island, consisting of hotels, bungalows, villas, restaurants, dive shops, clothes shops, cafés and bar/night clubs. When interviewing individuals from this stakeholder group, the researcher kept receiving new information that was previously unheard of and probably being overlooked by the former interviewees. Therefore, it was deemed necessary to converse more with this grouping until there was redundancy in regard to information received from the interviews (G4, G5, G6, G7, G9, G12, G14, G20, G21, and G22).

Table 3. Interviewees on Nusa Lembongan Island

| Type of Key Stakeholders | CTC Staff | Local Fishers | Local Farmers | Local NGO | International NGO | Government Agencies | Tourism Business Operators |
|--------------------------|-----------|---------------|---------------|-----------|-------------------|---------------------|----------------------------|
| Number of Interviewees | 3 | 3 | 4 | 4 | 2 | 3 | 4 |

Table 4. Interviewees on Gili Trawangan Island

| Type of Key Stakeholders | GET Staff | Government Agencies | Local Fishers | Local NGOs | Local Village Office | Tourism Business Operators |
|--------------------------|-----------|---------------------|---------------|------------|----------------------|----------------------------|
| Number of Interviewees | 3 | 2 | 2 | 4 | 2 | 10 |

4.7.3.2. Interview process

The process of the semi-structured in-depth interviews was as follows. Firstly, the researcher confirmed that the interviewee was in a comfortable condition. Secondly, the researcher confirmed that the interviewee had read the ‘information to participants’ letter, and signed the consent form that had been given to them. This included ensuring

that the interviewee understood the content of the forms by restating the objectives and the intended outcomes of the research. Thirdly, the researcher turned on the digital voice recorder after explaining that responses would be recorded and that recordings would remain confidential and obtaining agreement from the interviewee. Then, the researcher as interviewer started asking the questions.

As explained in Section 4.4, the researcher adopted a semi-structured method of interviewing. Therefore, a prompt list of interview topics was employed. The prompt list contained issues to guide the interaction/conversation. This list ‘adds some structure to the interview, although the ordering of the discussion about the issues may vary between interviews’ (Jennings 2010, p. 174). As shown in Appendix 5, the semi-structured in-depth interview prompt list consisted of six major items.

The first question was: Would you please explain the background of your involvement in the EGN? This first item gave the opportunity to investigate the nature of involvement of the interviewee with the EGN on that particular island. The following five items (that is, questions two to six) were adopted from the conceptual framework for the analysis of EGNs (see Figure 4).

The second question was: What do you perceive to be the characteristics of the network? In following up the answer to this question, the interviewer asked specific questions regarding the facilitators of the network, the network community, the location of the network, the focus of network activity, resourcing, the background of the network facilitator, and network roles and responsibilities (see Section 3.4.2 for an explanation of these characteristics of a network).

The third question was: What do you perceive to be the scope of the network and any potential conflicts that may arise? In following up the answer to this question, the interviewer asked further questions regarding efficiency versus inclusiveness, internal versus external legitimacy and flexibility versus stability (see Section 3.4.1 for an explanation of these tensions of EGNs).

The fourth question was: Would you please share about your perceptions on how the EGN operates? In following up the answer to this question, the interviewer asked

further questions regarding whether the interviewee had a positive, negative or neutral perception and the underlying reason for this.

The fifth question was: Would you please share your views and opinions on the network's effectiveness? In following up the answer to this question, the interviewer asked further questions concerning the seven parameters of network effectiveness. These are positive cultures, constructive communication and engaged communities; transparency and accountability; vision and leadership; acceptance of diversity, pursuit of equity and inclusiveness; developing knowledge, learning and sharing expertise; clear roles and responsibilities of participants; and clear operational structures and processes of the networks. These seven parameters of effectiveness were designed in relation to organisational effectiveness rather than environmental effectiveness. This leads into the next question.

The sixth question was: What do you think about the achieved environmental outcomes of the network so far? In following up the answer to this question, the interviewer asked further questions about whether the interviewee had a positive, negative or neutral perception and the underlying reason for this.

The interviewees were given an opportunity at the end of the interview to add any further comments.

4.8. Ethical Consideration

Since the research involved interviews with people and questions about sensitive information, there was a requirement to submit an application for ethics approval along with the research proposal. The research approach and data collection techniques including observation and interviews were subject to approval by the Human Research Ethics Committee (HRETH), Victoria University. HRETH granted its approval for the study on 28 January 2011. As advised by the ethics committee, extra precautions needed to be taken when interviews were conducted. The researcher was prepared for the possibility that the EGNs might react unfavourably towards the research. Fortunately, the management of the two networks, GET and CTC, were very open and cooperative in

their participation in initial correspondence and the provision of letters allowing the researcher to conduct the interviews (see Appendices 6 and 7).

Before conducting the interviews, the interviewees received, in Bahasa Indonesia, the ‘information for participants’ form (see Appendix 2) and the ‘consent form’ (see Appendix 4). They thus already possessed a thorough understanding of the study prior to arriving at the interview location. If the potential interviewee decided not to sign the consent form or did not feel comfortable in sharing information about the aforementioned topic of research at any point, they could directly withdraw their participation from the research at any time (Jennings 2010, pp. 100–116). During the transcription process, interviewees were de-identified to protect their confidentiality.

Ethics in qualitative research goes beyond solely maintaining the confidentiality of the interviewees. Recognising the reflexivity and positionality of the researcher is also important (Robertson 2002). Reflexivity in research describes the reflection of self in the research process and in data collection and interpretation (Jennings 2010, pp. 114–116). Being reflexive is significant in situating the research and knowledge construction so that ethical commitments can be sustained (Sultana 2007). Further, positionality as the component of self-critique is also important. This involves recognising the identity of the researcher in different cultural environments (Robertson 2002).

The strategic nature of some political and financial issues within the research placed a greater mandate on the researcher in terms of maintaining an objective standpoint. A neutral and independent stance was pursued by the researcher throughout the fieldwork by only consuming products and services provided by non-interviewees. In addition, the researcher had no previous social or financial affiliations whatsoever with the two destinations. The research techniques employed also avoided interrupting the daily routine of the stakeholders and did not reduce the financial income of the stakeholders.

4.9. Data Analysis

The information gathered from the textual analysis and observations, and the qualitative data collected from the interviews were analysed thoroughly to address the research questions.

Typed transcriptions of the interviews were completed. Given the sometimes sensitive nature of individuals' views about particular topics, and the researcher's desire to elicit complete and honest explanations, maintaining anonymity was a priority. Therefore, the names of interviewees were directly de-identified. The codes used to de-identify the interviewees were as follows:

Twenty-three interviewees on Gili Trawangan Island:

- G1, G2, G3: GET staff
- G4, G5, G6, G7, G9, G12, G14, G20, G21, G22: Tourism business operators
- G16 and G17: Local Fishers
- G8, G11, G18, G19: Local NGO staff
- G13 and G15: Local Village Office staff
- G10 and G23: Central government agency staff

Twenty-three interviewees on Nusa Lembongan Island:

- N1, N2, N3: CTC staff
- N17, N21, N22: Local Fishers
- N4, N8, N9, N20: Local Farmers
- N5, N14, N16, N23: Local NGO staff
- N12 and N13: International NGO staff
- N6, N7, N11: Local Village Office staff
- N10, N15, N18, N19: Tourism business operator

Although the researcher was aware of the options provided by computer-aided analysis software such as NVivo and Atlas.ti, the decision was made to code the transcriptions manually, to obtain maximum benefit from the researcher's own observations and interpretations. This decision was influenced by studies such as Davis and Meyer (2009), Bong (2002) and Anderson and Shaw (1999), which questioned whether computer-aided analysis helps in-depth understanding of open-ended interview responses. Thus, it was felt that an inductive approach based on manual coding had the potential to offer greater capabilities for the interpretation process.

The recorded data from the semi-structured in-depth interviews were transcribed manually. This transcription was used as the basis for the analysis. Each transcript was

carefully read and reviewed. Then, the transcribed data were indexed to ensure the order. Descriptive codes that related to each of the research questions were identified and tagged with different descriptive coding. The information from all interviewees regarding the five items adopted from the conceptual framework for the analysis of EGNs was categorised according to its relationship with the research questions. This process provided the researcher with a reduction of the interview responses, which resulted in a summary matrix of interview results (see Appendices 8 and 9).

This research adopted three phases of coding as suggested by Strauss (1987) and explained by Jennings (2010, pp. 208–211). These were open coding, axial coding and selective coding. Open coding took place as a preliminary step in the analysis of the interview transcripts, with the researcher reviewing the transcriptions to look for reoccurring words and key points. The codes used in this phase referred to a word or theme within a series of paragraphs, and they were written in the side margin of the page. The purpose was to identify anchors that allowed the key points from the data to be gathered. The process of open coding was accompanied by axial coding, which is a deeper form of analysis that requires the researcher to look for relationships between the open codes to generate concepts, which are essentially collections of codes of similar content that allow the data to be grouped. The process then continued with selective coding, which involves examination of several codes selectively more than others to create categories that are essentially broad groups of similar concepts and themes, which are then used to generate a theory. These results were then compared with the related theoretical concepts from the proposed conceptual framework.

Information from the textual analysis and notes and photographic evidence from the observation of the two case study islands provided additional contextual information that was included in the analysis to support the data from the interviews. Implicit interviewee data, such as their emotional reactions, were also considered to enrich the analysis. Thus, this research combined findings arising from textual analysis, observations and various interviews with EGN staff and stakeholders. The process of data analysis helped to develop a wider base of understanding of the empirical context, and helped to determine the emergent themes.

The discussions of the findings from the data analysis are conducted in Chapters 6, 7 and 8. The discussion is separated into three chapters according to the objectives of the research, to clarify the links between the objectives, data collected and findings. Moreover, dedicating each chapter to an objective and its related themes helps the reader to understand the research findings, as this presentation style was expected to flow more like a narrative, as book chapters do.

4.10. Reliability and Validity

Zikmund (2003) explained that reliability refers to when similar results are received over time and throughout situations. In general, reliability is the degree to which measurements are 'free from error and therefore yield consistent yields' (Zikmund 2003, p. 300). Validity and reliability are correlated; reliability is necessary for validity, but does not imply validity. Validity describes when a measurement accurately reflects the idea it was designed to assess (Kumar 1996). The quality of the data and the method used to gather it should be assessed for their reliability and validity. In particular, there have long been concerns about validity in qualitative research (Atkinson, Coffey and Delamont 2003). Cho and Trent (2006, p. 319) stated that 'validity in qualitative research involves determining the degree to which researchers' claims about knowledge correspond to the reality (or research participants' constructions of reality) being studied'. In view of this, several steps were taken in the design, data collection and analysis phases of this research.

Firstly, in the selection of interview participants, to acquire comprehensive data interviewees were selected to represent all key stakeholder groups on each island. This was to ensure that the opinions of all stakeholder groups were represented. Additionally, the first question in the interview was about the interviewee's background of involvement with the island's EGN. This was to confirm that the interviewee met the criteria and had the knowledge and capacity to contribute to the research.

Secondly, interviewees were not given any financial or material reward for their participation. This was to ensure that they were voluntarily interviewed and responded willingly (Jennings 2010, p. 112). Further, during the fieldwork, the researcher avoided any behaviour that could have been interpreted as affiliating with any of the

stakeholders. This was to pursue reliability, by ensuring that interviewees gave honest answers, rather than altering their responses to please the EGN or any stakeholders with which they believed the researcher to be affiliated.

Thirdly, in the conduct of all 46 semi-structured in-depth interviews, the researcher strictly employed the interview prompt list/interview guideline (see Appendix 5). This was to ensure the consistency of the qualitative data collected (Jennings 2010, pp. 174–178). The interviews were conducted in the language of the locals (that is, Bahasa Indonesia), did not require any interpreter or research assistant and were recorded. This was to ensure the validity and consistency of this valuable primary data. Further, the interviewees were always given an opportunity at the end of the interview session to add any other comments. This was deemed important to help to gather data that was as complete as possible.

Fourthly, triangulation of the data was conducted on an ongoing basis throughout the research process. This research employed three data collection techniques, observation, textual analysis and interview, all within the same period. Thus, the data could be compared continually through triangulation, to either confirm or conflict with the findings, and to enrich subsequent phases of the research (Jennings 2010, p. 151).

Finally, validation of the interview findings was conducted. This validation process requires that the transcripts of interviews as used in the thesis are provided to the interviewees, both to seek their confirmation of accuracy and to seek any final feedback that they may have. Also, the researcher provided a summary of findings to stakeholders and asked for any final feedback as a means of including the interviewees at all stages of the research, not just the data collection.

4.11. Conclusions

This chapter has reviewed the purposes and nature of the study, before considering the appropriate research design and the reason behind the choice of qualitative methods. Then, this chapter has explained the justification of selecting Gili Trawangan and Nusa Lembongan Islands as case study areas. Also, the research tool has been discussed, followed by description of the steps of the data collection process and consideration of

the ethics of the research. The data analysis process and the reliability and validity of the research have also been explained.

Now that the theoretical and methodological issues of the research have been discussed, the following chapters will go on to outline the proposed conceptual framework for the analysis of EGNs operations, before explaining its applications.

Chapter 5: Conceptual Framework for the Analysis of Environmental Governance Networks

5.1. Introduction

Chapter 5 is the first of four chapters of findings and discussion. This chapter aims at fulfilling the first research objective, of developing a theory-based but adaptable conceptual framework to guide the analysis and formation of Environmental Governance Networks (EGNs) based on relevant literature. The research questions addressed in this chapter are: What fields of knowledge are relevant to the operation of EGN in small island developing destination (SIDDD) settings? How can the relevant theories and literatures be translated into a conceptual framework that can be adapted for the analysis and formation of EGNs?

Due to the complex nature of EGN, a conceptual framework is helpful to illustrate their operation. The operation of EGN in various SIDDDs will involve different key-stakeholders, different network characteristics and tensions, different level of effectiveness, and results in different environmental outcomes and stakeholders' perspective. Still, providing a conceptual framework offers simplified guidelines for researchers as well as EGN staff, independent observer and policy-makers to follow.

Section 5.2 outlines the raw material including the theories and concepts relevant to the operations of EGN, and section 5.3 describes the cooked, or the synthesis of the raw material into a conceptual framework (see Figure 4), Section 5.4 then explains the applications of the proposed conceptual framework.

5.2. The “Raw” Material

Based on the literature review, there are several concepts and theories relevant to the investigation and understanding of the operation of EGN. They are as follows:

5.2.1. Governance network

As discussed in section 3.2., the concept of governance has particular applicability to tourism because of its links with the social, economic, cultural and environmental

impacts of tourism (Bramwell 2011). Also, 'tourist destination is a useful context to study governance since it is a cluster of interrelated stakeholders embedded in a social network of community relationships' (Scott et al. 2011, p. 205). On the other hand, a network consists of stakeholders, and it may promote capacity building, thus it may help to solve the challenges that are frequently encountered within poor communities, stimulating more active involvement by small business entities, community groups and local government authorities (Michael 2007). In a combination between the concepts of governance and network theory (Svensson, Nordin and Flagestad 2006), governance network is defined as a 'select, persistent, and structured set of autonomous firms (as well as non-profit agencies) engaged in creating products or services based on implicit and open-ended contracts to adapt to environmental contingencies and to coordinate and safeguard exchanges' (Jones, Hesterly and Borgatti 1997, p. 194). The governance network concept is particularly applicable in SIDDs because local governments in such settings often lack relevant management competencies (Dahles and Bras 1999) and rarely have sufficient resources to reach solutions in SIDD settings (Setiawati 2009b). Employing the concept of governance network entails a holistic perspective when looking at an EGN, not only identification of the key stakeholders, but also operational dynamics, and also outcomes towards the environment.

5.2.2. Stakeholders

As discussed in section 3.2., the process of tourism development comprises stakeholder identification (Freeman 2010; Parmar et al. 2010), designing and managing tourism-related activities (Araujo and Bramwell 1999, Robson and Robson 1996), and ensuring the effective running of the entire tourism network (Mackellar 2006; Scott, Baggio and Cooper 2008). A combination stakeholder and network theories could provide a useful foundation to identify the key stakeholders in a destination (Timur and Getz 2008, p. 446). Stakeholders are more powerful when they possess more attributes which are associated with their functional roles within the tourism network and their relationship with actors from other industries that are strongly related to or supportive of tourism industry operations (Timur and Getz 2008). These functional roles and relationships create the structure of network relationships and effect the power relation that can strongly affect the dynamic of stakeholder networks (Mitchell, Agle and Wood 1997;

Clarke, Raffay and Wiltshier 2009). Stakeholders, therefore, both individually and collectively, can exercise their power and legitimacy to drive policy formulation and implementation within a network. Thus, analysis of an EGN must encompass information and perspectives from all relevant key stakeholders group. These key stakeholder groups in managing tourism development could be tourism business operators, local government, ecosystem ecologists, non-government organisations (NGOs) and local residents (Farrell and Twining-Ward 2005).

5.2.3. Tension

The three potential tensions in networks that have been discussed in section 3.4. are: efficiency versus inclusiveness, internal versus external legitimacy, and flexibility versus stability (Provan and Kenis 2007). The first refers to the tension between ‘the need for administrative efficiency in network governance and the need for member involvement, through inclusive decision making’ (Provan and Kenis 2007, p. 242). The second is the tension that occurs when ‘building external legitimacy involves actions and activities beneficial to the overall network, but not to some individual participants or the internal needs of the network itself’ (Provan and Kenis 2007, p. 243). Finally, the third refers to the tension that occurs when a network ‘wishes to balance short-term goals with a long-term focus’ (Provan and Kenis 2007, p. 244).

Tension between stakeholders with varying values and goals in any situation is natural and inevitable. These tensions are always at present and hardly ever resolved to all stakeholders’ satisfaction. Therefore, what really required is leadership as noted by Provan and Kenis, ‘We propose that network managers operating within each form must recognize and respond to three basic tensions, or contradictory logics, that are inherent in network governance....how these tensions are managed will be critical for network effectiveness’ (2007, p. 242). Such tensions can influence power relations within the decision-making process, and may exacerbate any differences between the espoused values of the network and its practices. Thus, when analysing an EGN, it is important to specifically analyse each of the tension and how it is being addressed with leadership by the network manager in a particular case study.

5.2.4. Characteristics

The three alternative designs of network governance are: centralised lead organisation-governed networks, participant-governed networks, and network administrative organisations (Provan and Kenis 2007). In the first, a lead organisation assumes a coordinating role. The second design is more decentralised and less formal in terms of network member decision making. Finally, in the third, a dedicated entity is established with a view to coordinating the activities. In applying these designs to tourism, they could be referred to as council-led governance networks, participant-led governance networks, and local tourism organisation-led governance networks. Respectively, these network types describe when a council creates and coordinates the network, when the network is created and coordinated by community members and when a separate tourism organisation is established for the purposes of coordination.

The various network designs display distinct characteristics. Seven of such characteristics that have been discussed in section 3.4. are: facilitators of the network (the people or institution in charge); the network community (type of community in which the network is located and operated); location of the network (physical areas relevant to the network operations); the focus of network activity (aims and orientation); resourcing (sources of funding, knowledge and manpower); the background of the network facilitator (the nature of the person or institution in charge); and roles and responsibilities (the main functions of the network). Therefore, when analysing an EGN, it is useful to compare it against the seven characteristics in order to fully understand the design and the network operation.

5.2.5. Effectiveness

The seven parameters as determinants of network effectiveness are: positive cultures, constructive communication and engaged communities; transparency and accountability; vision and leadership; acceptance of diversity, pursuit of equity and inclusiveness; developing knowledge, learning and sharing expertise; clear roles and responsibilities of participants; and clear operational structures and processes of the networks (Beaumont and Dredge 2010).

Since governance networks typically involve multiple stakeholders, the aims, efforts and results of the network should be inclusive of their interests if legitimacy is to be maintained. Taking account of these interests and ensuring that coordination occurs should assist the pursuit of inclusivity. This is important because stakeholders have divergent interests and agendas, and may be competitors. On this basis, the success of collaborative EGNs cannot rely exclusively upon positive results towards the physical environment. Success also depends on stakeholder perceptions of the operation, effectiveness and environmental outcomes of the EGN.

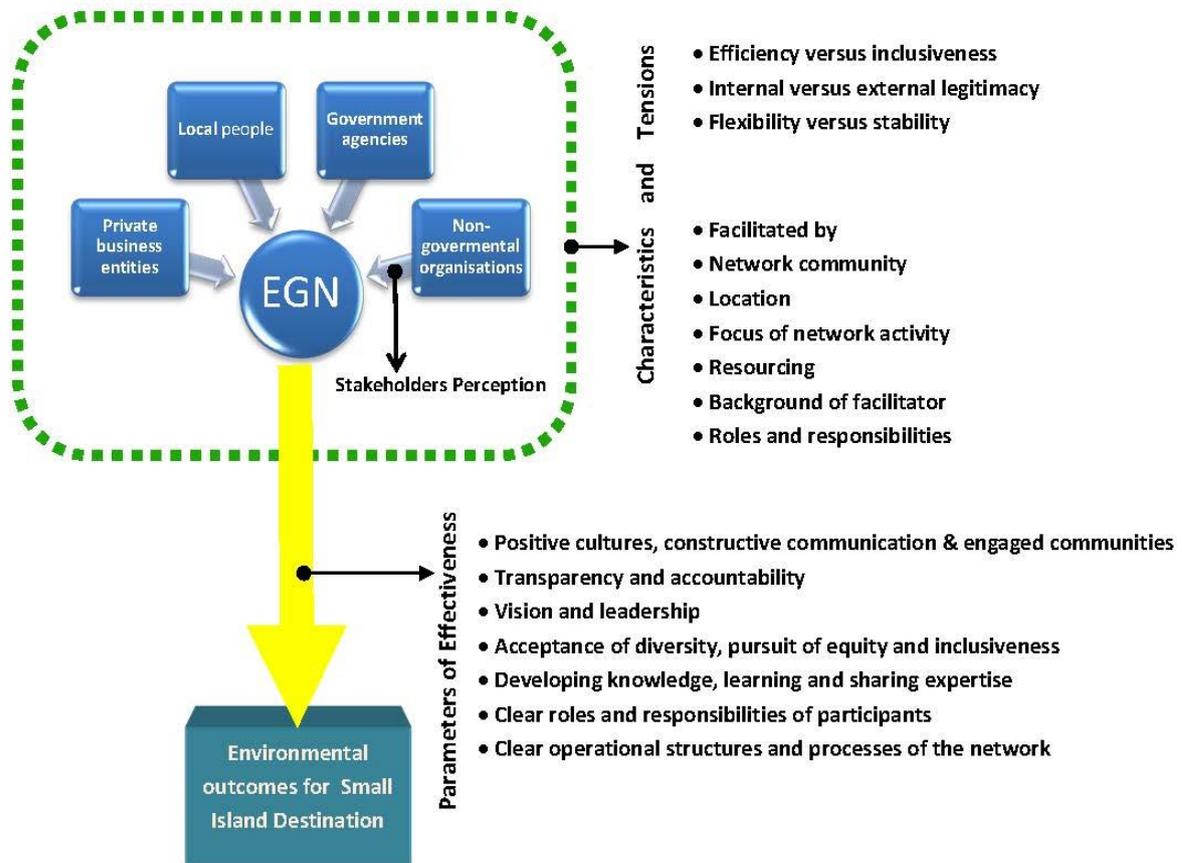
Therefore, in analysing an EGN, it is important to measure it with the parameters of effectiveness, and also to consider the stakeholders perception in order to get a comprehensive view about the effectiveness of the particular network.

5.3. The “Cooked” Framework

Based on the previous discussion, EGNs may be viewed as a facilitator between stakeholders and the environment and among tourism stakeholders themselves. These stakeholders may include private business entities, local residents, government agencies and/or NGOs. Figure 4 shows the proposed conceptual framework for the analysis of EGNs.

The framework is an adaption of elements of Erkus-Ozturk and Eraydin’s (2010) classification of governance networks, Provan and Kenis’s (2007) stakeholder perceptions of EGNs, and Beaumont and Dredge’s (2010) network characteristics, tensions and parameters of governance network effectiveness. The components of the framework are discussed in more detail below.

Figure 4. Conceptual framework for the analysis of EGNs



Adapted from: Beaumont and Dredge (2010), Erkus-Ozturk and Eraydin (2010) and Provan and Kenis (2007)

As shown in the proposed framework, an EGN is considered a collaborative organisation that assembles a group of stakeholders in pursuit of a mutual goal to conserve the environment, while also accommodating tourism and other economic activities. The framework is an illustration of the ‘cooked’ result based on the discussion in section 5.2. EGN is portrayed as an epitome of the governance network concept. Characteristics and tensions are employed as the corridor to understand the design and dynamic of the EGN operation. The parameters of effectiveness are installed to measure EGN effectiveness. Also, the environmental outcomes and stakeholders’ perceptions are analysed to gain insights about the results from EGN operation. The conceptual framework comprises of five key ingredients, they are:

- The characteristics of the EGN
- Any tensions arising from the agendas of the different stakeholders, and the dynamics of EGN operations
- Parameters for measuring EGN effectiveness
- The impacts of the EGN on destination environmental outcomes
- Stakeholder perceptions of the EGN, its operations, effectiveness and environmental outcomes.

5.4. The Applications

The conceptual framework that is outlined in Figure 4 has been customised for the context of this research, namely SIDD settings. However, since the components of the framework were derived from a more general literature, encompassing studies on islands and also mainland tourism destinations, this conceptual framework is not limited to application in SIDD settings only, but potentially to a wider setting of tourism destinations case studies. The application of this conceptual framework provides visual explanation of the complex array of stakeholders relevant to an existing EGN and their interactions.

The first step in applying this conceptual framework to analyse an EGN is the identification of key stakeholder groups. One can apply this conceptual framework to an EGN case study by adjusting the number of stakeholders (the blue boxes), based on the type of each stakeholder. Some EGN might have all of the four different key stakeholder groups: private business entities or tourism business operators, local people, government agencies, and NGOs. However, others might be different by having only two or three stakeholder groups. For example, there might be no NGOs participating in an EGN, or probably no intervention from government agencies. In that case, the blue boxes indicating the particular stakeholder groups which are non-existent can be deleted.

Besides that, there could be more than one stakeholder in each stakeholder group. For example, there might be three NGOs operating and relevant to an EGN case study, one international NGO and two local NGOs. Thus, there will be not one, but three blue boxes, with three different labels: international NGO, local NGO 1 (or its name) and

local NGO 2 (or its name). This first step of key stakeholder identification is important because it will affect the analysis in step two.

The second step in application of this framework for the analysis of EGN is on the elements of characteristics and tensions. The analysis in this step is in the form of exploration of the dynamic between stakeholders in regards to the three tensions and how the EGN facilitator deals with the tensions. Furthermore, the EGN is analysed in regards to their seven characteristic in order to understand the type and orientation of the particular EGN.

The third step in application of this framework for the analysis of EGN is on the elements of effectiveness, and environmental outcomes for the SIDD. The analysis in this step is in the form of measurement using the seven parameters of effectiveness. The inclination of the employed parameters is towards the organisational effectiveness. Furthermore, the analysis involved observation on the environmental outcome in the field or object where the EGN is operating.

Finally, the fourth step in application of this framework for the analysis of EGN is on the elements of stakeholders' perception toward the EGN operation and the development of tourism resulting from it within the relevant SIDD.

When initiating the formation of an EGN, one can also employ this conceptual framework by ensuring that representation of all key stakeholder groups is inclusive: private business entities (tourism business operators), local people, NGOs and government agencies.

This conceptual framework can also be employed in comparing two or more EGN case studies. In this case, frameworks that have been adjusted to include the key stakeholders in the case studies can be placed alongside one another, to allow for easier comparison between the operations of the EGNs and the interactions between stakeholders.

5.5. Conclusion

This chapter attempts to fulfil the first research objective by proposing a conceptual framework for the analysis of EGNs. This chapter has also outlined the relevant theory

and concepts leading to the formation of the proposed conceptual framework, and also the four steps of framework application to a case study.

The following three chapters (Chapter six, seven, and eight) will discuss the comparative application of the conceptual framework to the EGN in the two case study areas. Chapter six will discuss the identification of key stakeholder groups, and also the first two components from the conceptual framework, namely characteristics and tensions.

Chapter 6: Understanding the Operations of Environmental Governance Networks

6.1. Introduction

Chapter 6 is the second of four chapters of findings and discussion. This chapter aims at fulfilling the second research objective, of investigating the operation of Environmental Governance Networks (EGNs) and their role in small island developing destination (SIDD) governance. The research questions addressed in this chapter are: What are the characteristics of the EGNs from the case studies? Who are the key stakeholders? What is the power relation between them? How do EGNs cope with the tensions in SIDD governance?

Sections 6.2 and 6.3 describe the operations of the EGNs in both case studies. Based on data analysis, Section 6.4 then explains the characteristics of the EGNs and identifies the key stakeholders. Following this, Section 6.5 describes the power relations between the stakeholders. Finally, Section 6.6 closes the chapter with an applied conceptual framework based on the findings on the two case study areas.

6.2. Tourism and Environmental Governance on Gili Trawangan Island

This section describes the island of Gili Trawangan and the EGN that operates there. The findings are based on interviews with three Gili Eco Trust (GET) staff (G1, G2 and G3), observations by the researcher, and the textual analysis of several documents.

Gili Indah is a small island village that is actually a cluster of three small islands: Gili Air Island, Gili Meno Island and Gili Trawangan Island. The Gili Islands are located northwest of the larger island of Lombok, and are administered under the Lombok Regency, West Nusa Tenggara Province (Guard 2005)¹. Gili Trawangan Island is about two and a half hours by speedboat from Padang Bai Harbour in Bali, or half an hour by

¹ GUARD, V. K. 2005. Dampak Sosial-Budaya, Ekonomi dan Lingkungan Alam terhadap Pariwisata di Gili Matra: Nusa Tenggara Barat, Indonesia. ACICIS Studi Lapangan Malang. Malang: Fakultas Ilmu Sosial dan Ilmu Politik Universitas Muhammadiyah Malang.

the much slower traditional boat from Bangsal Harbour, Lombok (Ver Berkmoes, Skolnick and Carroll 2009)¹. All three islands are fringed by coral reefs supporting many fish species and other species of marine life. Gili Trawangan, the most westerly of the three islands, has a landmass of approximately 6 km², and was uninhabited until 1976 when fishers from Sulawesi Island and coconut farmers from Lombok Island arrived (Satria, Matsuda and Sano 2006)².

Following the first reported arrivals of tourists in 1981, tourism has progressively emerged as an economic activity. The emphasis on younger backpackers, divers and surfers has contributed to the island's reputation as a 'party island' (Hampton and Hampton 2009³; Kamsma and Bras 2000⁴). Recent developments have included the establishment of up-scale tourism businesses such as high quality restaurants, hotels and spas. This reflects a trend towards attracting more affluent visitors and the growth of Gili's expatriate community (Ver Berkmoes, Skolnick and Carroll 2009)¹.

Since the Island's 800 inhabitants are predominantly Muslim, visitors are expected to respect the local traditions and religious beliefs, especially during the fasting month of Ramadan (Guard 2005⁵; Hampton and Hampton 2009³).

¹ VER BERKMOES, R., SKOLNICK, A. & CARROLL, M. 2009. Bali & Lombok, Footscray, Vic., Lonely Planet.

²SATRIA, A., MATSUDA, Y. & SANO, M. 2006. Questioning, Community Based Coral Management Systems: Case Study of Awig-Awig in Gili Indah, Indonesia. *Environment, Development and Sustainability*, 8, 99-118.

³HAMPTON, M. P. & HAMPTON, J. 2009. Is the beach party over? Tourism and the environment in small islands: a case study of Gili Trawangan, Lombok, Indonesia. In: HITCHCOCK, M., KING, V. T. & PARNWELL, M. (eds.) *Tourism in Southeast Asia challenges and new directions*. Copenhagen, Denmark: Nias Press.

⁴KAMSMA, T. & BRAS, K. 2000. Gili Trawangan-from desert island to 'marginal' paradise: local participation, small-scale entrepreneurs and outside investors in an Indonesian tourist destination. In: RICHARDS, G. & HALL, D. (eds.) *Tourism and Sustainable Community Development*. London: Routledge.

⁵ GUARD, VK 2005, 'Dampak sosial-budaya, ekonomi dan lingkungan alam terhadap pariwisata di Gili matra: Nusa Tenggara Barat, Indonesia', ACICIS Studi Lapangan Malang, Thesis, Fakultas Ilmu Sosial dan Ilmu Politik Universitas Muhammadiyah Malang, Indonesia.

Figure 5. Map of Gili Trawangan Island



Source: www.lombok-network.com

Traditionally, the main sources of income on the island are from coconut plantations and fishing. Tourism started to develop in the late 1970s and early 1980s through day trips and home stay. Three dive operators were established between 1987 and 1989, and

the fourth was created in 1990. After 1995, secondary tourism services, such as *warung* (small traditional restaurants) and *cidomo* (pony carts), became increasingly diverse, and from 1997 onward new investments in tourist accommodation and diving operations dominated the local economy (Soemodinoto and Wong 2004)¹.

Gili Trawangan Island faces a number of environmental challenges. Waste management and recycling systems are badly needed since garbage in general and plastics in particular are strewn around the island (Dodds, Graci and Holmes 2010)². Fresh water is scarce, and most has to be brought in by boat twice a day from Lombok Island (Guard 2005)⁵. However, the biggest environmental problem on Gili Trawangan Island is the deterioration of coral reefs due to past activities such as blast/bombing-fishing and ‘muroami-fishing’, which is a fishing technique originating in Japan in which a fishing boat drags a net along the ocean floor while using pounding devices to chase fish out of the coral. This has resulted in the very low percentage cover (5–20%) of live corals across the three islands (Satria, Matsuda and Sano 2006)³. The remaining coral reefs are also dying as a result of the anchoring of boats on the coral reefs, and the impacts of dive tourism (Segre 2010)⁴.

In 1998, the Indonesian Central Government declared the whole of Gili Indah as a Marine Tourism Park, divided into two main zones: a protected zone for marine animals, plants and the ecosystem, to support the rehabilitation of the deteriorated coastal area; and a utilisation zone, for the continuation of marine-based tourism without compromising the sustainability of the coastal area. The Indonesian Government appointed the Agency for Natural Resources Conservation (BKSDA) to manage the Marine Tourism Park on Gili Trawangan Island, with the prerequisite of

¹SOEMODINOTO, A. & WONG, P. P. 2004. Patterns and Processes of Tourism Development on the Gili Islands, Lombok, Indonesia. *ASEAN Journal on Hospitality and Tourism*, 3, 77-89.

²DODDS, R., GRACI, S. R. & HOLMES, M. 2010. Does the tourist care? A comparison of tourists in Koh Phi Phi, Thailand and Gili Trawangan, Indonesia. *Journal of Sustainable Tourism*, 18, 207-222.

³SATRIA, A., MATSUDA, Y. & SANO, M. 2006. Questioning, Community Based Coral Management Systems: Case Study of Awig-Awig in Gili Indah, Indonesia. *Environment, Development and Sustainability*, 8, 99-118.

⁴SEGRE, M. 2010. Delphine Robbe: taking it personally. *The Jakarta Post* [Online]. Available: <http://www.thejakartapost.com/print/243224> [Accessed 12 January 2011].

⁵GUARD, VK 2005, 'Dampak sosial-budaya, ekonomi dan lingkungan alam terhadap pariwisata di Gili matra: Nusa Tenggara Barat, Indonesia', ACICIS Studi Lapangan Malang, Thesis, Fakultas Ilmu Sosial dan Ilmu Politik Universitas Muhammadiyah Malang, Indonesia.

involving local government, tourism businesses, police and the local community. However, conflicts arose due to different interpretations on the Local Autonomy Law. The Local Government of West Nusa Tenggara Province considered that the management of the Marine Tourism Park should be conducted by them rather than by the BKSDA. The result was lack of management and coordination, and continued practice of damaging fishing techniques (Bottema and Bush 2012)¹.

Deficiency in law enforcement and good management resulted in an increase in destructive fishing practices, leading to the establishment of customary rule *Awig-awig* by the local community on the coral reefs around the island (Satria, Matsuda and Sano 2006)⁴. The implementation of *Awig-awig* was recognised by the local government and formalised through the creation of SATGAS or *Satuan Tugas* (Task Force), who patrol the sea around the Gili Islands on a regular basis using borrowed speedboats from a Gili Trawangan foreign-owned dive operator. Occasional donations from local businesses are used to finance the operation of SATGAS (Guard 2005)². However, a steadier source of financing is needed.

As explained by Graci (2007)³, the development of sustainable tourism has been impeded on Gili Trawangan Island by a combination of management, bureaucracy, financial, social and educational problems. Many stakeholders are resistant to change because of the costs associated with improved environment management, the potential loss of income through restrictions on their activities, and lack of knowledge and education about the impacts of their actions on the environment (Graci 2007)³. There is an urgent need to build awareness of these issues, and to facilitate collaboration between stakeholders so that they may be addressed.

¹ BOTTEMA, M. J. M. & BUSH, S. R. 2012. The durability of private sector-led marine conservation: A case study of two entrepreneurial marine protected areas in Indonesia. *Ocean and Coastal Management*, 61, 38-48.

² GUARD, V. K. 2005. Dampak Sosial-Budaya, Ekonomi dan Lingkungan Alam terhadap Pariwisata di Gili Matra: Nusa Tenggara Barat, Indonesia. ACICIS Studi Lapangan Malang. Malang: Fakultas Ilmu Sosial dan Ilmu Politik Universitas Muhammadiyah Malang.

³ GRACI, S. R. 2007. Accomodating Green: Examining Barriers to Sustainable Tourism Development. Available: <http://linkbc.ca/torc/downloads1/GraciAccommodatingGreen.pdf> [Accessed 16 February 2010].

⁴ SATRIA, A., MATSUDA, Y. & SANO, M. 2006. Questioning, Community Based Coral Management Systems: Case Study of Awig-Awig in Gili Indah, Indonesia. *Environment, Development and Sustainability*, 8, 99-118.

Gili Eco Trust (GET) was established by the Island's expatriate-managed dive shops in 2001 as a not-for-profit initiative, prompted by the destruction of the coral reefs due to global warming, untreated waste, uncontrolled tourism activities and destructive fishing practices (Robbe 2010)¹. The approach involved the levying of an 'eco tax' on divers and snorkelers by the various dive shops. The revenue was used by GET to clean up the beaches, to pay fishers to desist from destructive fishing activities around the coral reefs, and to rebuild the coral reefs through the Biorock reef programme (Graci 2007)³. Most importantly, GET provided financial support for SATGAS.

GET has since developed into an alliance of tourism business operators, non-government organisations (NGOs) and Gili Trawangan Island locals, all of who realised the importance of marine conservation for the development of their business. GET subsequently became the coordinating body for marine conservation on Gili Trawangan Island, representing a private sector cooperation through which the stakeholders established an understanding that overrode their industry competition and allowed them to act collectively against the destructive fishing practices that were threatening the coral reefs around Gili Trawangan Island. GET has also developed a good relationship with the Chief of the Village (local Village Office), has monthly meetings with its stakeholders and has its own website (www.giliecotrust.com) explaining its activities. GET is thus a form of EGN.

GET continues its collaboration with SATGAS, which developed into a local law enforcement NGO formed by locals. Together, they undertake island patrols to monitor fishers, rebuild the coral reefs through the Biorock program and protect the reefs by educating divers and snorkelers (Segre 2010)². In recent years, GET has focused on further environmental conservation efforts such as protecting turtles, establishing a free *cidomo* horse clinic, vetiver grass planting, waste management and recycling, and

¹ ROBBE, D 2010, Why what we do is important, about Gili Eco Trust [Online], Gili Trawangan: Gili Ecotrust, viewed 8 April 2010, <http://www.giliecotrust.com/en/about-gili-eco-trust.html>.

² SEGRE, M. 2010. Delphine Robbe: taking it personally. The Jakarta Post [Online]. Available: <http://www.thejakartapost.com/print/243224> [Accessed 12 January 2011].

³ GRACI, S. R. 2007. Accomodating Green: Examining Barriers to Sustainable Tourism Development. Available: <http://linkbc.ca/torc/downloads/GraciAccommodatingGreen.pdf> [Accessed 16 February 2010].

environmental awareness education and training at local schools (Bottema and Bush 2012)¹.

6.3. Tourism and Environmental Governance on Nusa Lembongan Island

This section describes the island of Nusa Lembongan and the EGN that operates there. The findings are taken from interviews with three Coral Triangle Center (CTC) staff (N1, N2 and N3), observations by the researcher, and the textual analysis of several documents.

Nusa Lembongan Island is located southeast of Bali Island and is under the administration of the Klungkung Regency, Bali Province (Welly 2009)². It is just half an hour by speedboat, or two hours by *Jukung* (traditional double outrigger boat) from Sanur Beach, Bali (Purnayasa 2010)³. Nusa Lembongan Island was populated in the fourteenth century by people banished from the kingdom of Klungkung on mainland Bali (Sukarsa 2006)⁴. Almost all residents are Hindu and their cultural practices resemble those prevalent on Bali Island. There are approximately 7,000 inhabitants on the 15 km² island (Ver Berkmoes, Skolnick and Carroll 2009)⁵. Several *Banjar* (neighbourhoods) exist, with strong social connections *Mengayah* (working bees) linking the various resident families (Susanta 2003)⁶. The families help each other to maintain their Hindu traditional ceremonies and celebrations in anticipation of later reciprocation. Although the population is significantly higher than that of Gili

¹ BOTTEMA, M. J. M. & BUSH, S. R. 2012. The durability of private sector-led marine conservation: A case study of two entrepreneurial marine protected areas in Indonesia. *Ocean and Coastal Management*, 61, 38-48.

² WELLY, M 2009, 'Local community in Lembongan, Nusa Penida, launches community center to support marine conservation and establishment of Nusa Penida MPA', viewed 8 April 2010, <http://www.coraltrianglecenter.org>

³ PURNAYASA, I. K. 2010. Atraksi Wisata Surfing Sebagai Daya Tarik Wisata Di Desa Lembongan Kecamatan Nusa Penida Kabupaten Klungkung. Sarjana Ekonomi, Sekolah Tinggi Ilmu Ekonomi Triatma Mulya.

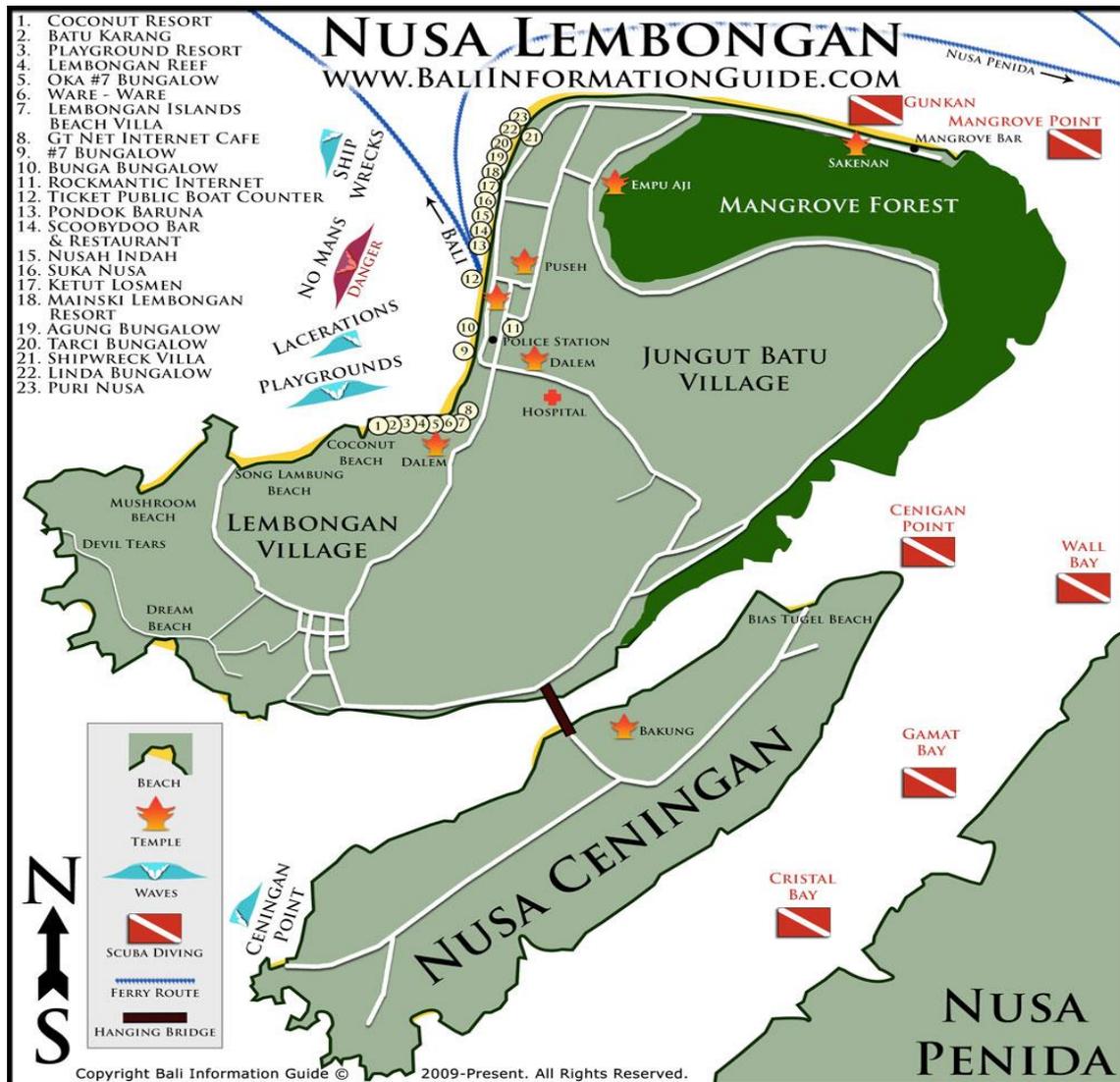
⁴ SUKARSA, I. W. 2006. Pelestarian Terumbu Karang Dalam Menunjang Wisata Bahari Di Pantai Selegimpak Desa Lembongan Kecamatan Nusa Penida Kabupaten Klungkung. Sarjana Pariwisata, Universitas Udayana

⁵ VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, Bali & Lombok, Lonely Planet, Footscray, Victoria.

⁶ SUSANTA, I. K. 2003. Respon Masyarakat Terhadap Rencana Pengembangan Kawasan Wisata (Studi Kasus Kawasan Wisata Nusa Ceningan Desa Lembongan Kecamatan Nusa Penida Kabupaten Klungkung). Sarjana Pariwisata, Udayana.

Trawangan Island, three-quarters of the residents are farmers growing seaweed, and tourism is not the major economic activity of the island (Ver Berkmoes, Skolnick and Carroll 2009²; Long and Wall 1996)¹.

Figure 6. Map of Nusa Lembongan Island



Source: www.baliinformationguide.com

According to Long and Wall (1996)¹, backpackers started arriving on the island during the 1970s. Though the first guest house was built in 1980, it was not until 1990 that

¹ LONG, V. & WALL, G. 1996. Successful tourism in Nusa Lembongan, Indonesia? *Tourism Management*, 17, 43-50.

² VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, *Bali & Lombok*, Lonely Planet, Footscray, Victoria.

commercial tourism activities commenced with the establishment of Bali Hai Cruises pontoons and a village tour. The level and type of tourism development is equivalent to what occurs on Gili Trawangan Island. Recently, both settings have been moving away from an emphasis on backpackers towards more up-scale tourism (Ver Berkmoes, Skolnick and Carroll 2009)³.

The three Nusa Islands in total have 1,419 hectares of coral reefs, 296 species of corals, 537 species of fishes and 13 types of mangroves. Nusa Lembongan's coral reefs are deteriorating rapidly as a consequence of destructive fishing methods, the overcrowding of boats, pontoons and other tourism activities (Wardany 2008)¹. The marine area is overexploited because of competition between various income generating activities, including seaweed production, aquaculture, capture fisheries and marine tourism. This over-exploitation has led to decreasing marine biodiversity, falling catches of fish and seaweed harvests, and an environment that is less attractive for marine tourism (Welly 2009)².

The Bali-based Coral Triangle Center (CTC) is an EGN that operates in seven sites around Indonesia (Wardany 2008)¹. One of these includes a group of three small islands south east of Bali Island made up of Nusa Lembongan, Nusa Ceningan and Nusa Penida. Of these three, the present case study focuses exclusively on Nusa Lembongan Island because tourism is more developed there than in the other settings (see Figure 10). The Government of Indonesia established the Coral Triangle Initiative (CTI) in 2007 in collaboration with five other countries in order to safeguard coral reefs, fisheries, and food security in the region's marine and coastal areas (Wagey and Suyoso-Marsden, 2010)⁴. The Nature Conservancy (TNC), an international NGO, was one of the partners that established the CTC in 2000 (Suriyani 2008)⁵. In the case of

¹ WARDANY, I 2008, 'TNC to focus on Nusa Penida coral conservation', The Jakarta Post [Online], viewed 30 January 2010, <http://www.thejakartapost.com>

² WELLY, M 2009, 'Local community in Lembongan, Nusa Penida, launches community center to support marine conservation and establishment of Nusa Penida MPA', viewed 8 April 2010, <http://www.coraltrianglecenter.org>

³ VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, Bali & Lombok, Lonely Planet, Footscray, Victoria

⁴ WAGEY, T & SUYOSO-MARSDEN, E 2010, 'UNEP awards Indonesia for its ocean initiatives', The Jakarta Post [Online], viewed 2 June 2010, <http://www.thejakartapost.com/news/2010/03/02/>.

⁵ SURIYANI, LD 2008, 'Nusa Penida marine conservation blueprint prepared', The Jakarta Post [Online], viewed 13 September 2010, <http://www.thejakartapost.com/news/2008/09/13/nusa-penida-marine-conservation-blueprint-prepared.html>.

Nusa Lembongan, the CTC facilitated a collaboration between local government (the Klungkung Regency), central government (the Ministry of Marine Affairs and Fisheries), a local NGO (Satya Posana Nusa; SPN), tourism business operators, and local fishers and farmers (Setiawati 2009b¹; Setiawati 2009c²). CTC aims to create an marine protected areas (MPA) to protect the environment while also accommodating nature-based tourism activities (Welly 2009)³.

CTC has been involved with the three Nusa Islands since 2003, when they conducted a recovery program following the first Bali bombing. The program, called Bali Beach Recovery Project, was financed by grants from United States Agency for International Development (USAID). The three Nusa Islands were chosen because they are the only island-comprised sub-district of Bali, and they were believed to have been strongly and negatively affected by the decline in tourism due to the bombing. During that period, CTC focused on environmental awareness and education programs for local people, through which they explained that coral reefs and mangrove forests are the best protection from sea abrasion while also possessing a great potential for marine-based tourism as a source of income. This awareness education program ended in 2005 having had great success; the majority of locals are now well aware of the need to protect the environment. Nusa Lembongan Island locals also continued to urge CTC to help them to implement more environmental actions.

As a response, in January 2008, CTC began a new awareness education project that focused more deeply on the management side with the aim of creating an effective MPA, or *Kawasan Konservasi Perairan (KKP)*. This required collaborative action from all stakeholders related to Nusa Lembongan Island. Thus, CTC started to work seriously with the local Klungkung Regency Government, the Indonesian Ministry of Marine Affairs and Fisheries, local NGOs, local communities and tourism business operators around the island. In this way, a collaborative EGN was formed. The proposed MPA was aimed at ensuring the sustainability of marine biodiversity while also allowing for

¹ SETIAWATI, I 2009b, 'Residents lack tools to monitor destructive fishing', The Jakarta Post [Online], viewed 24 February 2010, <http://www.thejakartapost.com>

² SETIAWATI, I 2009c, 'Underwater Earth Day for students', The Jakarta post [Online], viewed 23 April 2010, <http://www.thejakartapost.com>

³ WELLY, M 2009, 'Local community in Lembongan, Nusa Penida, launches community center to support marine conservation and establishment of Nusa Penida MPA', viewed 8 April 2010, <http://www.coraltrianglecenter.org>

marine-based tourism, and fisheries and aquaculture as sources of income for locals. This was deemed important to anticipate and mitigate environmental degradation due to uncontrolled mass tourism.

To initiate an effective MPA, the stakeholders of CTC worked together in developing databases on the ecology, social-economy, and customary and culture of Nusa Lembongan. These databases were used as a tool for problem identification. CTC then conducted workshops with all stakeholders, explaining the current condition of the island, and the problems being encountered. The workshops resulted in an agreement from all stakeholders to create an MPA to protect the island. In November 2009, a task force was created and subsequently trained by experts from TNC, an international NGO, in areas relevant to designing, introducing and managing an effective MPA.

As shown in Figures 7 and 8, a Community Centre was started in cooperation with local NGO SPN, for training and advocacy, to raise awareness of environmental conservation. Research was also conducted to form data about the island, for the proposed MPA and to facilitate stakeholder collaboration (Wardany 2008¹; Welly 2009²).

The task force conducted six months of public consultation, from December 2009 to June 2010, to publicise the plan for an MPA among the island inhabitants. The task force held 33 meetings and discussions with local communities. This bottom-up approach was deemed important to obtain local support.

A top-down approach was also pursued by approaching the local Klungkung Regency Government to secure legal certainty. This resulted in the release of Decree number 12 in August 2010 by the Regent of Klungkung. The Decree demarcated 20,057 hectares of the three Nusa Islands and the sea around them (1.8 km from the shoreline) as reserved for the formation of an MPA. In November 2010, the creation of the new MPA was declared (see Figure 9), and the ceremony was attended by the Indonesian Minister of

¹WARDANY, I 2008, 'TNC to focus on Nusa Penida coral conservation', The Jakarta Post [Online], viewed 30 January 2010, <http://www.thejakartapost.com>

²WELLY, M 2009, 'Local community in Lembongan, Nusa Penida, launches community center to support marine conservation and establishment of Nusa Penida MPA', viewed 8 April 2010, <http://www.coraltrianglecenter.org>

Marine and Fisheries, the Governor of Bali, the Regent of Klungkung and the US Ambassador for Indonesia (Woronowycz 2010)¹.

Figure 7. Nameplate of the Nusa Lembongan Island community centre



Source: Author

¹ WORONOWYCZ, R 2010, Press release: Ambassador Marciel helps launch first marine protected area in Indonesia [Online], Jakarta, Indonesia: Embassy of the United States Jakarta, Indonesia, viewed 22 November 2010, http://jakarta.usembassy.gov/pr_11222010.html.

Figure 8. Community centre for education and training, Nusa Lembongan Island



Source: Author

The MPA was also formally listed in the *Rencana Tata Ruang* (Regional Spatial Planning) of the Klungkung Regency. This formally legalised the MPA, preventing any changes by future regents of Klungkung.

Despite this, during data collection for this research (May–June 2011), there were indications that the MPA was not yet running effectively. For example, decisions on area zoning within the MPA were still being discussed by stakeholders. Due to uncertainty about each area's designation of function, law enforcement could not be effectively applied. In addition, the long-term management plan and sustainable financing mechanism for the MPA had not yet been properly developed.

Figure 9. Banner of the declaration of launching the Marine Conservation Area



Source: Author

6.4. Characteristics of the Two Environmental Governance Networks

Although the two case study islands are in close proximity and have similar dimensions, aims and physical attributes, the respective EGNs have some distinctive characteristics. GET comprises local business operators and local residents, with minimal local government participation. Conversely, CTC links local community groups, national and local governments, and national and international NGOs. Employing the seven network characteristics from the proposed conceptual framework in Chapter 3, this section explains and discusses the operation of the two EGNs and the differences and

similarities between them. This section is also informed by interviewees' responses to the research question: What do you perceive to be the characteristics of the network?

6.4.1. Facilitators of the Network

The facilitators of the network are the people or institution in charge in the EGNs. In the case of GET on Gili Trawangan Island, the facilitator was an expatriate dive instructor from a local dive shop. Although GET had been initiated by the owner of the dive shop, that owner had passed the management of GET to the instructor due to the active role and environmental actions of that particular instructor. In interviewing the GET manager, the researcher discovered that, despite only being paid US\$200 per month to manage GET, she showed a great deal of passion towards the marine environment. Moreover, when other interviewees were asked to identify the facilitator of GET, most were able to name the GET manager specifically. Under her leadership, GET had grown to incorporate more stakeholders, especially from the local community, with locals voluntarily joining and supporting the EGN's operation. *'She did her best for the environment of this island. Sometimes I think she loves this island more than us the locals did' (G15). 'I often saw her carrying the rubbish bag and picking up the plastic rubbish on the beach. She is a good example for my kids' (G19).*

The facilitator of the network on Nusa Lembongan Island was a US-based international NGO. This NGO came to the island after the first Bali bombing to deliver an environmental education program. They pioneered the advocacy process towards the government, promoted environmental awareness among the island's locals and received support when they proposed the formation of a new MPA to protect the island's environment without impeding the socio-economic activities of the island. Since the facilitator of the network is an international NGO, they possess significant resources, expertise and experience in starting and managing MPAs. This enabled their effective lobbying of the Local and Central Indonesian Governments. However, when asked to identify the facilitator of the network, not all interviewees could identify the international NGO by name, or even by which country it came from. These interviewees were local fishers and farmers (N4, N8, N9, N17, N20, N21 and N22). Other interviewees were able to identify the facilitator of the network. *'I often met some westerners who came here and taught us about protecting the coral reefs, but the*

person always different from time to time. I don't really know who they are, but they are nice people' (N17). 'I don't know who they are but they gave me a lot of information about the environment. My friend told me that those people has an office in Bali' (N22).

6.4.2. Network Community

Network community refers to the community in which the network is located and operated. The network community of GET is Gili Trawangan Island. Although the initial effort from GET was aimed towards all three Gili Islands, during development the other two Gili islands decided to create their own institutions to police their environments. Therefore, GET now operates exclusively on Gili Trawangan Island. The stakeholders were all based on the island.

The network community of CTC is much larger, as it includes local and international stakeholders, and the EGN encompasses all three Nusa Islands: Nusa Lembongan, Nusa Ceningan and Nusa Penida. In fact, CTC facilitates a number of EGNs around the Coral Triangle Initiative (CTI). Considering that the facilitator of the network that includes Nusa Lembongan is an international NGO, and that even the US Ambassador for Indonesia was involved in the MPA declaration ceremony, it is clear that the international community is strongly involved in this EGN.

6.4.3. Location of the Network

Similar to network community, location of the network refers to the physical area relevant to the network operations. For GET, this is Gili Trawangan Island, though Gili Meno and Gili Air Islands are also relevant to the operation of this EGN since many fishers are based there. The office of GET is located at the Big Bubble Dive Shop, where the GET manager also works as a dive instructor.

The physical areas relevant to the operation of CTC include not only Nusa Lembongan Island, but also Nusa Ceningan and Nusa Penida. The main administrative office of CTC is on the larger neighbouring island of Bali.

6.4.4. Focus of Network Activity

The focus of the network activity is its aims and orientation. GET focuses on replenishing the local marine area, especially the coral reefs. CTC focuses on creating MPAs, both on Nusa Lembongan and throughout Indonesia and the Coral Triangle area.

Interviews with staff from GET, a local NGO and the local Village Office revealed that GET orients itself as a self-regulating action-oriented network. Despite initially receiving little support from the government, GET and its manager focused on moving forward and embracing the totality of local stakeholders on the island. The EGN's many local initiatives have been funded by the collaborative pooling of resources among the voluntary stakeholders.

The orientation of CTC is as a policy and planning network, with a primary focus on environmental advocacy. Much time and energy was spent in ensuring that the conservation effort and creation of the new MPA received proper legal support from the government and that all stakeholders were involved and agreed to the proposed plan.

6.4.5. Resourcing

The sources of funding, knowledge and manpower of GET come from donations, volunteers and contributions from tourism business operators, as well as from the 50,000 Rupiahs (US\$5.5) eco tax collected from each diver and snorkeler using the marine area surrounding Gili Trawangan Island. Often the rental and purchase prices of diving and snorkelling equipment already include the eco tax, which is then sent to GET monthly by the businesses. Visitors also receive a re-useable shopping bag when they donate to GET. Every first Friday of the month, GET conducts a clean-up day, mobilising all volunteers, including tourists, by providing them with a large plastic bag and asking participants to fill it with as much non-organic waste as possible.

CTC, on the other hand, receives funding from grants, NGOs, international donors and funding agencies, local and central government, and private donations. In the spirit of collaborative action with all stakeholders, CTC tries not to provide all funding, but always proposes co-funding with local communities and businesses, and with

government (central, local and government agencies). This is to ensure that projects enjoy collective support and a sense of ownership on the part of all stakeholders.

6.4.6. Background of the Network Facilitator

The nature of the persons or institution in charge can significantly affect the operation of an EGN. The network facilitator of GET is a tourism business operator. This has influenced GET's entrepreneurial approach to environmental conservation.

The facilitator of CTC on Nusa Lembongan Island is an international NGO from a developed country. Prior to arriving in Indonesia, the NGO had experience in dealing with bureaucracy and environmental management. This has resulted in the EGN taking a policy and planning type approach, with much attention given to advocacy and ensuring the legality of the EGN's environmental conservation efforts.

6.4.7. Roles and Responsibilities

The roles and responsibilities of GET and CTC as EGNs in SIDD settings are very similar. They initiate, educate, coordinate, execute and to some extent finance the environmental conservation efforts in the two case study islands. Both networks arose from a deep concern towards the deterioration of marine area ecology due to a combination of uncontrolled marine-based tourism and other extractive activities such as fisheries and aquaculture. Likewise, both wanted to safeguard the environment, yet also realised the need to ensure the continuation of local socio-economic activities.

GET has managed a number of conservation efforts including rebuilding the coral reef through the Biorock program, paying SATGAS (a local NGO) to police the island, paying local fishers to desist from destructive fishing methods, coordinating waste management and recycling, and providing environmental awareness education and training to local schoolchildren and businesses.

CTC has also been responsible for a range of initiatives. For example, CTC provided expert advice on the development of MPA plans, coordinated the planning process with local communities and local and central government, created a business plan for the self-sustaining management of the MPA and coordinated with SPN and the local

community to conduct environmental awareness education and training for local schoolchildren and businesses.

6.5. Stakeholders and Tensions

Chapter 3 explained the benefits of employing a political ecology approach in investigating the two case studies and examining SIDD environmental governance. An important component of the political ecology approach is identifying key stakeholders and the dynamics between them. Thus, this section focuses on answering the questions ‘Who are the key stakeholders?’ and ‘What do you perceive to be the scope of the network and any potential tensions or conflicts?’ This leads into a discussion of the power relations between them. The conceptual framework for the analysis of EGNs (see Figure 4) identifies four groups of stakeholder; namely, private business entities (tourism business operators), local people, NGOs and government agencies.

6.5.1. On Gili Trawangan Island

GET on Gili Trawangan Island has four types of stakeholders. The first of these are tourism business operators. According to GET staff (G1, G2, G3), there are 124 medium- to large-scale tourism business operators on the island. This includes hotels (accommodation businesses), restaurants, dive shops, bicycle rentals, travel agents, bars and cafes, and souvenir and fashion shops. Many of these businesses are owned by expatriates from Europe. There are also several locally owned small shops, *warung* (small traditional restaurant), and 32 *cidomo* (pony carts). The second stakeholder is the local NGO, SATGAS, which is a task force that consists of locals, responsible for island security. The third stakeholder group is the government agencies, including the local Village Office, and *Balai Kawasan Konservasi Perairan Nasional* (BKKPN), which is a small representative office of the Indonesian Ministry of Marine and Fisheries with only two staff. The fourth group comprises the local fishers, who are paid by GET to desist from their destructive fishing practices and to fish outside the marine-based tourism designated areas.

There were no local farmers on Gili Trawangan Island because coconut farming had recently been abandoned due to the larger financial benefit and higher prestige of

working in tourism-related businesses. *'Three years ago I was a coconut farmer. Life was hard, but then I found that tourists were willing to pay when they are borrowing my old rusty bicycle. So I bought three brand new bicycles from Lombok and started this rental business. Life is good now and I'm not doing coconut farming anymore'* (G 20).

The expatriate-owned dive shops are the dominant GET stakeholders (Segre 2010)¹. This group, from deep concern about the damaged environment on Gili Trawangan Island, initiated the GET and thought about its funding mechanism. These handful of expatriates faced strong opposition from locals, especially from fishers, who continued their destructive fishing methods, including dynamite and cyanide fishing. *'When I started the GET initiative and tried to gather support to ban destructive fishing, I regularly received verbal abuse and even death threats. I don't know who they were but they probably related to the fishermen'* (G1). To address this, SATGAS was formed, and they received funding from the dive shops and other businesses to act as the 'environmental police' of the island. *'I used to be a fisherman and regularly used cyanide and bomb as well. But then I realised that I was destroying the environment. That is why I joined SATGAS and I'm now working together with the dive shops and the local businesses against destructive fishing method. When patrolling this island I have caught several fishermen, including my own cousins, they are very stubborn'* (G8).

At this point, GET began negotiations with the fishers, resulting in GET paying a monthly compensation sum to fishers to cease their activity or to fish outside marine-tourism designated areas. This is arguably not a healthy solution. *'I don't know what will happen next year, we just received a letter from the representative of the fishermen, they are asking for more compensation money'* (G1).

The Chief of Village (the local Village Office) also started to understand what GET was doing, and began to support their efforts, including by promoting GET programs in local schools and communities. *'I believe GET has good intention. They don't just talk make plans, they initiate environmental and education programs and most of it has been running well. I fully support them and their programs'* (G13).

¹SEGRE, M. 2010. Delphine Robbe: taking it personally. The Jakarta Post [Online]. Available: <http://www.thejakartapost.com/print/243224> [Accessed 12 January 2011].

In 2010, the Central Government opened a small BKKPN office on the island, and they have been supportive of the existing network and operation of GET, even facilitating the granting of proper visas for the expatriate managers of GET. However, this small office has only acted in the capacity of monitoring and following GET's program. This sudden interest and initiative of opening an office in Gili Trawangan Island was probably attributable to the growing number of international visitors, and also increasing international coverage in the media, guidebooks, and travel related websites. *'The Ministry of Marine and Fisheries understood that Gili Trawangan is an international tourist attraction but at the same time also an important site of marine bio-diversity. That is why we opened an office here to be able to regularly monitor and support the environmental preservation initiatives in this island'* (G10).

Based from the information gathered in Gili Trawangan Island, there also exist individuals that played the role of local opinion leaders. These are well respected member of the community in which their opinion is highly appreciated and could easily influence the perspectives and reactions of local people. In the case of Gili Trawangan Island, these are prominent local members of the Muslim religious belief who have the title of 'Haji' or 'Pak Haji' in front of their name. 'Pak' literally means 'Father', and sometimes also 'Mister'. The 'Haji' title means that the individual that holds that title has accomplished the Muslim religious duty of Hajj pilgrimage in Mecca, Saudi Arabia. Therefore, the name 'Haji Malik' means the person's name is Malik and he has conducted the Hajj pilgrimage. These Haji, are very respected by the members of the community as shown by these excerpts (Names have been excluded for anonymity): *'I'm not sure about the parties and the alcoholic drinks, but as long as Haji.... doesn't say anything, I think it's alright, as long as the locals don't participate'* (G4); *'I saw Pak Haji.... supported and participated in GET activities including cleaning the beach program, so I reckon this organisation must be good and I should also participate'* (G5). *'When I'm in doubt about how to deal with the tourists, I searched for advice from Haji....'* (G6).

From a power relation perspective, the expatriates who own the dive shops are the most dominant stakeholder, as they hold the power over managing and financing GET. The remaining GET stakeholders follow the expatriate GET manager and the decisions

made during the monthly meeting. The only threat comes from the local fishers who demand a monthly payment from GET. Nevertheless, this threat, even if it grows, is outweighed by the fact that GET enjoys the backing of SATGAS, the local community and government agencies.

One could argue that GET is only the puppet of the expatriates, and SATGAS is their private guard in the absence of official law enforcement to ensure the permanency of their dive shops and tourism-related businesses. However, the argument is weak because the main outcome of GET's efforts lies in ensuring that the island and its coral reef stay attractive. All stakeholders benefit from improved environmental conditions, which make their island a better tourist attraction. When tourism grows, there is less unemployment and more income for everybody working on the island. Even the fishers can sell their catch at a better price to restaurants during tourism upturn. Finally, GET makes the government agencies look good, both in their reports and in factual checks by the agencies' superiors. Thus, despite the imbalance in the stakeholders' power relations in GET, the EGN benefits all of Gili Trawangan. *'GET is a good organisation. They care about the coral reefs and the marine environment which is very important for the tourism development, and also important for us the locals since it provided us with jobs. You can ask around, not a single unemployed person exist in this island. (G13).*

In regards to the manner in which GET deals with tensions, GET tends to favour efficiency, internal legitimacy and flexibility. In their operation, GET tries to be as efficient and flexible as possible in their administrative process, minimising bureaucracy and paper work, and focusing more on short-term objectives, to take maximum action for the benefit of the island's environment. Moreover, GET does not wait for legal backing or decrees. Rather, as ideas arise, from the manager, stakeholders or even from visitors to the island, they are discussed at the monthly meeting. If the idea is agreed on, it is executed quickly. Thus, flexibility and internal legitimacy are advocated over pursuing external legitimacy. This is possibly due to the already aligned perspectives and objectives of the stakeholders, and the unique conditions of covering only a small area, such as the quick and easy communication between stakeholders.

6.5.2. On Nusa Lembongan Island

CTC on Nusa Lembongan Island has six types of stakeholder. The first is the international NGO TNC, which is the US-based NGO providing the initiative, expertise, training and some of the funding for the CTC. The second stakeholder is the local NGO SPN, which mostly comprises teachers from local schools. Most of the members of SPN have a bachelor degree and are well aware of the importance of environmental preservation on their island. *'Most of us in SPN are local school teachers. We have bachelor degree in education, but not in environmental science. So, we are not expert in marine area conservation. However, we always do our best because our children will suffer the consequences if we let environment degradation continues'* (N5).

The third stakeholder is the local Village Offices, under the Klungkung Regency, Bali Province. Nusa Lembongan Island consists of two villages; namely, Lembongan Village and Jungut Batu Village. Both have their own fully functional Village Office with staff working five days a week (Murta 2010¹; Suliana 2010²).

The fourth stakeholder group includes the private business entities, such as hotels and villas, restaurants and bars, souvenir shops, mangrove tours, dive shops, motorbike rentals and internet cafes. Local farmers are the fifth stakeholder. They are mostly employed in the aquaculture farming of seaweed in the shallow waters of the west and southeast coastal areas of the island. This group of stakeholder is quite large, about 85% of the locals (Murta 2010)¹. Many locals consider seaweed farming as a part-time rather than full-time job, thus there is much overlapping of professions on the island. *'Most of us in this island build our houses and temples from the income of seaweed farming, we've been doing it for years'* (N4). For example, a local islander could be a schoolteacher during office hours, but a seaweed farmer during the low tide period of the day. Lastly, local fishers in the southern coastal area comprise the sixth group of stakeholders. They mostly travel from neighbouring Nusa Penida Island. The role of local opinion leaders is not as strong as in Gili Trawangan Island. This is due to the

¹ MURTA, I. N. 2010. Profil Desa Lembongan, Kecamatan Nusa Penida, Kabupaten Klungkung, Provinsi Bali, 2010. Departemen Dalam Negeri Direktorat Jenderal Pemberdayaan Masyarakat Dan Desa

² SULIANA, I. N. 2010. Profil Desa Jungut Batu, Kecamatan Nusa Penida, Kabupaten Klungkung, Propinsi Bali, 2010. Direktorat Jenderal Pemberdayaan Masyarakat Indonesia Departemen Dalam Negeri.

local tendency of community discussion and compromise when dealing with a problem or conflict, rather than looking for one respected person's opinion.

TNC as an international NGO is the dominant CTC stakeholder. They were the first to educate the locals about environmental awareness, initiated the MPA formation plan and facilitated the advocacy towards the local government to receive adequate legal protection for the proposed MPA. The formation of SPN was sponsored by TNC, and interviews with SPN members (N5, N14, N16, N23) revealed the significant influence of TNC on SPN's programs and activities. The two NGOs also cooperate on many events, including for the environmental jamboree, Earth Day celebration every 22 April, World Environmental Day celebration every 5 June and World Ocean Day celebration every 8 June. CTC also approached private business entities, fishers and farmers, and captured their attention and support for their program. Then, CTC directed all of this support into the planning process and lobbying the Klungkung Regency Government.

This effort was complemented by a push from the Indonesian Central Government agenda after the establishment of the CTI in 2007. The CTI works in collaboration with five other countries to safeguard coral reefs, fisheries and food security in the region's marine and coastal areas. A decree from the Klungkung Regent in August 2010 provided legal certainty for the 20,057 hectares of MPA and 400 hectares of core protection zone. Nevertheless, at the time of data collection, the MPA was not yet operational. In particular, it lacked a sustainable financing mechanism and was not exercising proper law enforcement due to ongoing discussions between the local Village Offices, private businesses, fishers and farmers about the zoning borders and designations. *'The MPA formation plan is still running and very close to the finishing line. I understand that it had taken a long time and many of our stakeholders have expressed their desperation. But we must ensure that the proposed MPA received all the necessary backing and has a sustainable funding mechanism. If we rushed the process of starting the MPA, it could run, but for a short period of time only'* (N1).

From a power relation perspective, although TNC as the international NGO is the dominant stakeholder within CTC, in terms of authority in making decisions, they put themselves on par with all other stakeholders. Thus, the dominant stakeholder does not possess the over-riding decision-making power. All of the steps and processes towards

the formation of the MPA were patiently conducted and awaited agreement from all stakeholders. As commented on by CTC staff (N1), this was to ensure the sense of ownership of the stakeholders, and to pursue stability in the long-term implementation of the MPA. *'We did stakeholder consultations with the representatives from the entire island. I understand that this takes time, but we want to develop their sense of belonging to ensure that everybody is on board before the ship sets sail'* (N2). On one hand, this practice is an excellent example of inclusiveness and a balanced distribution of power in a multi-stakeholder organisation. However, under this system, disagreement from even one stakeholder places the implementation of a project at risk.

In regards to how CTC deals with tensions, CTC tends to favour inclusiveness, external legitimacy and stability. In their operation, CTC tries to submit to all relevant laws and regulations. Further, CTC spends much time and effort in ensuring their projects are backed with a strong legal foundation and by all components involved, to avoid future disputes with external bodies and among stakeholders. Numerous meetings, public consultations and organisation gatherings are conducted on the island to ensure that locals are well informed about the MPA plan.

6.6. Applied Conceptual Framework for the Comparative Analysis of Environmental Governance Networks in Case Study Areas

The two islands offered an interesting and instructive comparison. Both case studies are located in the Lombok Strait between the much larger Bali and Lombok Islands, possess attractive marine areas, have collaborative EGNs, and are attempting to progress from being budget backpacker destinations towards a more resort-based style, catering to more affluent visitors (Ver Berkmoes, Skolnick and Carroll 2009¹; Hampton and Hampton 2009²). The two islands differ in terms of size, demography, cultural practices, local government participation and prevailing EGNs. These EGNs have

¹ VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, Bali & Lombok, Lonely Planet, Footscray, Victoria.

² HAMPTON, M. P. & HAMPTON, J. 2009. Is the beach party over? Tourism and the environment in small islands: a case study of Gili Trawangan, Lombok, Indonesia. In: HITCHCOCK, M., KING, V. T. & PARNWELL, M. (eds.) Tourism in Southeast Asia challenges and new directions. Copenhagen, Denmark: Nias Press.

participated in helping to replenish the marine environment while allowing local fishers, farmers and tourism businesses to operate sustainably.

In the case of Gili Trawangan Island, GET was instigated by a group of dive businesses and has progressively developed into an EGN involving almost all local businesses, locals and tourists on the island (Goreau 2009¹; Robbe 2010²). On Nusa Lembongan Island, CTC, in conjunction with local and national governments and the local NGO (SPN) created an MPA to protect the environment, while also allowing for marine-based tourism activities to continue (Welly 2009)³.

The respective EGNs have some distinctive characteristics. GET consists of local business operators and local residents, but local government participation is minimal. Conversely, CTC links local community groups, national and local governments and local and international NGOs (Welly 2009)³. These patterns have important parallels with the two types of EGN proposed by Erkus-Ozturk and Eraydin (2010); namely, policy and planning networks and action-oriented networks. An action-oriented network is portrayed as self-regulating and voluntary, whereas a policy and planning network is described as being regulating and compulsory. This classification is relevant to the two case study islands because it conveys the different network conditions prevalent in SIDD settings.

The action-oriented network applies to Gili Trawangan Island, where the stakeholders—tourism business operators, local fishers and farmers, and local NGOs—have created the self-regulating action-oriented GET private partnership. This collaborative action arose voluntarily, based on a collective concern about the wellbeing of the coastal environment generally and of the coral reefs in particular. Local government has a minimal involvement in the network. In contrast, the policy and planning network applies in the case of Nusa Lembongan Island, where CTC, a public–private partnership, connects local and international NGOs, local and national governments,

¹ GOREAU, TJ 2009, 'Tourism and sustainable coral reefs', viewed 10 May 2010, <http://www.globalcoral.org/Ecotourism%20Biorock%20complete.pdf>.

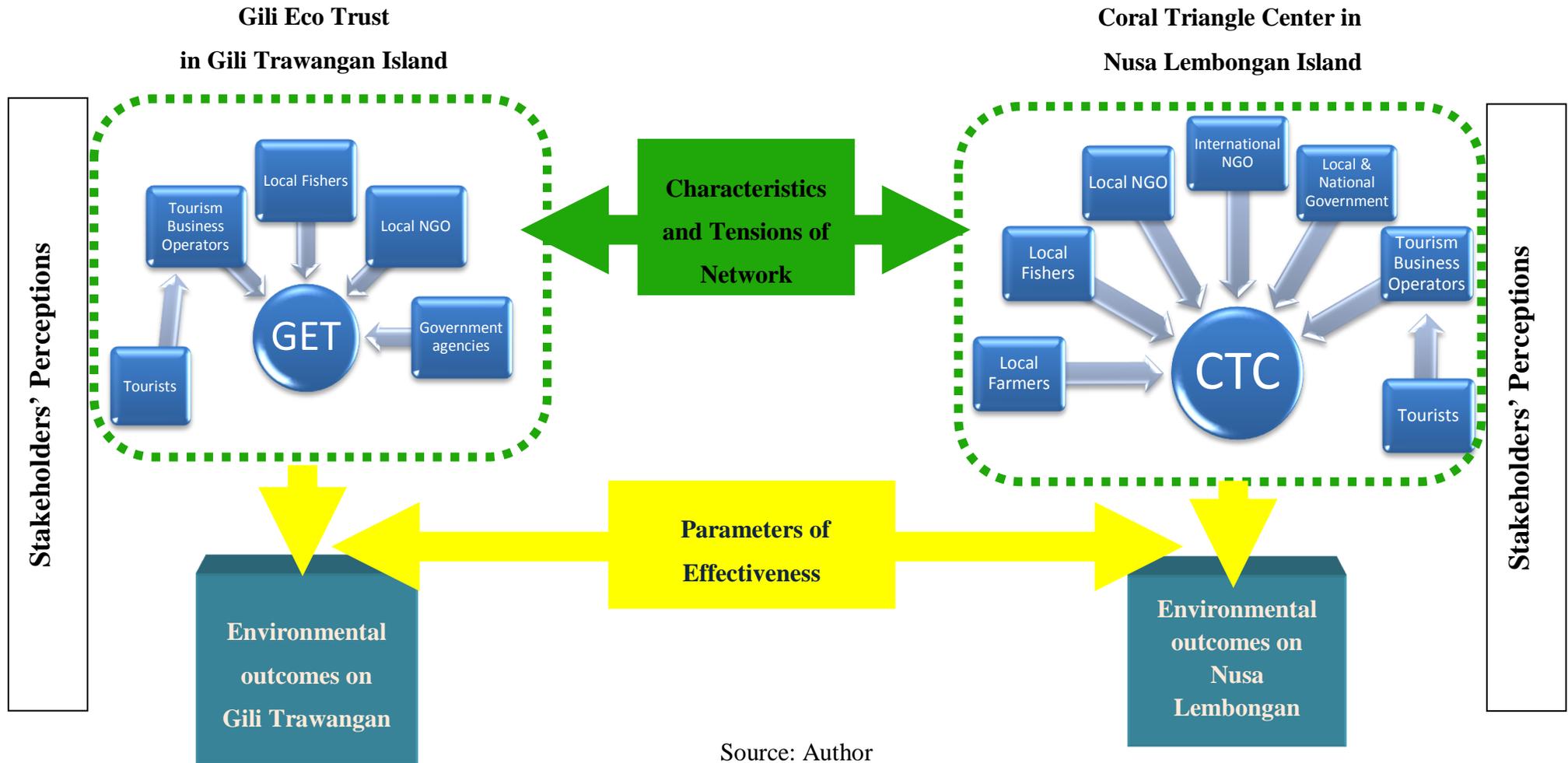
² ROBBE, D 2010, Why what we do is important, about Gili Eco Trust [Online], Gili Trawangan: Gili Eco Trust, viewed 8 April 2010, <http://www.giliecotrust.com>

³ WELLY, M 2009, 'Local community in Lembongan, Nusa Penida, launches community center to support marine conservation and establishment of Nusa Penida MPA', viewed 8 April 2010, <http://www.coraltrianglecenter.org>

local fishers and farmers, and tourism business operators. The network was initiated by the international NGO, which was concerned about the island's need to regulate and plan tourism development.

In Figure 10 below, the conceptual framework for the analysis of EGNs (see Figure 4) is applied to both case studies. For the purposes of comparative analysis, the revised conceptual frameworks are placed alongside one another. Figure 10 also illustrates how Erkus-Ozturk and Eraydin's (2010) EGN types apply to the case study islands. On the left is the self-regulating action-oriented network represented by GET in Gili Trawangan Island. On the right is the policy and planning network represented by CTC in Nusa Lembongan Island.

Figure 10. Applied conceptual framework for the comparative analysis of EGNs



Source: Author

6.7. Conclusion

This chapter has discussed the findings in regards to operation of EGN. The application of the first two components of the conceptual framework has tried to fulfil the second research objective of investigating the operation of EGNs and their role in SIDD governance. This chapter has discussed the characteristics of the EGNs from the two case studies, its key stakeholders, and the power relation between them. Also, the chapter discussed how EGNs cope with the tensions in their operation. The chapter ended with an applied conceptual framework for the comparative analysis of EGN in the two case study areas.

Now that the findings from the first two components of the conceptual framework have been discussed, the next chapter (Chapter 7) will continue the discussion on the findings from the next three components which are the EGN effectiveness, outcomes for the island's environment, and the stakeholders' perception towards the EGN.

Chapter 7: Evaluating the Effectiveness of Environmental Governance Network Operations

7.1. Introduction

Chapter 7 is the third of four chapters of findings and discussion. This chapter aims at fulfilling the third research objective of evaluating the effectiveness of Environmental Governance Network (EGN) operations. The research questions addressed in this chapter are: Based on the parameters of effectiveness, how effective are these two EGNs? What are the environmental outcomes from the EGN operations? What are the stakeholder perceptions regarding the operations, effectiveness and outcomes of these networks? What are the advantages and disadvantages of each type of EGN?

Employing the parameters of effectiveness, Section 7.2 discusses the effectiveness of the EGNs. Section 7.3 considers the outcomes of the EGNs' operation on the environment, and Section 7.4 discusses stakeholders' perceptions towards the EGNs. Section 7.5 considers the effects of local government involvement, and Section 7.6 concludes the chapter by focusing on the dilemma of balancing action with regulatory compliance.

7.2. Parameters of Effectiveness

Beaumont and Dredge (2010) proposed seven parameters that they believed were relevant to local tourism governance as determinants of network effectiveness. These parameters were an adaptation of Dredge and Pforr's (2008, p. 69) 'principles of good governance'. The parameters as displayed in the conceptual framework (see Figure 4) focused on the effectiveness of a governance network from an organisational perspective. This section, which is presented based on the seven parameters, is thus aligned more towards organisational effectiveness, whereas Section 7.3 focuses on environmental effectiveness. This section is informed by interviewees' responses to the question: 'Would you please share your views and opinions on the network's effectiveness?'

7.2.1. On Gili Trawangan Island

Positive cultures, constructive communication and engaged communities

All 23 interviewees from Gili Trawangan Island agreed that Gili Eco Trust (GET) was faring well according to the ‘positive cultures, constructive communication and engaged communities’ parameter. One of the excerpts from the interviews is, *‘here we work like a family ... discussed a lot of things in our monthly meetings. Actually our meetings are like a family dinner where we talk about new ideas and concerns, successful projects, and also the ones that are not running well, how much money collected on eco tax from the more than 100 businesses, and lots more. All of the stakeholders get a note on the agreed decisions, even if they didn’t attend the meeting. So, we all know what we need to do for the coming month’* (G1, GET staff). *‘My office has good relationship with GET, we always attend their meeting, sometimes our Chief of Village attended, if he couldn’t come and I attended on behalf of him’* (G15, local village office staff). GET’s culture focused on environmental preservation through actions that were well communicated with stakeholders. The monthly meetings involving all stakeholders were a good platform for discussion and dissemination of information to the island’s communities.

‘GET respect us the locals and help us to protect our island ... that’s good ... we also respect them’ (G15, local village office staff). *‘I’m very grateful to the support that GET has been giving to SATGAS’* (G8, local NGO). *‘GET has done an impressive job here in Gili Trawangan’* (G10, central government agency staff). *‘they always give me report of what they were doing, so I know what they are up to with that money collected. I think they are good and honest people’* (G14, tourism business operator). It is interesting that the local Village Office, central government agency, local non-government organisation NGO and tourism business operators all trusted, supported and respected GET. Despite mention of the need to continue to pay fishers and co-finance *Satuan Tugas* (SATGAS), all stakeholders were positively engaged.

Transparency and accountability

‘I didn’t trust them at first, why I must ask my customer pay 50,000 rupiahs more for ecotax? It made my price higher, not good for business ... you know. But, all of my

friends did the same thing, so I followed. Then I saw what they did with the Biorock, cleaning up the beach, and so on ..., and I think they have good programs. I don't attend the meetings because I'm busy. But they always give me report of what they were doing, so I know what they are up to with that money collected. I think they are good and honest people, not money grubber like the taxman who runs away with my money.' (G14, tourism business operator). The excerpt from G14 above typified interviewee answers commending the financial and operational transparency of GET. The reports that GET disseminated to the stakeholders participating in eco tax collection were praised by many interviewees. Further, due to the action-oriented nature of this EGN, stakeholders could witness the results of a project over a relatively short period. Gili Trawangan Island received very little attention from the local government barring the collection of taxes. That may explain why G14 anecdotally compared GET with 'the taxman'.

Vision and leadership

Since the GET manager was an expatriate from Europe living on the island, she was physically easily distinguishable from the locals. This is probably why most local stakeholders referred to her as '*bule*', which is a commonly used word in Indonesia to describe a foreigner, especially Caucasians. The GET manager and staff were always directly involved in GET programs. In the island clean-up program, for example, the GET manager consistently leads by example. *'I even saw that GET "bule" manager and her staffs regularly picking up garbage on the beach'* (G15, local village office staff). As a result, the GET manager has a good image and stakeholders understand that GET has a clear vision for protecting the environment. As commented on by G8, *'I noticed that as long as it is for the environment, GET will always support us. They don't waste time sitting around making a complicated plan, they always act quickly'* (G8, local NGO).

Acceptance of diversity, pursuit of equity and inclusiveness

GET has tried to do their best in pursuing inclusiveness by involving and listening to all components of the local community in their meetings. Nevertheless, they cut corners when dealing with local fishers by paying them to follow GET instructions. As stated by

G17, *I'm a fisherman, that's how I make a living. But now they forbid me to fish near the island, they say I'm destroying the coral reef. But, I have been fishing here for years, and no problem, there are always fish around here. They said, I must go further with my boat. I didn't like them at first, but then they gave me some money to buy fuel for my boat to go fishing further from the island ... I think it's good now, I'm happy and they are happy'* (G17, local fisher). This is an unhealthy situation, as fishers may continue to practice their destructive fishing methods by relocating elsewhere. This shows that the local fishers have not understood the need to protect the environment, and that GET's intervention may only have shifted the environmental degradation to other territory.

Developing knowledge, learning and sharing expertise

GET share their knowledge on the importance of environmental conservation through awareness education programs at the local school and with locals and other businesses. *'They have many great ideas and they have the money to do it. One time GET manager asked me to introduce them to the local elementary school, I didn't know why, but since I know the headmaster well, I introduced them. Now, GET regularly gives environmental education to the students. My son is studying at that school and he really like what GET is teaching them'* (G15, local village office staff). *'They lend us boat and help us to buy fuel to do patrol around the island. They lend us their diving equipment to do underwater checking. They taught me a lot of things about keeping my island beautiful'* (G8, local NGO). These programs focus on the importance of protecting marine ecology for the island's future and for the sustainability of tourism-related businesses. GET also facilitated the Biorock program. They invited the Biorock expert, funded the materials and asked dive shops to share their diving equipment and expertise for the construction and maintenance of the Biorock structures. In coordinating some of their projects, GET also ask tourism business operators to become sponsors and share the use of their buildings and equipment, thus promoting collaboration.

It is interesting to notice this humble comment from G10 who is a staff at the local office of the central government agency, which implicitly portrays the positioning of GET viewed by the agency as the expert and facilitator of knowledge development. *'Although we just opened this small representative office, we've been monitoring this*

island since 2007. Since there are only two staffs here in this small office, I can only monitor and support GET activities with our limited resources. GET has shared a lot of their knowledge and always keen to help us to learn more. Few months ago we noticed that GET manager lacking proper visa, so we helped by communicating with Ministry of Foreign Affairs and finally managed to get a visa based on expertise. That's the least that we can do' (G10, central government agency staff).

Clear roles and responsibilities of participants

GET's stakeholders have a clear idea of their roles and responsibilities. Decisions agreed upon at meetings are disseminated through reports, and stakeholders know whom they need to cooperate and communicate with to get a project done. In large part, this is the result of effective and regular meetings. Moreover, re-stating the comment from G1, *'All of the stakeholders get a note on the agreed decisions, even if they didn't attend the meeting. So, we all know what we need to do for the coming month. We all have each other's handphone number ... A lot gets done this way' (G1, GET staff)*. The nature of the size of the island and the stakeholders' relations is that they all have each other's mobile number, and where a face-to-face meeting is needed, it is easy to visit the relevant stakeholder's house or shop.

Clear operational structures and processes of the networks

'To be honest, I learnt a lot from GET. They are very good in coordinating and delegating with the stakeholders and getting things done by using the limited resources that they have' (G10, central government agency staff). G10 commented that GET is excellent at getting things done by coordinating with and delegating to other stakeholders.

'I think GET is very effective because they don't have complicated bureaucracy like the government. I can quickly communicate with GET and if there are actions that need to be taken, we can do it quickly' (G8, local NGO). G8 noted that GET has a relatively streamlined operational structure compared to the more complicated bureaucracy of the local government. This clear operational structure and governance network process is reflected in GET's daily operation.

7.2.2. On Nusa Lembongan Island

Positive cultures, constructive communication and engaged communities

Coral Triangle Center (CTC) is performing well on the ‘positive cultures, constructive communication and engaged communities’ parameter, as they always try to positively engage with the local communities. CTC supported the *awig-awig* (traditional law of coral reef protection) as commented on by N6 and N23. *‘Their program of making MPA is good, and they also respect our awig-awig local law (N6, local Village Office staff). ‘The local awig-awig rule has also been re-established with the help of CTC, to protect the reefs’ (N23, local NGO staff, also a teacher at local school).*

As explained by N1, CTC also organised a number of events, meetings and public consultations, and they listened to and incorporated local wisdom and custom to obtain the support and agreement of the stakeholders within the island for the marine protected areas (MPA). *‘Our two main messages that were always being pounded at every meeting, public consultations and events are: Firstly, from ecology perspective corals and mangroves are the real Earth’s lungs that actively renewing oxygen and absorbing CO2 a lot more than forests, and also vital natural barrier against wave erosion. Secondly, economically marine ecosystem is not only a source of food and where fish breeds, but also an attraction for substantial tourism income. You can ask any of our stakeholders, I’m sure they can recite that back to you’ (N1, CTC staff).*

Transparency and accountability

CTC produces activity and financial reports, but it also needs to disseminate its internal report, including its activities, to stakeholders, donors and locals. *‘They also very transparent in their report’ (N13, international NGO staff). ‘I was given a booklet once, they said it was a report, but I don’t understand the content, complicated words and charts. You know... I didn’t go to university, I never learn that kind of things’ (N20, local farmer).* This is probably because the vocabulary used needs to be adjusted to the capabilities and backgrounds of the readers. Locals might find it difficult to read and understand a comprehensive internal report. Nevertheless, this is not an excuse not to disseminate information on what they have been doing to local stakeholders.

Vision and leadership

CTC demonstrated strong determination and patience in the process leading to the creation of the MPA. Even after years of hard work in the three Nusa Islands, CTC remains in the regions, working to make the MPA operational, despite the drawbacks. *'CTC have been around for several years and they have talked to me and my friends for several times'* (N10, tourism business operator). However, CTC-led projects often feel less than collaborative, because CTC continues to be largely reliant on their international NGO facilitator. *'We learn a lot from our international NGO partner about the key-points in ensuring sustainable MPA formation in a developing country setting like Indonesia. We also received a lot of support from them'* (N1, CTC staff).

Acceptance of diversity, pursuit of equity and inclusiveness

CTC has devoted considerable time and resources to pursuing inclusiveness. They have organised many events, meetings and public consultations, and have listened to and incorporated local wisdom and custom in their decision-making. Moreover, as commented on by N6, CTC pursues local and national government advocacy, and even international support. *'Klungkung Regency told me that they also agree with CTC. Even Governor of Bali and Minister of Marine and Fisheries, and US Ambassador attended the ceremony. So I think it's all good. The only problem is they must coordinate with the seaweed farmers and fishermen who are worry about the zoning'* (N6, local Village Office staff). Nevertheless, some resistance still exist from local fisher and farmer as showed by the following comments. *'If they make protected areas I must travel further away from the island to find fish. I know they want to protect the environment and it is important for the next generation, but how will I provide food for my family?'* (N17, local fisher). *'I understand that my island needs to be protected, but I'm afraid that the new protected area could reduce the space to grow seaweed. Nowadays my seaweed harvest were already less than before, may be because of the fuel leaking from the speedboat and the liquid waste from the hotels that polluted the sea'* (N20, local farmer).

Developing knowledge, learning and sharing expertise

'I think CTC has gone a long way from environmental awareness trainings and education, to what we are today with all of the stakeholders understanding the importance of the MPA, and the entire legal advocacy that we've achieved' (N1, CTC staff). 'CTC has helped to create environmental awareness in this island, they have events that were held in cooperation with SPN. They also support us with that community learning center, I think it's very useful. Nowadays, even my students are very passionate about protecting the mangroves and coral reefs' (N23, local NGO staff, also a teacher at local school). 'CTC has good programs and the people at CTC have worked very hard in establishing the legal foundation, local understanding and so on' (N13, international NGO staff). 'They participated to the environmental awareness of our people here' (N6, local Village Office staff). 'I was told that the new MPA zoning will have areas designated to specific activities. They also said that will be good for tourism because the beauty of the environment will be protected. I think their program is good for the environment and I agree with what CTC is doing. As long as I can still do my business' (N10, tourism business operator). Comments from N1, N23, N13, N6 and N10 all supported that CTC has participated in efforts to develop local knowledge. They have collaborated with local teachers and NGOs in training and education for environmental awareness. CTC has also invested much effort in pursuing legal advocacy by lobbying the Local and Central Government. From the outset, CTC wanted to make the new MPA a learning site. As part of this, they promote learning and the sharing of expertise, including to the international community.

Clear roles and responsibilities of participants

CTC performs less well on the parameter of having clear roles and responsibilities of participants due to the dominant role of the international NGO in the EGN and the lack of delegation to locals. N6, N10 and N23 all suggested that local stakeholders tend to passively agree, follow and wait for the results. *'I don't know all the details about the project, but I think it's all good. So I'll just wait and see what happen' (N6, local Village Office staff). 'I agree with what CTC is doing, I don't know when they'll start the MPA, hopefully soon...' (N10, tourism business operator). 'I heard there are still*

negotiations about the zoning, but I don't know what's going on. Hopefully the MPA can operate soon' (N23, local NGO staff, also a teacher at local school).

Clear operational structures and processes of the networks

From the organisational perspective, CTC already possesses the necessary operational structures and processes. Legal backing is evident, the processes toward a self-sustaining MPA are clear and the management plan is complete. *'We learnt from our international NGO partner that to ensure the sustainability and effectiveness of MPA in a developing country setting like Indonesia we must have proper legal advocacy and long-term management plan. We are still short on sustainable financing mechanism, but we are working on it' (N1, CTC staff). 'Looking at how far CTC has worked its way in getting the stakeholders support, the legal backing and the MPA management planning, I believe very soon Nusa Lembongan would become an excellent learning site for sustainable MPA in developing country, and transform themselves into an even more attractive tourist destination' (N13, international NGO staff).*

7.2.3. In Comparison

Based on the review of the seven parameters of the EGNs' organisational effectiveness, it appears that GET has performed better than CTC. Although their achievements and approaches are different, each succeeds in different parameters.

Both achieved a similar level of organisational effectiveness in the four parameters of positive cultures, constructive communication and engaged communities; vision and leadership; developing knowledge, learning and sharing expertise; and clear operational structures and processes of the network.

GET showed better results compared to CTC for the parameters of transparency and accountability; and clear roles and responsibilities of participants. In terms of the first, compared to CTC, GET produced more comprehensive activity reports, and these were clearly communicated to all stakeholders. Their programs were tangible and the results could be seen over a relatively short period. Regarding their roles and responsibilities, GET's stakeholders had a clear idea of what was expected of them, and with whom they needed to communicate to finish a project. This was due to GET's effective and regular

meetings, which resulted in a clear agenda to follow, and ensured good communication between the stakeholders. However, the point should be made that, compared to CTC, the smaller number of stakeholders and size of the location of the network meant that having clear roles and responsibilities was easier for GET.

CTC, on the other hand, is better than GET on the parameter of the acceptance of diversity, pursuit of equity and inclusiveness. CTC invested considerable time and resources, and showed a great deal of patience, in ensuring that the interests of its diverse group of stakeholders were fairly addressed. CTC also put much effort into approaching local government stakeholders, and met with great success in the legal advocacy of the new MPA. In addition, CTC's short and long-term plans have been clearly explained to stakeholders, and they are well aware of the steps that need to be taken to achieve their collective goal in creating an effective and self-sustaining MPA. Stakeholders also understand that further steps are waiting for the end of negotiations on zoning borders and designations. However, it can be argued that, as compared to GET, negotiation, planning and legal advocacy are easier for CTC, owing to their expertise in establishing and managing MPAs, and in dealing with local, international and government stakeholders. Yet, despite CTC's organisational effectiveness, Nusa Lembongan Island's MPA is not yet operational.

7.3. Outcomes for the Islands' Environment

This section assesses the effectiveness of EGN operations based on the outcomes for the environment. The discussions below are based on interviewees' responses to the question: What do you think about the achieved environmental outcomes of the network so far?

7.3.1. On Gili Trawangan Island

When asking the interviewees about the outcomes of GET, the first thing that came to mind for most was the creation of no-fishing zones in 2003. With the exception of two designated areas, the sea around Gili Trawangan Island is an agreed no-fishing zone. Fishers receive a monthly compensation payment, for which they expressed gratitude.

They are now involved in protecting the zone from fishing by people coming from other islands.

Another outcome has been the building of Biorock, starting in November 2004. As explained by G1,

'Biorock is crisscrossed metal structures which are connected to a harmless low-voltage current of 1.2 volts. Several divers installed the structure on the ocean floor and attached pieces of corals to them. That electric current leads to electrolysis, causing a calcareous precipitation on the whole structure. This avoided rust which would weaken the structure, and made it a favourable base for coral development since coral's skeleton is made of calcium. Biorock causes coral to develop 2 to 6 times faster than in normal sea condition'.

By the time the fieldwork finished, 64 Biorock structures were installed around the island (see Figure 11). It is interesting that G4 (a tourism business operator) said that *'Some of my customers prefer to dive around Biorock because usually there are more fishes that can be spotted there'*. Therefore, Biorock has also contributed to a better marine-based tourist attraction. Further, Biorock can help to fight coastal erosion, which is evident on some beaches on Gili Trawangan Island (see Figure 12). To prevent erosion further, GET is undertaking vetiver grass planting projects on the beaches, as the roots of this type of grass can help to halt coastal erosion.

Since 2009, GET has had a full-time manager, and has concentrated on establishing personal relations with the local community and government agencies so that they can pursue more projects for the environment. As a result, GET was able to add several projects to their portfolio. In coordination with Garuda Indonesia Airline, Turtles' protection pool was constructed (see Figure 13). Here, young turtles can grow in security before being released to the sea when they are old enough.

GET also continues to place posters around the island, especially in dive shops, to educate divers and snorkelers about protecting coral reefs (see Figure 14).

Figure 11. Placard of the Biorock program



Source: Author

Figure 12. Erosion was evident on some beaches



Source: Author

Figure 13. Turtles' protection program



Source: Author

Figure 14. GET Poster promoting awareness of coral preservation



Source: Author

In regards to the benefit of using mooring buoys at corals area, the local community of Gili Trawangan Island has come to understand that they should not anchor their boats above the Biorock areas and have started using mooring buoys funded by the GET.

For waste management, in May 2010, GET facilitated the provision of 1,000 bins. Three colours of bins were brought in, to encourage the separation of trash based on type; that is, paper, organic, or plastics and cans (see Figure 15). However, this colour-coded bin system has not been effective because garbage collectors mix their contents together, discouraging locals who then ignore the waste separation guidance. Thus, in practice, all three types of garbage bin are filled with the same types of trash (see Figure 16). Moreover, all of the trash ends up in landfill (see Figure 17).

Figure 15. Three types of garbage bin to separate the trash: paper waste (blue), organic waste (green) and plastics and cans (yellow)



Source: Author

Figure 16. Three types of garbage bin in practice, all being filled with the same type of trash



Source: Author

Figure 17. Landfill, where the garbage from all three types of bin end up



Source: Author

The island's stakeholders agreed to ban all motorised vehicle on Gili Trawangan Island. Only two transportation options remain: bicycle or *cidomo* (pony cart) (see Figure 18). Due to the small size of the island and its number of roads, there are only 32 *cidomo* on the island. A license is needed to own and operate a *cidomo*, and this is very expensive. *Cidomo* operators usually made good profits but they do not care about the wellbeing of their horses. Thus, many *cidomo* horses are skinny or sick, and most die at five or six years of age. In association with the Umalas horse centre on Bali, GET holds free *cidomo* horse clinics on the first and fifteenth of the month. GET also encourages businesses to install fresh water buckets for the horses in front of their shops.

Figure 18. *Cidomo*, the common transportation on Gili Trawangan Island



Source: Author

7.3.2. On Nusa Lembongan Island

It is worth noting that during the interviews, most of the interviewees from Nusa Lembongan Island struggled to mention more than one or two concrete environmental outcomes facilitated by CTC. Nevertheless, the interviews with CTC staff provided answers that were then confirmed by observation.

Among the outcomes, the most mentioned was the community learning centre (see Figure 7 and 8). However, this was not relevant due to the educational purpose of that centre. It is true that the centre can promote environmental awareness, but this is not a concrete outcome towards the island's environment.

Another outcome raised by interviewees was the mangrove tour. CTC facilitated the formation and promotion of a mangrove tour on the north-eastern part of the island (see Figure 19). Salt makers used to cut down mangroves tree and use the wood to boil seawater, vaporising the water to produce salt. The importance of mangroves toward the marine ecosystem and its potential tourism income is now better understood. It is now forbidden to cut down the mangroves, and the mangrove forest is being actively planted and rebuilt. Most mangrove tours are conducted using canoes paddled by guides rather than in larger motorised boats, to avoid damaging the roots of the mangroves.

Figure 19. Placard of mangrove forest tour



Source: Author

Nusa Lembongan Island also faces waste management problems. Despite efforts by CTC to raise awareness and educate people about recycling and separating waste, trucks continue to be used to collect the garbage manually (see Figure 20), whereupon it is taken to a landfill near the mangrove forest (see Figure 21).

CTC also facilitated the instalment of mooring buoys so that local and visiting boats do not have to anchor on reefs, avoiding damaging corals.

Figure 20. The garbage collection truck



Source: Author

Figure 21. The landfill site



Source: Author

7.3.3. In Comparison

The above findings showed that GET is more focused on environmental actions and its outcomes surpass those of CTC, which focuses more on pursuing legal advocacy and planning for the new MPA. Comparison of the environmental outcomes revealed that up to the fieldwork period of this research, GET had produced more effective outcomes for the welfare of the environment than had CTC. Both islands still experience problems with waste management.

It may be unfair to compare the environmental outcomes of the two EGNs directly because GET was started in 2001, while CTC was not started until 2008. Further, once the Nusa Lembongan MPA is functional, the predicted environmental outcomes may surpass those of GET on Gili Trawangan Island.

However, the purpose of this research was to examine the current operation of the EGNs and their organisational and environmental effectiveness. Thus, based on the evidence from the case study islands, self-regulating action-oriented governance networks such as GET is more effective in the short run because less time is spent in pursuing legal advocacy and creating a comprehensive long-term management plan in preference of actions. Nevertheless, to survive in the long term, it is necessary for EGNs to secure the appropriate planning and policy support from government. Fortunately, GET has received this much-needed support from the local Village Office and Central Government agency.

Policy and planning-oriented governance networks such as CTC on Nusa Lembongan Island might not demonstrate many environmental outcomes in the short term, as they may still be negotiating with stakeholders. However, as the legal foundation and comprehensive plans are already established, at the end of negotiations, such networks could quickly produce abundant environmental outcomes. Further, in the long term, they may be more efficient in achieving stable and sustainable environmental outcomes.

7.4. Stakeholders' Perceptions

Since governance networks usually involve multiple stakeholders, pursuing legitimacy requires the objectives, actions and outcomes of the network to be inclusive of stakeholders' interests. Considering various interests and ensuring coordination with all stakeholders can help the progress toward inclusivity. This is important because stakeholders have differing and sometimes competing interests and agendas. On this basis, the effectiveness of collaborative EGNs cannot be assessed solely on the outcomes towards the physical environment. Stakeholders' perceptions on how the EGN operates must also be considered. Stakeholders were asked about their perceptions in the interviews undertaken for both case study islands: 'Would you please share your perceptions on the overall operation of the EGN in this island?' The researcher sought to capture whether the interviewee has a positive, neutral or negative perception towards the overall operation of their particular EGN.

Majority of the interviewees on Gili Trawangan Island had a positive perception towards GET. Tourism business operators, local NGOs, local Village Offices and representatives of the Central Government agency were all entirely positive in their attitudes towards GET. In the past, some of the tourism business operators had held a negative view towards GET. However, upon learning of and witnessing the outcomes towards the environment, they had changed their minds. The only stakeholder group that continued to have mixed feelings was the fishers. They appreciated the monthly compensation payment they received from GET, but were also suspicious that GET might be creating the no-fishing zone to protect the interests of expatriate dive shop owners. Further, they felt that as locals they had the right to fish wherever they wanted to, using whatever fishing method they chose. They indicated that they would demand higher compensation payments in the near future.

Interviewees on Nusa Lembongan Island were divided in their opinions towards CTC. The local and international NGO and the local Village Offices reported a positive opinion. However, the tourism business operators and local fishers and farmers held a negative view. This was probably owing to the unfinished negotiations about the zoning for the new MPA. Moreover, there were indications that the three stakeholder groups

that possessed negative views were not in possession of complete and honest information about what the zoning system would be like. Some thought that all of the sea around the island would be designated for tourism development and completely off-limits to fishing and seaweed farming. This caused some fishers and farmers to convey jealousy towards the tourism business operators.

Both GET and CTC still have an important task to communicate more intensively and persuasively to their stakeholders, especially to those that hold a negative view of them.

In addition, an interesting theme emerged when the interviewees at both case studies were given an opportunity at the end of the interview to add any further comments. The theme 'EGN operational efficiency' regularly emerged. Interviewees in Gili Trawangan Island talked about how GET has been very efficient in the amount of time and resources consumed for their programs, and also the benefit of the streamlined bureaucracy that allows stakeholders to easily approach the GET manager and directly communicate their ideas, create, and execute action plans. Meanwhile, interviewees in Nusa Lembongan Island expressed their concerns about the long waiting period for the execution of the MPA plan, and put the blame to the complicated bureaucracy of the local government that cost a lot. Therefore, in analysing the operation of an EGN, efficiency in the dimensions of time, cost, and people is a useful point of analysis.

7.5. Local Government Involvement

One of the recurring themes during the interviews for both case study islands was the lack of involvement of local government. On Gili Trawangan Island, every stakeholder interviewed raised this point. Even the local Village Office staff felt that they were being ignored by the Lombok Regency and West Nusa Tenggara Province. Although the village profile reports (Murta 2010¹; Suliana 2010²) and interviewees mentioned that Nusa Lembongan Island had received some local government assistance, a number strongly, even angrily, expressed their views that the island should have received more attention from the Klungkung Regency and Bali Province.

¹ MURTA, I. N. 2010. Profil Desa Lembongan, Kecamatan Nusa Penida, Kabupaten Klungkung, Provinsi Bali, 2010. Departemen Dalam Negeri Direktorat Jenderal Pemberdayaan Masyarakat Dan Desa

² SULIANA, I. N. 2010. Profil Desa Jungut Batu, Kecamatan Nusa Penida, Kabupaten Klungkung, Propinsi Bali, 2010. Direktorat Jenderal Pemberdayaan Masyarakat Indonesia Departemen Dalam Negeri.

In the case of Gili Trawangan Island, the local government's limited capacity in relation to tourism management and its minimal involvement in environmental protection has been compounded by the status of West Nusa Tenggara Province as one of Indonesia's poorest. Worsening this tendency towards inaction, a range of persistent land ownership conflicts remain unresolved (Fallon 2008¹; Kamsma and Bras 2000²), including a complex long-standing land ownership conflict between the locals and PT Wahana (Wahana Company), which, according to the local Village Office, is backed by interests closely associated with the Central Jakarta Government. PT Wahana was also reported to have hired several bodyguards who threaten vocally critical locals with sharp weapons. However, expatriate interests, as evidenced by the inclusion of this island in the Bali and Lombok Lonely Planet travel guide (Taylor and Turner 1997³; Ver Berkmoes, Skolnick and Carroll 2009⁴) and mushrooming expatriate ownership of tourism businesses, are rapidly turning the island into a developed tourism destination without the need for local government intervention.

Shantiuli and Sugiyanto (2008)⁵ have argued that, after the implementation of the Indonesian decentralisation policy in 2001, local government in Lombok channelled their funding primarily into the health and education sectors. These are more electorally popular policies than developing the tourism sector. Another interesting point of observation concerned the local Village Office (see Figure 22). The building was usually empty, without any staff or sign of activity with the exception of the large boards at the front of the office where the voter list for elections was posted. To interview the staff of the local Village Office, the researcher had to find them at their residences and conduct the interviews there. It was apparent that the staffs were

¹ FALLON, F. 2008. Sustainability and Security Lombok hotel's link with local communities. In: CONNELL, J. & RUGENDYKE, B. (eds.) *Tourism at the Grassroots: Villagers and Visitors in the Asia Pacific*. Hoboken: Routledge.

² KAMSMA, T. & BRAS, K. 2000. Gili Trawangan-from desert island to 'marginal' paradise: local participation, small-scale entrepreneurs and outside investors in an Indonesian tourist destination. In: RICHARDS, G. & HALL, D. (eds.) *Tourism and Sustainable Community Development*. London: Routledge.

³ TAYLOR, C. & TURNER, P. 1997. *South-East Asia on a shoestring*, Hawthorn VIC, Lonely Planet.

⁴ VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, *Bali & Lombok*, Lonely Planet, Footscray, Victoria.

⁵ SHANTIULI, T.M. & SUGIYANTO, C. The Challenge of Tourism Development After Decentralization in Lombok Island, West Nusatenggara, Indonesia. In: JALBERT, T. & JALBERT, M., eds. *Global Conference on Business and Finance Proceedings, 9-12 January 2008 Sheraton Waikiki, Honolulu, Hawaii*. The Institute for Business and Finance Research, 201-203.

occupied in running their small businesses at home. As argued by Ramage (2007), the current principle that is leading the actions of the Indonesian Government is ‘democracy first, good governance later’.

Figure 22. Local Village Office



Source: Author

Further, formal law enforcement by the Indonesian Police Department was practically non-existent on the island. There was a small office with a banner indicating it as the tourism police station. However, during the two months of fieldwork, the researcher found no evidence of the tourism police regularly patrolling the island. Since security is an important feature of a tourist destination, the locals and SATGAS coordinated their own simple organisation, ‘Island Security’, to maintain order and patrol the island. The informality of this organisation is evidenced by the misspelling of their name, ‘Island *Security*’, on their placard (see Figure 23). However, posters with the mobile phone number of Island Security were posted in strategic places around the island (see Figure 24), so that tourists who needed help or whose belongings had been stolen could call Island Security immediately.

Figure 23. Organisational structure of Island Security, formed by a local initiative



Source: Author

Figure 24. Posters with the mobile number of Island Security



Source: Author

In cases that the local government does show interest towards the islands and take some action, the final product is often impractical to the community. For example, the local pier on Gili Trawangan was built with very little consultation with locals and was not well planned. The pier is impractical since it is too high for the access of most boats that serve tourists on Gili Trawangan (see Figure 25). This has resulted in such boats being unable to access the pier and having to load and unload tourists directly on the beach (see Figure 26). This is quite uncomfortable for tourists.

Compared to the situation on Gili Trawangan Island, the national and local government agencies are more actively involved with the EGN on Nusa Lembongan Island. This participation is probably attributable to the fact that this island is a part of Bali Province. The Klungkung Regency Government is more conscious of the contribution made by tourism and has substantially greater environmental protection and tourism management capacity than the poorer West Nusa Tenggara Province in which Gili Trawangan is located. Moreover, the larger size and population of Nusa Lembongan Island factor into the willingness of government involvement.

Figure 25. The impractical pier



Source: Author

Figure 26. Boats unloading passengers directly onto the beach



Source: Author

On Nusa Lembongan, they already have asphalt roads (see Figure 27); a police station (see Figure 28) with a regular island patrol schedule; a local Village Office that was operational, with a clear organisational structure (see Figure 29); a ticket office for the public boat to Bali (see Figure 30); a community health centre (see Figure 31); and a village credit institution (see Figure 32).

The two local Village Offices on Nusa Lembongan Island, of Jungut Batu Village and Lembongan Village, were also very helpful in providing background information about their island. They even allowed the researcher to make a copy of their respective village profile reports (Murta 2010¹; Suliana 2010²). Such reports were not available for Gili Trawangan Island.

¹ MURTA, I. N. 2010. Profil Desa Lembongan, Kecamatan Nusa Penida, Kabupaten Klungkung, Provinsi Bali, 2010. Departemen Dalam Negeri Direktorat Jenderal Pemberdayaan Masyarakat Dan Desa

² SULIANA, I. N. 2010. Profil Desa Jungut Batu, Kecamatan Nusa Penida, Kabupaten Klungkung, Propinsi Bali, 2010. Direktorat Jenderal Pemberdayaan Masyarakat Indonesia Departemen Dalam Negeri.

Figure 27. Asphalt roads all around the island



Source: Author

Figure 28. Police station



Source: Author

Figure 29. Local Village Office organisational structure



Source: Author

Figure 30. Ticket office for the public boat to Bali



Source: Author

Figure 31. Community health centre



Source: Author

Figure 32. Village credit institution



Source: Author

7.6. Balancing Actions with Regulatory Compliance

This chapter has examined and discussed the effectiveness of the EGNs in the two case studies. In consideration of the two types of EGN orientation, each has its own advantages and disadvantages. Action-oriented networks such as GET on Gili Trawangan Island were found to be more effective and efficient, due to producing more environmental outcomes over a relatively short period. However, they tend to ignore the time-consuming process of regulatory compliance, although eventually GET did receive the much-needed government support. In contrast, policy and planning-oriented networks such as CTC on Nusa Lembongan Island were found to spend much time and resources on regulatory compliance, seemingly at the expense of outcomes.

Generic views about EGN effectiveness in small island developing destination (SIDDD) settings focused mostly on the organisational dynamics and environmental outcomes, paying less attention to the potentially disruptive implications of not complying with the regulations. Therefore, regulatory compliance is very important for EGNs in developing country settings due to the frequent local and central political changes and the need to build a strong foundation for action through stakeholder inclusivity. Over time, such networks develop the potential to produce abundance and quality outcomes that surpass those of action-oriented networks.

Analysis of the qualitative data revealed the recurring themes that led to the creation of the concept explaining how EGNs can be as effective as possible. In the discussion in this chapter, the researcher tried not to become trapped in the dichotomy of the two EGN orientations, but to appreciate the possibility of benefitting from both. This led to the conclusion that one of the most important components of EGN effectiveness in a SIDDD setting is the skill of balancing actions with regulatory compliance. This means respecting the need to focus on environmental actions while also recognising the need to comply with the law and regulations.

It is hoped that the explanation in this chapter will serve as a reference for tourism stakeholders who are initiating or managing EGNs. This study might also support those who are in the process of choosing the appropriate type of EGN to adopt to achieve the

overall purpose of supporting the coexistence of tourism development and environmental preservation within their destination.

7.7. Conclusion

This chapter has tried to satisfy the third research objective of evaluating the effectiveness of EGN operations. This chapter has discussed the findings in regards to the application of the parameters of effectiveness to the two EGNs, the environmental outcomes from the operations of the two EGNs, and the stakeholder perceptions regarding the operations, effectiveness and outcomes of these networks. This chapter has also discussed the comparative effectiveness of the two types of EGN orientation by employing two emergence themes of local government involvement, and balancing actions with regulatory compliance.

Now that the first three research objectives have been discussed, the next chapter (Chapter 8) will continue the discussion on the findings from the fourth research objective that is synthesising the perspectives of locals that led to reactions towards tourism development, with particular reference to the influence of socio-cultural dimensions in the two case study areas.

Chapter 8: Synthesising the Reaction of Locals towards Tourism Development on the Two Case Studies

8.1. Introduction

Chapter 8 is the last of four chapters of findings and discussion. This chapter aims at fulfilling the fourth research objective of synthesising the perspectives of locals that led to reactions towards tourism development, with particular reference to the influence of socio-cultural dimensions in the two case study areas. The research questions that are addressed in this chapter are: What are the socio-cultural differences between the two case studies? How do socio-cultural values influence local's perspectives that led to the reactions of locals towards tourism development in the two case study areas?

On both of the case study islands, at the end of most of the interviews, when the interviewer asked whether the interviewee wanted to add any other comments, a theme emerged. Many of the stakeholders were happy with the tourism development, and the fact that the Environmental Governance Network (EGN) operating in their island upkeep sustainable tourism, but many of them were also concerned about the threat towards their culture and way of life. The actions that were taken by the stakeholders to address this issue were varied between the two case studies and were strongly influenced by the islands' cultural backgrounds. This human dimension is assigned to its own chapter due to its uniqueness.

The chapter begins with an investigation of the socio-cultural differences of the two case studies. Then, it explains how the locals' perspectives that led to reactions in each case are influenced. It ends with a synthesis of the differences, highlighting the need for tourism-related stakeholders to formulate their approach strategically when operating in a small island developing destination (SIDDD) setting. It is interesting to observe how cultural and religious values affect the way that stakeholders interact with development. This human dimension is thus important to consider alongside those of economic, environmental and political governance.

8.2. Tourism Development and the Locals on Gili Trawangan Island

The island inhabitants of Gili Trawangan can be divided into three groups: people from the much larger neighbouring Lombok Island, descendants of the fishers coming from Sulawesi Island, and a small group of immigrants from Java Island, who have mostly opened *warung* food stalls. All three groups have strong Muslim religious influences. Thus, the culture of the people on Gili Trawangan Island is heavily influenced by the Muslim beliefs and *Shari'a* Law. Under this culture, they are strongly against the consumption of alcohol, the practice of pre-marital sex and homosexuality. They also adopt stringent female clothing standards, and while wearing *hijab* is not compulsory, it is strongly recommended. This standard of female clothing covers the head, hair and most of the upper torso, only revealing the front of a woman's face (Sanad, Kaseem and Scott 2010)¹.

The influx of western tourists and their way of life stands in contrast to local culture. For example, the tropical climate and availability of sunshine throughout the year promotes the practice of sunbathing, typically involving men and women wearing minimal clothes, such as a bikini, or even going topless. Further, public affection is very common among western tourists, but is surprising by the local standard. Compounding this issue, Gili Trawangan has developed an image as a 'party island', where nightclubs with imported disc jockeys from Bali and other islands, loud music, alcohol and the intoxicating 'magic mushroom' are regularly available throughout the night. Big parties are scheduled on Monday, Wednesday and Friday evenings, but considering the number of bars and nightclubs on the island, one can find parties and large amounts of alcoholic beverages readily available almost every night. This image of Gili Trawangan as a 'party island' was even mentioned in the Lonely Planet guidebook (Ver Berkmoes, Skolnick and Carroll 2009, p. 310)², which, based on the researcher's observation during the two and a half hour boat trip from Bali, was being read by the majority of young backpacker tourists on their way to the island. However, these 'party island' aspects, so attractive to young tourists, are not in line with the local culture. *To be*

¹ SANAD, H. S., KASEEM, A. M. & SCOTT, N. 2010. Tourism and Islamic Law. In: SCOTT, N. & JAFARI, J. (eds.) *Tourism in the muslim world*. Bradford: Emerald Gourp Publishing Limited.

² VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, *Bali & Lombok*, Lonely Planet, Footscray, Victoria.

honest, as a local of this island and also as a Muslim, I disagree with most of the tourists' lifestyle. But they are our source of income. So, what can I do.... I'm just afraid that our young generation of local kids are becoming similar like tourists and forgetting their cultural roots and religious standard that their parents taught them' (G13)

Therefore, the question arises as to how the locals of Gili Trawangan deal with this seeming contrast between the local and tourists' culture. This topic has been repeatedly discussed by tourism scholars under the theme of tourism in the Muslim World (Scott and Jafari 2010)¹. In particular, issues such as alcohol consumption, dress code, *halal* food and conduct in relation to *Shari'a* law have been variously approached in relation to countries with a substantial Muslim population (Sanad, Kaseem and Scott 2010)². Indonesia has the largest Muslim population in the world. As explained by Henderson (2010)³, the national and provincial governments in Indonesia have occasionally indicated a desire to limit international tourism because of what they perceive as the damaging effects of such tourism in the socio-cultural context. Nevertheless, tourism restriction has been moderated by an appreciation for tourism's actual and potential financial benefit.

This was mirrored in interviews with stakeholders on Gili Trawangan Island. When asked about this issue of culture, the majority of the local interviewees expressed concern that the local youth of Gili Trawangan had started to be negatively influenced by the '*gaya hidup turis bule*' (western tourist's lifestyle). However, this concern was countered in three respects. Firstly, the Chief of Village had released a regulation, posted on trees around the island, that tourists must wear modest clothing when entering the village, located in the centre of the island. The poster explicitly mentions the prohibition of wearing bikinis inside the village area (see Figure 33). According to the staff from the local Village Office, this is to avoid young children and local youth from seeing any '*immoral display of flesh through immodest fashion*' (G15).

¹ SCOTT, N. & JAFARI, J. (eds.) 2010. *Tourism in the Muslim world*, Bingley: Emerald.

² SANAD, H. S., KASEEM, A. M. & SCOTT, N. 2010. *Tourism and Islamic Law*. In: SCOTT, N. & JAFARI, J. (eds.) *Tourism in the muslim world*. Bradford: Emerald Gourp Publishing Limited.

³HENDERSON, J. C. 2010. *Islam and Tourism*. In: SCOTT, N. & JAFARI, J. (eds.) *Tourism in the Muslim World*. Bradford: Emerald Group Publishing.

Figure 33. Poster forbidding tourists from wearing bikinis in the village area



Source: Author

Secondly, tourism is the island's main source of income. As commented on by G13, '*since the mass development of tourism, we have no more unemployment here in Gili Trawangan*'. Therefore, many locals believed that they must do their best to make the tourists happy, so that they will return to Gili Trawangan Island. Thus, provided the lifestyles of the tourists are not adopted by the locals (thereby compromising their faith), exposure to western tourist culture is viewed as an occupational hazard, about which locals working in tourism-related businesses must be aware.

Thirdly, during the fasting month of Ramadhan (a Muslim holy month), there are special rules that tourists and tourism business operators must follow. Partying is forbidden during Ramadhan and restaurants and *warung* (food stalls) must cover their windows and displays to reduce temptation to the fasting locals. Further, during that month, tourists are not allowed to eat, drink or smoke cigarettes in public. Posters explaining the special rules are posted strategically around the island (see Figure 34).

Figure 34. Banner of the special rules during the fasting month of Ramadhan



Source: Author

Regarding the effectiveness of these three strategies, according to the researcher's observations, female tourists in bikinis and topless male tourists still occasionally wonder into the village and were even seen to communicate with local village children and teens. Moreover, a five-minute walk takes one from the village area into the tourist area, where young locals can witness tourists dressing as they choose. Moreover, during Ramadhan, the researcher found several bars and cafes still operating and having parties where alcoholic beverages were served, albeit behind closed doors.

It is also worth mentioning the extent to which tourists have access to locals' religious places of worship. Gili Trawangan Island has one large mosque on the southern part of the island. To enter the mosque, one must conduct *wudhu*, a meticulous process of ablution, and wear a specific style of garment for use when praying. These conditions make entering the mosque complicated for tourists, resulting in their lack of interest in visiting the mosque as a physical and architectural attraction. *'Our Mosque is a holy*

place of worship, the terrace is also holy. That is why all visitors must do wudhu to cleanse themselves before entering' (G15).

In addition, the researcher found many 'land for sale' signs around the island. The locals, despite ongoing land ownership disputes, were actively selling their parcels of land to investors and businesses coming from other Indonesian islands and abroad. There could be a link between locals interested in selling their land, and their lack of connection with the island due to identifying as descendants of people from other islands.

8.3. Tourism Development and the Locals on Nusa Lembongan Island

The Lonely Planet guidebook (Ver Berkmoes, Skolnick and Carroll 2009, p. 153)¹ describes Nusa Lembongan Island as 'the Bali many imagine but never find'. Observations by the researcher confirmed this, as the way of life of the locals and the physical and socio-cultural dimensions were very similar to those of Bali Island, but with less density of tourism-related businesses and activities. The majority of the island's residents practice Hinduism, being the descendants of Balinese from the Klungkung and Badung Regencies. Soon after arriving, visitors notice the strong influence of Hinduism in the plentiful *canang*. These are the daily offerings that Hindu families give to the Gods, in the form of small palm-leaf baskets topped with betel leaf, betel nuts, lime, tobacco, rice, four coloured flowers, money and burning incense. The island's architectural style also reflects the influence of Bali, including in the *pura* (temple), both within family residences and as public places of worship. Likewise, building ornaments resemble those common on Bali Island.

Compared to the local community on the predominantly Muslim Gili Trawangan Island, the mostly Hindu residents of Nusa Lembongan Island are more open and accommodating towards foreign tourists and their way of life. They willingly display their culture in the form of religious ceremonies, traditional dances and gamelan orchestra, and openly allow tourists to enter, view and take pictures of their temples and religious ceremonies, which are becoming cultural attractions for tourists. Although

¹ VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, *Bali & Lombok*, Lonely Planet, Footscray, Victoria.

there are limitations for tourists wanting to enter temples, such as modesty of dress and the prohibition on entering of menstruating women, access to places of worship on Nusa Lembongan Island is substantially easier for tourists compared to on Gili Trawangan. Moreover, the local Hindu temple (see Figure 35) and the *bale kul-kul* (see Figure 36) are exceptional architecture attractions, having been built by trained temple-builder artisans and carefully decorated with beautiful and meaningful ornaments. *Bale kul-kul* is an ancient form of village communication, in which a traditional tower is beaten in different rhythms with a wooden percussion tool to announce local events.

Figure 35. Placard identifying the entrance to ‘Pura Segara’ (Temple of the Sea)



Source: Author

The researcher also found that the local community on Nusa Lembongan Island was not as strict as the locals on Gili Trawangan were towards the consumption of alcohol and the wearing of bikinis, since their cultural and religious laws do not prohibit it. Once a year, during the Hindu New Year celebration of *Nyepi*, restrictions are placed on the activities of tourists on Nusa Lembongan for 24 hours. The three *Nyepi* principles that must be upheld are *amati geni* (not having any fire, including any sources of light), *amati karya* (not doing any work-related activities) and *amati lelungan* (not having any entertainment). However, tourists and visitors may continue to go about their regular daily activities inside the area of their hotel accommodation.

Figure 36. *Bale kul-kul*, traditional tower for announcement of events



Source: Author

In contrast to on Gili Trawangan Island, during the observation around Nusa Lembongan Island, the researcher saw many placards advertising land for lease, but not so often land for sale. The locals of Nusa Lembongan Island may have been less interested in selling their land for fear of being trapped in a similar situation to locals on neighbouring Bali Island, where land was enthusiastically sold but where locals have started to realise that they have been displaced from and have no control over their own island. Moreover, locals on Nusa Lembongan Island have lived there for generations and thus possess a strong connection with their land.

8.4. Synthesising the Differences

The nexus between local reaction and tourism development as a primary source of financial income in the two case studies were portraying quite an anomaly. Gili Trawangan Island relied more heavily on tourism income as compared to Nusa Lembongan Island, where substantial supplementary income streams from seaweed farming were available. Despite this, Gili Trawangan Island imposed stronger

restrictions on tourists than was the case on Nusa Lembongan Island, where locals were more accommodating of tourists' culture and lifestyle. This was probably due to the prevailing cultural similarities between Nusa Lembongan and neighbouring Bali Island, which caused the locals to be open and ready in interacting with tourists from different backgrounds.

It is worth discussing the famous Indonesian proverb, '*Lain ladang lain belalang, lain lubuk lain ikannya*' ('Different fields have different grasshopper, different ponds have different fish'). The proverb holds that people from different cultural backgrounds possess different customs and perspectives and that these must be respected. In Indonesia, this proverb is repeated by parents whose children are about to leave home to travel overseas or to another city for education or work. The proverb is widely known among the inhabitants of the Indonesian Archipelago and is associated with an expectation on the part of locals in many areas that visitors submit to local culture and custom. Yet, it seems that at least in the case of locals on Bali Island and the islands surrounding it, this expectation is not absolute, such that locals are more accommodating of different cultures than in the rest of the Indonesian Archipelago.

Thus, an EGN must be aware of the local culture of their island or region before approaching stakeholders. The identification of key stakeholders and power relation mapping helps in creating knowledge about stakeholder dynamics, and in determining an appropriate entry point in communicating and negotiating with each group of stakeholders.

8.5. Conclusion

This chapter has tried to meet the fourth research objective of synthesising the perspectives of locals that led to reactions towards tourism development, with particular reference to the influence of socio-cultural dimensions in the two case study areas. The synthesis comparing the uniqueness of the locals' perspectives showed significant differences between the two islands which were the influence of their socio-cultural dimensions.

Now that the four research objectives have been discussed, the next chapter (Chapter 9) will bring them together to conclusions and implications of this research.

Chapter 9: Conclusions, Implications and Opportunities for Further Research

9.1. Introduction

This chapter presents a summary of the key findings of this research in relation to the research objectives and questions stated in Chapter 1. The conceptual framework for the analysis of Environmental Governance Networks (EGNs) is briefly revisited in order to revise and improve it based on the findings from applications on the two case study areas. This is followed by discussion of the theoretical and practical implications of the research and the suggestion of future research opportunities.

9.2. Revisiting the Proposed Conceptual Framework

Chapter 5 proposed a conceptual framework for the analysis of EGN operations, and also explained the possibilities for its application. Following analysis of the data collected in the two case studies using the conceptual framework presented in chapters 6, 7 and 8, the conceptual framework is revised to improve its validity and reliability.

There are at least four points of revision that were deemed important which are:

1. The inclusion of ‘opinion leaders’ in the key stakeholder group of ‘local people’. Based on the information gathered at the two case study areas, opinion leaders are very influential in shaping the perspectives and reactions of local people. These are well respected member of the community whose opinion is highly appreciated and influences others. They could be local religious leaders, tribal leaders, prominent local artisans and entrepreneurs, and highly educated members of the community. Thus, it is incomplete to examine the key stakeholder group of ‘local people’ without special attention given to the local ‘opinion leaders’. The previously named ‘local people’ key stakeholder group is now revised into ‘local people and opinion leaders’. The emergence of this point was discussed in section 6.5. Based from the information gathered in Gili Trawangan Island, there exist individuals that can be categorised as local opinion leaders. These are well respected member of the community in which

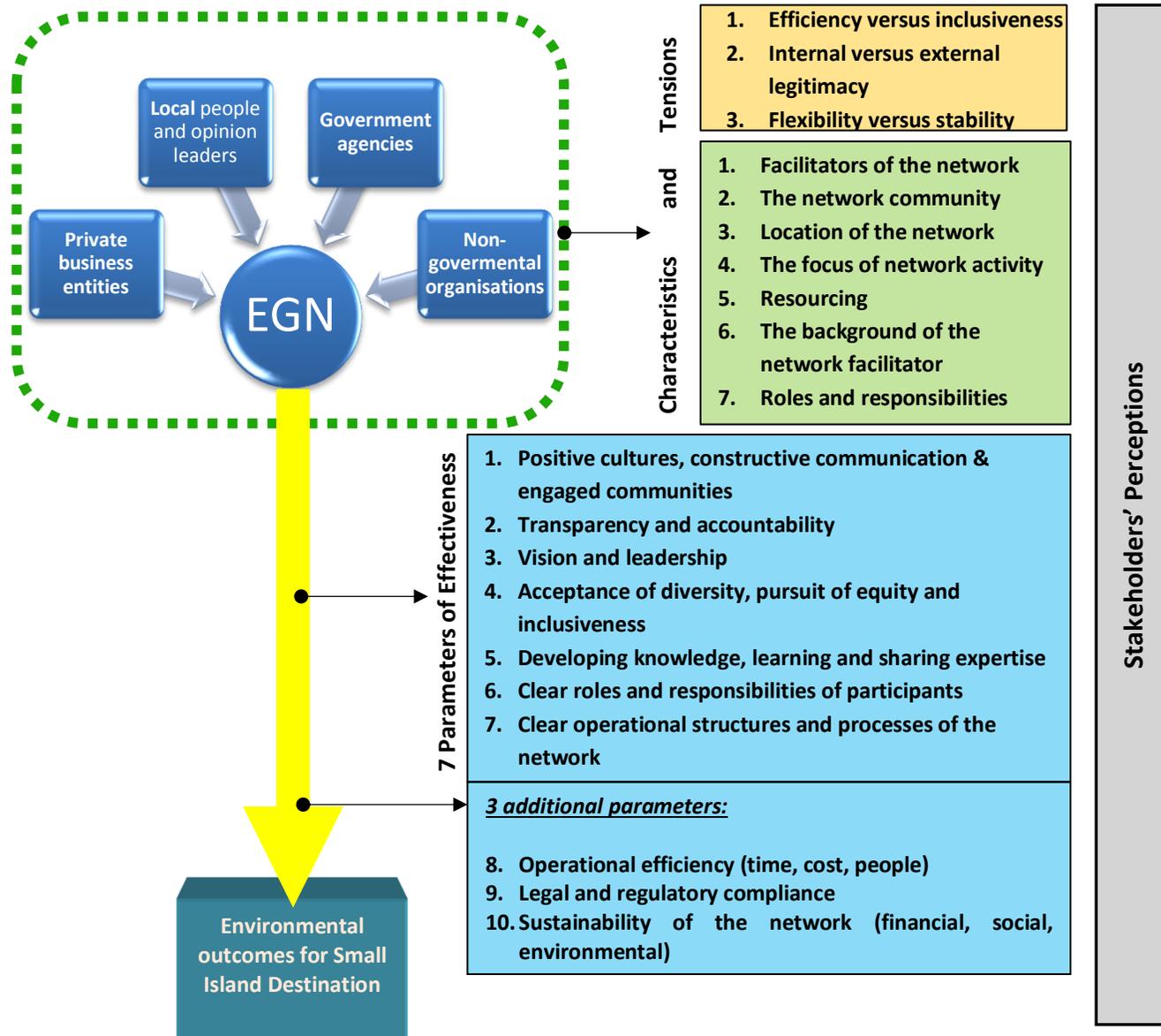
their opinion is highly appreciated and could easily influence the perspectives and reactions of local people. In the case of Gili Trawangan Island, these are prominent local members of the Muslim religious belief who have the title of 'Haji' or 'Pak Haji' in front of their name. Such role does not appear in Nusa Lembongan Island.

2. Additional parameter of 'operational efficiency'. When the interviewees in both case studies were given an opportunity at the end of the interview to add any further comments, the theme of EGN efficiency regularly emerged in the dimensions of time, cost and people. The emergence of this point was discussed in section 7.3.3. where the comparison showed that action oriented Gili Eco Trust (GET) on Gili Trawangan Island is more efficient than the policy and planning Coral Triangle Center (CTC) on Nusa Lembongan Island. Section 7.4. continues by discussing stakeholders' perceptions of GET's efficiency, which is in contrast to the perceptions of CTC's stakeholders. The question for this parameter is, has the EGN efficiently achieved its objectives within the constraints of capacity, time and budget? 'Operational efficiency' is placed below the parameters of effectiveness as an additional point of analysis.
3. Additional parameter of 'legal and regulatory compliance'. A comparative study of the two EGN cases showed that one of the most important components of EGN effectiveness in a small island developing destination (SIDDD) setting is the skill of balancing actions with regulatory compliance. The emergence of this point was discussed in section 7.6. that compares the advantages and disadvantages of the two differing approaches of GET and CTC in spending time and resources for regulatory compliance. This point means respecting the need to focus on environmental actions while also recognising the need to comply with the law and regulations. Generic views about EGN effectiveness in SIDDD settings focused mostly on the organisational dynamics and environmental outcomes, paying less attention to the potentially disruptive implications of not complying with the regulations. Thus it is deemed necessary to add another parameter of legal and regulatory compliance.
4. Additional parameter of 'sustainability of the network'. An EGN may be effective, efficient, and have fulfilled the other seven parameters of

effectiveness, but still may not be sustainable. This means an EGN must be financially, socially and environmentally sustainable in order to consistently meet its objectives. Discussion on Chapter seven showed that GET has met this parameter, but unfortunately CTC has not fully achieved it. Financially sustainable EGN possesses the financing mechanism such as the GET's Eco-tax program. EGN, that is socially sustainable, is able to raise social awareness and receives social support. For example the GET's beach clean-up program that raised awareness and received support from all stakeholders. EGN that is environmentally sustainable created tangible results that benefit the environment. For instance, GET's programs of *biorock* and mooring buoys at corals area.

These four points of revisions are added to the conceptual framework and portrayed in figure 37:

Figure 37. Revised Conceptual Framework for the Analysis of EGNs



9.3. Review of the Research Objectives

Drawing upon two Indonesian case studies representing the two types of EGN orientation, this research was designed to reach four objectives: to develop a conceptual framework of EGN operation; to investigate the operation of EGNs and their role in SIDD governance; to evaluate and compare the effectiveness of EGN operations; and to analyse the reaction of locals towards tourism development on the two case study islands. The two case study islands and their EGN operations were observed, relevant documents were analysed and in-depth semi-structured interviews were conducted with the key stakeholders on both islands to generate comprehensive data. The findings discussed in Chapters 5–8 generated the following responses regarding the research objectives.

Firstly, based on the relevant theories and review of the literature, this study met the first objective by proposing a conceptual framework to understand the operation of EGNs (see Figure 4). This conceptual framework provided the basis for analysing the five basic components of EGNs, which are EGN characteristics; any tensions arising from the agendas of different stakeholders and the dynamics of EGN operations; parameters for measuring EGN effectiveness; the impact of the EGNs on destination environmental outcomes; and stakeholder perceptions of the EGN, its operations, effectiveness and environmental outcomes. The framework was designed to be adaptable for the analysis of existing EGNs and to inform the formation of new ones. The proposed conceptual framework was then verified by applying and adjusting it to serve the comparison of the two selected case studies (see Figure 10). Finally, the proposed conceptual framework was improved by a revision based on the findings of the case study research (see Figure 37).

Secondly, based on the analysis of gathered data, this research met the second objective by describing the characteristics and tensions of the EGNs in each case study. This included identifying the key stakeholders and the power relations between them. The study revealed that for environmental governance, the dominant stakeholder on Nusa Lembongan Island was an international NGO, while on Gili Trawangan Island, it was

expatriate dive shop owners. This highlights the low initiative of both local islanders and local government towards environmental issues on these islands.

Thirdly, based on gathered data on the parameters of effectiveness and the environmental outcomes of the EGN operations, this research met the third objective by concluding that the action-oriented EGN found on Gili Trawangan Island was more effective compared to the policy and planning EGN on Nusa Lembongan Island. This is because the action-oriented EGN produced better stakeholder collaboration and faster results towards improving the island's environment. Moreover, although action-oriented EGNs initially lack local government support, on Gili Trawangan Island, GET eventually acquired policy and legal support because of its effective operation and results. This research also found that the government in these case studies, both at the local and national level, tended to focus on the process of democracy rather than on good governance. Overall, to achieve effectiveness, EGNs need to pursue a balance between focusing on actions and regulatory compliance.

Fourthly, after analysing the data about the socio-cultural profiles of the two case study islands, this research met the fourth objective by comparing their similarities and differences in relation to the influence of local cultural values on locals' attitudes towards tourism development. The inhabitants of Gili Trawangan Island, who are predominantly Muslim, have to noticeably compromise when accommodating the lifestyle and demands of western tourists. This was less necessary for the relatively more tourism-ready inhabitants of Nusa Lembongan Island, who are predominantly Hindu and share many similarities with the culture of neighbouring Bali Island.

9.4. Theoretical Implications

This research provided an empirical investigation of EGN dynamics. Until now, most research on this topic has been theoretical. The investigation of the literature relevant to the characteristics of the network, the influence and perceptions of stakeholders, and the applicability and effectiveness of self-regulating action-oriented governance network models compared with policy and planning network models generated the conceptual framework that bridges the theory of stakeholder, network and governance into a tool of analysis and comparative study.

This thesis has applied EGN as a possible solution for managing the process of small island tourism. On the basis of field research completed in two case study communities, this thesis has highlighted the importance of considering issues of stakeholder engagement and local collaboration initiative. Previous research on the governance of tourism destinations in developing country settings, has only given limited attention to cases in which the local level actors have created tangible results thru local collaboration initiative, regardless of the absence of local government support.

This research suggests that in the wider context of tourism destination management, where there is a need for innovative approaches to understand partnerships between various stakeholders, governance can be used as a process of exploring existing social organisation of multi-levelled stakeholder groups.

This thesis demonstrates that by using networks as the unit of analysis, or in this research Environmental Governance Networks (EGNs), it expands on Beaumont and Dredge (2010) that highlights the value in using networks *'as the unit of analysis to analyse relational characteristics and how tensions and trade-offs produce and institutionalise certain ideas and approaches'* (p.25). A structured mechanism may be developed for exploring and evaluating the stakeholders that forms the network to manage small island destinations. This mechanism allows complexities of networks at the local, regional and national levels to be brought into focus and for the stakeholder interactions within and between these networks to be explored. This approach provides a means to contribute towards formalising small island destination management arrangements that is adaptable and more socially accepted by stakeholders.

This research also extended theoretical understanding of EGNs by reviewing and comparing various network orientations, parameters of effectiveness and network characteristics based on two case studies. This contributes to filling the knowledge gap about EGN operations in SIDD settings.

The findings, especially the conceptual framework, can serve as a theoretical basis for the stakeholders of an existing EGN to review and develop their effectiveness. The conceptual framework that this research has developed, tested and modified could provide pathway for other tourism destinations in initiating and developing an effective

EGN to support the coexistence of tourism development and environmental preservation.

9.5. Practical Implications

Several practical implications also arose from this research that are likely to assist those involved in tourist destination management in general, and with EGNs within SIDD settings specifically.

This research provided insights into how marine-based tourism operates at the local level within small island communities in circumstances in which the marine environment is the major attraction. The present study is particularly useful for the circumstances encountered in developing countries like Indonesia that have the potential for island and marine-based tourism. Often in such cases, the government lacks the necessary tourism management capabilities, local stakeholder initiatives are uncoordinated, and unsustainable tourism developments have given rise to environmental degradation. The research also examined the effects of different local government capacities and involvement in island management and environmental protection issues in the two case studies. From this, it was concluded that local governments were pursuing democracy first and good governance later. This was explained by Indonesia being a new democracy, and only relatively recently decentralised. This study provides practical examples from the case studies that may assist small islands and coastal destinations to cultivate local stakeholder networks to develop effective environmental governance, accommodating tourism development while preserving the environment.

Moreover, based on the comparison of the cultural and religious settings of the two case study islands, it was observed that Gili Trawangan Island relied more heavily on tourism income than did Nusa Lembongan Island, but that its local stakeholders imposed stricter restrictions towards tourists to protect the local way of life than did the locals of Nusa Lembongan Island. This highlights the importance of identifying the factors influencing local culture, the key stakeholders and the power relations between them for EGNs operating in SIDD settings. In particular, this helps to determine the appropriate entry point for communication and negotiation with stakeholders.

9.6. Future Research Directions

As the need to understand and manage the coexistence of environmental preservation and marine-based tourism evolves, research in this area will continue to grow in its width and depth, and collaborative environmental governance by networks of stakeholders will remain a relevant topic of study. Following from the present study, some future research directions are proposed below.

Firstly, this research used qualitative data collection and analysis methods, employing in-depth interviews, observation and textual analysis. Applying a wider range of methods and approaches in similar contexts would result in richer findings. For example, quantitative or mixed method data collection and analysis might be useful in generating more theoretical and practical knowledge on the topic of EGN operation in SIDD settings.

Secondly, the proposed conceptual framework in this research was applied to two case study islands within a developing country setting only. Further application of the conceptual framework may provide more insights, especially if applied to larger islands, a cluster of islands, mainland tourist destinations, cities or tourism precincts. Likewise, further research on developed countries, and comparing developing and developed countries, will enrich and develop the conceptual framework and its application.

Pursuing the topic mentioned in Chapter 7 of EGNs balancing action with regulatory compliance would also be a valuable future study direction, potentially informing how EGN operations can be made more effective and efficient.

Finally, Chapter 8 provided an interesting comparison of locals' reactions towards tourism development as influenced by their belief systems. Further study of the influence of religious beliefs and cultural background on tourism development is of great importance to the tourism field. Globalisation is seeing growing numbers of tourists coming from and going to destinations where the local community is predominantly Muslim. It would thus be interesting to investigate not only locals' reactions, but also tourists' perspectives towards these emerging destinations.

References

- ANDERSON, MJ & SHAW, RN 1999, 'A comparative evaluation of qualitative data analytic techniques in identifying volunteer motivation in tourism', *Tourism Management*, vol. 20, pp. 99–106.
- APOSTOLOPOULOS, Y & GAYLE, DJ (eds.) 2001, *Island tourism and sustainable development: Caribbean, Pacific, and Mediterranean experiences*, Praeger Publisher, Westport, Connecticut.
- ARAUJO, LMD & BRAMWELL, B 1999, 'Stakeholder assessment and collaborative tourism planning: the case of Brazil's Costa Dourada Project', *Journal of Sustainable Tourism*, vol. 7, pp. 356–378.
- ARCHER, B, JAFARI, J & WALL, G 1996, 'Introduction', in L BRIGUGLIO, B ARCHER, J JAFARI & G WALL (eds.), *Sustainable tourism in islands and small states: issues and policies*, Pinter, London.
- ATIK, M, ALTAN, T & ARTAR, M 2010, 'Land use changes in relation to coastal tourism developments in Turkish Mediterranean', *Polish Journal of Environmental Studies*, vol. 19, pp. 21–33.
- ATKINSON, P, COFFEY, A & DELAMONT, S 2003, *Key themes in qualitative research: continuities and changes*, New York, Altamira Press.
- BADDELEY, MC 2004, 'Are tourists willing to pay for aesthetic quality? An empirical assessment from Krabi Province, Thailand', *Tourism Economics*, vol. 10, pp. 45–61.
- BALAGUER, P, DIEDRICH, A, SARDÁ, R, FUSTER, M, CAÑELLAS, B & TINTORÉ, J 2011, 'Spatial analysis of recreational boating as a first key step for marine spatial planning in Mallorca (Balearic Islands, Spain)', *Ocean and Coastal Management*, vol. 54, pp. 241–249.
- BALL, M 2008, 'Indonesia, country report, travel & tourism intelligence', *Travel & tourism intelligence, country reports*, Mintel International Group Ltd., London.
- BARRERA-BASSOLS, N & ZINCK, JA 2003, 'Ethnopedology: a worldwide view on the soil knowledge of local people', *Geoderma*, vol. 111, pp. 171–195.

- BARRON, P & GREENWOOD, AB 2006, 'Issues determining the development of cruise itineraries: a focus on the luxury market', *Tourism in Marine Environments*, vol. 3, pp. 89–99.
- BARTON, G 2008, 'Indonesia's year of living normally', *Southeast Asian Affairs*, pp. 121–145.
- BEAUMONT, N & DREDGE, D 2010, 'Local tourism governance: a comparison of three network approaches', *Journal of Sustainable Tourism*, vol. 8, pp. 7–28.
- BECKEN, S, HAY, J & ESPINER, S 2011, 'The risk of climate change for tourism in the Maldives', in J. Carlsen & R. Butler (eds.), *Island tourism: a sustainable perspective*, CAB International, Wallingford, UK.
- BIRD, ECF 1993, *Submerging coasts: the effects of a rising sea level on coastal environments*, John Wiley & Sons, Chichester.
- BONG, SA 2002, 'Debunking myths in qualitative data analysis', *Forum: Qualitative Social Research*, vol. 3.
- BORCH, T 2010, 'Tangled lines in New Zealand's quota management system: the process of including recreational fisheries', *Marine Policy*, vol. 34, pp. 655–662.
- BORGATTI, SP & HALGIN, DS 2011, 'On network theory', *Organization Science*, vol. 22, pp. 1168–1181.
- BOTTEMA, MJM & BUSH, SR 2012, 'The durability of private sector-led marine conservation: a case study of two entrepreneurial marine protected areas in Indonesia', *Ocean and Coastal Management*, vol. 61, pp. 38–48.
- BRAMWELL, B 2011, 'Governance, the state and sustainable tourism: a political economy approach', *Journal of Sustainable Tourism*, vol. 19, pp. 459–477.
- BRAMWELL, B & LANE, B 2012, 'Towards innovation in sustainable tourism research?' *Journal of Sustainable Tourism*, vol. 20, pp. 1–7.
- BRIGUGLIO, L 1995, 'Small island developing states and their economic vulnerabilities', *World Development*, vol. 23, pp. 1615–1632.
- BRIGUGLIO, L, ARCHER, B, JAFARI, J & WALL, G (eds.) 1996, *Sustainable tourism in islands and small states: issues and policies*, Pinter, London.
- BROHMAN, J 1996, 'New directions in tourism for third world development', *Annals of Tourism Research*, vol. 23, pp. 48–70.

- BROWN, F 1998, *Tourism reassessed: blight or blessing?*, Butterworth Heinemann, Oxford.
- BROWN, M 2012, 'Bali: they paved paradise', *Foreign correspondent*, video recording, Australian Broadcasting Corporation, Sydney. Directed by M. BROWN.
- BRUNNSCHWEILER, JM 2010, 'The shark reef marine reserve: a marine tourism project in Fiji involving local communities', *Journal of Sustainable Tourism*, vol. 18, pp. 29–42.
- BUCKLEY, R 2012, 'Sustainable tourism: research and reality', *Annals of Tourism Research*, vol. 39, pp. 528–546.
- BURGIN, S & HARDIMAN, N 2011, 'The direct physical, chemical and biotic impacts on Australian coastal waters due to recreational boating', *Biodiversity and Conservation*, vol. 20, pp. 683–701.
- BURKE, L, SELIG, E & SPALDING, M 2002, *Reefs at risk in Southeast Asia*, World Resources Institute.
- BUTLER, R & CARLSEN, J 2011, 'Conclusions and implications for sustainable island tourism', in J CARLSEN & R BUTLER (eds.) *Island tourism: sustainable perspectives*, CAB International, Wallingford, UK.
- CAMERON, KS & QUINN, RE 2005, *Diagnosing and changing organizational culture: based on the competing values framework* [electronic resource], California, Jossey-Bass, San Francisco.
- CARLSEN, J 1998, 'A systems approach to understanding ecologically sustainable development of tourism (ESDT)', *CAUTHE Conference 1998: Progress in tourism and hospitality management*, Griffith University (Gold Coast), Queensland.
- CARLSEN, J 2012, *Island Tourism Sustainability by Prof. Jack Carlsen*, online video, viewed 1 November 2012, <<http://www.youtube.com/watch?v=PDQr38gWDj8>>.
- CARLSEN, J & BUTLER, R 2011a, 'Introducing sustainable perspectives of island tourism', in J CARLSEN & R BUTLER (eds.), *Island tourism: sustainable perspectives*, CAB International, Wallingford.
- CARLSEN, J & BUTLER, RW (eds.) 2011b, *Island tourism: sustainable perspectives*, CAB International, Wallingford.

- CARLSEN, J & EDWARDS, D 2013a, 'The Diablo Trust : Planning sustainable land use', in JJ LIBURD, J CARLSEN & D EDWARDS, (eds.), *Networks for innovation in sustainable tourism: case studies and cross-case analysis*, Tilde University Press, Victoria, Australia.
- CARLSEN, J & EDWARDS, D 2013b, 'Tasting Arizona: Sustainable Food Networks', in JJ LIBURD, J CARLSEN & D EDWARDS, (eds.), *Networks for innovation in sustainable tourism: case studies and cross-case analysis*, Tilde University Press, Victoria, Australia.
- CHANG, K-C, HWUNG, H-H & CHUANG, C-T 2012, 'An exploration of stakeholder conflict over the Taiwanese marine protected area', *Ocean and Coastal Management*, vol. 55, pp. 36–41.
- CHARLIE, C, KING, B & PEARLMAN, M 2012, 'The application of environmental governance networks in small island destinations: evidence from Indonesia and the Coral Triangle', *Tourism Planning & Development*, vol. 10, pp. 17–31.
- CHAUVEL, R 2009, 'From the ramparts of Fort Victoria: knowing Indonesia through a distant mirror', *RIMA: Review of Indonesian and Malaysian Affairs*, vol. 43, pp. [165]–187.
- CHEN, CL 2010, 'Diversifying fisheries into tourism in Taiwan: experiences and prospects', *Ocean and Coastal Management*, vol. 53, pp. 487–492.
- CHO, J & TRENT, A 2006, 'Validity in qualitative research revisited', *Qualitative Research*, vol. 6, pp. 319–340.
- CLARKE, A, RAFFAY, A & WILTSHIER, P 2009, 'Losing it: knowledge management in tourism development projects', *Tourismos: An International Multidisciplinary Journal of Tourism*, vol. 4, pp. 149–166.
- CLEVERDON, R & KALISCH, A 2000, 'Fair trade in tourism'. *International Journal of Tourism Research*, vol. 2, pp. 171–187.
- COCHRANE, J 2009, 'New directions in Indonesian ecotourism', in M. HITCHCOCK, VT KING & M PARNWELL (eds.), *Tourism in Southeast Asia: challenges and new directions*, Nias Press, Copenhagen.
- COLE, S 2012, 'A political ecology of water equity and tourism: a case study from Bali', *Annals of Tourism Research*, vol. 39, pp. 1221–1241.
- COLEMAN, J 1988, 'Social capital in the creation of human capital', *American Journal of Sociology*, vol. 94(supplement), pp. 95–120.

- COOMANSINGH, J 2011, 'Social sustainability of tourism in a culture of sensuality, sexual freedom and violence: Trinidad and Tobago', in J CARLSEN & R BUTLER (eds.), *Island tourism: sustainable perspectives*, CAB International, Wallingford, UK.
- CRASE, L, O'KEEFE, S & HORWITZ, P 2010, *Australian tourism in a water constrained economy*, CRC for Sustainable Tourism.
- CURRAN, EJ 2010, *Underwater coase: can diving save the coral reefs?*
- CUSHNAHAN, G 2004, 'Crisis management in small-scale tourism', *Journal of Travel & Tourism Marketing*, vol. 15, pp. 323–338.
- DAHLES, H & BRAS, K 1999, *Tourism and small entrepreneurs: development, national policy, and entrepreneurial culture: Indonesian cases*, Cognizant, New York.
- DARLINGTON, SM 1997, 'Book review: environmental governance in the Pacific Century', *Pacific Affairs*, vol. 70, pp. 254–255.
- DARMA PUTRA, IN & PITANA, IG 2010, *Pariwisata pro-rakyat meretas jalan mengentaskan kemiskinan di Indonesia*, Kementrian Kebudayaan dan Pariwisata Republik Indonesia, Jakarta.
- DAVIS, NW & MEYER, BB 2009, 'Qualitative data analysis: a procedural comparison', *Journal of Applied Sport Psychology*, vol. 21, pp. 116–124.
- DE WIT, JG & ZUIDBERG, J 2012, 'The growth limits of the low cost carrier model', *Journal of Air Transport Management*, vol. 21, pp. 17–23.
- DEYÀ TORTELLA, B & TIRADO, D 2011, 'Hotel water consumption at a seasonal mass tourist destination: the case of the island of Mallorca', *Journal of Environmental Management*, vol. 92, pp. 2568–2579.
- DIAKOMIHALIS, MN 2007, 'Chapter 13: Greek maritime tourism: evolution, structures and prospects', *Research in Transportation Economics*, vol. 21, pp. 419–455.
- DODDS, R & BUTLER, R 2009, 'Inaction more than action: barriers to the implementation of sustainable tourism policies', in S GOSSLING, CM HALL & D WEAVER (eds.), *Sustainable Tourism Futures*, Routledge, London.
- DODDS, R, GRACI, SR & HOLMES, M 2010, 'Does the tourist care? A comparison of tourists in Koh Phi Phi, Thailand and Gili Trawangan, Indonesia', *Journal of Sustainable Tourism*, vol. 18, pp. 207–222.

- DREDGE, D & PFORR, C 2008, 'Tourism policy networks: implications for good governance and third way politics', in N SCOTT, R BAGGIO & C COOPER (eds.), *Network analysis and tourism*, Channel View Publications, Clevedon, UK.
- DYER, WG & WILKINS, AL 1991, 'Better stories not better constructs, to generate better theory: a rejoinder to Eisenhardt', *Academy of Management Review*, vol. 16, pp. 613–619.
- EDELENBOS, J & ERIK-HANS, K 2007, 'Trust in complex decision-making networks: A theoretical and empirical explanation'. *Administration & Society*, vol. 39, pp. 25–50.
- EISENHARDT, KM 1989, 'Building theory from case study research', *Academy of Management Review*, vol. 14, pp. 532–550.
- EISENHARDT, KM 1991, 'Better cases or better construct: the case for rigor and comparative logic', *Academy of Management Review*, vol. 16, pp. 620–627.
- ELMENDORF, WF & LULOFF, AE 2001, 'Using qualitative data collection methods when planning for community forests', *Journal of Arboriculture*, vol. 27.
- ERKUS-OZTURK, H & ERAYDIN, A 2010, 'Environmental governance for sustainable tourism development: collaborative networks and organisation building in the Antalya tourism region', *Tourism Management*, vol. 31, pp. 113–124.
- FALLON, F 2004, 'After the Lombok riots, is sustainable tourism achievable?' *Journal of Travel & Tourism Marketing*, vol. 15, pp. 139–158.
- FALLON, F 2008, 'Sustainability and security: Lombok hotel's link with local communities', in J CONNELL & B RUGENDYKE (eds.), *Tourism at the grassroots: villagers and visitors in the Asia Pacific*, Routledge, Hoboken.
- FARRELL, B & TWINING-WARD, L 2005, 'Seven steps towards sustainability: tourism in the context of new knowledge', *Journal of Sustainable Tourism*, vol. 13, pp. 109–122.
- FATHILAH, I, KING, B & IHALANAYAKE, R 2011, 'Host and guest perceptions of tourism impacts in island settings: a Malaysian perspective', in J CARLSEN & R BUTLER (eds.), *Island tourism: sustainable perspectives*, CAB International, Wallingford, UK.
- FISHER, D 2004, 'The demonstration effect revisited', *Annals of Tourism Research*, vol. 31, pp. 428–446.

- FORESTELL, PH 2008, 'Protecting the ocean by regulating whale watching: the sound of one hand clapping', in JES HIGHAM & M LUCK (eds.), *Marine wildlife and tourism management: insight from the natural and social sciences*. CAB International, Wallingford, UK.
- FREEMAN, RE 1984, *Strategic management: a stakeholder approach*, Marshfield, Pitman Publishing.
- FREEMAN, RE 2010, *Stakeholder theory: the state of the art*, Cambridge University Press, Cambridge, UK.
- GARROD, B & GOSSLING, S 2008, 'Introduction', in B GARROD & S GOSSLING (eds.), *New frontiers in marine tourism diving experiences, sustainability, management*, Elsevier, Amsterdam.
- GBRMPA—GREAT BARRIER REEF MARINE PARK AUTHORITY 2014, *Great Barrier Reef Outlook Report 2014*, Townsville.
- GOREAU, TJ 2009, 'Tourism and sustainable coral reefs', viewed 10 May 2010, <http://www.globalcoral.org/Ecotourism%20Biorock%20complete.pdf>.
- GOSSLING, S 2003a, 'The political ecology of tourism in Zanzibar', in S GOSSLING (ed.), *Tourism and development in tropical islands: political ecology perspectives*, Edward Elgar, Cheltenham, UK.
- GOSSLING, S (ed.) 2003b. *Tourism and development in tropical islands, political ecology perspectives*, Edward Elgar Publishing Limited, Northampton, Massachusetts.
- GOSSLING, S 2003c, 'Tourism and development in tropical islands: political ecology perspectives', in S GOSSLING (ed.), *Tourism and development in tropical islands: political ecology perspectives*, Edward Elgar, Cheltenham, UK.
- GRACI, S 2012, 'Collaboration and partnership development for sustainable tourism', *Tourism Geographies*, vol. 15, pp. 25–42.
- GRACI, SR 2007, 'Accommodating green: examining barriers to sustainable tourism development', viewed 16 February 2010, <http://linkbc.ca/torc/downs1/GraciAccommodatingGreen.pdf>.
- GRANOVETTER, M 2005, 'The impact of social structure on economic outcomes', *Journal of Economic Perspectives*, vol. 19, pp. 33–50.
- GREENBERG, A 1974, 'Tourism: blessing or blight?' by George Young, reviewed in *Journal of Travel Research*, vol. 13, pp. 25–26.

- GUARD, VK 2005, 'Dampak sosial-budaya, ekonomi dan lingkungan alam terhadap pariwisata di Gili matra: Nusa Tenggara Barat, Indonesia', *ACICIS Studi Lapangan Malang*, Thesis, Fakultas Ilmu Sosial dan Ilmu Politik Universitas Muhammadiyah Malang, Malang.
- HADEN, L 2007, 'Diving tourism—international', *Travel & Tourism Analyst*, vol. 5, pp. 1–43.
- HALL, CM 2001, 'Trends in ocean and coastal tourism: the end of the last frontier?' *Ocean and Coastal Management*, vol. 44, pp. 601–618.
- HALL, CM 2008, 'Governance', in M LUCK (ed.), *The encyclopedia of tourism and recreation in marine environments*, CAB International, Wallingford.
- HALPERN, BS, MCLEOD, KL, ROSENBERG, AA & CROWDER, LB 2008, 'Managing for cumulative impacts in ecosystem-based management through ocean zoning', *Ocean and Coastal Management*, vol. 51, pp. 203–211.
- HAMPTON, MP 1998, 'Backpacker tourism and economic development', *Annals of Tourism Research*, vol. 25, pp. 639–660.
- HAMPTON, MP & HAMPTON, J 2009, 'Is the beach party over? Tourism and the environment in small islands: a case study of Gili Trawangan, Lombok, Indonesia', in M HITCHCOCK, VT KING & M PARNWELL (eds.), *Tourism in Southeast Asia: challenges and new directions*, Nias Press, Copenhagen, Denmark.
- HARA, C 2003, 'Nusa lembongan: a haven of tropical tranquility', *The Jakarta Post* [Online], viewed 30 November 2003, <http://www.thejakartapost.com/news/2003/11/30/nusa-lembongan-haven-tropical-tranquility.html>.
- HARDIMAN, N & BURGIN, S 2010, 'Recreational impacts on the fauna of Australian coastal marine ecosystems', *Journal of Environmental Management*, vol. 91, pp. 2096–2108.
- HARDY, AL & BEETON, RJS 2001, 'Sustainable tourism or maintainable tourism: managing resources for more than average outcomes', *Journal of Sustainable Tourism*, vol. 9, pp. 168–192.
- HENDERSON, JC 2010, 'Islam and tourism', in N SCOTT & J JAFARI (eds.), *Tourism in the muslim world*, Emerald Group Publishing, Bradford.
- HESSE-BIBER, SN & LEAVY, P 2011, *The practice of qualitative research*, SAGE Publications, Thousand Oaks.

- HIDAYAT, A 2006, 'Property right changes of coral reef management: from a state property regime towards a sustainable local governance: lessons from Gili Indah Village', viewed 12 May 2010, http://www.indiana.edu/~iascp/bali/papers/Hidayat__Aceng.pdf.
- HIGHAM, JES & LUCK, M 2008, 'Marine wildlife and tourism management: in search of scientific approaches to sustainability', in JES HIGHAM & M LUCK (eds.), *Marine wildlife and tourism management*, CAB International, Wallingford.
- HOLTZAPPEL, C & RAMSTEDT, M 2009, 'Decentralization and regional autonomy in Indonesia: implementation and challenges', *Journal of East Asian Studies*, vol. 11, pp. 337–371.
- HOYT, E 2004, 'Marine protected areas for whales, dolphins and porpoises: a world handbook for cetacean habitat conservation', Earthscan, London.
- HUGHES, M 2013, 'Ecocean: conservation through technological innovation', in JJ LIBURD, J CARLSEN & D EDWARDS, (eds.), *Networks for innovation in sustainable tourism: case studies and cross-case analysis*, Tilde University Press, Victoria, Australia.
- HUMAN, SE & PROVAN, KG 2000, 'Legitimacy building in the evolution of small-firm networks: A comparative study of success and demise', *Administrative Science Quarterly*, Vol. 45, pp. 327–65.
- HUXHAM, C. & VANGEN, S 2005, *Managing to Collaborate London*, Routledge, London.
- HUYBERS, T 2007, 'Introduction', in T HUYBERS (ed.), *Tourism in developing countries*, Edward Elgar, Cheltenham, UK.
- JAFARI, J 1974, 'The socio-economic costs of tourism to developing countries', *Annals of Tourism Research*, vol. 1, pp. 227–262.
- JAMAL, T & WATT, EM 2011, 'Climate change pedagogy and performative action: toward community-based destination governance', *Journal of Sustainable Tourism*, vol. 19, pp. 571–588.
- JENKINS, CL & HENRY, BM 1982, 'Government involvement in tourism in developing countries', *Annals of Tourism Research*, vol. 9, pp. 499–521.
- JENNINGS, G 2010, *Tourism research*, John Wiley & Sons, Milton, Queensland.
- JENTOFT, S, PASCUAL-FERNANDEZ, J, DE LA CRUZ MODINO, R, GONZALEZ-RAMALLAL, M & CHUENPAGDEE, R 2012, 'What

stakeholders think about marine protected areas: case studies from Spain', *Human Ecology*, vol. 40, pp. 185–197.

JONES, C, HESTERLY, WS & BORGATTI, SP 1997, 'A general theory of network governance: exchange conditions and social mechanism', *Academy of Management Review*, vol. 22, pp. 911–945.

JOPP, R 2012, *Linking climate change, tourist destination adaptation and tourist attitudes: a case study of the Victorian Surf Coast Region*, PhD, Victoria University.

KAMSMA, T & BRAS, K 2000, 'Gili Trawangan—from desert island to 'marginal' paradise: local participation, small-scale entrepreneurs and outside investors in an Indonesian tourist destination', in G RICHARDS & D HALL (eds.), *Tourism and sustainable community development*, Routledge, London.

KARANTZAVELOU, V 2012, *Tourism is a development opportunity for small island states, finds UNWTO report* [Online], viewed 22 June 2012, <http://www.traveldailynews.com/pages/print/50000-Tourism-is-a-development-opportunity-for-Small-Island-States,-finds-UNWTO-report>.

KATZ, LS, GUNAWAN, T & DJUNAIDI, A 2010, 'Experts build management capacity for MPAs', *The Jakarta Post* [Online], viewed 2 June 2010, <http://www.thejakartapost.com/news/2010/05/11/experts-build-management-capacity-mpas.html>.

KELLY, C, ESSEX, S & GLEGG, G 2012, 'Reflective practice for marine planning: a case study of marine nature-based tourism partnerships', *Marine Policy*, vol. 36, pp. 769–781.

KERR, SA 2005, 'What is small island sustainable development about?' *Ocean and Coastal Management*, vol. 48, pp. 503–524.

KIM, S-G & KIM, YJE 1996, 'Overview of coastal and marine tourism in Korea', *Journal of Tourism Studies*, vol. 7, pp. 46–53.

KING, B 1997, *Creating island resorts*, Routledge, London.

KING, B & PEARLMAN, M 2009, 'Planning for tourism at local and regional levels: principles, practices, and possibilities', in T JAMAL & M ROBINSON (eds.), *The sage handbook of tourism studies*, Sage Publications.

KOOIMAN, J 1993, 'Socio-political governance', in J KOOIMAN (ed.), *Modern governance: new government–society interactions*, Sage, London.

- KOOIMAN, J 2003, 'Governing as governance', Sage, London.
- KRIPPENDORF, J 1982, 'Towards new tourism policies: the importance of environmental and sociocultural factors', *Tourism Management*, vol. 3, pp. 135–148.
- KROEGER, A 1983, 'Health interview surveys in developing countries: a review of the methods and results', *International Journal of Epidemiology*, vol. 12, pp. 465–481.
- KUMAR, R 1996, *Research methodology*, Longman, Melbourne.
- LADKIN, A & BERTRAMINI, AM 2002, 'Collaborative tourism planning: a case study of Cusco, Peru', *Current Issues in Tourism*, vol. 5, pp. 71–93.
- LAWS, E, AGRUSA, J, SCOTT, N & RICHINS, H 2011, 'Tourist destination governance: practice, theory and issues', in E LAWS, H RICHINS, J AGRUSA, & N SCOTT (eds.), *Tourist destination governance: practice, theory and issues*, CAB International, Wallingford.
- LAWS, E, PRIDEAUX, B & CHON, KS 2007, *Crisis management in tourism*, CAB International, Wallingford.
- LEA, JP 1993, 'Tourism development ethics in the third world', *Annals of Tourism Research*, vol. 20, pp. 701–715.
- LIBURD, JJ, CARLSEN, J & EDWARDS, D (eds.) 2013, *Networks for Innovation in Sustainable Tourism Case Studies and Cross-Case Analysis*, Melbourne: Tilde University Press.
- LIPMAN, G, DE LACY, T, BUCKLEY, G, LAW, A & WIRANTHA, A 2012, *Green growth 2050: roadmap for Bali sustainable tourism development*, Ministry of Tourism and Creative Economy of the Republic of Indonesia.
- LONG, V & WALL, G 1996, 'Successful tourism in Nusa Lembongan, Indonesia?' *Tourism Management*, vol. 17, pp. 43–50.
- LUCK, M (ed.) 2008, *Encyclopedia of tourism and recreation in marine environments*, CAB International, Wallingford.
- MACKELLAR, J 2006, 'Conventions, festivals, and tourism: exploring the network that binds', *Journal of Convention and Event Tourism*, vol. 8, pp. 45–56.

- MACRAE, G & ARTHAWIGUNA, I 2011, 'Sustainable agricultural development in Bali: is the subak an obstacle, an agent or subject?' *Human Ecology*, vol. 39, pp. 11–20.
- MANJUNATHA, MSR 1998, 'India and Indonesia: after 50 years of independence', *Economic and Political Weekly*, vol. 33, pp. 214–218.
- MANSFELD, Y & PIZAM, A 2006, *Tourism, security, and safety: from theory to practice*, Elsevier Butterworth-Heinemann, Burlington.
- MCEVILY, B & ZAHEER, A 2004, 'Architects of trust: The role of network facilitators in geographical clusters', in: *Trust and distrust in organizations*, ed. R. Kramer and K. Cook, 189–213. New York: Russell Sage Foundation.
- MCLEOD, RH & MACINTYRE, A 2007, *Indonesia: democracy and the promise of good governance*, Institute of Southeast Asian Studies, Singapore.
- MERRIAM, SB 1991, *Case study research in education, a qualitative approach*, Jossey-Bass Publisher Inc., San Francisco.
- MERRIAM, SB 2002, *Qualitative research in practice: examples for discussion and analysis*, Jossey-Bass Publisher Inc., San Francisco.
- MICHAEL, EJ 2007, *Micro-clusters and networks: the growth of tourism*, Elsevier, Oxford, UK.
- MIETZNER, M 2012, 'Indonesia Yudhoyono's legacy between stability and stagnation', *Southeast Asian Affairs*, pp. 117–134.
- MILLER, G & TWINING-WARD, L 2005, *Monitoring for a sustainable tourism transition: the challenge of developing and using indicators*, CAB International, Wallingford.
- MILLER, ML 1993, 'The rise of coastal and marine tourism', *Ocean and Coastal Management*, vol. 20, pp. 181–199.
- MILLER, ML & AUYONG, J 1991, 'Coastal zone tourism: a potent force affecting environment and society', *Marine Policy*, vol. 15, pp. 75–99.
- MITCHELL, R, AGLE, B & WOOD, D 1997, 'Towards a theory of stakeholder identifications and salience. Defining the principle of who and what really counts', *Academy of Management Review*, vol. 22, pp. 853–886.
- MITCHELL, RE & REID, DG 2001, 'Community integration: island tourism in Peru', *Annals of Tourism Research*, vol. 28, pp. 113–139.

- MOBERG, F & FOLKE, C 1999, 'Ecological goods and services of coral reef ecosystems', *Ecological Economics*, vol. 29, pp. 215–233.
- MORENO, A & BECKEN, S 2009, 'A climate change vulnerability assessment methodology for coastal tourism', *Journal of Sustainable Tourism*, vol. 17, pp. 473–488.
- MOSCARDO, G 2011, 'Exploring social representations of tourism planning: issues for governance', *Journal of Sustainable Tourism*, vol. 19, pp. 423–436.
- MURRAY, G 2007, 'Constructing paradise: the impacts of big tourism in the Mexican coastal zone', *Coastal Management*, vol. 35, pp. 339–355.
- MURTA, IN 2010, *Profil Desa Lembongan, Kecamatan Nusa Penida, Kabupaten Klungkung, Provinsi Bali, 2010*, Departemen Dalam Negeri Direktorat Jenderal Pemberdayaan Masyarakat Dan Desa.
- MWAIPOPO, R, LANGE, G-M & BRETON, Y 2010, 'Understanding the human dimensions in the management of coastal and marine resources in the WIO region', *Ocean and Coastal Management*, vol. 53, pp. 147–149.
- NATIONAL RESEARCH COUNCIL 2001, *Marine protected areas: tools for sustaining ocean ecosystem*, Washington DC: Committee on the Evaluation, Design, and Monitoring of Marine Reserves and Protected Areas in the United States, Ocean Studies Board, National Research Council.
- NETO, F 2003, 'A new approach to sustainable tourism development: moving beyond environmental protection', *Natural Resources Forum*, vol. 27, pp. 212–222.
- NEWBY, M, AMIN, S, DIAMOND, I & NAVED, RT 1998, 'Survey experience among women in Bangladesh', *American Behavioral Scientist*, vol. 42, pp. 252–275.
- NORTHCOTE, J & MACBETH, J 2008, *Socio-Economic Impacts of Sanctuary Zone Changes in Ningaloo Marine Park Gold Coast*, Queensland: Sustainable Tourism Cooperative Research Centre (ST-CRC).
- ORACION, EG, MILLER, ML & CHRISTIE, P 2005, 'Marine protected areas for whom? Fisheries, tourism, and solidarity in a Philippine community', *Ocean and Coastal Management*, vol. 48, pp. 393–410.
- ORAMS, M 1999, *Marine tourism: development, impacts and management*, Routledge, London.
- OSTI, L 2007, *Travel guidebooks and the independent traveller in the Asia Pacific Region*, PhD dissertation, Victoria University.

- OTTO, R, KRÜSI, BO & KIENAST, F 2007, 'Degradation of an arid coastal landscape in relation to land use changes in Southern Tenerife (Canary Islands)', *Journal of Arid Environments*, vol. 70, pp. 527–539.
- PAKDEL, A, DAMIRCHI, QV & GHOLIZADEH, H 2012, 'Corruption and anticorruption policies in developing countries', *Interdisciplinary Journal of Contemporary Research In Business*, vol. 3, p. 194.
- PARMAR, BL, FREEMAN, RE, HARRISON, JS, WICKS, AC, PURNELL, L & DE COLLE, S 2010, 'Stakeholder theory: the state of the art', *The Academy of Management Annals*, vol. 4, pp. 403–445.
- PATTERSON, T & RODRIGUEZ, L 2003, 'The political ecology of tourism in the Commonwealth of Dominica', in S GOSSLING (ed.), *Tourism and development in tropical islands: political ecology perspectives*, Edward Elgar, Cheltenham, UK.
- PATTON, MQ 2002, *Qualitative Research and Evaluation Methods*, Sage Publications, Thousand Oaks, CA.
- PEPINSKY, TB & WIHARDJA, MM 2011, 'Decentralization and economic performance in Indonesia', *Journal of East Asian Studies*, vol. 11, pp. 337–371.
- PFORR, C 2006, 'Tourism policy in the making: an Australian network study', *Annals of Tourism Research*, vol. 33, pp. 87–108.
- PICARD, M 2008, 'Balinese identity as tourist attraction: from "cultural tourism" (pariwisata budaya) to "Bali erect" (ajeg Bali)', *Tourist Studies*, vol. 8, pp. 155–173.
- PINHEIRO, HT, JOYEUX, JC & MARTINS, AS 2010, 'Reef fisheries and underwater surveys indicate overfishing of a Brazilian Coastal Island', *Natureza e Conservacao*, vol. 8, pp. 151–159.
- PLUMMER, R & FENNELL, D 2006, 'Exploring co-management theory: Prospects for sociobiology and reciprocal altruism', *Journal of Environmental Management*, vol. 85, pp. 944-55.
- PROVAN, KG & KENIS, P 2007, 'Modes of network governance: structure, management, and effectiveness', *Journal of Public Administration Research and Theory*, vol. 18, pp. 229–252.
- PURNAYASA, IK 2010, *Atraksi Wisata Surfing Sebagai Daya Tarik Wisata Di Desa Lembongan Kecamatan Nusa Penida Kabupaten Klungkung*, Sarjana Ekonomi, Sekolah Tinggi Ilmu Ekonomi Triatma Mulya.

- RAMAGE, DE 2007, 'Indonesia: democracy first, good governance later', *Southeast Asian Affairs*, pp. 135–157.
- RICO-AMOROS, AM, OLCINA-CANTOS, J & SAURI, D 2009, 'Tourist land use patterns and water demand: evidence from the Western Mediterranean', *Land Use Policy*, vol. 26, pp. 493–501.
- ROBBE, D 2010, *Why what we do is important, about Gili Eco Trust* [Online], Gili Trawangan: Gili Ecotrust, viewed 8 April 2010, <http://www.giliecotrust.com/en/about-gili-eco-trust.html>.
- ROBBINS, P 2012, *Political ecology: a critical introduction*, 2nd edn, John Wiley & Sons Inc.
- ROBERTSON, J 2002, 'Reflexivity redux: a pitchy polemic on positionality', *Anthropological Quarterly*, vol. 75, pp. 785–792.
- ROBSON, J & ROBSON, I 1996, 'From shareholders to stakeholders: critical issues for tourism marketers', *Tourism Management*, vol. 17, pp. 533–540.
- SADLER, PG & ARCHER, BH 1975, 'The economic impact of tourism in developing countries', *Annals of Tourism Research*, vol. 3, pp. 15–32.
- SALAZAR, NB 2012, 'Community-based cultural tourism: issues, threats and opportunities', *Journal of Sustainable Tourism*, vol. 20, pp. 9–22.
- SALSABYL AD'N, M 2013, 'Zamrud Khatulistiwa Hanya Peringkat Ke-70, Mengintip Jurus Jualan Pariwisata Indonesia di Internationale-Tourismous Bourse (ITB), Berlin', *Jawa Pos*, 20 March 2013, p. 6.
- SANAD, HS, KASEEM, AM & SCOTT, N 2010, 'Tourism and Islamic Law', in N SCOTT & J JAFARI (eds.), *Tourism in the muslim world*, Emerald Group Publishing Limited, Bradford.
- SASIDHARAN, V, SIRAKAYA, E & KERSTETTER, D 2002, 'Developing countries and tourism ecolabels', *Tourism Management*, vol. 23, pp. 161–174.
- SASIDHARAN, V & THAPA, B 2001, 'Sustainable coastal and marine tourism development: a hobson's choice', in: Y APOSTOLOPOULOS & DJ GAYLE (eds.), *Island tourism and sustainable development: Caribbean, Pacific, and Mediterranean experiences*, Praeger, Westport Connecticut.
- SATRIA, A, MATSUDA, Y & SANO, M 2006, 'Questioning, community based coral management systems: case study of Awig-Awig in Gili Indah, Indonesia', *Environment, Development and Sustainability*, vol. 8, pp. 99–118.

- SCOTT, N, BAGGIO, R & COOPER, C 2008, *Network analysis and tourism: from theory to practice*, Channel View Publications, Clevedon, England.
- SCOTT, N & JAFARI, J (eds.) 2010, *Tourism in the muslim world*, Emerald, Bingley.
- SCOTT, N, LAWS, E, AGRUSA, J & RICHINS, H 2011, 'Tourist destination governance: some approaches and suggestions for future research', in E LAWS, H RICHINS, J AGRUSA & N SCOTT (eds.), *Tourist destination governance: practice, theory and issues*, CAB International, Wallingford.
- SEGRE, M 2010, 'Delphine Robbe: taking it personally', *The Jakarta Post* [Online], viewed 12 January 2011, <http://www.thejakartapost.com/print/243224>.
- SETIAWATI, I 2009a, 'Community moves to protect reefs', *The Jakarta Post* [Online], viewed 26 February 2009, <http://www.thejakartapost.com/news/2009/02/26/community-moves-protect-reefs.html>.
- SETIAWATI, I 2009b, 'Residents lack tools to monitor destructive fishing', *The Jakarta Post* [Online], viewed 24 February 2010, <http://www.thejakartapost.com/news/2009/02/24/residents-lack-tools-monitor-destructive-fishing.html>.
- SETIAWATI, I 2009c, 'Underwater Earth Day for students', *The Jakarta post* [Online], viewed 23 April 2010, <http://www.thejakartapost.com/news/2009/04/23/underwater-earth-day-students.html-0>.
- SHANTIULI, TM & SUGIYANTO, C 2008, 'The challenge of tourism development after decentralization in Lombok Island, West Nusatenggara, Indonesia', in: T JALBERT & M JALBERT (eds.), *Global Conference on Business and Finance Proceedings*, The Institute for Business and Finance Research, 9-12 January 2008, Honolulu, Hawaii.
- SHAREEF, R & HOTI, S 2005, 'Small island tourism economies and country risk ratings', *Mathematics and Computers in Simulation*, vol. 68, pp. 553–566.
- SINCLAIR, MT 1998, 'Tourism and economic development: a survey', *Journal of Development Studies*, vol. 34, pp. 1–51.
- SMITH, G & DU, J 2013, 'Wenhai Ecolodge: Community-based innovations for sustainability', in JJ LIBURD, J CARLSEN & D EDWARDS, (eds.), *Networks for innovation in sustainable tourism: case studies and cross-case analysis*, Tilde University Press, Victoria, Australia.

- SOEMODINOTO, A & WONG, PP 2004, 'Patterns and processes of tourism development on the Gili Islands, Lombok, Indonesia', *ASEAN Journal on Hospitality and Tourism*, vol. 3, pp. 77–89.
- SOESASTRO, H, SMITH, AL & LING, HM 2002, 'Governance in Indonesia: challenges facing the Megawati presidency', ISEAS, Singapore.
- SOISALON-SOININEN, T & LINDROTH, K 2006, 'Regional tourism co-operation in progress', in L LAZZERETTI & CS PETRILLO (eds.), *Tourism local systems and networking*, Elsevier Science, Burlington.
- SONG, H 2009, 'Tourism trends in Asia-Pacific', *CAUTHE 2009—See change: tourism & hospitality in a dynamic world*, Curtin University of Technology, Fremantle, W.A.
- STAKE, RE 1995, *The art of case study research*, Sage Publications, Thousand Oaks, CA.
- STANSFIELD, CA 1975, 'Tourism: blessing or blight', *Journal of Travel Research*, vol. 13, pp. 13–16.
- STONICH, SC 1998, 'Political ecology of tourism', *Annals of Tourism Research*, vol. 25, pp. 25–54.
- STRAUSS, A 1987, *Qualitative analysis for social scientist*, Cambridge University Press, Cambridge, UK.
- SUKARSA, IW 2006, *Pelestarian Terumbu Karang Dalam Menunjang Wisata Bahari Di Pantai Selegimpak Desa Lembongan Kecamatan Nusa Penida Kabupaten Klungkung*, Sarjana Pariwisata, Universitas Udayana.
- SULIANA, IN 2010, *Profil Desa Jungut Batu, Kecamatan Nusa Penida, Kabupaten Klungkung, Propinsi Bali, 2010*, Direktorat Jenderal Pemberdayaan Masyarakat Indonesia Departemen Dalam Negeri.
- SULTANA, F 2007, 'Reflexivity, positionality and participatory ethics: negotiating fieldwork dilemmas in international research', *ACME: An International E-Journal for Critical Geographihes*, vol. 6, pp. 374–385.
- SURIYANI, LD 2008, 'Nusa Penida marine conservation blueprint prepared', *The Jakarta Post* [Online], viewed 13 September 2010, <http://www.thejakartapost.com/news/2008/09/13/nusa-penida-marine-conservation-blueprint-prepared.html>.

- SUSANTA, IK 2003, *Respon Masyarakat Terhadap Rencana Pengembangan Kawasan Wisata (Studi Kasus Kawasan Wisata Nusa Ceningan Desa Lembongan Kecamatan Nusa Penida Kabupaten Klungkung)*, Sarjana Pariwisata, Udayana.
- SVENSSON, B, NORDIN, S & FLAGESTAD, A 2006, 'Destination governance and contemporary development models', in L LAZZERETTI & CS PETRILLO (eds.), *Tourism local systems and networking*, Elsevier Science, Burlington.
- TARLOW, PE 2009, 'Tourism safety and security', in T JAMAL & M ROBINSON (eds.), *The SAGE handbook of tourism studies*, Sage, London.
- TAYLOR, C & TURNER, P 1997, *South-east asia on a shoestring*, Lonely Planet, Hawthorn, Victoria.
- THONE, F 1935, 'Nature rambling: we fight for grass', *The Science Newsletter*, vol. 27, p. 14.
- TIMOTHY, DJ 1999, 'Participatory planning: a view of tourism in Indonesia', *Annals of Tourism Research*, vol. 26, pp. 371–391.
- TIMOTHY, DJ & TOSUN, C 2003, 'Appropriate planning for tourism in destination communities: participation, incremental growth and collaboration', in S SINGH, DJ TIMOTHY & RK DOWLING (eds.), *Tourism in destination communities*, CAB International.
- TIMUR, S & GETZ, D 2008, 'A network perspective on managing stakeholders for sustainable urban tourism', *International Journal of Contemporary Hospitality Management*, vol. 20, pp. 445–461.
- TOSUN, C 2000, 'Limits to community participation in the tourism development process in developing countries', *Tourism Management*, vol. 21, pp. 613–633.
- TOSUN, C & JENKINS, CL 1998, 'The evolution of tourism planning in third-world countries: a critique', *Progress in Tourism and Hospitality Research*, vol. 4, pp. 101–114.
- TRAVERS, M 2001, *Qualitative research through case studies*, Sage, Thousand Oaks, CA.
- UNWTO 2012, *UNWTO tourism highlights, 2012 edition*, Madrid: World Tourism Organization.
- VAN DER REIS, P 2000, *Transportation surveys among illiterate and semiliterate households in South Africa*, Transport Research Board, Washington, DC.

- VEAL, AJ 2006, *Research methods for leisure and tourism: a practical guide*, Pearson Education Limited, Edinburgh Gate, England.
- VER BERKMOES, R, SKOLNICK, A & CARROLL, M 2009, *Bali & Lombok*, Lonely Planet, Footscray, Victoria.
- VIGNON, M, SASAL, P, JOHNSON, RL & GALZIN, R 2010, 'Impact of shark-feeding tourism on surrounding fish populations off Moorea Island (French Polynesia)', *Marine and Freshwater Research*, vol. 61, pp. 163–169.
- WAGEY, T & SUYOSO-MARSDEN, E 2010, 'UNEP awards Indonesia for its ocean initiatives', *The Jakarta Post* [Online], viewed 2 June 2010, <http://www.thejakartapost.com/news/2010/03/02/unep-awards-indonesia-its-ocean-initiatives.html>.
- WALL, G 1996, 'The implications of climate change for tourism in small islands', in L BRIGUGLIO, B ARCHER & G WALL (eds.), *Sustainable tourism in islands and small states: issues and policies*, Pinter, London.
- WALSH, B 2010, 'Our dying corals and how to save them', *Time*, 29 August 2010.
- WARDANY, I 2008, 'TNC to focus on Nusa Penida coral conservation', *The Jakarta Post* [Online], viewed 30 January 2010, <http://www.thejakartapost.com/news/2008/01/29/tnc-focus-nusa-penida-coral-conservation.html>.
- 'Warga Nusa Penida Kecewa' 2013, *Bali Post*, 12 May 2013.
- WEAVER, DB 2001, 'Mass and alternative tourism in the Caribbean', in D HARRISON (ed.), *Tourism and the less developed world*, CAB International, Wallingford.
- WEAVER, DB 2006, 'Alternative tourism', in DB WEAVER (ed.), *Sustainable tourism*, Elsevier Butterworth-Heinemann, Burlington.
- WELLY, M 2009, 'Local community in Lembongan, Nusa Penida, launches community center to support marine conservation and establishment of Nusa Penida MPA', viewed 8 April 2010, http://www.coraltrianglecenter.org/downloads/FINAL_Penida_Community_Center_Launch_NewsRelease_FEB09-EB_ENGLISH.pdf.
- WESLEY, A & PFORR, C 2010, 'The governance of coastal tourism: unravelling the layers of complexity at Smiths Beach, Western Australia', *Journal of Sustainable Tourism*, vol. 18, pp. 773–792.

- WHEELER, T 2010, *The lonely planet story*, Lonely Planet Publications, Footscray, Victoria.
- WHITE, AT & ROSALES, R 2003, 'Community-oriented marine tourism in the Phillipines: role in economic development and conservation', in S GOSSLING (ed.), *Tourism and development in tropical islands: political ecology perspectives*, Edward Elgar, Cheltenham, UK.
- WIDODO, H 2012, 'A partnership in tropical marine and fisheries resources management and conservation in Indonesia: enhancing local capacity to effectively manage marine and coastal natural resources in the Coral Triangle', viewed 5 August 2012, http://www.coraltrianglecenter.org/wp-content/uploads/2012/08/MOU-KKP-CTC_general-release_ENG_1rev.pdf.
- WILLIAMS, PW & PONSFORD, IF 2009, 'Confronting tourism's environmental paradox: transitioning for sustainable tourism', *Futures*, vol. 41, pp. 396–404.
- WOLF, E 1972, 'Ownership and political ecology', *Anthropological Quarterly*, vol. 45, pp. 201–205.
- WONG, PP 1998, 'Coastal tourism development in Southeast Asia: relevance and lessons for coastal zone management', *Ocean and Coastal Management*, vol. 38, pp. 89–109.
- WONG, PP 2011, 'Small island developing states', *Wiley Interdisciplinary Reviews—Climate Change*, vol. 2, pp. 1–6.
- WORACHANANANT, S, CARTER, RW, HOCKINGS, M & REOPANICHKUL, P 2008, 'Managing the impacts of SCUBA divers on Thailand's coral reefs', *Journal of Sustainable Tourism*, vol. 16, pp. 645–663.
- WORONOWYCZ, R 2010, *Press release: Ambassador Marciel helps launch first marine protected area in Indonesia* [Online], Jakarta, Indonesia: Embassy of the United States Jakarta, Indonesia, viewed 22 November 2010, http://jakarta.usembassy.gov/pr_11222010.html.
- WUNDER, S 2003, 'Native tourism, natural forests and local incomes on Ilha Grande, Brazil', in S GOSSLING (ed.), *Tourism and development in tropical islands: political ecology perspectives*, Edward Elgar, Cheltenham, UK.
- YEPES, V & MEDINA, JR 2005, 'Land use tourism models in Spanish coastal areas: a case study of the Valencia region', *Journal of Coastal Research*, pp. 83–88.
- YIN, RK 1984, *Case study research: design and methods*, Sage Publications Ltd., London.

YIN, RK 2003, *Case study research design and methods*, 3rd edn, Sage Publications, Thousand Oaks.

YOUNG, G 1973, *Tourism: blessing or blight?* Penguin, London.

ZIKMUND, WG 2003, *Business reserach methods*, The Dryden Press, Florida.

Appendices

Appendix 1. Information to participants involved in research

INFORMATION TO PARTICIPANTS INVOLVED IN RESEARCH

You are invited to participate

You are invited to participate in a research project entitled 'Collaborative Environmental Governance Networks in Small Island Destinations, Case Studies of Gili Trawangan Island and Nusa Lembongan Island—Indonesia'.

This project is being conducted by a postgraduate student researcher Charlie Charlie as part of a PhD program in Tourism at Victoria University under the supervision of Professor Brian King.

Project explanation

The natural environment plays a major role in determining destination attractiveness, particularly in the case of small island destinations characterised by sparse natural resources and by limited environmental carrying capacity. Some small island destinations in developing country settings have developed collaborative environmental governance networks as a means of protecting environmental resources. However, little is known about the operations of such networks. The research attempts to develop a deeper understanding of the operational characteristics and tensions, effectiveness, and stakeholders' perceptions of the outcomes of environmental governance networks in small island destinations within developing country settings. This is being approached by focusing on the application of collaborative environmental governance networks in the two case studies of Gili Trawangan Island and Nusa Lembongan Island. This research aims to investigate three main questions:

1. How do collaborative environmental governance networks operate in small island settings?
2. How effective are these two collaborative environmental governance networks?
3. What are the stakeholders' perceptions of the outcomes of these two collaborative environmental governance networks?

The prospective findings should contribute to the understanding of environmental governance networks, their operations, and how stakeholders of existing governance networks can review and develop their effectiveness. The study will provide insights into how tourism development in small island destinations can become more environmentally sustainable and assist other destinations to develop appropriate environmental governance networks.

What will I be asked to do?

As a participant in this study, you will be invited to be interviewed by the researcher. Most of the questions are open-ended in order to gain more in-depth information about environmental governance networks. The interview will typically last between 60 and 90 minutes.

What will I gain from participating?

Upon completion of the project, participants will be provided with a summary of the main outcomes and recommendations of the research.

How will the information I give be used?

The interview will be recorded and transcribed and kept confidential with only the researcher and research supervisor having access to it. The information you provide will be used to gain in-depth views about the collaborative environmental governance networks in Gili Trawangan Island and Nusa Lembongan Island, as well as identifying areas for further research.

What are the potential risks of participating in this project?

Participation in this research is voluntary. Should you be willing to be involved in this project, you will be asked to complete a signed consent form and return it to the researcher. You may withdraw from the project at any time. The research supervisor and the researcher will keep the information confidential, and your details will not be forwarded to any third party. All material presented in any publications will be de-identified.

How will this project be conducted?

The research seeks to collect information from stakeholders of collaborative environmental governance networks in small island destinations within developing country settings. The nature of the research is qualitative with open-ended in-depth interview questions providing deeper insights into the operational characteristics and tensions, effectiveness, environmental outcomes, and stakeholders' perceptions of environmental governance network operations. The information obtained will be further analysed in relation to the literature and observation. Conclusions and recommendations will identify how stakeholders of existing environmental governance networks

can review and develop their effectiveness, how tourism development in small island destinations can become more environmentally sustainable, and also how other destinations can develop appropriate environmental governance networks.

Who is conducting the study?

The study is being conducted through the School of Hospitality, Tourism and Marketing in the Faculty of Business and Law at Victoria University, Melbourne, Australia. The researcher's details are as follows:

Principal Researcher: Professor Brian King, tel.: +61 3 9919 5348; e-mail: Brian.King@vu.edu.au

Student Researcher: Charlie Charlie, tel.: +61 430 836 978; e-mail:
Charlie.Charlie@live.vu.edu.au

Any queries about your participation in this project may be directed to the Principal Researcher mentioned above.

If you have any queries or complaints about the way you have been treated, you may contact the Ethics and Biosafety Coordinator, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone +61 3 9919 4148.

Appendix 2. Information to participants involved in research (Translated into *Bahasa Indonesia*)

INFORMASI UNTUK PESERTA PENELITIAN

Anda Diundang Untuk Berpartisipasi

Anda diundang untuk berpartisipasi dalam sebuah proyek penelitian bertema: 'Jaringan Kolaboratif Tata Kelola Lingkungan di Pulau Kecil Tujuan Wisata, Studi Kasus di Pulau Gili Trawangan dan Nusa Lembongan—Indonesia'.

Penelitian ini dilaksanakan oleh seorang mahasiswa pasca-sarjana bernama Charlie Charlie, sebagai bagian dari program studi Doktor Ilmu Filsafat bidang Pariwisata di Victoria University, dibawah pengawasan Professor Brian King.

Penjelasan Proyek Penelitian

Lingkungan alam memainkan peran utama dalam menentukan daya tarik tujuan wisata, khususnya di pulau-pulau kecil tujuan wisata yang dicirikan oleh keterbatasan sumber daya alam dan keterbatasan daya dukung lingkungan. Beberapa pulau-pulau kecil tujuan wisata di negara berkembang telah mengembangkan Jaringan Kolaboratif Tata Kelola Lingkungan sebagai alat untuk melindungi alam. Namun, hanya sedikit informasi yang dimiliki tentang operasional jaringan kolaboratif semacam itu. Penelitian ini bertujuan untuk menggali informasi lebih dalam mengenai karakteristik dan dinamika operasional, efektivitas, dan persepsi stakeholder terhadap hasil kerja dari jaringan kolaboratif tata kelola lingkungan di pulau-pulau kecil destinasi wisata di dalam kawasan negara berkembang. Penelitian ini dilaksanakan dengan berfokus pada penerapan jaringan kolaboratif tata kelola lingkungan dalam dua studi kasus di Pulau Gili Trawangan dan Pulau Nusa Lembongan. Penelitian ini bertujuan untuk menyelidiki tiga pertanyaan utama:

1. Bagaimana jaringan kolaboratif tata kelola lingkungan beroperasi di pulau-pulau kecil?
2. Seberapa efektifkah kedua contoh studi kasus jaringan kolaboratif tata kelola lingkungan ini?
3. Apa saja persepsi para pemangku kepentingan/stakeholder terhadap hasil kerja kedua jaringan kolaboratif tata lingkungan dalam kedua contoh ini?

Hasil penelitian ini akan berkontribusi terhadap pemahaman akan jaringan kolaboratif tata kelola lingkungan, aktivitas yang mereka lakukan, serta bagaimana jaringan kolaboratif yang ada dapat meninjau dan meningkatkan efektivitas mereka. Penelitian ini akan memberikan wawasan

mengenai bagaimana pengembangan wisata di destinasi pulau kecil dapat menjadi lebih ramah lingkungan dan membantu destinasi pulau kecil lainnya untuk mengembangkan jaringan tata kelola lingkungan yang sesuai.

Apa yang akan saya lakukan sebagai peserta?

Sebagai peserta dalam studi ini, anda akan diwawancarai oleh peneliti. Sebagian besar pertanyaan bersifat terbuka sehingga dapat menggali informasi lebih mendalam tentang jaringan kolaboratif tata kelola lingkungan. Wawancara akan berlangsung antara 60 dan 90 menit.

Apa yang akan saya peroleh sebagai peserta?

Setelah penelitian ini selesai, peserta akan diberi ringkasan hasil dan rekomendasi penelitian.

Bagaimana informasi yang saya berikan akan digunakan?

Wawancara akan dicatat dan ditranskripsi serta dirahasiakan dengan hanya peneliti dan pengawas penelitian yang memiliki akses data. Informasi yang anda berikan akan digunakan untuk mendapatkan informasi yang mendalam tentang jaringan kolaboratif tata kelola lingkungan di Pulau Gili Trawangan dan Pulau Nusa Lembongan, serta mengidentifikasi area untuk penelitian lebih lanjut.

Apa saja potensi resiko peserta di penelitian ini?

Partisipasi dalam penelitian ini adalah sukarela. Jika anda bersedia untuk terlibat dalam proyek ini, anda akan diminta untuk mengisi formulir persetujuan, ditandatangani dan mengembalikannya kepada peneliti. Anda dapat menarik diri dari penelitian ini setiap saat. Pengawas penelitian dan peneliti akan menjaga kerahasiaan informasi, dan rincian anda tidak akan diteruskan kepada pihak ketiga. Semua materi yang disajikan dalam publikasi akan di de-diidentifikasi.

Bagaimana penelitian ini akan dilaksanakan?

Penelitian ini bertujuan untuk mengumpulkan informasi dari stakeholder jaringan kolaboratif tata kelola lingkungan di destinasi pulau-pulau kecil di dalam negara berkembang. Sifat dari penelitian ini adalah kualitatif dengan wawancara mendalam menggunakan pertanyaan terbuka yang akan memberikan wawasan lebih dalam tentang karakteristik dan dinamika operasional, efektivitas, hasil di lingkungan, dan persepsi stakeholder. Informasi yang diperoleh akan dianalisa lebih lanjut dalam kaitannya dengan literatur dan observasi. Kesimpulan dan rekomendasi akan mengidentifikasi bagaimana stakeholder dan pengelola jaringan kolaboratif tata kelola lingkungan dapat meninjau dan mengembangkan efektivitas mereka, bagaimana pengembangan wisata di

destinasi pulau kecil dapat menjadi lebih ramah lingkungan, dan bagaimana destinasi pulau kecil lainnya dapat mengembangkan jaringan tata kelola lingkungan yang sesuai.

Siapa yang melaksanakan penelitian ini?

Penelitian ini dilakukan melalui Sekolah Perhotelan Pariwisata dan Pemasaran di Fakultas Bisnis dan Hukum di Victoria University, Melbourne, Australia. Rincian Peneliti adalah sebagai berikut:

Pengawas Penelitian: Profesor Brian King, tel: +61 3 9919 5348; e-mail: Brian.King @ vu.edu.au.

Mahasiswa Peneliti: Charlie Charlie, tel: +61 430 836 978; e-mail: Charlie.Charlie @ live.vu.edu.au.

Setiap pertanyaan tentang partisipasi anda dalam proyek ini dapat ditanyakan kepada Pengawas Penelitian yang disebutkan di atas.

Jika anda memiliki pertanyaan atau keluhan tentang cara anda telah diperlakukan, anda dapat menghubungi Ethics and Biosafety Coordinator, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 telepon +61 3 9919 4148

Appendix 3. Consent form for participants involved in research

CONSENT FORM FOR PARTICIPANTS INVOLVED IN RESEARCH

INFORMATION TO PARTICIPANTS:

We would like to invite you to be a part of a study of ‘Collaborative Environmental Governance Networks in Small Island Destinations, Case Studies of Gili Trawangan Island and Nusa Lembongan Island—Indonesia’

Full details of the project and your involvement are provided in the accompanying sheet titled ‘Information to Participants Involved in Research’

CERTIFICATION BY SUBJECT

I, ‘.....’ (Please write your name)
of ‘.....’ (Please write the name of Island you are currently reside)

I certify that I am at least 18 years old* and that I am voluntarily giving my consent to participate in the study:

‘Collaborative Environmental Governance Networks in Small Island Destinations, Case Studies of Gili Trawangan Island and Nusa Lembongan Island—Indonesia’ being conducted at Victoria University by: Charlie Charlie

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:

Charlie Charlie

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.

Please tick (✓) this box if you agree to have the interview recorded

I have been informed that the interview will be recorded, and the files and recordings will be kept in a safe place locked in a filing cabinet in Victoria University. Only the researcher and the principal and associate research supervisors will have access to the data. I have been informed that the information I provide will be kept anonymous and confidential.

Signed:.....

Date:.....

Any queries about your participation in this project may be directed to the researcher

Charlie Charlie, tel.: +61 430 836 978 e-mail: Charlie.Charlie@live.vu.edu.au

Or to the research supervisor:

Brian King, tel.: +61 3 9919 5348 e-mail: Brian.King@vu.edu.au

If you have any queries or complaints about the way you have been treated, you may contact the Ethics & Biosafety Coordinator, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (03) 9919 4148.

**Appendix 4. Consent form for participants involved in research
(Translated into *Bahasa Indonesia*)**

FORMULIR PERSETUJUAN UNTUK TERLIBAT DALAM PENELITIAN

INFORMASI UNTUK PESERTA:

Kami ingin mengundang anda untuk ambil bagian dalam studi tentang 'Jaringan Kolaboratif Tata Kelola Lingkungan di Pulau Kecil Tujuan Wisata, Studi Kasus di Pulau Gili Trawangan dan Nusa Lembongan—Indonesia'.

Rincian lengkap dari penelitian ini dan keterlibatan anda telah disediakan di lembar terlampir berjudul 'Informasi untuk Peserta Penelitian'

PERNYATAAN PERSETUJUAN

Saya, '.....' (Tolong tulis nama anda)
dari '.....' (Tolong tulis nama pulau tempat anda saat ini berdomisili)

Saya menyatakan bahwa saya telah berumur 18 tahun ke atas, dan bahwa saya secara sukarela memberikan persetujuan saya untuk berpartisipasi dalam penelitian ini:
'Jaringan Kolaboratif Tata Kelola Lingkungan di Pulau Kecil Tujuan Wisata, Studi Kasus di Pulau Gili Trawangan dan Nusa Lembongan—Indonesia'.

Saya menyatakan bahwa tujuan dari penelitian ini, resiko dan perlindungan yang berkaitan dengan prosedur yang akan dilaksanakan dalam penelitian ini, telah sepenuhnya dijelaskan kepada saya oleh:

Charlie Charlie

dan bahwa saya menyetujui partisipasi yang melibatkan prosedur di bawah ini:

- Wawancara

Saya telah diberi kesempatan untuk bertanya, dan semua pertanyaan saya berkaitan dengan penelitian ini telah dijawab. Saya mengerti bahwa saya dapat menarik dari keikutsertaan saya dalam penelitian ini setiap saat, dan bahwa penarikan ini tidak akan membahayakan saya dengan cara apapun.

Beri tanda rumput (✓) pada kotak ini jika anda setuju bahwa wawancara ini akan direkam.

Saya telah diberitahu bahwa wawancara ini akan direkam, dan file serta rekaman akan disimpan dalam tempat yang aman terkunci di lemari arsip di Victoria University. Hanya peneliti, dan pengawas serta wakil pengawas penelitian, yang memiliki akses ke data. Saya telah diberitahu bahwa informasi yang saya berikan akan tetap anonim dan rahasia.

Tanda tangan:.....

Tanggal:.....

Setiap pertanyaan tentang partisipasi anda dalam proyek ini dapat ditanyakan ke peneliti:

Charlie Charlie, tel.: +61 430 836 978 e-mail: Charlie.Charlie@live.vu.edu.au

Atau kepada Pengawas Penelitian:

Brian King, tel.: +61 3 9919 5348 e-mail: Brian.King@vu.edu.au

Jika anda memiliki pertanyaan atau keluhan tentang cara anda telah diperlakukan, silahkan menghubungi Ethics & Biosafety Coordinator, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 phone (03) 9919 4148.

Appendix 5. Semi-structured in-depth interview prompt list

In-depth Interview Guidelines

The following outlines the process for conducting in-depth interviews and an outline of the structure and content of the interviews:

- Confirm that the interviewee is in a comfortable condition.
 - Confirm that interviewee has read the 'Information to Participants' letter and signed the 'Consent Form'.
 - Re-state the objectives and the intended outcomes of the research.
 - Turn on voice recorder after explaining that the responses and recording will remain confidential, and agreement from the interviewee has been obtained.
1. Would you please explain the background of your involvement in the environmental governance network?

 2. What do you perceive to be the characteristics of the network?
 - a. Facilitators of the network *Who are they?*
What is their background?
 - b. Location of the network *Where?*
 - c. The focus of network activity *What?*
 - d. Resourcing *Where from?*
 - e. Roles and responsibilities *What?*Any additional characteristics that you would like to add?

 3. What do you perceive to be the scope of the network and any potential conflicts (interviewer guidelines for discussion below)?
 - a. Efficiency versus inclusiveness *examples?*
 - b. Internal versus external legitimacy *examples?*
 - c. Flexibility versus stability *examples?*

 4. Would you please share about your perceptions on how the environmental governance network operates?
 - a. Positive *Why?*
 - b. Negative *Why?*
 - c. Neutral *Why?*

5. Would you please share your views and opinions on the network's effectiveness?
(parameters below to guide the interviewer)

- a. Positive cultures, constructive communication & engaged communities *How?*
- b. Transparency and accountability *How?*
- c. Vision and leadership *How?*
- d. Acceptance of diversity, pursuit of equity and inclusiveness *How?*
- e. Developing knowledge, learning and sharing expertise *How?*
- f. Clear roles and responsibilities of participants *How?*
- g. Clear operational structures and processes of the network *How?*

Any additional parameters of effectiveness that you would like to add?

6. What do you think about the achieved environmental outcomes of the network so far?

- a. Positive *examples?*
- b. Negative *examples?*

Would you like to add any other comments...?

Appendix 6. Permission letter to do research, from Gili Eco Trust (Gili Trawangan Island)



TO WHOM IT MAY CONCERN

This letter is to certify that Mr. Charlie Charlie, a PhD Candidate from Victoria University Melbourne Australia, has the permission of **SATGAS - Gili Eco Trust** to conduct research about our organisation in Gili Trawangan Island for his study, "Collaborative Environmental Governance Networks in Small Island Destinations, Case Studies of Gili Trawangan Island and Nusa Lembongan Island—Indonesia".

Mr. Charlie will carry out observation to the activities of Gili Eco Trust, as well as interviewing our staffs and stakeholders. His plan is to have 20 interviews before the end of July 2011.

Mr. Charlie has agreed not to interfere with the operation of Gili Eco Trust, to respect our organisational values to protect the environment, and to conduct interview only with persons who agree to sign the consent form. Mr. Charlie has also agreed to provide Gili Eco Trust a summary of the result of his research at the end of the process.

Please contact my office if there are any further questions.

02/12/2010



Ms. Delphine Robbe

Gili Eco Trust Coordinator
Big Bubble Dive, Gili Trawangan Island, Lombok NTB,
Indonesia
E-mail: info@giliecotrust.com
+62(0)813 39 600 553
www.giliecotrust.com

Appendix 7. Permission letter to do research, from Coral Triangle Center (Nusa Lembongan Island)



Coral Triangle Center

TO WHOM IT MAY CONCERN

This letter is to certify that Mr. Charlie Charlie, a PhD Candidate from Victoria University Melbourne Australia, has the permission of **The Nature Conservancy—Coral Triangle Center (TNC-CTC)** to conduct research about our activities in Nusa Lembongan Island for his study entitled, “Collaborative Environmental Governance Networks in Small Island Destinations, Case Studies of Gili Trawangan Island and Nusa Lembongan Island—Indonesia”.

Mr. Charlie will carry out observation to the activities of TNC-CTC, as well as interviewing our staffs and stakeholders. His plan is to have 20 interviews before the end of July 2011.

Mr. Charlie has agreed not to interfere with the operation of TNC-CTC, to respect our organisational values to protect the environment, and to conduct interview only with persons who agree to sign the consent form. Mr. Charlie has also agreed to provide us with a summary of the result of his research at the end of the process, as well as use the data for his thesis only, not for other purposes.

Please contact my office if there are any further questions.



Mr. Marthen Welly

TNC Project Leader—Nusa Penida

Jl. Pengembak No. 2, Sanur
Bali 80228 Indonesia
Phone: +62-361-287272
Fax: +62-361-270737
website: www.coraltrianglecenter.org
email: mwelly@tnc.org, mwelly@coraltrianglecenter.org

Appendix 8. Summary matrix of interview results from Gili Trawangan Island

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Themes | GET1 | GET2 | GET3 | TBO1 | TBO2 | TBO3 | TBO4 | L.Ngo1 | TBO5 | Gov.Ag1 | L.Ngo2 | TBO6 | L.Vil.Off1 | TBO7 | L.Vil.Off2 | L.Fish1 | L.Fish2 | L.Ngo3 | L.Ngo4 | TBO8 | TBO9 | TBO10 | Gov.Ag2 | |
| 1) Background | F, French, dive trainer, GET manager, Bachelor degree | M, Indo Sulawesi, ex-fishers, GET negotiator, warung owner | M, Indo Sulawesi, ex-fishers, GET patrol, warung owner | F, Indo Central java, warung owner | M, Indo Lombok, warung owner | M, Indo Bali, warung owner | M, Indo Central java, warung owner | M, Indo Sulawesi, waste collection manager | F, Indo East Java, warung owner | M, Indo, West Java, BKKPN staff, Department of Marine & Fisheries, Bachelor degree | M, Indo Sulawesi, Chief of Security Island | F, Indo Lombok, Warung owner | M, Indo, Sulawesi, Chief of Village+ Bungalow owner | F, Indo, Sulawesi, Central Java, Fast boat Manager, Bachelor degree | M, Indo, Sulawesi, vice chief+ Warung owner | M, Indo Sulawesi, Tradisional fishers, Gili Meno | M, Indo Sulawesi, Tradisional fishers, Gili Meno | M, Indo Sulawesi, chief of SATGA | M, Indo Sulawesi, staff SATGA | M, Indo Lombok, Cidomo driver & owner | M, Indo Sulawesi, Cidomo driver and owner | M, Indo Sulawesi, Bungalow owner | M, Indo, West Java, BKKPN staff, Department of Marine & Fisheries, Bachelor degree | |
| EGN Characteristics | | | | | | | | | | | | | | | | | | | | | | | | |
| 2) Facilitators | Dive Trainer from Big Bubble Dive | Dive Trainer from Big Bubble Dive, (Delphine) | Dive Trainer from Big Bubble Dive (Delphine) | Foreigner from Dive Shop (Delphine) | Foreigner from Dive Shop | Dive Trainer from Big Bubble Dive | Dive Trainer from Big Bubble Dive | Foreigner from Dive Shop (Delphine) | Foreigner from Dive Shop | Dive Trainers from Big Bubble Dive (Delphine) | Dive trainer from Big Bubble Dive (Delphine) | Foreigner from Dive Shop | Dive Trainers from Big Bubble Dive (Delphine) | Dive Trainers from Big Bubble Dive (Delphine) | Foreigner from Dive Shop (Delphine) | Foreigner from Dive Shop | Foreigner from Dive Shop | Dive Trainer from Big Bubble Dive (Delphine) | Dive Trainer from Big Bubble Dive (Delphine) | Foreigner from Dive Shop | Dive Trainers from Big Bubble Dive (Delphine) |
| 2) Locations | Three Gilis | Three Gilis | Three Gilis | Gili Trawangan | Three Gilis | Three Gilis | Gili Trawangan | Three Gilis | Three Gilis | Three Gilis | Three Gilis | Three Gilis | Three Gilis | Three Gilis | Gili Trawangan | Gili Trawangan | Gili Trawangan | Three Gilis | |
| 2) Focus of activity | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Waste management, education for local people, coral reef protection | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Waste management, education for local people, coral reef protection | Maintaining and rebuilding the local environment: coral reefs, waste management, awareness education, animal care | |

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 |
|---------------------------|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | protection | | | nt, awareness education, animal care | | | | | | | awareness education, animal care | nt, awareness education, animal care | | | | |
| 2 Resource | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) | Eco tax monthly payments from Tourism business operators | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax monthly payments from Tourism business operators | Eco tax, donation, volunteers, local NGOs, monthly payments from 124 Tourism business operators (Warungs/Restaurants/Bungalows/Hotels/Dive shops/Fast Boats/Travel Agents) |
| 2 Role & Responsibilities | Coordinate beach clean-up, Rebuild coral reef Biorock, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local businesses | Protect and rebuild the coral reef, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local people and businesses | Protect and rebuild the coral reef, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local businesses | Protect the coral reef, waste management | Coordinate beach clean-up, Rebuild coral reef Biorock, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local businesses | Protect the coral reef, waste management | Protect the coral reef, waste management | Coordinate beach clean-up, Rebuild coral reef Biorock, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local businesses | Protect the coral reef, waste management | Coordinate beach clean-up, Rebuild coral reef Biorock, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local businesses | Protect the coral reef, waste management | Coordinate beach clean-up, Rebuild coral reef Biorock, Pay the SATGAS for patrolling the island, Pay local fishers to go fishing somewhere else, coordinate waste management and recycling, Provide awareness education and training to local school children and local businesses |

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 | |
|----------------------------|--|--|---|--|---|---|---|--|--|---|--|--|--|---|--|---|--|---|---|---|---|---|--|--|
| Themes | GET1 | GET2 | GET3 | TBO1 | TBO2 | TBO3 | TBO4 | L.Ngo1 | TBO5 | Gov.Ag1 | L.Ngo2 | TBO6 | L.Vil.Off1 | TBO7 | L.Vil.Off2 | L.Fish1 | L.Fish2 | L.Ngo3 | L.Ngo4 | TBO8 | TBO9 | TBO10 | Gov.Ag2 | |
| 2 + Characteristics | Additional communication style, Strong lobbying with win-win solution, Local initiative, bottom-up movement, 'I'm sick of the Lombok Gov not doing anything but keep asking for money' | Local initiative, local resources, cooperation | Local initiative, good cooperation with local Village Office | Strong lobbying with win-win solution | - | - | - | Fast & beneficial concrete actions | Persuasive explanation | Local initiative, good cooperation with local Village Office | Local initiative, good cooperation with local Village Office | - | Local initiative, good cooperation with local Village Office, Strong lobbying with win-win solution | - | Local initiative, good cooperation with local Village Office | Win-win solution | Win-win solution | Good cooperation | Persuasive explanation | Beneficial fast actions | Beneficial fast actions | - | Local initiative, good cooperation with local Village Office | |
| Tensions within EGN | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 a | Efficiency v. Inclusiveness | We are quite strong in terms of funding, cooperation, and understanding, so GET pursue inclusiveness | (Inclusiveness) We want to do our best in accommodating stakeholder's opinion | (Inclusiveness) GET always listen to the Stakeholders. Our office is always open. We receive feedback both formally and informally | Inclusiveness, GET discuss with everybody | Inclusiveness, GET discuss with everybody | Inclusiveness, GET discuss with everybody | Inclusiveness, my opinion was included in the decision | Inclusiveness, GET discuss with me as well | Inclusiveness, it is important to listen and accommodate all stakeholders because one unhappy person can easily cause a lot of trouble here | Inclusiveness, GET discuss with everybody | Inclusiveness, GET held a big meeting with everybody | Inclusiveness, as a Village Chief I must make sure that GET uphold 'musyawah mufakat' (Discuss, compromise, decide, support) | Inclusiveness, GET discuss with everybody | Inclusiveness, GET always put people's interest first when making a decision | Inclusiveness, GET listened to us fishers | Inclusiveness, GET asked for our opinion too | Inclusiveness, GET discuss with everybody | Inclusiveness, GET discuss with everybody | Inclusiveness, GET asked for my opinion | Inclusiveness, it is important to accommodate all stakeholders because they all have great participation and importance in this small island |

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 | |
|---|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 3 b | Internal v. external legitimacy | Internal legitimacy (from the stakeholders) is more important since that is how GET started and operates | (Internal), as long as the stakeholder s are happy, GET can operate peacefully | (Internal), external/outside s never help us, we did this initiative internally and it is our interest to keep our island beautiful | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | Internal | |
| 3 c | Flexibility v. stability | Stability is more important because GET want to create a system of environmental management | Stability, because we are managing an island with very diverse peoples, if we become flexible, there will be chaos | Stability, because people here lacking in education, we must have a standard/stable regulation to keep this island beautiful | Flexibility | Flexibility | Flexibility | Flexibility | Stability | Flexibility | Stability | Stability | Stability | Stability | Flexibility | Stability | Flexibility | Flexibility | Stability | Stability | Flexibility | Flexibility | Flexibility | Stability |
| Stakeholder's perception of EGN operations | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Perceptions on EGN | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Positive | Positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive | Very positive |
| Parameters of EGN effectiveness | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 a | Positive cultures, constructive communication, engaged communities | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 5 b | Transparency & accountability | Y, Monthly meetings and quarterly financial reports | Y Monthly meetings and quarterly financial reports | Y Monthly meetings and quarterly financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and quarterly financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and financial reports | Y Monthly meetings and quarterly financial reports | Y Monthly meetings and quarterly financial reports | Y Monthly meetings and quarterly financial reports |

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 |
|--|--|---|---|--|--|--|---|---|--|---|--|--|--|--|--|--|---|---|---|---|---|--|--|
| 5 c Vision & leadership | Y, we need more locals to step up and take initiative, most of the initiative are from expatriates | Y, we need more locals to step up and take initiative | Y, we need more locals to step up and take initiative | Y, most of the initiative are from expatriates | Y, we need to educate our younger generation to be the leader in GET | Y, most of the initiative are from expatriates | Y, we need more locals to step up and take initiative | Y, we need more locals to step up and take initiative | Y, most of the initiative are from expatriates | Y, we need more locals to step up and take initiative | Y, most of the initiative are from expatriates | Y, most of the initiative are from expatriates | Y, It's a shame that we need a foreigner to lead us on saving our own island, , we need more locals to step up and take initiative | Y, most of the initiative are from expatriates | Y, we need more locals to step up and take initiative, we need to educate our younger generation to be the leader saving the environment | Y, most of the initiative are from expatriates | Y, we need more locals to step up and take initiative | Y, we need more locals to step up and take initiative | Y, we need more locals to step up and take initiative | Y, we need more locals to step up and take initiative | Y, we need more locals to step up and take initiative | Y, most of the initiative are from expatriates | Y, we need more locals to step up and take initiative, we need to educate our younger generation to be the agent of change for the environment |
| Themes | GET1 | GET2 | GET3 | TBO1 | TBO2 | TBO3 | TBO4 | L.Ngo1 | TBO5 | Gov.Ag1 | L.Ngo2 | TBO6 | L.Vil.Off1 | TBO7 | L.Vil.Off2 | L.Fish1 | L.Fish2 | L.Ngo3 | L.Ngo4 | TBO8 | TBO9 | TBO10 | Gov.Ag2 |
| 5 d Diversity, equity, inclusiveness | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 5 e Developing knowledge, learning & sharing expertise | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 5 f Clear Roles & responsibilities | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 5 g Clear operational structures and processes | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| 5 + Additional parameters | Trust | | | | | | | | | | | | | | | | | | | | | | |

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 |
|---|--|---|---|---|---|---|---|--|---|---|--|---|---|---|---|---|---|--|--|---|---|---|---|
| EGN's environmental outcomes | | | | | | | | | | | | | | | | | | | | | | | |
| 6 Views & opinions on achieved environmental outcomes | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders, more eco-friendly equipment (solar panel hot water system, wind turbines, 2 chambers septic tank) | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, waste management, Biorock sites, animal care clinics, routine meetings | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, waste management, Biorock sites, animal care clinics, routine meetings | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine funding, waste management, Biorock sites, animal care clinics, routine meetings | Positive, routine funding, waste management, Biorock sites, animal care clinics, routine meetings | Positive, waste management, Biorock sites, animal care clinics, routine meetings | Positive, waste management, Biorock sites, animal care clinics, routine meetings | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive, routine waste collection, waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders | Positive: mooring buoys, 60 Biorock sites, routine sea and land patrols, animal care clinics (especially for horses), waste bin for recyclables, routine session with school kids, routine monthly meetings with stakeholders |

| Interviewees | G1 | G2 | G3 | G4 | G5 | G6 | G7 | G8 | G9 | G10 | G11 | G12 | G13 | G14 | G15 | G16 | G17 | G18 | G19 | G20 | G21 | G22 | G23 |
|-----------------------|---|---|---|---|---|------------------------------------|---|--|---|--|--|---|---|--|---|---|--|--|--|---|---|---|--|
| + Additional comments | GET need more support from scientist, tourism and ecological planner, and Lombok Government. There is a possibility that the fishers could become greedier and ask for more money | GET need more support from scientist, tourism and ecological planner, and Lombok Government | GET need more support from scientist, tourism and ecological planner, and Lombok Government | As the coral get healthier, we hope for more tourists | More visitor, better roads and electricity supply | More visitor, more infrastructures | More visitor, better roads and electricity supply | GET need more support from Lombok Government | More visitor, better roads and electricity supply | We need more government support, better infrastructure, more law enforcement | GET need more support from Lombok Government | More visitor, better roads and electricity supply | More support from Lombok government, better infrastructures | More visitors, better roads and electricity supply | More support from Lombok government, better infrastructures | We hope the coral are healthy and there are more fish, more funding | We hope the coral are healthy and there are more fish, fish market to sell our catch | GET need more support from Lombok Government. More law enforcement | GET need more support from Lombok Government. More law enforcement | More visitor, better roads and electricity supply | More visitor, better roads and electricity supply | More visitor, better roads and electricity supply | More support from Lombok government, better roads and electricity supply, more law enforcement |

Appendix 9. Summary matrix of interview results from Nusa Lembongan Island

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 |
|----------------------------|---|---|---|--|---|---|---|--|--|---|---|---|---|---|---|---|--------------------------------------|---|---|--|--------------------------------------|--------------------------------------|---|
| Themes | CTC1 | CTC2 | CTC3 | L.Farmer1 | L.Ngo1 | Gov.Ag1 | Gov.Ag2 | L.Farmer2 | L.Farmer3 | TBO1 | Gov.Ag3 | Int.Ngo1 | Int.Ngo2 | L.Ngo.2 | TBO2 | L.Ngo3 | L.Fish1 | TBO3 | TBO4 | L.Farmer4 | L.Fish2 | L.Fish3 | L.Ngo4 |
| 1 Background | M, Indo, West Java, CTC Manager, Bachelor degree | M, Indo, Central Java, CTC staff, Bachelor degree | M, Indo, Bali, CTC staff, Bachelor degree | F, Indo, Bali, Seaweed Farmer | M, Indo, Bali, chief of SPN, school teacher, Bachelor degree | M, Indo, Bali, Village Office Staff (Infrastructure), Bachelor degree | F, Indo, Bali, Village Office Staff (Welfare), Bachelor degree | M, Indo, Bali, Seaweed farmer | M, Indo, Bali, Seaweed farmer | M, Indo, Bali, Restaurant owner, Bachelor degree | F, Indo, Bali, Village Office Secretary, Bachelor degree | M, Indo, West Java, TNC staff, Bachelor degree | M, Indo, West Java, TNC staff, Bachelor degree | M, Indo, Bali, SPN member, + seaweed farmer | M, Indo, Bali, SPN member, Warung owner, Seaweed farmer | M, Indo, Bali, SPN member, Warung owner, Seaweed farmer | F, Indo, Bali, Traditional fishers | M, Indo, Bali, Restaurant owner, Seaweed farmer | M, Indo, Bali, Restaurant owner, Seaweed farmer | M, Indo, Bali, Seaweed farmer | M, Indo, Bali, Traditional Fishers | M, Indo, Bali, Traditional Fishers | M, Indo, Bali, SPN member, Warung owner, Seaweed farmer |
| EGN characteristics | | | | | | | | | | | | | | | | | | | | | | | |
| 2 Facilitator as | TNCCTC Int'NGO | TNCCTC Int'NGO | TNCCTC Int'NGO | Scientist/researcher | TNCCTC Int'NGO | TNCCTC Int'NGO | TNCCTC Int'NGO | Scientist/researcher | Scientist/researcher | TNCCTC Int'NGO | NGO | TNCCTC Int'NGO | TNCCTC Int'NGO | TNCCTC Int'NGO | NGO | TNCCTC Int'NGO | Scientist | NGO | NGO | Scientist/researcher | Scientist | Scientist | TNCCTC Int'NGO |
| 2 Locations | Three Nusa Islands, office in Bali | Three Nusa Islands, office in Bali | Three Nusa Islands, office in Bali | Nusa Lembongan | Three Nusa Islands, office in Bali | Three Nusa Islands | Three Nusa Islands | Nusa Lembongan | Nusa Lembongan | Three Nusa Islands | Three Nusa Islands | Three Nusa Islands, office in Bali | Three Nusa Islands, office in Bali | Three Nusa Islands, office in Bali | Three Nusa Islands, office in Bali | Three Nusa Islands, office in Bali | Nusa Lembongan | Three Nusa Islands | Three Nusa Islands | Nusa Lembongan | Nusa Lembongan | Nusa Lembongan | Three Nusa Islands, office in Bali |
| 2 Focus of activity | Creating national MPA on Nusa Lembongan Island, and also throughout Indonesia (7 sites) | Creating national MPA on Nusa Lembongan Island, and also throughout Indonesia (7 sites) | Creating national MPA on Nusa Lembongan Island, and also throughout Indonesia (7 sites) | Protecting and rebuilding the marine environment | Creating national MPA on Nusa Lembongan Island, and also throughout Indonesia (7 sites) | Creating national MPA on Nusa Lembongan Island | Creating national MPA on Nusa Lembongan Island | Protecting the coral reef | Protecting and rebuilding the marine environment | Creating national MPA on Nusa Lembongan Island | Creating national MPA on Nusa Lembongan Island | Creating national MPA on Nusa Lembongan Island, and also throughout Indonesia (7 sites) | Creating national MPA on Nusa Lembongan Island, and also throughout Indonesia (7 sites) | Creating national MPA on Nusa Lembongan Island | Creating national MPA on Nusa Lembongan Island | Creating national MPA on Nusa Lembongan Island | Protecting the coral reef | Creating national MPA on Nusa Lembongan Island | Creating national MPA on Nusa Lembongan Island | Protecting and rebuilding the marine environment | Protecting the coral reef | Protecting the coral reef | Creating national MPA on Nusa Lembongan Island, |
| 2 Resourcing | Funding from central and local government, local & international NGOs, donations | Funding from central and local government, local & international NGOs, donations | Funding from central and local government, local & international NGOs, donations | I don't know | Funding from local government, local & international NGOs | Funding from central & local government, local & international NGOs | Funding from central & local government, local & international NGOs | I don't know | I don't know | Funding from local government and international NGO | Funding from central & local government, local & international NGOs | Funding from central and local government, local & international NGOs, donations | Funding from central and local government, local & international NGOs, donations | Funding from local government, local & international NGOs | Funding from local government and international NGO | Funding from local government, local & international NGOs | I don't know | Funding from local government and international NGO | Funding from local government and international NGO | I don't know | I don't know | I don't know | Funding from local government, local & international NGOs |
| 2 Roles & Responsibilities | Provide expert advice on the development | Provide expert advice on the development | Provide expert advice on the development | Give education about the environment | Provide expert advice on the development | Develop the MPA plan, Coordinate the | Develop the MPA plan, Coordinate the | Educate people how to save the environment | Educate people how to save the environment | To build MPA in Nusa Lembongan and to | Develop the MPA plan, Coordinate the | Provide expert advice on the development | Provide expert advice on the development | Provide expert advice on the development | To build MPA on Nusa Lembongan and | Provide expert advice on the development | Give education about the environment | To build MPA on Nusa Lembongan and to | To build MPA on Nusa Lembongan and to | Give education about the environment | Give education about the environment | Give education about the environment | Provide expert advice on the development |

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 |
|---------------|--|--|--|--------------|--|--|--|-----------|-----------|----------------------|--|---|---|---|-------------------------|--|--------------|----------------------|----------------------|--------------|--------------|--------------|--|
| | ent of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | ent of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | ent of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | preservation | ent of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | | | save the environment | planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | nt of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | ment of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | to save the environment | ent of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses | preservation | save the environment | save the environment | preservation | preservation | preservation | ent of the MPA plan, locally and nationally, Coordinate the planning process with local government, Create a business plan for the self-sustaining management of the MPA, Coordinate with the local NGO and local community to conduct environmental awareness education and training for local school children and local businesses |
| Themes | CTC1 | CTC2 | CTC3 | L.Farmer1 | L.Ngo1 | Gov.Ag1 | Gov.Ag2 | L.Farmer2 | L.Farmer3 | TBO1 | Gov.Ag3 | Int.Ngo1 | Int.Ngo2 | L.Ngo.2 | TBO2 | L.Ngo3 | L.Fish1 | TBO3 | TBO4 | L.Farmer4 | L.Fish2 | L.Fish3 | L.Ngo4 |
| 2 Additional | Public | Public | Public | - | - | Public | - | - | - | - | - | Public | Public private | Public | - | - | - | - | - | - | - | - | Public |

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 | |
|----------------------------|--|---|---|---|--|---|--|--|--|---|--|---|---|--|---|---|--|--|--|--|---|--|---|---|
| + Characteristics | private partnership, all programs must be supported by clear legislation | private partnership, all programs must be supported by clear legislation | private partnership | | | private partnership | | | | | | private partnership, all programs must be supported by clear legislation. | partnership, all programs must be supported by clear legislation. | private partnership | | | | | | | | | private partnership | |
| Tensions within EGN | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 a | Efficiency v. Inclusiveness | We try to be inclusive, but put forward efficiency since we have budget and targets | Efficiency is important since we have budget and goals | Efficiency, because there are deadlines and budget to meet | CTC must listen to everybody, including us farmers | Efficiency is important since we have budget and goals | CTC must be flexible to accommodate people's opinions | CTC must understand farmers aspirations | CTC never listen to me | CTC is very balanced in efficient operations and also inclusive in everybody's opinions | CTC must be flexible to accommodate people's opinions | Efficiency is important since we have budget and goals | Efficiency is important since we have budget and goals | They are wasting money by waiting and lobbying the government | Efficiency is important since we have budget and goals | CTC never listen to me, we local fishers have lived here for many years, CTC doesn't respect us | They are wasting money by waiting and lobbying the government | They are wasting money by waiting and lobbying the government | CTC never listen to me | CTC never listen to me | CTC never listen to me, we local fishers have lived here for many years, CTC doesn't respect us | CTC never listen to me | CTC never listen to me, we local fishers have lived here for many years, CTC doesn't respect us | Efficiency is important since we have budget and goals |
| 3 b | Internal v. external legitimacy | External, we have many external parties that we must report to. However, we never execute a program without stakeholders (internal) | Both are important and we're trying hard to accomplish both | Both are important and we're trying hard to accomplish both | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Both are important and we're trying hard to accomplish both, but external legitimacy is the source of most of the funding | Both are important, but external legitimacy is the source of most of the funding | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Both are important, but external legitimacy is the source of most of the funding | Both are important and we're trying hard to accomplish both | Both are important and we're trying hard to accomplish both | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Both are important and we're trying hard to accomplish both | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Internal, we are the one suffers if thinks went wrong, so CTC must asks our permission | Both are important and we're trying hard to accomplish both |
| 3 c | Flexibility v. stability | We must be flexible in dealing with stakeholders, eg: | Flexibility is important because we have many stakeholders | Flexibility is important because we have many stakeholders | Stability | Flexibility is important because we have many stakeholders | Stability is more important because it allows everything to run | Stability is more important because it allows everything to run | Stability | Stability | Stability is better for our business | Stability is more important because it allows everything to run | Flexibility is important because we have many stakeholders | Flexibility is important because we have many stakeholders, especially the government | Stability | Stability is better for our business | Flexibility is important because we have many stakeholders | Stability is good because it is clear for us where can we | Stability is better for our business | Stability is better for our business | Stability | Stability is good because it is clear for us where can we | Stability is good because it is clear for us where can we | Flexibility is important because we have many stakeholders |

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 |
|--------------|--|---|---|----|---|----------------------------------|----------------------------------|----|----|-----|----------------------------------|--|--|-----|-----|---|------------|-----|-----|-----|------------|------------|---|
| | local government (we must wait for their approval, issued legislation) | ers, especially the government (new official usually has different perspectives and opinions) | ers, especially the government (new official usually has different perspectives and opinions) | | ers, especially the government (new official usually has different perspectives and opinions) | its designated course of actions | its designated course of actions | | | | its designated course of actions | rs, especially the government (new official usually has different perspectives and opinions) | (new official usually has different perspectives and opinions) | | | ers, especially the government (new official usually has different perspectives and opinions) | do fishing | | | | do fishing | do fishing | ers, especially the government (new official usually has different perspectives and opinions) |

Stakeholder's perception of EGN operations

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|--------------------|---|---|---|--|---|---|---|--|---|--|---|---|--|--|--|--|--|--|---|--|--|--|--------|
| 4 | Perceptions on EGN | Positive, we have achieved approval from central and local Government, legislation passed, some degree of funding, support from the local leaders and local NGO, established MPA plan, good track record since 2000 | Positive, we have achieved approval from central and local Government, legislation passed, some degree of funding, support from the local leaders and local NGO, established MPA plan, good track record since 2000 | Positive, we have achieved approval from central and local Government, legislation passed, some degree of funding, support from the local leaders and local NGO, established MPA plan, good track record since 2000 | Negative, who are they to give us instructions about how to do farming | Positive, approval from central and local Government, legislation passed, funding, support from the local leaders, established MPA plan | Positive, approval from central and local Government, legislation passed, funding, support from the local leaders, established MPA plan | Positive, approval from central and local Government, legislation passed, funding, support from the local leaders, established MPA plan | Negative, locals have successful seaweed farming, who are they to give us instructions about how to do farming | Negative, locals have successful seaweed farming, who are they to give us instructions about how to do farming, the tourism is destroying our seaweed | Positive, the island is getting more visitors, is cleaner, is better managed | Positive, we have achieved approval from central and local Government, legislation passed, some degree of funding, support from the local leaders, established MPA plan, good track record since 2000 | Positive, we have achieved approval from central and local Government, legislation passed, some degree of funding, support from the local leaders and local NGO, established MPA plan, good track record since 2000 | Positive, approval from central and local Government, legislation passed, some degree of funding, support from the local leaders, established MPA plan | Positive, the island is getting more visitors, is cleaner, is better managed | Positive, approval from central and local Government, legislation passed, some degree of funding, support from the local leaders, established MPA plan | Negative, I caught less fish because there are places where fishing is forbidden | Positive, the island's environment is better managed, waste management | Positive, the island's environment is better managed, waste management | Negative, locals have successful seaweed farming, who are they to give us instructions about how to do farming, and to limit places for seaweed farming | Negative, I caught less fish because there are places where fishing is forbidden | Negative, I caught less fish because there are places where fishing is forbidden | Positive, approval from central and local Government, legislation passed, support from the local leaders, established MPA plan | |
| Themes | | CTC1 | CTC2 | CTC3 | L.Farmer1 | L.Ngo1 | Gov.Ag1 | Gov.Ag2 | L.Farmer2 | L.Farmer3 | TBO1 | Gov.Ag3 | Int.Ngo1 | Int.Ngo2 | L.Ngo.2 | TBO2 | L.Ngo3 | L.Fish1 | TBO3 | TBO4 | L.Farmer4 | L.Fish2 | L.Fish3 | L.Ngo4 |

Parameters of EGN effectiveness

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|-----------------------------------|-----------------------------------|--|--|----------------------------------|--|--|--|--|--|--|--------------------------------|----------------------------------|--|--|--------------------------------|-----------------------------|--|
| 5 | Positive cultures, constructive communication | We did socialisation meetings with all | We did socialisation meetings with all | We did socialisation meetings with all | There were some meetings but I don't really understand | We did socialisation meetings with all | There were socialisation meetings | There were socialisation meetings | There were some meetings but I don't really understand | There were some meetings but I don't really understand | There were some meetings but not | There were socialisation meetings with all | There were socialisation meetings with all | There were socialisation meetings with all | We did socialisation meetings with all | There were some meetings but very boring, such a waste | We did socialisation meetings with all | There were some meetings but I | There were some meetings but not | I didn't go to the meeting, but I understand | There were some meetings but I don't really understand | There were some meetings but I | I didn't go to the meetings | We did socialisation meetings with all |
|---|---|--|--|--|--|--|-----------------------------------|-----------------------------------|--|--|----------------------------------|--|--|--|--|--|--|--------------------------------|----------------------------------|--|--|--------------------------------|-----------------------------|--|

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 |
|------------------------------------|--|---|---|--|---|--|--|--|--|---|--|---|---|---|---|---|--|---|---|--|--|--|---|
| ation, engaged communities | Village elders and officials (representative of all inhabitants) | Village elders and officials (representative of all inhabitants) | Village elders and officials (representative of all inhabitants) | what they are talking about | Village elders and officials (representative of all inhabitants) | with all Village elders and officials, I think they are enough | with all Village elders and officials | what they are talking about | what they are talking about | very informative, very boring presentation. I get the main point though: save the environment | with all Village elders and officials | Village elders and officials (representative of all inhabitants) | Village elders and officials (representative of all inhabitants) | Village elders and officials (representative of all inhabitants) | of money and time | Village elders and officials (representative of all inhabitants) | don't really understand what they are talking about | very effective | what the topic about: save the coral reefs and the marine environment | what they are talking about | don't really understand what they are talking about | | Village elders and officials (representative of all inhabitants) |
| 5 Transparency & accountability | We have quarterly progress and financial reports (Internal only) | We have quarterly progress and financial reports (Internal only) | We have quarterly progress and financial reports (Internal only) | They say there are reports but I don't care | We have quarterly progress and financial reports (Internal only) | There are quarterly progress and financial reports (Internal only) | There are quarterly progress and financial reports (Internal only) | I don't know | I don't know | They say there are reports but I don't care | There are quarterly progress and financial reports (Internal only) | We have quarterly progress and financial reports (Internal only) | We have quarterly progress and financial reports (Internal only) | We have quarterly progress and financial reports (Internal only) | They say there are reports but I don't care | We have quarterly progress and financial reports (Internal only) | It's posted on the fishers group notice board | They say there are reports but I never saw them | They say there are reports but I never saw them | I don't know | There are papers posted in the notice board but I don't read them | It's posted on the fishers group notice board | We have quarterly progress and financial reports (Internal only) |
| 5 Vision & leadership | We have clear aims and so far enough human resources to execute | We have clear aims and enough staff | We have clear aims and enough staff | They are outsiders and foreigners, they don't know our local way of life | We have clear aims and enough staff | We need more locals to lead and participate | We need more locals to lead and participate | They are outsiders and foreigners, they don't know our local way of life | They are outsiders and foreigners, they don't know our local way of life | They have good people leading CTC | We need more locals to lead and participate | We have clear aims and so far enough human resources to execute | We have clear aims and so far enough human resources to execute | We have clear aims and enough staff | CTC have good leaders | We have clear aims and enough staff | They are outsiders and foreigners, they don't know our local way of life | CTC have good leaders | CTC have good leaders | They are outsiders and foreigners, they don't know our local way of life | They are outsiders and foreigners, they don't know our local way of life | They are outsiders and foreigners, they don't know our local way of life | We have clear aims and enough staff |
| 5 Diversity, equity, inclusiveness | Yes, it is important since the locals already live there for years, so CTC must listen to them as well, making sure everybody agree to a program | CTC always listen to them as well, making sure everybody agree to a program | CTC always listen to them as well, making sure everybody agree to a program | They don't listen to farmers | CTC always listen to them as well, making sure everybody agree to a program | CTC listens to our feedback | CTC listens to our feedback | They don't listen to me | They don't listen to me | Sometimes CTC listen to my feedback, but not always | CTC is good at listening to feedback | CTC always listen to them as well, making sure everybody agree to a program | CTC always listen to them as well, making sure everybody agree to a program | CTC always listen to them as well, making sure everybody agree to a program | Sometimes CTC listen to my feedback, but not always | CTC always listen to them as well, making sure everybody agree to a program | I'm a local, I already live here for years, but CTC just arrived and want to change everything | Sometimes CTC listen to my feedback, but not always | Sometimes CTC listen to my feedback, but not always | CTC never listen to my aspirations | I'm a local, I already live here for years, but CTC just arrived and want to change everything | I'm a local, I already live here for years, but CTC just arrived and want to change everything | CTC always listen to them as well, making sure everybody agree to a program |

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 | |
|--------------|--|---|---|---|--|---|--|--|--|--|--|---|---|---|---|---|---|--|--|--|--|--|---|---|
| 5 | Developing knowledge, learning & sharing expertise | We give environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | We give environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | We give environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | CTC held workshops about the environment | CTC gives environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | We give environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | We give environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | CTC gives environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | CTC held workshops about the environment | CTC gives environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | CTC held workshops about the environment | CTC gives environmental awareness education to all farmers and fishers groups, taught them eco-friendly ways of farming and fishing | |
| 5 | Clear Roles & responsibilities | We have regular internal meetings, standard procedure and must make reports regularly | We have regular internal meetings, standard procedure and must make reports regularly | We have regular internal meetings, standard procedure and must make reports regularly | I don't know | We have regular internal meetings, standard procedure and must make reports regularly | They do have standard procedure and job description | They do have standard procedure and job description | I don't know | I don't know | I don't know | They do have standard procedure and must make reports regularly | We have regular internal meetings, standard procedure and must make reports regularly | We have regular internal meetings, standard procedure and must make reports regularly | We have regular internal meetings, standard procedure and must make reports regularly | I don't know | We have regular internal meetings, standard procedure and must make reports regularly | I don't know | We have regular internal meetings, standard procedure and must make reports regularly |
| Themes | CTC1 | CTC2 | CTC3 | L.Farmer1 | L.Ngo1 | Gov.Ag1 | Gov.Ag2 | L.Farmer2 | L.Farmer3 | TBO1 | Gov.Ag3 | Int.Ngo1 | Int.Ngo2 | L.Ngo.2 | TBO2 | L.Ngo3 | L.Fish1 | TBO3 | TBO4 | L.Farmer4 | L.Fish2 | L.Fish3 | L.Ngo4 | |
| 5 | Clear operational structures and processes | We always follow the rules and regulation, wait until the legislation is passed before execution of programs, strongly | We always follow the rules and regulation, wait until the legislation is passed before execution of programs, strongly | We always follow the rules and regulation, wait until the legislation is passed before execution of programs, strongly | I don't know | CTC always follow law and regulation, all actions are according to the rules | CTC is good, they always follow the regulation and ask for government approval | CTC is good, they always follow the regulation and ask for government permission | I don't know | I don't know | I don't know | CTC is good, they always follow the regulation and ask for government permission | We always follow the rules and regulation, wait until the legislation is passed before execution of programs, strongly no cutting | We always follow the rules and regulation, wait until the legislation is passed before execution of programs, strongly no cutting | CTC always follow law and regulation, all actions are according to the rules | I don't know | CTC always follow law and regulation, all actions are according to the rules | I don't know | CTC always follow law and regulation, all actions are according to the rules |

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| | no cutting corners | no cutting corners | no cutting corners | | | | | | | | | corners | corners | | | | | | | | | | |
| 5 + Additional parameter s | Law abiding programs (backed by specific regulations, not only stakeholders agreement) | Law abiding programs (backed by specific regulations, not only stakeholders agreement) | Law abiding programs (backed by specific regulations, not only stakeholders agreement) | | | | | | | | | All programs must comply with the law/government regulations | All programs must comply with the law/government regulations | | | | | | | | | | |
| EGN's environmental outcomes | | | | | | | | | | | | | | | | | | | | | | | |
| 6 Views & opinions on achieved environm ental outcomes | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Negative, I get less seaweed in the harvest. But there are positive result as well such as the mangrove protection and waste management | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Negative, I get less seaweed in the harvest | Negative, I get less seaweed in the harvest | Positive, mangrove is now protected, waste management is better, education program is regular | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Positive, mangrove is now protected, waste management is better | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, | Negative, I get less fish, many fishing areas are banned, they say it is for the conservation | Positive, mangrove is now protected, waste management is better, education program is regular | Positive, mangrove is now protected, waste management is regular | Negative, I get less seaweed in the harvest | Negative, I get less fish, many fishing areas are banned, they say it is for the conservation | Negative, I get less fish, many fishing areas are banned, they say it is for the conservation | Positive, the mangroves aren't being cut for wood fire anymore, sea sand aren't being used for constructions anymore, the no fishing zone is in effect, regular waste collection, trainings and education programs regularly running, |
| + Additional comments | We could've | Better support | Better support | Need more workshop on | Need more | Better cooperati | Better cooperati | Need more teachers | Need more workshops | Need more | Need better | Need better | Need better | Need more | Need more visitors and | Need more | Need more | Need more | Need more | Need more educational | Need better | Need better | Need more |

| Interviewees | N1 | N2 | N3 | N4 | N5 | N6 | N7 | N8 | N9 | N10 | N11 | N12 | N13 | N14 | N15 | N16 | N17 | N18 | N19 | N20 | N21 | N22 | N23 |
|--------------|---|---|---|-------------------------|---|--|--|--------------------------------------|---------------------------|--|---|-----------------------------------|-----------------------------------|--------------------------|--|---|--|--|--|-------------------------|---|---|---|
| | achieved more if the central and local government react faster and cooperate better | from the local Government, better law enforcement | from the local Government, better law enforcement | eco-friendly activities | funding for the programs, more expert involvement | on from the local farmers and fishers groups, more funding | on from the local farmers and fishers groups, more funding | helping us on saving the environment | on saving the environment | visitors and better infrastructures, more ATMs, better law enforcement | cooperation from the local farmers and fishers groups, more funding | support from the local Government | support from the local Government | funding for the programs | better infrastructure, more ATMs, better support from the local Government | funding for the programs, more expert involvement | workshop on saving the environment, need more sea patrol | visitors and better infrastructures, more ATMs, better support from the local Government | visitors and better infrastructures, more ATMs, better support from the local Government | workshop on coral reefs | fish market, more funding for the fishers, need more sea patrol | fish market, more funding for the fishers, need more sea patrol | funding for the programs, more expert involvement, better law enforcement |