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THE UNIVERSITY OF QUEENSLAND
AUSTRALIA

**Adaptive co-management as an approach to tourism destination governance – a
case of protected areas in Bangladesh**

Md. Wasiul Islam

B.Sc. (Hon's), M.S., M.Sc.

A thesis submitted for the degree of Doctor of Philosophy at

The University of Queensland in 2017

School of Business

Abstract

Tourism in protected areas can accelerate development opportunities by providing various direct and indirect ecological, socio-economic and cultural benefits, particularly in developing countries (Dudley, 2008; Newsome & Hassell, 2014; Tosun, 2000; WWF [World Wide Fund For Nature], 2014). However, developing countries, and their protected areas, are often characterised by poor governance systems that impede the development of these locations as tourism destinations and therefore affect those (poor) people living in and around these areas (Eklund, Arponen, Visconti, & Cabeza, 2011; Parnini, 2006). Therefore, policy or institutional arrangements are required which promote better governance systems and enable local people to obtain socio-economic and ecological benefits from tourism activities (Figgis & Bushell, 2007). Consequently, a paradigm shift is occurring within protected area planning and management with a transition from traditional top-down to participatory bottom-up approaches to ensure the participation of local stakeholders in decision-making, planning, implementation, monitoring and evaluation, and ultimately benefit-sharing (Eagles, McCool, & Haynes, 2002; Niedziałkowski, Paavola, & Jędrzejewska, 2012). As such, these institutional arrangements can promote better governance systems for local communities to improve their living standards as well as facilitating effective protected area management planning systems (Dearden, Bennett, & Johnston, 2005).

‘Adaptive co-management’ (ACM) is a dynamic process whereby institutional arrangements and ecological knowledge are continually tested and revised through a process of ‘learning-by-doing’ (Armitage, Berkes, & Doubleday, 2007b). ACM has been suggested as a more inclusive alternate approach to governance which can better facilitate the management and protection of natural resources (Armitage, Berkes, Dale, Kocho-Schellenberg, & Patton, 2011; Plummer & Fitzgibbon, 2004a). ACM has also been advocated due to the fact that it can provide a means to empower local stakeholders and enhance collaboration with other stakeholder groups. This is achieved through more flexible systems that encompass complex cross-scale linkages (Olsson, Folke, & Berkes, 2004; Wood, Butler, Sheaves, & Wani, 2013).

ACM has several attributes or principles. Social learning is one of the key principles and is based on the creation of cooperative and collaborative frameworks that can facilitate iterative learning amongst diverse groups of stakeholders (Ruitenbeek & Cartier, 2001; Schusler, Decker, & Pfeffer, 2003). Social learning is particularly relevant for tourism development in protected areas as tourism is multiple stakeholder activity requiring collaboration (Haddock-Fraser & Hampton, 2010; McCool, 2009). Both ACM and social learning have only recently been explored in tourism although the

concepts have yet to be linked to tourism destination governance generally (Chen, Ku, & Chen, 2016; Fennell, Plummer, & Marschke, 2008; Lai, Hsu, & Wearing, 2016; Pennington-Gray, Schroeder, & Gale, 2014) or protected area governance specifically (Lai et al., 2016; Plummer & Fennell, 2009).

Addressing the identified research gaps, the overarching aim of this qualitative study is to investigate the impacts of the ACM approach on tourism destination governance in the context of two protected areas of Bangladesh; Lawachara National Park and Sundarbans East Wildlife Sanctuary.

This research follows the style of three interconnected manuscripts. Manuscript one presents a review and synthesis of the ACM literature and in doing so identifies four inter-connected principles of the ACM approach: communication and collaboration; social learning; shared rights, responsibility and decision-making; and building adaptive capacity and resilience. A conceptual framework of tourism destination governance that incorporates ACM principles, process, variables and outcomes is developed. Manuscript two aims to empirically investigate the extent to which an ACM approach was able to enhance the achievement of key governance principles such as participation, social learning, accountability, transparency, power, and rule of law. Stakeholder interviews showed that the ACM approach provided a congenial environment that facilitates iterative learning amongst stakeholders, and for some, resulted in attitude and behaviour change towards protected area conservation. Manuscript three is an exploratory study that sought to analyse how social learning is embedded in the governance of a protected area tourism destination. The empirical findings show that social learning allows for diverse stakeholder groups to interact together to create new knowledge, develop awareness and empower local communities. The findings reinforce the importance of social learning for tourism destination governance.

The overall theoretical and practical implications of this research are the application of ACM as an approach that can enhance tourism destination governance. Enhanced governance systems are crucial for contributing to sustainable tourism development objectives, as well as protected area conservation and management.

Declaration by author

This thesis is composed of my original work, and contains no material previously published or written by another person except where due reference has been made in the text. I have clearly stated the contribution by others to jointly-authored works that I have included in my thesis.

I have clearly stated the contribution of others to my thesis as a whole, including statistical assistance, survey design, data analysis, significant technical procedures, professional editorial advice, financial support and any other original research work used or reported in my thesis. The content of my thesis is the result of work I have carried out since the commencement of my higher degree by research candidature and does not include a substantial part of work that has been submitted to qualify for the award of any other degree or diploma in any university or other tertiary institution. I have clearly stated which parts of my thesis, if any, have been submitted to qualify for another award.

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Publications during candidature

Peer-reviewed journal paper:

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2017). Adaptive co-management: A novel approach to tourism destination governance? *Journal of Hospitality and Tourism Management*, DOI: [10.1016/j.jhtm.2017.10.009](https://doi.org/10.1016/j.jhtm.2017.10.009)

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2018). Exploring social learning as a contributor to tourism destination governance. *Tourism Recreation Research*, DOI:10.1080/02508281.2017.1421294

Peer-reviewed conference working papers:

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2016). Exploring social learning in the protected areas of Bangladesh. Proceedings of the 26th Annual Council for Australasian Tourism and Hospitality Education (CAUTHE) Conference, 9-11 Feb 2016, Blue Mountains International Hotel Management School, Sydney, NSW, Australia, pp. 1204-1210.

Islam, M. W. & Ruhanen, L. (2015). Governance for tourism: Investigating the application of adaptive co-management – a conceptual paper. Proceedings of the 25th Annual Council for Australasian Tourism and Hospitality Education (CAUTHE) Conference, 2-5 Feb 2015, Southern Cross University, Gold Coast, QLD, Australia, pp. 547-550.

Peer-reviewed conference abstracts/pitches:

Islam, M. W. (2015). Wildlife conservation through nature-based tourism in Lawachara National Park: A realism or idealism? Presented at the Updating Species Red List of Bangladesh Conference held on 14 June 2015 at CSS AVA Centre, Khulna, Bangladesh. Jointly organised by International Union for Conservation of Nature (IUCN) and Khulna University, pp. 71-75.

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2016). From local community harassment to motivation: Adaptive co-management as an innovative tourism destination governance approach. Presented at the 1st University of Queensland Bangladesh Association (UQBDA) Conference on Taking Bangladesh Forward held on 27 Sept 2016 at University of Queensland, Australia, pp. 20.

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2016). Application of the adaptive co-management approach for tourism governance in protected areas. Presented at the Annual Research Students' Colloquium 2016 held on 29 July 2016 at Business School University of Queensland, Australia, pp. 32-33.

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2016). Adaptive co-management as an innovative Governance approach for nature-based tourism destinations. Presented at the Annual Research Students' Colloquium 2017 held on 28 July 2017 at Business School University of Queensland, Australia, pp. 24-25.

Conference poster:

Islam, M. W. (2014). Co-management approach: as an inspiration to facilitate nature-based tourism at the protected areas of Bangladesh. E-poster presentation under Enhancing Diversity and Quality of Governance (Stream 6) at the International Union for Conservation of Nature (IUCN) World Park Congress held on 12-19 Nov 2014, Sydney Olympic Park.

Publications included in this thesis

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2017). Adaptive co-management: A novel approach to tourism destination governance? *Journal of Hospitality and Tourism Management*, DOI: <https://doi.org/10.1016/j.jhtm.2017.10.009>. This published paper is fully incorporated as Chapter Two.

Contributor	Statement of contribution
Islam, M. W. (Candidate)	Conception and design (80%) Analysis and interpretation (80%) Drafting and production (70%)
Ruhanen, L.	Conception and design (10%) Analysis and interpretation (15%) Drafting and production (20%)
Ritchie, B. W.	Conception and design (10%) Analysis and interpretation (5%) Drafting and production (10%)

Islam, M. W., Ruhanen, L., & Ritchie, B. W. (2018). Exploring social learning as a contributor to tourism destination governance. *Tourism Recreation Research*, DOI:10.1080/02508281.2017.1421294. This published paper is fully incorporated as Chapter Three.

Contributor	Statement of contribution
Islam, M. W. (Candidate)	Conception and design (80%) Analysis and interpretation (80%) Drafting and production (70%)
Ruhanen, L.	Conception and design (10%) Analysis and interpretation (15%) Drafting and production (20%)
Ritchie, B. W.	Conception and design (10%) Analysis and interpretation (5%) Drafting and production (10%)

Contributions by others to the thesis

This thesis was prepared according to the guidance and suggestions provided by my two advisors Associate Professor Lisa Ruhanen and Professor Brent Ritchie, as well as the anonymous journal reviewers of the three manuscripts.

Statement of parts of the thesis submitted to qualify for the award of another degree

None

Research Involving Human or Animal Subjects

The research collected primary data through using face-to-face interviews involving different stakeholders of two protected areas of Bangladesh. Ethics approval (ETHICS #105260, approval date: 24/04/2015) was granted from the University of Queensland Business School Ethical Review Committee before conducting these interviews. A copy of the ethical clearance letter has been included in Appendix 2.

Acknowledgements

Above all, I am very grateful to The Almighty God (Allah) for allowing me to conduct this Doctoral research with sound health. It would not have been possible to prepare this thesis without the assistance and support of some generous people around me, to only some of whom it is possible to mention them here.

This thesis would not have been to accomplish without the great cooperation, support, patience and guidance from my beloved Principal Advisor Associate Professor Lisa Ruhanen. Her caring attitude, critical academic perspectives and overall cooperation helped me immensely to learn a lot from my PhD milestone. My sincere thanks to Associate Advisor Professor Brent Ritchie for providing his invaluable cooperation, advices and guidance all through my candidature.

I would like to thank the Chair of Examination Committee Dr. Judith Mair and the Reader Dr. Aaron Tkaczynski for their suggestive feedback and appreciation in conducting my research. I also thank to Ms Julie Cooper, Higher Degree by Research Student Liaison Officer, UQ Business School for her continuous cooperation in arranging various administrative issues. I also like to extend my thanks to Dr. Megan Axelsen and Dr. Ian Patterson for their editing assistance.

I acknowledge Research Training Program (RTP) and University of Queensland Centennial Awards of the Australian Government for their financial support to conduct this research. I also thank Graduate School, UQ Business School, UQ Union and Social Science, Arts and Humanities Library for providing various trainings, seminars, colloquiums and talks which enriched my knowledge and capabilities significantly to apply in my PhD journey and my professional career. My gratitude also extends to UQ Business School IT and Finance Team members for providing me their cooperation. I also acknowledge for all the support and suggestions provided by my tourism cluster colleagues and friends especially Dr. Hiro, Hafidh, Margarida, Dr. Stone, Dr. Sheena, Anh and Dr. Lintje.

I acknowledge my home institute Khulna University, Bangladesh for granting me study leave and other assistance to conduct this PhD research. The local and official participants of this research were the source of the primary information. I sincerely acknowledge their voluntary services by allowing their valuable time and providing me all the information for this research.

My gratitude to Forest Department and NGOs for providing me their assistance for conducting my field works to collect the necessary information. I especially thank to Mr. Md. Tariqul Islam, Mr. Taufiq, Mr. Shahab Uddin (Forest Department), Dr. Md. Mizanur Rahman Tusher (Winrock

International), Mr. M. Nazmul Azam David (Rupantar Eco-tourism), Miss Sharmila Dhali (CNRS), and other officials and local people for extending their assistance during my field work. I am grateful to two respected external examiners of this thesis for providing me some suggestions to improve this document.

Finally, I would like to express my special thanks to my lovely wife Naivi Sultana for her enormous patience, sacrifices and encouragement to support my whole PhD journey. I am grateful to my two cute daughters Sumat Samirah and Wafa Wasima for their invaluable mental boosts and encouragement. I could not allow considerable time for all of them and left them alone most of time due to my research, for which my mere expression of thanks does not suffice. Moreover, I am owed to my great parents, siblings and their families for their continuous encouragement to accomplish my PhD journey.

Financial support

This research was supported by an Australian Government Research Training Program Scholarship and the University of Queensland Centennial Awards. The University of Queensland Business School also granted research fund to conduct this research. I acknowledge the financial support to conduct my research studies.

Keywords

adaptive co-management, Bangladesh, capacity building, governance, Lawachara National Park, protected areas, stakeholders collaboration, social learning, Sundarbans East Wildlife Sanctuary, tourism.

Australian and New Zealand Standard Research Classifications (ANZSRC)

ANZSRC code: 150603, Tourism Management, 70%

ANZSRC code: 160513, Tourism Policy, 30%

Fields of Research (FoR) Classification

FoR code: 1506, Tourism, 100%

Dedications

The thesis is dedicated to my beloved family members who supported me all through the PhD journey!

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List of Abbreviations

ACM	Adaptive co-management
CAUTHE	Council for Australasian Tourism and Hospitality Education
CBD	Convention on Biological Diversity
CMC	Co-management Committee
CMOs	Co-management Organisations
CPG	Community Patrolling Group
FAO	Food and Agriculture Organisation
GoB	Government of Bangladesh
Ha	hectare (1 ha = 10000 m ²)
ICDP	Integrated Conservation and Development Project
IRG	International Resources Group
IUCN	International Union for Conservation of Nature
KC	Key Concept
LNP	Lawachara National Park
NACOM	Nature Conservation Management
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNWTO	United Nations World Tourism Organisation
UQ	The University of Queensland, Australia
UQBS	University of Queensland Business School
USAID	United States Agency for International Development
WTTC	World Travel and Tourism Council

CHAPTER ONE: INTRODUCTION

1.1 Preamble

This study examines the use of adaptive co-management, an alternative, bottom-up governance approach, to tourism destination governance. The overarching aim is to investigate adaptive co-management as an approach for facilitating tourism destination governance in the context of protected areas in a developing country. The study investigates tourism within the protected areas of Bangladesh.

To present the research findings this thesis follows a manuscript style thesis format. The introductory chapter presents a preliminary overview of the research and outlines: the research context and rationale of the study; the research aim and objectives; the conceptual framework utilised; the key concepts and overarching methodology used to direct the research; and a description of the case study sites, two protected areas in Bangladesh, in which the research was conducted. This chapter also briefly outlines the three manuscripts that comprise the basis of the thesis.

1.2 Research context and rationale

Tourism is one of the fastest growing economic sectors in the world. It accounts for 10% of the world's GDP (Gross Domestic Products) and generates one in 10 jobs. In the worldwide export economy tourism ranks third; however for many developing countries it is the top export category: on an average, tourism represents 40% of services exports for such emerging economies (the global average is 30%) (UNWTO [World Tourism Organization], 2017). While tourism generates significant economic impacts for both large, diversified economies and emerging economies of developing countries, this growth is occurring considerably faster in developing countries (UNCTAD [United Nations Conference on Trade and Development], 2013). As tourism is seen as a tool to facilitate development opportunities in underdeveloped and developing countries (Newsome & Hassell, 2014; Nyaupane & Poudel, 2011; Snyder & Sulle, 2011; Timothy, 1999; Tosun, 2000) policies and strategies have been introduced to fuel tourism growth. Such strategies include: increasing purchasing power in developing countries; increasing and improving air connectivity; proactive tourism policies and other supporting investment policies; ensuring more reasonable travel in various modes of transport; and relaxation of visa requirements (UNCTAD [United Nations Conference on Trade and Development], 2013; UNWTO [World Tourism Organization], 2017).

In underdeveloped and developing countries, tourism attractions are often situated within high conservation value areas and/or protected areas (Eagles, 2002; Weaver, 2008). This means the number of tourists engaging in tourism in protected areas of developing countries is increasing (Balmford et al., 2009; Mustika, Birtles, Everingham, & Marsh, 2013), placing pressure on the areas and communities in which the tourism is occurring. As protected areas are important geographic spaces for both the conservation of nature and the livelihoods of the communities that live in and around these areas (Bushell & Bricker, 2017; Figgis & Bushell, 2007; Sdrali, Goussia-Rizou, & Kiourtidou, 2014; Weaver, 2008), it is important to ensure environmentally friendly and sustainable forms of tourism occur. Such tourism activities can not only contribute to the sustainable development of local areas, but also to sustainable protected area management and poverty reduction amongst local communities who rely on the protected area for their livelihood (Balmford et al., 2009; Job & Paesler, 2013).

For sustainable protected area management and poverty reduction to occur, policies need to ensure access by local communities to profit-sharing and employment opportunities (Bayliss et al., 2014). This is where governance performs such an integral role in protected area management. Despite the importance of good governance for protected area management, these areas are often characterised by poor governance systems (Eklund et al., 2011; Parnini, 2006). Such insufficient governance systems are regularly a consequence of several factors, including: insufficient feedback mechanisms in the policy context and in its formulation; issues of biological, social and economic fragmentation; lack of financing; improper planning and management; lack of technical manpower; low political commitment; inadequate legal protection; and conflicts among stakeholders (Colfer, 2005; Timothy & Tosun, 2003; Tosun, 2000; WWF [World Wide Fund For Nature], 2014). For protected areas in developing countries there are also a number of other factors that further complicate already tenuous governance systems. Such factors include poverty; illiteracy; large populations; disparities of rights and opportunities; and high demand for natural resources that lead to habitat destruction, pollution and species loss (Borrini-Feyerabend, 2003; Rashid, Craig, Jeffery, & Khan, 2013; Snyder & Sulle, 2011).

Effective governance systems perform an important role in empowering local people. Protected area managers and tourism authorities in developing countries therefore need to develop policy or institutional arrangements that enable the local (and often poor) people living in and around the protected areas to obtain socio-economic and ecological benefits from tourism activities (Figgis & Bushell, 2007). While the success of a sound management and planning process is dependent upon the effective and regular participation of the different stakeholders of protected areas (including the

local communities) (Colfer, 2005), traditional protected area management approaches often fail to consider the wide range of stakeholders involved in the area (Tosun, 2000, 2001). Other problems also associated with traditional protected area management approaches, which take a top-down management structure, include: tangled goals; faulty implementation plans that lack proper representation of the local stakeholders; conflicts in terms of imbalanced power and trust between stakeholder groups; low transparency and accountability; disregard of local culture and institutions, insufficient linking of knowledge; and weak institutional capacity (Chernela, 2003; Christie & White, 2007; Glaser, Baitoningsih, Ferse, Neil, & Deswandi, 2010; Jaireth & Smyth, 2003; Phillips, 2003; Rashid, Craig, Jeffery, et al., 2013).

Due to the problems associated with traditional top-down governance approaches to protected area planning and management, a paradigm shift is occurring; with a transition from rational comprehensive (traditional top-down) to participatory (bottom-up) approaches. Such new, participatory governance approaches focus more on the participation of the local stakeholders in the decision-making, planning, implementation, monitoring and evaluation processes, as well as in benefit-sharing and the development of alternative income generating activities such as tourism (Eagles et al., 2002; Niedziałkowski et al., 2012). Through the inclusion of local stakeholders in planning and implementation processes, participatory governance approaches promote improved living standards for local communities, while simultaneously facilitating more effective protected area management and planning systems (Dearden et al., 2005; Worboys, Lockwood, & De Lacy, 2005). Under participatory institutional arrangements tourism can also play notable roles in protected areas by helping to improve the living standards of local communities (Phillips, 2003).

One participatory governance approach that has been proposed as an alternative to traditional, top-down approaches is 'co-management' (Armitage et al., 2011; Aziz, 2008; Carlsson & Berkes, 2005; Mukul, Herbohn, Rashid, & Uddin, 2014; Mukul, Rashid, Quazi, Uddin, & Fox, 2012; Mukul, Rashid, Uddin, & Khan, 2016; Plummer & Fitzgibbon, 2004a, 2004b; Rashid, Craig, Jeffery, et al., 2013; Rashid, Craig, & Kahn, 2015; Rashid & Khan, 2014). Co-management can be defined as "a situation in which two or more social actors negotiate, define and guarantee amongst themselves a fair sharing of the management functions, entitlements and responsibilities for a given territory, area or set of natural resources" (Borrini-Feyerabend, Farvar, Nguingui, & Ndangang, 2000, p. 1). Considering the challenges of traditional governance approaches of protected areas, particularly in the context of developing countries, the co-management approach has been suggested as an alternative governance approach for these areas. Enhanced equity, efficiency of decision-making, broader based legitimization for actions and increased capacity at a local scale are advantages the co-

management approach may provide to the management of natural resources and local community activities in protected areas (Plummer & FitzGibbon, 2004b; Rashid, Craig, Jeffery, et al., 2013). Through the co-management approach, local stakeholders also have the opportunity to be engaged in partnerships with relevant stakeholders and to thus have a voice in decisions related to overcoming challenges and achieving better outcomes for the local protected area (Armitage et al., 2011; Borrini-Feyerabend et al., 2000; Plummer & Fitzgibbon, 2004a).

A key characteristic of the co-management approach is the use and development of partnerships. Partnerships can facilitate understanding among stakeholders through collaboration, negotiation and enhanced conflict resolution. Partnerships may also stimulate greater access to funding and other mechanisms of support for protected areas and improve capacity building opportunities for local stakeholders; both of which may then, in turn, encourage innovation (Colfer, 2005; Pfueller, Lee, & Laing, 2011).

While the co-management approach reportedly has many advantages, it mainly focuses on linking local communities and government authorities to ensure resource-user participation in decision-making processes authorities (Armitage, Berkes, & Doubleday, 2007a; Berkes, 2009; Chowdhury, Koike, & Muhammed, 2009). An extension of the co-management approach, the 'Adaptive co-management' (ACM) approach (Armitage et al., 2007a; Olsson et al., 2004; Plummer & Armitage, 2007; Plummer & FitzGibbon, 2004b) is an advanced governance system that encompasses more flexible systems of resource management, as well as complex cross-scale linkages and processes of dynamic and iterative learning (Olsson et al., 2004; Wood et al., 2013). ACM focusses on sustaining social-ecological systems (Plummer, 2009) through collaboration, power sharing and iterative learning in order to promote ecologically sustainable livelihoods (Fennell et al., 2008; Plummer & Armitage, 2007).

ACM is based on principles such as accountability, participation, collaboration, effectiveness, transparency, rule of law, power, social learning, shared rights and responsibility, conscious and spontaneous participation, decentralization and devolution (Armitage et al., 2009; Batterbury & Fernando, 2006; Borrini-Feyerabend, 2003; Graham, Amos, & Plumptre, 2003; Islam, Ruhanen, & Ritchie, 2017; Ruhanen, Scott, Ritchie, & Tkaczynski, 2010; Ruitenbeek & Cartier, 2001; UNDP [United Nations Development Programme], 1997; Wollenberg, Edmunds, & Buck, 2000). As a governance approach, ACM focuses on addressing various uncertainties of protected areas such as high population pressure, poverty, land use competition, uneven power, and stakeholder conflicts (DeCosse, Thompson, Ahmad, Sharma, & Mazumder, 2012). ACM also has a focus on knowledge

co-production by bridging scientific and local knowledge acts as a trigger for social learning (Armitage et al., 2011; Berkes, 2009).

Both co-management and ACM are alternative approaches to traditional or top-down governance for managing natural resources. Co-management is embedded within the ACM approach with the addition of adaptive management (Armitage et al., 2007a; Plummer & Armitage, 2007). As such, there are a number of similarities in the approaches including multi-stakeholder participation, partnerships, mutual understanding, and collaboration, among others. However, ACM is generally considered to be a more adaptive, mature or advanced stage of a co-management approach (Olsson et al., 2004). Therefore, in addition to the advantages of a co-management approach, ACM further emphasises iterative interaction and collaboration between multiple stakeholders with the objective of promoting social learning to generate new knowledge and experiences (Cundill & Fabricius, 2009; Ridder, Mostert, & Wolters, 2005). ACM is also considered to be a more flexible governance system, and more able to address complex, uncertain and challenging social-ecological systems (Armitage et al., 2011; Berkes, 2009). In turn, this has been credited with supporting sustainable social-ecological systems including sustainable livelihoods opportunities (Fennell et al., 2008; Olsson et al., 2004; Plummer, 2009; Plummer & Armitage, 2007; Wood et al., 2013).

From a social learning perspective, the ACM approach aims to establish better coordination among stakeholders to ensure positive iterative interactions and learning occurs. Indeed, such learning is essential for achieving desirable outcomes and for reducing negative impacts such as uncertainties, alienation, and social disintegration (Koutsouris, 2009). Social learning can also work to improve the adaptive capacity and social capital of stakeholders, thus contributing to improved resource management processes through new knowledge generation and knowledge sharing (Cundill & Fabricius, 2009). From the perspective of natural resource management, social learning is particularly important when there are stakeholders with different interests and resources; when there is interdependency amongst stakeholders to achieve their objectives; when there is no existing agreement on the problems of concern; and when there are issues the stakeholders need to devote their resources to, such as money and time (Ridder et al., 2005). Both the co-management and ACM concepts have been used in cases of natural resource management, particularly forestry (including wildlife) and fisheries (Armitage et al., 2011; Borrini-Feyerabend et al., 2000; Fennell et al., 2008; Plummer & Fennell, 2007) for over three decades. However, these concepts have only recently been introduced in tourism contexts. In tourism, co-management and ACM have been utilised as approaches to managing sustainable development through tourism (particularly ecotourism and nature-based tourism), biodiversity conservation and alternative income generation opportunities,

destination management, crisis management, stakeholder partnerships, and business networks (Butler et al., 2015; Mbaiwa, 2011; Pennington-Gray et al., 2014; Romeiroa & Costab, 2010). For example, the co-management approach was implemented through community-based natural resource management in Okavango Delta, Botswana. In this case, tourism generated social capital and local conservation institutions that facilitated the conservation of wildlife and plant diversity, as well as the sustainability of natural resources in the destination. These activities also contributed to reducing poverty in the local community by engaging the community in tourism-based economic activities, which also enhanced mutual trust and stakeholder networking (Mbaiwa, 2011).

1.3 Research aim and objectives

Tourism is often regarded as an opportunity for natural resource management and conservation (Bushell & Bricker, 2017; Kala & Maikhuri, 2011; Nyaupane & Poudel, 2011). However, from a natural resource management perspective, research shows that the implementation and revenue-sharing components of tourism are quite complex and have been plagued with issues such as weak planning, poor coordination among stakeholders, lack of transparency and accountability, and poor management (Brockington, Duffy, & Igoe, 2008; Bushell & Bricker, 2017; Snyder & Sulle, 2011; Stone & Nyaupane, 2016; Timothy, 1999). The establishment of an efficient governance system is therefore recognised as a fundamental practice for tourism destinations wishing to promote sustainable development and conservation, particularly when sustainable development is to be achieved through collective and coordinated actions between state and non-state agencies (private and NGOs) (Bramwell, 2011; Butler et al., 2015; Chen et al., 2016; Elands, Islam, & Van der Duim, 2015; Lai et al., 2016; Romeiroa & Costab, 2010; Sarkki, Rantala, & Karjalainen, 2015; Towner, 2016).

Governance systems for tourism regions, and particularly those that are nature-based or protected areas, require inclusive management planning processes (de Bruyn & Alonso, 2012) that concurrently minimise the adverse effects of tourism and maximise the benefits for the local communities (Timothy, 1999; Trousdale, 1999). Consequently, tourism has also been integrated with inclusive management planning processes. Here, the ACM approach potentially offers a more effective governance approach for such tourism destinations. While the ACM approach may offer many benefits to sustainable tourism development and management, there is a dearth of literature on the process of ACM in a tourism context (Plummer & Armitage, 2007). As such, further research is needed to better understand the applicability of the structures and processes that underpin the collaborative actions of the ACM approach in a tourism context, as well as to assess the outcomes of

investing resources in the ACM approach (Schusler et al., 2003). Moreover, there are few empirical studies on tourism governance (Bramwell, 2011; Bramwell & Lane, 2011) and even fewer which investigate the impact of the ACM approach in tourism destination governance (Plummer & Fennell, 2009). There is also a dearth of research that focuses on the context of tourism in protected areas in developing countries (Dearden et al., 2005). In addition, little research that has sought to explore the application of social learning in tourism (Wray, 2012).

To address the identified research gaps, the aim of this study is to investigate ACM as an approach that can facilitate or inhibit tourism destination governance. Set within the context of protected areas in a developing country, the study examines tourism within the protected areas of Bangladesh and two protected areas are used as case studies: Lawachara National Park and Sundarbans East Wildlife Sanctuary. To investigate the study aims, this research is guided by three research objectives:

- i. to conceptually examine ACM as a governance approach in the context of tourism destinations;
- ii. to investigate how an ACM approach to governance can facilitate or inhibit the achievement of key governance principles such as participation, accountability and transparency, power, rule of law, and social learning; and
- iii. to explore how social learning is embedded in the governance of a protected area tourism destination.

1.4 Conceptual framework of the study

This study's conceptual framework (Figure 1.1 and Figure 1.2) is based to broad concept of ACM, which also encapsulates the related concepts of governance and social learning. From a theoretical perspective, the theories related to all three concepts are closely inter-linked (Armitage et al., 2007a; Bown, Gray, & Stead, 2013; Olsson et al., 2004). These key concepts are briefly outlined in the following section.

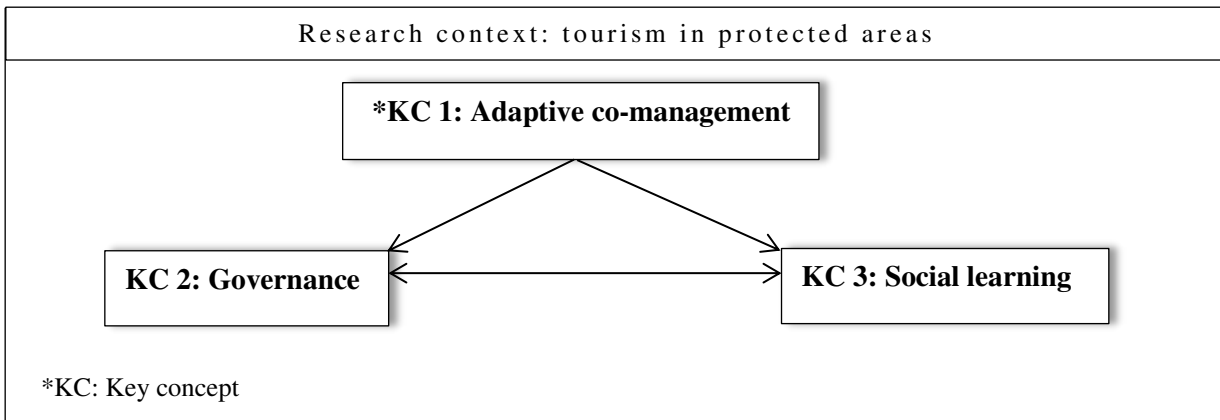


Figure 1.1: Overall conceptual framework of the study with the key concepts

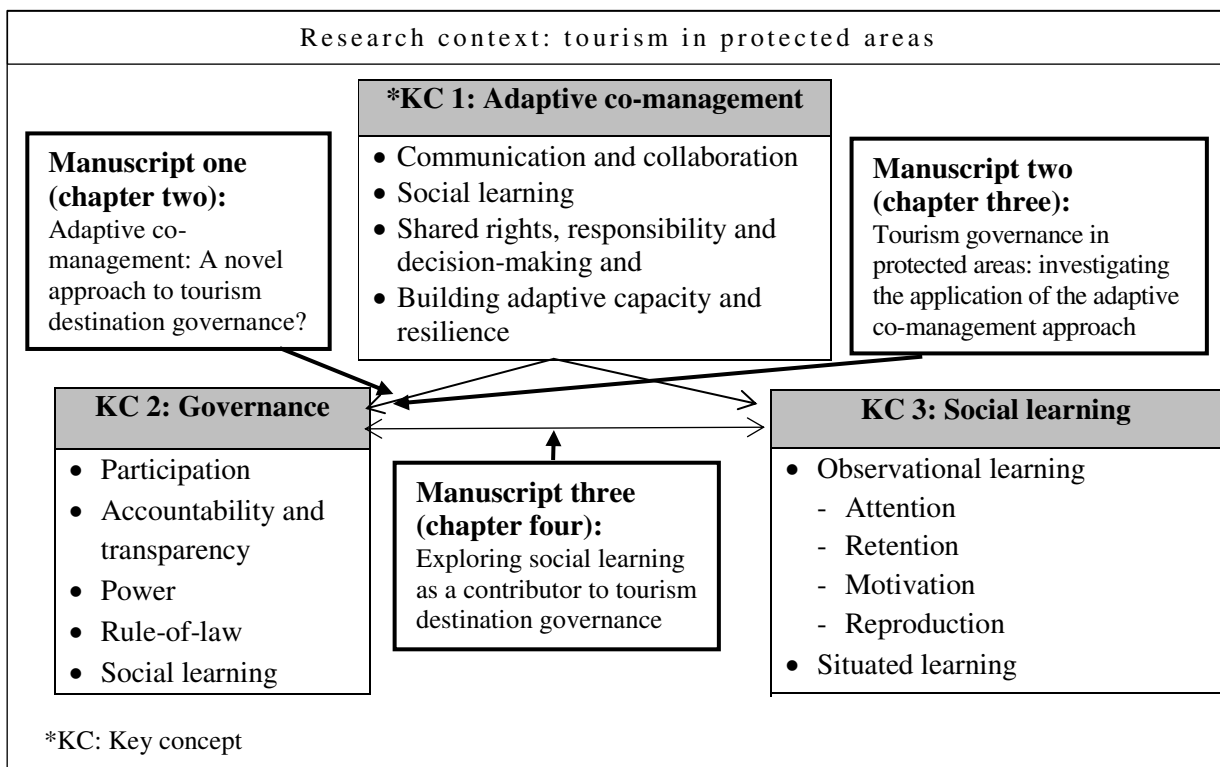


Figure 1.2: Conceptual framework of the study with three manuscripts

1.5 Key concepts of the study

1.5.1 Adaptive co-management (ACM)

ACM is the central theoretical concept that underpins this study. Considered an interdisciplinary concept, many authors have defined ACM in different ways (Berkes, 2009; Olsson et al., 2004; Plummer & FitzGibbon, 2004b; Ruitenbeek & Cartier, 2001). ACM consists of two different concepts, ‘adaptive management’ and ‘co-management’, both of which have the underlying objective

of achieving sustainable resource use and social-ecological resilience (Armitage et al., 2007a; Plummer & Armitage, 2007). The origins of these two terms are not the same: adaptive management originated from applied ecology, whereas co-management owes its provenance to the common's literature (Berkes, 2009). Achieving a balance between the two principles of ACM is often challenging because adaptive management focuses on ecological resilience while co-management focuses on human empowerment. This means, for example, that if the focus favours adaptive management then stakeholder involvement may be neglected, while if the focus favours co-management then the significance of the learning processes may be ignored (Bown et al., 2013).

ACM is an extension of the co-management approach (Armitage et al., 2007a; Olsson et al., 2004; Plummer & Armitage, 2007) that evolves when the co-management approach is combined with the iterative learning-by-doing of adaptive management (Berkes, 2009; Ruitenbeek & Cartier, 2001) and is said to be a flexible and innovative approach to natural resource governance (Armitage et al., 2007a; Nancy, 2008; Olsson et al., 2004; Plummer, 2009). It is an approach that endeavours to produce a community-based system that encompasses complex cross-scale linkages and the process of dynamic learning (Olsson et al., 2004). Armitage et al. (2007b, p. 328) define ACM as a “process whereby institutional arrangements and ecological knowledge are tested and revised in an ongoing, self-organised and dynamic process of learning-by-doing”. It includes agreed-upon (i.e. shared) actions that are supported by diverse actors (Prabhu, McDougall, & Fisher, 2007).

The ACM approach advocates participation of local multiple stakeholders and this is achieved through the establishment of cooperation and collaboration mechanisms that encourage the local multiple stakeholders to become involved in the protection and conservation of their local protected areas. As these stakeholders often have long heritage and cultural ties to the area, the ACM approach considers their inclusion and stewardship as essential and socially fair (MacKinnon & Xie, 2008). Empowerment of these stakeholders is also an important part of the AMC model and such empowerment is created through the development of various income generation activities, such as tourism (Armitage et al., 2007b; Berbés-Blázquez, 2011; Charles, 2007; Fisher, Prabhu, & McDougall, 2007b; Nadasdy, 2007; Plummer, Armitage, & de Lo, 2013; Prabhu et al., 2007).

1.5.2 Governance

Governance encompasses “the interactions among structures, processes and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say” (Graham et al., 2003, pp. 2-3). It can also be defined as “a system of formal and informal rules (values, customs, procedures, norms, laws, etc.) consolidated in institutions

and policies that establish patterns and ways of interaction among stakeholders” (de Bruyn & Alonso, 2012, p. 222). In short, governance is a system or systems of governing that include collective action and coordination (Bramwell, 2011). The governance concept developed from the political sciences and corporate management and the transition from ‘top-down’ forms of bureaucracy to ‘bottom-up’ inputs into decision-making processes (Zeppel, 2012).

Governance has become the cornerstone for effective tourism destinations to promote sustainable development (Bramwell, 2011; de Bruyn & Alonso, 2012). As tourism is an intensive resource-based industry (natural, physical, manpower, financial and social) (Bushell, Staiff, & Eagles, 2007; Concu & Atzeni, 2012) that is comprised of multiple and complex combinations of public, administrative and industry sectors (Wang & Ap, 2013), tourism destinations benefit from the application of flexible governance systems (Baggio, Scott, & Cooper, 2010). Tourism destination governance research focuses the analysis of a number of issues that are important for applying such flexible governance systems. Such issues include: social and policy network; the functions, rules and mechanism for developing policies and business strategies; interactions among interest groups and their responsibilities, formation, features; the evolution of social networks; and the influences of policy (Pappalardo, Pilato, & Bracco, 2015; Tosun, 2006; Tosun & Jenkins, 1996; Zhang & Zhu, 2014).

1.5.3 Social learning

Like governance, social learning is one of the key components of ACM (Berkes, 2007; Khadka & Vacik, 2008). Social learning refers to the processes of learning and the changes in individuals and social systems that are embedded in culture and history (Pahl-Wostl, 2006). Although social learning plays a crucial function in the new public participation concept, that is, collaboration through networks (Koutsouris, 2009; Pahl-Wostl, 2006; Ridder et al., 2005), there is no universal or well-accepted definition of social learning. For instance, social learning may be defined as “a change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks” (Reed et al., 2010, p. 6); or as “the collective action and reflection that takes place amongst both individuals and groups when they work to improve the management of the interrelationships between social and ecological systems” (Keen, Brown, & Dyball, 2005, p. 4). More simply, social learning can be defined as “learning together to manage together” (Ridder et al., 2005, p. 11). Most definitions of social learning focus on the collective and intentional learning within a group of people/stakeholders that occur through an interactive process utilizing self-reflection of their activities in a particular context.

Due to the complex social-ecological systems of a natural ecosystem, it is quite unlikely an individual or organisation will have the required knowledge to manage such an ecosystem properly. As a result, natural resource management requires input from the diverse knowledge of a range of stakeholders (including local residents) to make judicious decisions that consider all complexities and uncertainties (Berkes, 2009; Fisher, Prabhu, & McDougall, 2007a). Social learning from a natural resource perspective thus utilises local community engagement and the integration of science with local knowledge (Koutsouris, 2009; Leys & Vanclay, 2011) to improve the resource management process through the generation and sharing of new knowledge and the building of greater awareness levels (Pinkerton, 1994).

1.6 Methodology

This section outlines the research methodology employed in the study. It focuses both on the underpinning research philosophy and on the specific research methods that were used to collect and analyse the data. A constructivism research paradigm was adopted which followed an inductive research approach using the case study research method.

1.6.1 Research paradigm

A research paradigm is a fundamental set of principles and philosophical assumptions that guide a study (Denzin & Lincoln, 2003). The research paradigm is often considered the starting point of the research (Creswell, 2003). The most general way to classify a research paradigm is as either quantitative and qualitative (Bryman, 2012; Smith, 2010). This study is embedded within a qualitative research paradigm and adopts a constructivism approach to the research. Typically connected with qualitative research approaches (Creswell & Clark, 2011), constructivism takes a ‘naturalistic approach to the world’, as well as an interpretivist approach (interpretive social science paradigm) (Creswell, 2003; Flick, 2007; Jennings, 2010) where the knower and known are interactive and inseparable (Jennings, 2010; Lincoln & Guba, 1985). According to Creswell and Clark (2007), the understanding and meaning of phenomena in the constructivism paradigm is formed through the subjective views of participants. Research guided by constructivism often take an exploratory or descriptive approach and provide a reasonable explanation for the research issues by emphasizing the context, setting and frames of reference of participants (Marshall & Rossman, 2011). While the constructivism paradigm has been criticised by some researchers for its confined capacity to generalise (that is, it is considered much too subjective and therefore too narrow), its specialised, informal style, and its intrapersonal standpoint (Creswell & Clark, 2007; Jennings, 2010), these

criticisms have been addressed by different authors with in-depth and careful investigations that are inductive and grounded in the context of reality (Creswell & Clark, 2007; Jennings, 2010).

Protected area governance in a country such as Bangladesh is complex. The stakeholders involved in the governance processes range from those responsible for protection and enforcement of the protected area status through to those who illegally use the protected area resources for financial gain, usually because of their low economic status. Stakeholder groups include local residents, legal resource users, business owners and entrepreneurs, tourists, local government, local law enforcing and administration agencies, political leaders, civil society, and so on. As such, constructivism allowed the researcher to uncover and explore the multiple realities of these various stakeholders. In addition, as ACM as a bottom-up governance approach has received relatively little empirical attention, research such as this is important for understanding the multiple realities that exist in protected area governance.

While a qualitative, constructivism underpins this study, research paradigms are based on three interrelated philosophical elements that also need to be articulated: ontology, epistemology, and methodology. These elements are used to articulate the broad assumptions incorporated into the research design and to guide the way knowledge is interpreted (Creswell, 2003). The philosophical elements of the constructivism paradigm that guide this study are acknowledged and briefly outlined below.

1.6.1.1 Ontology

The ontology, or the ‘nature or reality’ that underpins the constructivism paradigm and hence this study is the view that there is no single true reality. Instead, the nature of reality exists in multiple realities that are socially constructed through participants’ lived experiences (Creswell, 2003; Hill, 2012; Lincoln & Guba, 1985) and based on common-sense understanding (Smith, 2010) or understanding of human behaviour (Bryman, 2012). For this study, this means the research ontology is founded in the multiple realities of the diverse groups of participants (both local residents and official, policy makers and policy users, wealthy and disadvantaged people, educated and non-educated, conservationists and illicit resource users) and their lived experience of the ACM governance approach. To articulate the different and often complex perspectives that the research participants held regarding the ACM process and their engagement in the approach and social interactions with other stakeholders, direct quotes have been used in the reporting of the research results. Such an approach therefore allows participants to share their own histories, experiences and perspectives, thus also enabling an exploration of the ACM approach from multiple perspectives.

1.6.1.2 Epistemology

Epistemology refers to the relationship and interactions between the researcher and participants of the research; that is, the reality of that being researched (Creswell & Clark, 2011; Denzin & Lincoln, 2003; Hill, 2012; Punch, 2014). The constructivism paradigm describes this relationship as a ‘closeness’ where there is a close and subjective relationship between the researchers gathering the data and the research participants who are the subject of that data collection (Hill, 2012; Jennings, 2010; Lincoln & Guba, 1985). Given this ‘closeness’ and hence subjectiveness, the role of the researcher and their own values and background influence their interpretation of what others say about the world (Creswell, 2003; Hill, 2012).

Personal interests, ethical values and commitment to research of the researchers are other factors that influence a researcher’s interpretations (Creswell, 2003). Hence, rather than trying to avoid these often innate influencing factors through the assumption of a ‘value neutral position (Berg & Lune, 2012), it is instead important to acknowledge those background factors that may impact on a researcher’s interpretations. The researcher undertaking the research for this study has an academic background and interest in forest science and nature conservation in relation to nature-based tourism practices. He served in the Bangladesh Forest Department for three years where he conducted research on tourism and wildlife management in the Sundarbans mangrove forest area (including the wildlife sanctuaries) as well as the Lawachara National Park and its surrounding landscape zone. Consequently, he had existing networks and relationships with some of the key stakeholders involved in the ACM process.

1.6.1.3 Methodology

A research methodology directs the choice and use of methods that will be utilised to help achieve a research outcome (for example: survey research, ethnography, experimental research, or case study) (Creswell, 2003). It defines the methods that is used for collecting information form the participants of the research (Denzin & Lincoln, 2003; Punch, 2014), as well as the methods to be used for interpreting the data (Smith, 2010). In this study, the researcher used the bottom-up or inductive research approach. Such an approach focuses on making specific observations to thus enable broader generalizations and theories to then be developed (Creswell & Clark, 2011). Thus, using the inductive research approach, the research participants’ experiences with the ACM governance approach were explored in order to identify the broader themes evident in relation to the ACM governance approach and its effectiveness as a tourism destination governance system.

1.6.2 Research design

1.6.2.1 Research strategy: case study

Informed by the research methodology, the research strategy is a general plan defining how the research will investigate the research issue. Commonly used research strategies in qualitative research include, for example: case study research, ethnographies, grounded theory and action research (Creswell, 2003; Punch, 2014). The research strategy utilised in this study is the case study approach. According to Yin (2014, p. 16), “a case study is an empirical inquiry that investigates a contemporary phenomenon (the case) in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident”. While the different types of research designs often utilise an associated set of prescribed research methods (Bryman, 2012), the case study is considered to be a research design as well as a research method (Bryman, 2012; Flick, 2007; Jennings, 2010; Yin, 1992, 2012, 2014, 2004). Case studies are useful when researchers are interested in the ‘how’ and ‘why’ of a certain phenomenon; when researchers have little or no control of the phenomena; and when pursuing a real-life perspective on a contemporary issue (Yin, 2014, 2004).

In tourism research, the case study is a method commonly used to study such areas as tourism planning, tourism management, tourism policy development and tourism marketing (Harris, Jago, & King, 2005). The case study is useful for highlighting the various social processes that occur within a community (or several communities), as well as for developing individual, organisational and institutional feedback on a certain issue (Dredge & Hales, 2012). Case study research can be especially constructive for research on the governance of tourism as it seeks to discover the context-specific character of tourism (Bramwell, 2011).

Case studies as a research strategy and method have several limitations. Such limitations include bias in case selection, tentative conclusions, problems in ‘degrees of freedom’, lack of representativeness and potential lack of independence of the cases (George & Bennett, 2005). Particularly as it applies to tourism research, the case study has also been criticised as speculative, untrustworthy and too specific to be replicated generally (Richards & Morse, 2013). With regards to generalizability, one way to make case study research more representative of a wider range of people and or communities is to engage in a multiple case studies (Yin, 2012, 2014).

To exploit the benefits of case study research, while also avoiding some of its criticisms related to generalizability, this study consists of two inter-connected case studies at two protected areas in Bangladesh. The case study research adopted an evaluative and active learning approach. The case

studies were evaluative in nature in that they intended to assess the ability for ACM and its concurrent social learning processes to enhance tourism destination governance. From an active learning perspective, the case study research required the researcher to understand ACM and its concurrent social learning processes from the opinions, perceptions and experiences of the research participants so as to gain a 'real world' insight into the way ACM operated as a protected area and tourism governance system (Creswell, 2003; Harris et al., 2005; Yin, 2012, 2004).

A reason for engaging in case study research was to focus on the complex interactions among different the stakeholders within the ACM governance approach; and subsequently to enable the researcher to discover new and in-depth understandings of these phenomena/cases (Berg & Lune, 2012; Punch, 2014; Yin, 2009, 2012). As well as helping to increase the understanding of certain phenomena, case studies are also beneficial to those stakeholders who are directly involved in the research, as well as to other interested parties. This is because case studies provide strong data and details about the underlined issues of the case, thus helping to build knowledge and awareness (Moore, Lapan, & Quartaroli, 2012).

1.6.2.2 Data collection

This study collected both secondary (through literature review) and primary qualitative data. The utilisation of a combination of primary and secondary data is common in tourism case studies (Baggio & Klobas, 2011). Primary data were collected directly from the study areas by using face-to-face, semi-structured interviews, as well as field notes taken during the interviews to record any other relevant information. Secondary data was collected from journals, books, reports, newspapers, online documents through both the digital and physical library of The University of Queensland, Australia as well as other universities and organisations in Australia and Bangladesh.

In-depth interviews are a data collection method commonly used in both case study research and social science qualitative research like tourism research (Berg & Lune, 2012; Bryman, 2012; Creswell & Clark, 2011; Kvale, 2007; Marshall & Rossman, 2011; Mason, 2002; McGehee, 2012; Moore et al., 2012; Punch, 2014; Yin, 2014). The interview is an explorative technique used to explore the opinions, perceptions, meanings of the concerned group of people regarding a process/project/program (MEANS, 1999; Punch, 2014; Yin, 2012). This study used a loosely structured (i.e. semi-structured) interview protocol (see Appendix 1) to interview a range of different stakeholders in the case study areas. Questions were open-ended and worded in a neutral, non-leading manner (Creswell, 2003; Moore et al., 2012) and designed to explore a number of issues related to ACM and social learning processes.

Though the term ‘co-management’ was familiar to most of the participants, the ‘ACM’ was not as widely known. Therefore, the researcher explained the term ‘ACM’ in a simple manner and related this term with the co-management approach. The researcher used simple language, often with examples. Most of the interviews were conducted in Bengali (official language of Bangladesh); however, English was also used for some of the participants. The interview schedule had been prepared in both Bengali and English to accommodate for the preference of participants and to ensure a wider range of participants were able to participate. All interviews were recorded (with prior permission) using a smart phone and/or voice recorder. The recordings were translated into English (in the case of Bengali responses) and transcribed for subsequent analyses.

A pilot test of the interview protocol was carried out to ensure that the protocol was effective, targeted and practical to operate in the field situation (Bryman, 2012; McGehee, 2012; Yin, 2011, 2012) as well as to increase the validity and reliability of the research (Jennings, 2010). Based on the judgement of the experts employed in the research consultation process (Forest Department, NGO officials or local community leaders), two informative participants were asked to engage in the pilot study. The sequence of questioning, follow-up questions, the language used in asking these questions, the feasibility of answering the questions for these participants and the approximate length of an interview were checked throughout these tests to prepare a revised interview protocol for the actual research interviews.

1.6.2.3 Sampling technique

This study utilised an adaptive purposive sampling strategy (Anderson, 2010; Creswell & Clark, 2011; Denzin & Lincoln, 2011; McGehee, 2012; Trochim, 2006; Turner, 2003; Yin, 2011). In such a strategy, multiple purposive sampling techniques are used to increase the possibilities of theoretical replication and theoretical generalization. Purposive sampling techniques select participants for how much can be learned from them (that is, they are information-rich sources) (Anderson, 2010; Creswell & Clark, 2007; Moore et al., 2012; Stern, 2008). In this study, there are two layers to the sampling: the case study sites and the interview participants who are involved in those case study areas. Purposive sampling was therefore useful for identifying both the case study sites where ACM was being applied, as well as the participants involved in those sites who had an in-depth knowledge about the application of the ACM governance approach.

First, a stratified purposive sampling technique was used. This sampling technique is based upon constructing subgroups in the samples in order to compare those groups and thus select the most appropriate potential participants (Flick, 2007). In this study, the participants were ‘stratified’

(categorised) according to their resident status and functions (e.g. local residents and officials), involvement in co-management and learning process, and participation in tourism activities. Next, a judgmental or expert sampling technique based on ‘experts’ judgment’ was exercised to select the important sample characteristics (Jennings, 2010; Trochim, 2006; Turner, 2003). Here, the Forest Department, NGO officials and local community leaders or seniors were regarded as ‘experts’ who could provide the information to identify suitable participants.

The objective of the sampling strategy was not to represent the whole population of the study area, but rather the participants were selected in favour of increasing the diversity of the participants of the area (Creswell and Clark (2007). As such, different types of local stakeholders were interviewed and this included participants from different socio-economic backgrounds: local level poor people living in and around the protected areas; educated and wealthy stakeholders involved in protected area management; pro-conservationists; and illicit resource users.

Sample size

In qualitative research it is common to collect data from a small number of samples (in this case, both the participants and case sites) with the aim of collecting detailed, in-depth information (Creswell, 2003; Creswell & Clark, 2011; Gerring, 2007; Smith, 2010). This is because a large sample may hamper the collection of detailed views or information (Creswell & Clark, 2007; Gerring, 2007). Two sites were selected as case study areas: Lawachara National Park and Sundarbans East Wildlife Sanctuary. At Lawachara National Park co-management approach started at the beginning of 2003, while co-management started later, in 2009 at Sundarbans East Wildlife Sanctuary. More detailed descriptions of these two case sites are discussed in two of the empirical studies (chapters 3 and 4).

Generally, qualitative researchers do not pre-define the sample size in qualitative research as this number may be only one or two participants (in the case of a narrative study) or up to 50 or 60 (for a grounded theory-based research) (Creswell & Clark, 2007). The sample size therefore is dependent on the context and type of the research (Creswell & Clark, 2007). For this study, the population from which participants were selected, consisted of officials involved in the management of the protected areas (Forest Department personnel, Co-management Committee and Council members, NGO employees who work for tourism in the protected areas) and local residents living in and around (within a 5-km radius from the boundary of the protected areas) the two protected areas examined in this study. It should be noted here that there were also local residents within these officials who represented in Co-management Committee and Council. The 5-km ‘local’ areas, measured from the boundaries of the protected areas, are officially known as the ‘landscape zone’. These are considered

regions where the protected areas usually have an impact on the lifestyle of the local people and where the local people are directly or indirectly dependent on the protected area. Different protected area-related projects in Bangladesh consider this zone as ‘protected areas project region’ (including the protected areas) and do so to create an awareness about issues related to the protected areas and to also ensure active participation in those project activities by local people. Here, Centre for Natural Resources Study (CNRS) and Community Development Centre (CODEC) were the partner NGOs of an on-going Climate Resilient Ecosystem and Livelihood (CREL) project at the Lawachara and Sundarbans areas. Their roles were to carry out awareness development activities as well as providing capacity-building support to the local residents. They were also responsible for creating and developing various tourism related facilities and motivating the local people to participate in various tourism interventions so that they could improve their socio-economic conditions. Moreover, there were some other NGOs (Rupantar Ecotourism and Relief International) within the Sundarbans area who trained and supported local residents to become tourism entrepreneurs.

A total of 47 interviews were conducted. Of these, 30 were with stakeholders from the Lawachara site and 15 with stakeholders from the Sundarbans site. The data from these interviews was then analysed to form two empirical studies: the sample size of the first empirical study is 45 (30 local residents and 17 official participants who were connected to both case study sites); and the sample size of the second empirical study is 30 (20 local residents and 10 official participants who were connected only to the Lawachara National Park case study site) (see Table 1.1). The sample size for the Lawachara National Park was higher than Sundarbans East Wildlife Sanctuary, for several reasons. Participants were more readily identifiable in Lawachara due to the fact that the park had been engaged in the process for much longer, and a larger number of local community members were engaged in the process.

Table 1.1: Overall method of the empirical studies

Title of essays	Study area	Sample size	Data collection tools
Manuscript 2: Tourism governance in protected areas: investigating the application of the adaptive co-management approach	Lawachara National Park	<ul style="list-style-type: none"> • Local residents: 20 • Officials: 10 	<ul style="list-style-type: none"> • Exploratory case study • Face-to-face interview using semi-structured questionnaire
	Sundarbans East Wildlife Sanctuary	<ul style="list-style-type: none"> • Local residents: 10 • Officials: 7 • Total: 47 	
Manuscript 3: Exploring social learning as a contributor to tourism destination governance	Lawachara National Park	<ul style="list-style-type: none"> • Local residents: 20 • Officials: 10 • Total: 30 	<ul style="list-style-type: none"> • Exploratory case study • Face-to-face interview using semi-structured questionnaire

1.6.2.4 Data analysis

The transcriptions of the interviews formed the data set for this study. The analysis of the data was guided by the seven phase data analysis procedure that is typical of qualitative studies (see Figure 1.3) (Marshall & Rossman, 2011). Each of the seven phases consisted of both data reduction and interpretation.

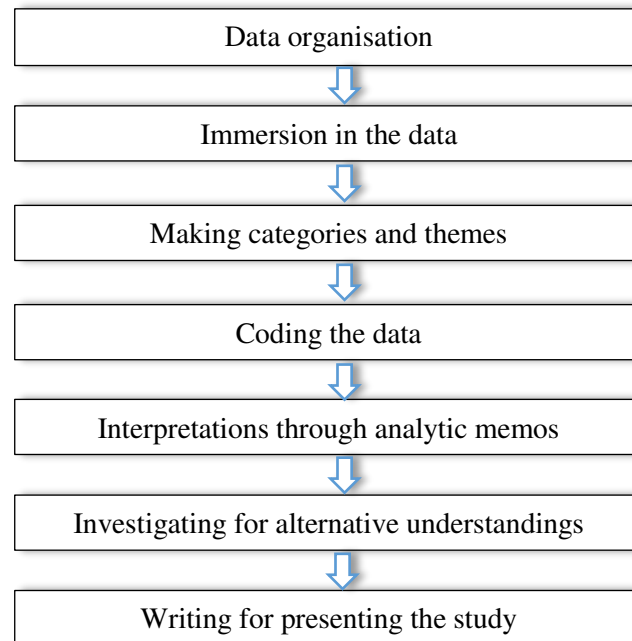


Figure 1.3: Steps of data analysis procedure
Source: Marshall and Rossman (2011).

The coding process was the starting point of the qualitative data analysis in this study (Bryman, 2012; Creswell & Clark, 2011) and involved indexing the data (Punch, 2014) to identify themes, patterns and general statements related to the case study research questions (Bryman, 2012; Creswell & Clark, 2011; Marshall & Rossman, 2011; Punch, 2014; Yin, 2009). To guide the coding process the researcher utilised specific research questions and a preliminary literature review during the development stage of the research (Creswell & Clark, 2011; Marshall & Rossman, 2011). In the coding process, the qualitative data were reviewed through careful reading to have both a general understanding, as well as to identify more specific patterns in the data. Memos (short phrases) were written to form general categories of information such as codes or level or themes. Broader themes were then formed based on the codes (Bryman, 2012; Creswell & Clark, 2007). Results have been presented as discussions of the themes and categories. Tables and figures, as well as quote excerpts have been used to present the findings of this study. Both manual coding techniques as well as NVivo

10 Windows were used to analyse the qualitative field data. Beside the primary data analysis, secondary data was also analysed as literature review through text analysis.

1.6.3 Ethical considerations

The research adhered to the ethical guidelines of the University of Queensland (Appendix 2). An application was made (Appendix 5) to the Chief Conservator of Forests (Bangladesh Forest Department under the Ministry of Environment and Forests) who is the gatekeeper and custodian of the protected areas of Bangladesh. Written permission was issued (see Appendix 6) from the gatekeeper prior to visiting the protected areas. Verbal permissions (although not required) were also received from each of the respective gatekeepers of the two protected areas. A 'Participant Consent Form' (Appendix 3) and a 'Participant Information Form' (Appendix 4) were provided to each participant to introduce the research project and its data collection process. Participants were informed that they could withdraw from the study at any time and that no identifying information would be stored or published from their interview. A summary outlining the project's findings will be provided to the research participants as well the local Forest Department office once the research has been completed. All the participants and the case study site authorities were acknowledged verbally and in written form by providing letters of thanks for granting their valuable time and contribution to the study.

1.7 Case site: Protected areas of Bangladesh

Bangladesh (People's Republic of Bangladesh) is a South Asian country classified as a lower middle-income economy (gross national income or GNI per capita ranges between US\$1006 and US\$3955, GNI per capita for Bangladesh is \$1330) (World Bank, 2017). Poverty is the most critical challenge facing the country. The current annual national poverty rate and extreme poverty rate in Bangladesh are 23.2% and 12.9% respectively (HIES [Household Income And Expenditure Survey], 2016).

Bangladesh is the largest delta (Ganges-Brahmaputra delta) in the world, dominated by diverse landscapes. The riverine country is full of natural, cultural and historical attractions. Different types of forests are an important natural resource of this country and have immense importance in terms of socio-cultural, economic and ecological contributions. Several forests have been designated as protected areas by the government of Bangladesh due to their rich biodiversity, scenic beauty, unique culture and historical diversity. These protected areas are important attractions for many tourists. Most of these protected areas are situated in the southern parts (along the coastal areas) and north-eastern parts of Bangladesh (Appendix 7). Though all of these protected areas have great potential

for tourism, the tourism sector has not yet been developed to the desired extent due to lack of proper tourism policy, planning, implementation and management.

The management of protected areas in Bangladesh is very challenging (Aziz, 2008; DeCosse et al., 2012; Rashid & Khan, 2014). Like other developing countries, the protected areas of Bangladesh are highly vulnerable to various natural and anthropogenic threats (Iftekhhar, 2006; Mollah & Kunda, 2004; The Independent, 2017), such as illicit felling, poaching, pollution, changes in land use patterns, poor application of various legal tools and management plans (Roy, 2004). Furthermore, a lack of governance is an issue impacting on the protected areas of Bangladesh (Nishorgo Support Project [NSP], 2008). Other broad issues such as population pressure, poverty, illiteracy, unemployment, and corruption at various levels all add further challenges to the management of the protected areas (AF [Arannayk Foundation], 2011; Studd, 2004).

1.7.1 Protected areas of Bangladesh

There are various definitions and forms of protected areas depending on their purpose, geographic location and legal contexts. National parks, wilderness areas, nature reserves, privately owned reserves, and wildlife sanctuaries are some of the examples of the different forms of protected areas. The International Union for Nature Conservation (IUCN) has defined a protected area as “a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values” (Dudley, 2008, p. 8). Alternatively, FAO [Food and Agriculture Organization] (2010) defined protected areas as “areas especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means”. According to the Wildlife (Conservation and Security) Act 2012 of Bangladesh (originally enacted in 1974, amended in 1994), a protected area is any area (land, wetland or water body) declared by the government as having natural, cultural, geomorphological, biodiversity and environmental significance, or to conserve forest and wildlife habitats, as well as to protect the culture and livelihood of local communities (Government of Bangladesh [GoB], 2012).

The rate of establishing new protected areas around the world has recently increased (Bushell & Bricker, 2017; Deguignet et al., 2014; IUCN, 2014; Stone & Nyaupane, 2016). The main objective of establishing these protected areas is to promote conservation and protection of natural and associated cultural resources of these areas. Effective and efficient management systems of these protected areas are identified as crucial means for achieving the objectives of the Convention on Biological Diversity and the UN Sustainable Development Goals (IUCN, 2017). Currently there are

approximately 210,000 protected areas around the world, covering 14.6% of the total land area and 3.41% of the marine areas (Deguignet et al., 2014). The establishment and expansion of protected areas is fundamental to offset the intense loss of biodiversity (Liu, Ouyang, & Miao, 2010). However, various pressures and threats (including encroachment, poaching, political power struggles, introduction of invasive species, pollution, fire regimes, and unplanned tourism and recreation) have converted these protected areas to ‘paper parks’ (parks without effective protective measures) which offer trivial real protective measures (Buckley, 2012). Nevertheless, there have been increasing pressures to create more protected areas both in developed and developing countries in order to conserve natural resources (Kirkpatrick, 2001).

In Bangladesh, there is currently a total of 51 protected areas (20 wildlife sanctuaries including 3 dolphin sanctuaries, 17 national parks, eight eco-parks, one marine protected area, and six other conservation sites, including botanical gardens, safari parks and a special biodiversity area) (Appendix 8). These 51 protected areas comprise of total 0.45m ha, which is only 3.06% of the total area of Bangladesh. Apart from one marine protected area, all of these protected areas are forest-based. Of all the total number of protected areas, 47.4% forest reserves have been established as new protected areas during last 10 years. The size of these protected areas varies from 1.37 ha to 173,800 ha. Currently the largest seven protected areas (>10,000 ha) comprise 85.1% of the total area of protected areas, while the 18-medium sized protected areas (>1,000-10,000 ha) comprise 13.3% and the 26 small sized protected areas (<1,000 ha) comprise only 1.6% (Appendix 8).

Two of the oldest protected areas of Bangladesh are Baldha Garden (1.37 ha, established 1909) and National Botanical Garden (84.21 ha, established 1961), both situated in Dhaka. These two botanical gardens were declared as protected areas under the Wildlife (Conservation and Safety) Act 2012. After the independence of Bangladesh in 1971, Bhawal National Park (5022.00 ha) in the Gazipur district (established in 1974 with official declaration through gazette made in 1982) was the first national park in Bangladesh formed immediately after the official approval of the Bangladesh Wildlife (Preservation) (Amendment) Act 1974. The aim of the national park establishment was to protect and preserve the outstanding scenic and natural beauty, flora and fauna in the natural state and allow access by the public for recreation, education and research purposes. The first wildlife sanctuary established was Char Kukri-Mukri wildlife sanctuary (established in 1981). It was established with the aim of prohibiting hunting, shooting or trapping of wildlife to thus ensure the protection of native wildlife and natural resources, including vegetation, soil and water.

The three (south, east and west) wildlife sanctuaries (total area 139,699.49 ha) of the Sundarbans were declared as a World Heritage Site by UNESCO in 1997. This region has also been declared as a Ramsar site (the wetlands listed under Ramsar Convention which have significant conservation values due to their unique natural resources and ecosystems). The Sundarbans is the single largest mangrove forest in the world; and, due to its uniqueness, has excellent potential as a tourism destination. The Sundarbans supports a unique range of flora and fauna, including mega fauna such as the Bengal Tiger, Estuarine Crocodile and the Ganges River Dolphin. It is believed that the forest Sundarbans is named by an endemic species of this forest- *Sundri* means beautiful tree (*Heritiera fomes*). There are 334 floral species (Amin, 2002) and more than 425 species of fauna (IUCN, 2011). However, this entire forest is currently facing a variety of challenges including the reduced flow of fresh water, pollution from nearby sea ports and up-stream unplanned land uses, as well as unplanned tourism. There is also a lack of integrity and coordination of the departments involved in its management and protection, and illegal use and exploitation of natural resources (Islam & Gnauck, 2009; WWF [World Wide Fund For Nature], 2017). The on-going construction of a coal-based power plant close to the Sundarbans has also added a new threat to the sensitive ecosystem.

According to the five-year (2016-2020) plan of the forestry sub-sector of Bangladesh, there is a target to increase the coverage of protected area by up to 15% of the total forest area of Bangladesh (Forest Department, 2017) (currently coverage of protected areas is 11%, while in 1990 it was only 4.4% (FAO [Food and Agriculture Organization], 2015). Furthermore, Bangladesh has signed and ratified a number of binding and non-binding international treaties, conventions, protocols, and agreements to strengthen the country's commitment to better managing protected areas through improved governance systems. These treaties and agreements include: Convention on Biodiversity (CBD), Convention on International Trade in Endangered Species (CITES), World Heritage Sites (WHS), Reducing Emissions from Deforestation and Forest Degradation (REDD), and Ramsar. As a result, protected area management and governance is a prime issue for Bangladesh in the context of natural resource management and various policies, plans, decision-making and development projects are being implemented to improve these areas. Examples of national arrangements being implemented to improve protected areas in the country include: National Forest Policy 2016, Bangladesh National Environment Policy 2013, Wildlife (Conservation and Security) Act 2012, Sundarbans Travel Rule, Compensation Policy for Casualties Caused by Wildlife 2010, Saw-mill (licence) Rule 2012, Forest Produce Transit (Control) Rules 2011, Biodiversity National Assessment and Program of Action 2020, and National Environmental Management Plan (NEMAP).

1.7.2 Management of protected areas of Bangladesh

1.7.2.1 Past management

The Forest Department has a long history of forest and protected area management in Bangladesh. This department was established in 1862 and started scientific forest management during the then British rule by the appointment of Sir D. Brandis as the Inspector General of Forest. A separate Forest Department was created for the Bengal region in 1876. In 1872 the British leaders established a Chittagong Forest Division as the first Forest Division, followed by Sundarbans Forest Division in 1879. During this period forests were considered useful from only a commercial point of view and hence managed primarily for revenue collection under the control of the Revenue Department. Subsequently, a forest management plan was prepared for each of the Forest Divisions and this was achieved through consideration of the commercial value of the forests. After the partition of British India in 1947, the then East Pakistan (now Bangladesh) Forest Service was created, comprising of East Pakistan Senior Forest Service and East Pakistan Sub-ordinate Forest Service. The Bangladesh Forest Department was established after independence of Bangladesh in 1971 (Forest Department, 2011).

The Bangladesh Forest Department functioned under the Ministry of Environment and was legally responsible for the management and protection of all the forest-based protected areas. The department managed the forest-based protected areas using a traditional top-down approach, with the assistance of different legal tools (rules and regulations). The Forest Department remained under the jurisdiction of Ministry of Agriculture and Forests until 1989. In 2002 the Wildlife and Nature Conservation Circle, functioning under the Forest Department, was created to manage and protect the biodiversity, habitats and ecosystems of the protected areas.

Before 1974, the protected areas of Bangladesh were governed under the Forest Act 1927 as production (commercial) sites. In 1974 the Bangladesh Wildlife (Preservation) (Amendment) Act was established and under the Act, the forests of the protected areas of Bangladesh were converted from production sites to conservation sites. The government tried to manage the biodiversity of the different protected areas by declaring these areas as ecologically critical areas, World Heritage Sites, Ramsar sites, and botanical gardens. Timber extraction was also banned from all reserved forests from 1989 in order to promote forest biodiversity, conservation and protection of these areas. Only non-timber forest products, considered as minor forest products (such as fish, shrimps, crabs, honey and some crustacean species) have been allowed to be extracted, however this has occurred on permit basis.

Local people were first involved in forestry management activities in 1979 and this occurred under the Betagi-Pomora Community Forestry Project in an effort to stop forest destruction. Subsequently, many successful social forestry projects have been implemented in Bangladesh with the direct participation of the local communities; these communities have also financially benefitted through such benefit-sharing schemes. Despite some participation by local communities during this time, while the Forest Department was the sole decision-maker in the management of Bangladesh's protected areas (1971-1989) participation by the local communities in the protected areas was limited. Furthermore, as the forests had the legal status of protected areas, there were many restrictions regarding access and the use of forest resources by the local people. Use of the protected areas by the local people often lead to conflicts between the Forest Department and the local communities due to their competing interests (AF [Arannayk Foundation], 2011; NACOM [Nature Conservation Management], 2004; Studd, 2004). Such conflicts led the Forest Department to file many legal cases against the local people; however, as the local communities were often the poorest section of the society the 'fence and fine' approach under taken by the Forest Department was not effective in protecting and conserving these protected areas as the fines were rarely paid by the local communities. This meant the health status of the protected areas continued to deteriorate during this time.

1.7.2.2 Present management

The traditional top-down management approach, which had been used up until the turn of the 21st century, was not effective in protecting Bangladesh's protected areas. In addition, the lack of strong governance systems impeded protected area development in Bangladesh, while also exacerbating poverty in the local communities (Ahammad, Hossain, & Husnain, 2014). Due to the multi-dimensional problems authorities experienced in trying to conserve and manage the protected areas of Bangladesh, the concerned authorities along with foreign donors started to develop alternative protected area management (Sharma, DeCosse, Roy, Khan, & Mazumder, 2007). This shift in thinking started to occur at the turn of the 21st century, when traditional top-down management systems were old fashioned and unpopular in favour of a bottom-up participatory management approach. Importantly, with this shift in thinking, the experiences and participation of local people in various social forestry projects were seen as integral to any management plan. As a consequence, local people started to become directly and actively involvement in the management of the protected areas.

Nowadays, governments are often advised to focus more on encouraging effective participation of local stakeholders in the planning and management of their local protected areas. Indeed, it has been

suggested that the success of protected area management and conservation depends on the acceptance and assistance of the local stakeholders (MacKinnon & Xie, 2008). Following the problems created by the traditional protected area management approach, a community-focused approach, specifically co-management, was selected as an approach to improve the conservation and governance of the natural resources of Bangladesh. The co-management approach was adopted to ensure the well-being of the surrounding local communities and to overcome the various conflicts among local and official stakeholders (Mollah & Kunda, 2004; Rashid & Khan, 2014; Sharma et al., 2007; USAID [United States Agency for International Development], 2017).

The Forest Department launched the co-management approach in five protected areas through implementing a pilot project called 'Nishorgo Support Project' (2003-2008) with the financial assistance of USAID (Nishorgo Support Project [NSP], 2008). The overarching objective of the Nishorgo Support Project was to conserve the biodiversity of the pilot protected areas. The focus of the project was to: create various alternative income generation activities (AIGAs); build capacity; ensure gender equity, develop and awareness of conservation issue by both local people and visitors; and the development and empowerment of various co-management organisations (CMOs) through ensuring sound governance in the management systems of protected areas (Ahammad et al., 2014; Mollah & Kunda, 2004). Following this pilot project, the Integrated Protected Area Co-management (IPAC) project (2008-2013) was implemented in 18 protected areas and currently the Climate-Resilient Ecosystems and Livelihoods (CREL) project is on-going (2013-2018) in 27 protected areas. The remaining protected areas are managed through the traditional protected area management approach by the Wildlife Management and Nature Conservation Divisions of Forest Department. The objective of both projects is to strengthen co-management institutions and build a climate resilient local community. A result of the implementation of these projects is a paradigm shift in the arena of protected area management in Bangladesh from traditional top-down protected area management to a bottom-up co-management approach and ultimately to a new form of governance 'adaptive co-management'.

It should be mentioned here that the technical term ACM has not yet been directly and explicitly used in the official documents of Bangladesh Forest Department or any other project document. However, several official reports and research documents have focused on adaptive management through lesson learning from co-management projects in protected areas and overtly prescribed to design further co-management projects by considering those lessons and learnings (see Belal, 2013; Chowdhury et al., 2009; Chowdhury, 2008; DeCosse et al., 2012; Fox, Bushley, Miles, & Quazi, 2008; Fox, Mustafa, Bushley, Brennan, & Durand, 2013; Mohammed, Inoue, & Shivakoti, 2017). For example, the lessons

and learning from the pilot co-management project ‘Nishorgo Support Project’ (2003-2008) (implemented in five protected areas) were applied to design and implement the follow-up project ‘Integrated Protected Area Co-management (IPAC)’ (2008-2013) to up-scale the co-management approach to other protected areas of Bangladesh. From the field experiences of IPAC project another follow-up project (CREL - Climate-Resilient Ecosystems and Livelihoods, 2013-2018) was designed specially to emphasise climate change and livelihood issues to strengthen and promote the co-management approach as an alternative to protected area management in Bangladesh. Adaptive management and resilience against the impacts of climate change in and around the protected areas have been emphasised in the CREL project. Several forest and wetland-based protected areas of Bangladesh have also been included under this new management approach. Likewise, it is expected that more protected areas will follow this approach in the near future.

ACM is a protected area management system which functions as a mode of governance to ensure a better administration system in and around the protected areas. In Bangladesh, the governance structure of many of its protected areas have been reformulated to improve the functioning of the protected areas through the ACM approach. In the ACM approach, all level of stakeholders (that is, government [national and international], NGOs [national and international], local community people, civil societies and private organisations) are strongly encouraged to participate and interact with each other. By encouraging such participation and cooperation, an aim of the ACM approach is to improve the socio-economic condition of the local community people over the long term thus it can promote conservation of these protected areas.

Stakeholder participation is encouraged through the development and use of CMOs, for example, Co-management Council and Co-management Committees (CMCs). These groups are considered to be legitimate management and governance bodies composed of multiple stakeholders and are responsible for making decisions related to their local protected area and its landscape zone (5-km zone from the boundary of protected area), as well as for implementing those decisions. The CMOs are composed of representatives from different local government administration authorities (including various departments for forests, fisheries, police, social welfare, youth and others), NGOs, civil society comprised of different groups or organisations working for the interests of the citizens, and local residents who are directly and indirectly dependent on the protected area resources. The organisations are responsible for the protection, management and conservation of their local protected area. The CMC, the executive management body is composed of 29 members, elected for two years and who are supposed to sit together regularly in meetings at least once in a month. The Co-management Council (composed of 65 members) is considered as the top hierarchy and general body

to whom the CMC is accountable. The members of CMC are elected from the members of Co-management Council. The structure of both CMC and Co-management Council is illustrated in Appendix 9.

The development of the CMOs have been important for encouraging stakeholder cooperation, developing awareness among local stakeholders as well visitors of conservation and environmental issues, and in facilitating the empowerment the local stakeholders. Opportunities to work in and with the local CMOs have generated interest and enthusiasm among the local community and other stakeholders in taking part in various conservation initiatives, such as awareness building activities and involvement in tourism-related enterprises (e.g. tour guiding, accommodation provision, handicrafts manufacturing and their marketing, grocery shop management). Activities in the protected areas are also mainly implemented through the various CMOs, thus giving management control to local stakeholders. The initiatives related to the CMOs and their activities have already contributed towards empowering the local community, so they can take ownership in their local protected area management system. However, despite these positive changes, there are challenges impacting on co-management initiatives and often these challenges are a result of approximately 90% of local people being categorised in the poor or ultra-poor categories. Because these poor communities are used to being directly or indirectly dependent on the natural resources of the protected areas for food and income, often they feel they have few other alternative options for their livelihoods. Hence they continue to practice activities such as illegal hunting or felling in order to survive (Shams, 2006).

As well as adopting a multiple stakeholder approach, learning is another important concept in ACM. The ‘learning-by-doing’ approach was used to generate important feedback on the various experimental activities in the protected areas. This was especially important during the initial stages of the implementation of co-management projects. Iterative formal and informal interactions among the local stakeholder groups, the official stakeholders (from different departments and sectors) and the NGOs facilitated the generation of new lessons and experiences; and the learning that occurred ultimately directed the refinement of activities for effective park management and protection.

Currently 27 protected areas in Bangladesh are managed under the ACM governance approach and in the future more protected areas are expected to be managed through ACM. This raises a question as to whether this new protected area management approach is really achieving ‘good governance’ to facilitate conservation and protection. Improvement of the protected area governance systems is indeed one of the objectives of applying the ACM approach in Bangladesh.

1.7.3 Tourism in protected areas of Bangladesh

Protected areas often make for attractive tourism destinations (Eagles, 2002; Figgis & Bushell, 2007; Newsome & Hassell, 2014; Weaver, 2008). Tourism in and around protected areas in developing countries are, if managed properly, able to support conservation and provide income generating opportunities for local peoples (Rome, 1999). It is also valid for the (forest-based) protected areas of Bangladesh where a considerable number of visitors visit every year.

Bangladesh is the largest delta (Ganges-Brahmaputra delta) in the world dominated by diverse landscapes. The riverine country is full of natural, cultural and historical attractions where forest areas are popular destinations for both domestic and international tourists. Among those forest areas, protected areas (see Appendix 7 and 8) are particularly attractive to tourists due to their rich biodiversity, scenic beauty and cultural diversity. Such areas include: the Sundarbans, Lawachara National Park, Bhawal National Park, Modhupur National Park, Satchari National Park, Himchari National Park, Kaptai National Park, Kuakata National Park, Ramsagar National Park, Bangabandhu Sheikh Mujib Safari Park in Gazipur and Cox's Bazar, National Botanical Garden.

Regulated tourism (particularly ecotourism) development has been identified as a crucial alternative income generation opportunity for the local people living in and around the protected areas of Bangladesh (Mollah & Kunda, 2004). Moreover, community-based (eco)tourism and cultural tourism have been suggested as potential types of tourism for the protected areas of Bangladesh (Alam, Furukawa, & Akter, 2010; Centre for Policy Dialogue [CPD], 2001; Elands et al., 2015; Iqbal, Salequzzaman, Haque, Islam, & Ahmed, 2010; Islam, 2010; Rahman, Roy, Anik, & Fardusi, 2013; Rahman, 2012; Saha, Ahmed, Roy, & Halder, 2015; Salam, Lindsay, & Beveridge, 2000). However, only controlled nature-based tourism should be permissible in these protected areas to ensure environmental goals are achieved alongside the improvement of the socio-economic situation of the local people. To this effect, a large number of legal acts, policy, rules and regulations have been enacted to support and facilitate tourism development in Bangladesh. The Bangladesh Parjatan Corporation (national tourism organization) was established in 1972 to develop and promote the tourism industry in Bangladesh. The Bangladesh Forest Department is also involved in developing various forest-based areas as tourist destinations.

There is, however, no separate and exclusive tourism development plan for these protected areas and, to date, any tourism planning that has occurred has only occurred within the scope of larger co-management projects. Since the introduction of the different co-management-based projects (Nishorgo Support Project, Integrated Protected Area Conservation Project and ongoing Climate-

Resilient Ecosystems and Livelihoods Project) in Bangladesh's protected areas, the Forest Department has started to promote nature-based tourism in these protected areas as an attempt to develop alternative income generation activities for local people and thus reduce their dependency on the natural resources. The development of tourism activities in these protected areas is an on-going operation, implemented through these various development projects with the aim of assisting the local poor community to participate in different tourism enterprises and initiatives by generating different tourist services and facilities. These activities are gradually becoming popular among both domestic and international visitors.

Visitor numbers to the protected areas of Bangladesh are not available. However, studies have claimed that tourism in these protected areas is becoming more popular (Elands et al., 2015; Haider & Kabir, 2014; Haque et al., 2016; Rahman et al., 2013). One study found that the average number of visitors to Lawachara National Park was more than 5,000 per month; 99% are domestic and 1% are international visitors (Islam, Ahsan, & Newaz, 2011). Another study shows, on more than 10,000 visitors to the Sundarbans during 2016-17 (Chakraborty & Eagle, 2017). These visitors create both positive and negative impacts on the host communities and the protected area environments. Although not an extensive body of literature, several studies have explored the positive and negative impacts of tourism on the protected areas of Bangladesh (Table 1.2).

Table 1.2: Impacts of tourism on the protected areas of Bangladesh

Tourism impacts	Study areas	References
<i>Positive impacts of tourism</i>		
Local resident benefits	Lawachara National Park, Satchari National Park, Rema-Kalenga Wildlife Sanctuary, Chunoti Wildlife Sanctuary, Teknaf Wildlife Sanctuary	Ahsan (2007); Elands et al. (2015); Islam (2009); M. W. Islam et al. (2011); Murshed and DeCosse (2012); Saha et al. (2015).
Tourism as an alternative income generation opportunity	Lawachara National Park, Satchari National Park, Rema-Kalenga Wildlife Sanctuary, Chunoti Wildlife Sanctuary, Teknaf Wildlife Sanctuary, Sundarbans, Madhupur National Park, Kaptai National Park	Ahsan (2007); Elands et al. (2015); Islam (2009); Haider and Kabir (2014); Haque et al. (2016); Islam, Iftekhar, and Islam (2011); Iqball et al. (2010); M. W. Islam et al. (2011); Mian, Khan, and Baten (2013); Murshed and DeCosse (2012); Rahman et al. (2013); Saha et al. (2015).
Human resource development for tourism	Lawachara National Park, Sundarbans, Bhawal National Park	Elands et al. (2015); Islam (2009); Haque et al. (2016); Mohd, Jusoff, Sheikh, and Yaman (2008); Murshed and DeCosse (2012).
Empowerment of ethnic minorities	Lawachara National Park	Elands et al. (2015).
Awareness of biodiversity conservation and environmental education	Lawachara National Park, Sundarbans, Bhawal National Park, Kaptai National Park	Elands et al. (2015); Islam (2010); Haque et al. (2016); Iqball et al. (2010); Islam, Rahman, Iftekhar, and Rakkibu (2013); Islam et al. (2013); Murshed and DeCosse (2012); Rahman et al. (2013); Salam et al. (2000).
Sense of ownership development on various tourism interventions	Lawachara National Park	Elands et al. (2015); Islam (2009); Murshed and DeCosse (2012).

Tourism impacts	Study areas	References
Preservation of culture	Lawachara National Park, Sundarbans, Kaptai National Park	Elands et al. (2015); Haque et al. (2016); Islam et al. (2013); Rahman et al. (2013).
Reduced vandalism, illicit felling and wildlife poaching	Lawachara National Park, Sundarbans, Madhupur National Park	Elands et al. (2015); Haider and Kabir (2014); Islam (2009); Islam et al. (2013); Mian et al. (2013).
Increased educational opportunities	Lawachara National Park, Sundarbans	Elands et al. (2015); Islam et al. (2013).
Improved infrastructure	Lawachara National Park	Elands et al. (2015); Murshed and DeCosse (2012).
Improved and participatory decision-making systems	Lawachara National Park	Elands et al. (2015).
Better interactions and learning from each other	Lawachara National Park	Islam, Ruhanen, and Ritchie (in press).
Better environment to implement co-management approach	Lawachara National Park, Sundarbans	Elands et al. (2015); Islam et al. (2013); Murshed and DeCosse (2012).
<i>Negative impacts of tourism</i>		
Destruction of plants, wildlife disturbance, noisy environment and vandalism by visitors	Lawachara National Park, Sundarbans	Ahsan (2007); Elands et al. (2015); Haider and Kabir (2014); Islam (2009); Salam et al. (2000).
Privacy disturbance of the local ethnic peoples by visitors	Lawachara National Park	Ahsan (2007); Haider and Kabir (2014).
Environmental pollution by picnickers	Lawachara National Park	Haider and Kabir (2014); Islam (2009); Salam et al. (2000).

Despite such positive findings, the protected areas of Bangladesh still have many challenges in developing sustainable tourism. Some of these major challenges that impede the protected areas from becoming more popular tourism destinations include: lack of proper tourism policy; poor marketing; poor communication systems; insufficient tourism services and facilities, and deterioration of the forest health. In addition, absence of integrated tourism plans, a lack of trained manpower in the tourism sector, and a shortage of finance are further challenges for tourism development in and around

these protected areas. There is great potential for tourism development if these challenges are addressed.

1.8 Overview of manuscripts

This thesis is comprised of three manuscripts (Table 1.3). An overview of each is provided in this section.

Table 1.3: Overview of the three manuscripts

Manuscript no.	Titles	Objectives
1	Adaptive co-management: A novel approach to tourism destination governance?	To conceptually examine ACM as a governance approach in the context of tourism destinations
2	Tourism governance in protected areas: investigating the application of the adaptive co-management approach	To investigate how an ACM approach to governance can facilitate or inhibit the achievement of key governance principles such as participation, accountability and transparency, power, rule of law, and social learning
3	Exploring social learning as a contributor to tourism destination governance	To explore how social learning is embedded in the governance of a protected area tourism destination

1.8.1 Overview of manuscript one

Manuscript one is based on a critical literature review of 80 academic papers published in the fields of tourism and natural resource management on the ACM and co-management approaches. The aim of this review paper is to explore the contribution of the ACM approach in facilitating tourism destination governance. While there is an extensive body of literature on ACM in natural resource governance and management, this paper notes there is a lack of studies exploring how the ACM approach can facilitate governance in tourism destination contexts, and specifically in developing countries.

The review of the research identifies four principles of ACM that may be considered in the context of tourism destination governance. These principles are: communication and collaboration; social learning; shared rights, responsibility and decision-making; and building adaptive capacity and resilience. Using these principles, a conceptual framework is then proposed in this paper, thus demonstrating the interconnectedness between the relationships among the four principles, as well as their connection to ACM processes, outcomes and variables within a tourism context. It is noted that

the four principles can directly and indirectly influence the governance system of tourism destinations. Given the gaps in the research identified in this paper, this conceptual ACM framework is proposed as a starting point for further empirical analysis in tourism destination contexts. The paper concludes with suggestions for future research on ACM as an approach to tourism destination governance.

1.8.2 Overview of manuscript two

Manuscript two addresses the research gaps identified in manuscript one; specifically the lack of empirical data on the application of ACM in tourism destination governance. Two protected areas of Bangladesh, Lawachara National Park and Sundarbans East Wildlife Sanctuary, are used as the context of this qualitative study. The study focuses on five principles of governance which were identified through the literature review and summarised in manuscript one and include: (i) participation (ii) accountability and transparency (iii) rule of law (iv) power, and (v) social learning.

The research findings indicate that the participants in the study were supportive of the ACM governance approach, which was seen to have transformed and improved the management and governance practices of these protected areas. Specifically, the findings show there were improvements in stakeholder participation and collaboration; the decision-making processes related to the management of the protected areas, and stakeholder awareness of environmental and conservation issues. With regards to stakeholder participation and collaboration, the implementation of the ACM approach was found to have contributed to a reduction in hostility and conflicts between stakeholders and was this reduction was largely a consequence of the increased participation and interactions that occurred among these different stakeholders' groups.

This increase in participation was also found to have occurred due to new institutional arrangements implemented with the introduction of the ACM approach, as well as through the joint planning and group-oriented of the ACM activities, which focused on protected area management, protection and conservation. In spite of increased participation of the local stakeholders in protected area management the study also shows that some of the local people were still engaged in illicit felling and poaching which hampered the conservation efforts in these protected areas. Insufficient incentives and capacity building for the local residents, lack of monitoring of project activities and lack of political commitments were the main reasons of such activities.

Increased participation and collaboration further resulted in an improvement in the accountability and transparency of the protected area management systems. As such, the ACM governance approach

was found to contribute to reducing the power distances that had previously occurred between the local people and the Forest Department, thereby also leading to an improvement in decision-making processes. Despite the improvement of accountability and transparency as well as reducing the power distance the corruptions amongst powerful stakeholders (usually political) in these protected areas were evident which hampered the overall decision-making process.

The establishment of various co-management organisations significantly enhanced awareness among the different stakeholder groups, thus motivating individuals to follow various rules and regulations that had been implemented to manage and protect their local areas. Social learning that occurred as a consequence of these organisations was also found to improve stakeholder awareness and knowledge of protected areas, thus further motivating participants to reduce those traditional activities that had historically placed pressures on the natural resources of the local protected areas.

Tourism was also found to have played a significant role in contributing to the positive development of these five governance principles. An overall application of the ACM process is outlined in manuscript two. Further research avenues are also identified, including the need to further explore the role of social learning in tourism destination governance.

1.8.3 Overview of manuscript three

Manuscript three examines in more detail one of the key aspects of the ACM approach: social learning; and by doing so responds to previously noted research gaps regarding the application of social learning in tourism contexts (Higham, 2012; Koutsouris, 2009; Wray, 2012). This paper uses social learning theory to explore how social learning underpins the process and outcomes of tourism destination governance through both observational learning processes and situated learning processes. It also explores how the social learning process is important for encouraging different stakeholders to collaborate, as well as the complex interactions and relationships among the stakeholders.

Using Lawachara National Park as the context for this case study, the study found social learning as an important component for tourism destination governance. It shows that stakeholders interact together to generate new knowledge and in doing so change their attitudes and behaviours, particularly towards the generation of different options for income generation (mostly tourism enterprises). Various stakeholders were also found to have enriched knowledge and experiences from engagement in social learning processes.

1.9 Thesis structure

There are five chapters in this thesis. This first chapter is the overall introduction to the thesis. Chapters two, three and four present the three manuscripts that address the aims and objectives of the study. All three manuscripts have been submitted to tourism journals ranked on the Australian Business Deans Council (ABDC) list and are currently under different stages of the process: manuscript one has been accepted for publication; manuscript two has been revised according to the reviewers' comments and re-submitted; and, manuscript three is under review. These three chapters have been presented here as the original manuscripts prepared for the publications in the peer-reviewed journals (apart from some minor adaptations and formatting styles that are prescribed by The University of Queensland, Australia). The concluding chapter five presents a broad discussion of the research findings and responds to the study's aims and objectives. Conclusions are drawn, including the contribution of the research to theory and practice. Figure 1.4 outlines the overview of this thesis.

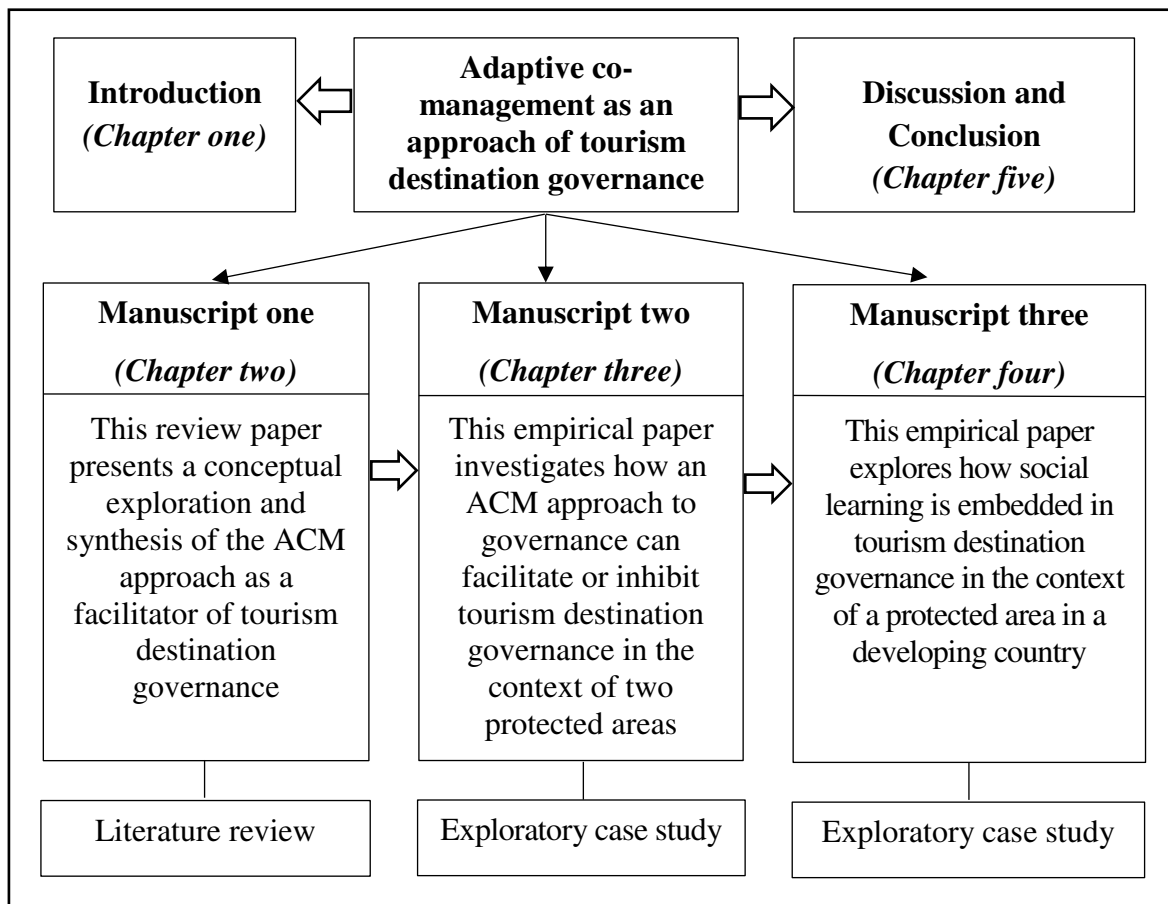


Figure 1.4: Structure of the thesis

CHAPTER TWO: MANUSCRIPT ONE

Adaptive co-management: A novel approach to tourism destination governance?

This chapter has been published as a research article in the Journal of Hospitality and Tourism Management. This article is co-authored by L. Ruhanen and B. W. Ritchie.

Abstract

Although tourism destination governance has been a subject of academic enquiry for some time now, in practice, governance is still a challenge for many tourism destinations around the world. Adaptive co-management (ACM) is a dynamic approach to governance whereby institutional arrangements and ecological knowledge are continually revised through a process of 'learning-by-doing'. Founded on the active participation and collaboration of diverse stakeholder groups, ACM has been used extensively in the governance of natural resource contexts and so may offer valuable synergies for tourism governance; particularly the governance of tourism in protected areas. This review paper presents a critical review and synthesis of the ACM literature, identifying synergies and opportunities for enhancing tourism governance practices in protected area contexts through an ACM approach. A conceptual framework is developed from the review that identifies principles, stages, variables and expected outcomes of the ACM approach. Future research directions for ACM in tourism are proposed that incorporate governance, social learning and multiple stakeholder engagement.

Keywords: adaptive co-management; collaboration; governance; protected areas; social learning; tourism

2.1 Introduction

Tourism destinations are recognised as complex governance contexts because of the multiple, and often competing, stakeholder groups involved in producing and delivering the tourism products and services (Baggio et al., 2010; Jamal & Stronza, 2009; Kuenzi & McNeely, 2008; Larson & Poudyal, 2012). Further factors such as skewed power relationships (often) between government, wealthy elites, and local residents serve to further complicate the governance of tourism destinations, as well as the fact that tourism is a fragmented sector and so leadership is often lacking (Scott & Marzano, 2015). Certainly in tourism there have been calls for several decades to more actively engage a wider

range of stakeholders, particularly local residents, in planning and decision-making for tourism (see for examples of Turkey Tosun, 2000; Tosun, 2006).

Increasingly governance has been seen as a means of overcoming conflict and power between destination stakeholders, and addressing the complexity that arises from the many and varied internal and external agencies and organisations which impact on the functioning of a tourist destination (Laws, Agrusa, Scott, & Richins, 2011). Governance refers to “the interactions among structures, processes and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say” (Graham et al., 2003, pp. 2-3). Though difficulties remain (Bramwell, 2011), governance has progressively become an integrated system to generate and implement the management and planning processes required for a sustainable destination by minimising adverse impacts and maximising benefits for local communities (de Bruyn & Alonso, 2012).

The complexities of tourism destination governance are further exacerbated when the tourism destination is also a protected area setting. Protected areas, such as national parks and wilderness areas now cover more than 15.4 per cent of the Earth's surface and are often important locations for tourism activity (Deguignet et al., 2014; Eagles et al., 2002). However, the challenge arises as tourism takes place in important reserves of natural and cultural heritage which are dedicated to the conservation of species, ecosystems and landscapes. As such, the range of stakeholders, interests and decisions that must be incorporated in managing tourism in protected areas extends quite considerably beyond those normally engaged in tourism destination governance. The impacts of habitat destruction, pollution, population growth, and species loss are further factors that complicate already tenuous governance systems.

In some countries, tourism in protected areas is affected by poor governance systems (Eklund et al., 2011; Zafarullah & Huque, 2001). This ‘poor’ governance is evident in terms of little cooperation and coordination among stakeholders of diverse policy and sector domains, as well as within tourism itself; divergent types of stakeholders (e.g. government, private and NGOs; local, regional, national and international) with competing interests, beliefs and priorities; lack of collective actions; and conflict over the competing use of resources (Bramwell, 2011; Bramwell & Lane, 2000). As such, in natural resource management contexts more generally, much attention has been given to the transition away from traditional top-down or ‘command and control’ approaches to more inclusive and dynamic approaches to governance. Previous approaches are generally recognised as failing to adequately incorporate the interests of the wide range of stakeholders who can affect, or are affected by,

management decisions (Armitage et al., 2009; Ostrom, 2009; Pahl-Wostl, 2009; Plummer & Fitzgibbon, 2004a). In response, various approaches and models have been proposed to address the challenges of natural resource governance including co-management (see Abrams, Borrini-Feyerabend, & Gardner, 2003; Beaumont & Dredge, 2010; Borrini-Feyerabend, Johnston, & Pansky, 2006; Eagles, 2008, 2009; Graham et al., 2003).

‘Adaptive co-management’ (ACM) extends and advances the co-management approach while also drawing on the related concept of ‘adaptive management’ with the broad objectives of enhancing and sustaining natural resources and improving the social-ecological resilience of environmental systems (Armitage et al., 2007a; Plummer & Fennell, 2009). The ACM approach is also predicated on the participation of diverse stakeholder groups (including local community residents) in decision-making and management, as well as adaptive learning (i.e. learning-by-doing) to enhance the governance approach (Armitage et al., 2007a; Ostrom, 2009; Stankey & Allan, 2009).

The ACM concept has been used in cases of natural resource management, particularly forestry (including wildlife), protected areas, fisheries (including marine and different wetland ecosystems) over the last three decades as an alternative to traditional natural resource management approaches (Armitage et al., 2011; Berkes, 2009; Borrini-Feyerabend et al., 2000; Butler et al., 2015; Chen et al., 2016; Erickson, 2015; Fennell et al., 2008; Galappaththi & Berkes, 2015; Plummer & Fennell, 2007; Trimble & Berkes, 2015), and most recently in the context of climate change adaptation (Baird, Plummer, & Bodin, 2016). These studies have focused on testing various ACM concepts such as linking co-management and adaptive management, the role of ACM in resolving natural resource conflicts, and ACM as a means of enhancing governance systems.

This review paper presents the findings of a comprehensive critical analysis and synthesis of the ACM literature. Given the complexities of tourism destination governance, it has also been suggested that ACM may have synergies for tourism contexts (Chen et al., 2016; Fennell et al., 2008; Lai et al., 2016; Mbaiwa, 2011; Pennington-Gray et al., 2014; Plummer & Fennell, 2009; Romeiroa & Costab, 2010). From a review of 80 published articles on related to ACM (including adaptive management and co-management), it was found that ACM is based on four inter-connected principles including; communication and collaboration; social learning; shared rights, responsibility and decision-making; and, building adaptive capacity and resilience. These principles are explored and form the basis of a conceptual framework for utilising ACM in tourism and protected area governance. The conceptual framework provides guidance for areas of future research which are outlined and discussed.

2.2 Adaptive co-management

The interdisciplinary term ‘adaptive co-management’ has been defined and conceptualised differently by several authors. For instance, Armitage et al. (2007b, p. 328) define ACM as a “process whereby institutional arrangements and ecological knowledge are tested and revised in an ongoing, self-organised and dynamic process of learning-by-doing”. Olsson et al. (2004) add that dynamic learning occurs via collaboration or what they describe as a ‘community-based system’ (p. 75). ACM has also been described as a paradigm of governance that while underpinned by iterative learning, also aims to establish linkages, and share rights and responsibilities between stakeholders (Nancy, 2008). Although these definitions each have subtle differences, the common theme is that learning and collaboration are fundamental aspects of the ACM approach.

ACM is generally seen to be appropriate in contexts characterised by uncertainty or complexity, or where existing governance processes are unable to establish the necessary social connections amongst stakeholders to develop agency and collaborative actions (Baird et al., 2016). It may also be appropriate in situations where local communities are disempowered such as in developing countries where poor governance systems and other constraints to stakeholder collaboration are evident (Tosun, 2000). Here, the ACM approach has been credited with creating a ‘level playing field’ for disempowered groups by seeking to embed a wider range of stakeholder groups in decision-making processes (Colfer, 2005) as well as creating a fora for collaborative learning (Armitage et al., 2009; Berkes, 2007).

Through an ACM approach, collaborative learning takes place through both formal (i.e. training) and informal (i.e. communication and interaction) measures, as well as ‘learning-by-doing’ (i.e. experimentation). The ACM approach seeks to transition from *transmissive* expert-based teaching (i.e. objective or content knowledge) to *transformative* community-based learning (i.e. contextual knowledge). It has been suggested that such transformative community-based learning can lead to stakeholder empowerment, improved adaptive capacity and social capital (Capra, 2007). It has also been found to create a learning culture where diverse stakeholders construct consensus and a shared understanding of their communities and the actions required (Prabhu et al., 2007). This can extend to the defining of issues, developing management plans and monitoring processes (Berkes, 2009; Ruitenbeek & Cartier, 2001).

2.3 Adaptive co-management principles

An extensive review of more than 80 ACM academic articles was undertaken. Papers were identified through Scopus, Science Direct and Google Scholar and given the origins of the concept the vast majority were focused on ACM in natural resource management contexts (i.e. water and flood plains, landscapes, forestry and fisheries). Several studies were included from fields such as climate change, tourism and wildlife. The studies were a mix of conceptual and empirical with the concept explored in a range of contexts including developed and developing countries such as United States, Canada, Australia, Indonesia and India (Baird et al., 2016; Behera, 2009; Butler et al., 2016; Colfer, 2005; Hoggarth et al., 1996; Olsson et al., 2004). A variety of methods were employed in the analysed studies including quantitative (i.e. questionnaires with natural resource users), qualitative (i.e. in-depth interviews with affected stakeholder groups) and mixed methods (i.e. cross case studies) (Armitage et al., 2009; Beaumont & Dredge, 2010; Butler et al., 2015; Carlsson & Berkes, 2005; Cundill & Fabricius, 2009).

In analysing the papers it was found that there were four key principles or features that were consistently identified as underpinning the ACM approach: communication and collaboration; social learning; shared rights, responsibility and decision-making; and, building adaptive capacity and resilience (Table 2.1). Each of these principles is discussed further below. The key outcomes identified in these studies are discussed under each of the four principles.

Table 2.1: ACM principles and features

Principles	Features	Key studies
Communication and collaboration	Interactions, participation and pluralism, cooperation and partnerships	Prabhu et al. (2007); Armitage et al. (2007b); Armitage, Marschke, and Plummer (2008); Berkes (2007); Chen et al. (2016); Cundill and Fabricius (2009); Leon, Scott, and Jill (2013); Towner (2016); Armitage et al. (2009); Berkes (2009); Bown et al. (2013); Mbaiwa (2011); Park, Lee, Choi, and Yoon (2012); Richardson (2015); Trousdale (1999); Schusler et al. (2003); Ruitenbeek and Cartier (2001); Folke, Hahn, Olsson, and Norberg (2005)
Social learning	Working and learning together, social dynamics, shared understanding and intentional learning, social capital, trust building, transfer of knowledge and skills	Berkes (2009); Bos, Brown, and Farrelly (2013); Doubleday (2008); Diduck (2010); Armitage et al. (2011); Khadka and Vacik (2008); Ridder et al. (2005); McCool and Guthrie (2001); Paquet (1999); Pahl-Wostl (2009); Pahl-Wostl (2006); Eklund et al. (2011)
Shared rights, responsibility and decision-making	Decentralization and devolution, governance, institution building, power sharing, empowerment, negotiation and conflict management	Paquet (1999); Carlsson and Berkes (2005); Armitage et al. (2007a); Berkes (2007); Butler, Middlemas, Graham, and Harris (2011); Cundill and Fabricius (2009); Solstrand (2015); Doubleday (2008); Fabricius and Currie (2015); Karanth and Nepal (2012); Behera (2009); Bhattacharya, Pradhan, and Yadav (2010); Buchy and Hoverman (2000); Tosun (2000); Tosun and Jenkins (1996); Kalikoski and Allison (2010); Maskey, Gebremedhin, and Dalton (2006); Nagendra, Karmacharya, and Karna (2005)
Building adaptive capacity and resilience	Complex systems thinking and problem solving, joint planning and visioning, social-ecological system complexity and uncertainty	Plummer and Armitage (2007); Smedstad and Gosnell (2013); Wesche and Armitage (2010); Worboys et al. (2005); Dearden et al. (2005); Armitage et al. (2007a); Prabhu et al. (2007); Eagles et al. (2002); Olsson et al. (2004); Bec, McLennan, and Moyle (2016); Butler et al. (2015); Erickson (2015); Flores (2014); Galappaththi and Berkes (2015); Trimble and Berkes (2015)

2.3.1 Communication and collaboration

Effective communication and collaboration amongst diverse stakeholder groups was identified as the key principle of an ACM approach. It was consistently recognised in the literature that the ACM approach can provide a platform for the active involvement of different stakeholder groups in decision-making (Prabhu et al., 2007) and governance. For instance, studies have found that the ACM approach has contributed towards enhanced facilitation, coordination and collaboration amongst stakeholder groups (for examples see Armitage et al., 2007b; Armitage et al., 2008; Berkes, 2007; Chen et al., 2016; Cundill & Fabricius, 2009; Leon et al., 2013; Towner, 2016). The enhanced communication has also been found to increase stakeholders' understanding of natural resource management, thus building local capacity (Armitage et al., 2008; Armitage et al., 2009; Berkes, 2009; Bown et al., 2013).

The collaboration that occurs through an ACM approach has also been credited with facilitating the building of trust, managing conflict and enhancing negotiation, as well as sharing power and rights (Armitage et al., 2009; Berkes, 2009; Mbaiwa, 2011; Park et al., 2012). A caveat has been added however that, to be successful, there is a need for active and effective horizontal and vertical communication (for existing and new relationships respectively) amongst stakeholders if joint decision-making is to be successful (e.g. Berkes, 2009; Bown et al., 2013; Richardson, 2015; Trousdale, 1999).

An ACM approach will often dictate the need for creating new institutions such as co-management committees and other bodies that can facilitate cooperative relationships (Schusler et al., 2003). Such new institutions have been found to better enable local stakeholders to participate and contribute to different phases of the decision-making process (Eagles et al., 2002; Niedziałkowski et al., 2012). However, others have questioned the benefits of creating new institutional structures to support the ACM process. For instance, it has been suggested that the conflict that can emerge through this process (for example setting up new committee structures, membership on decision-making boards, etc.) can in fact add further new conflicts to the setting (Ruitenbeek & Cartier, 2001). As such, it has been suggested that instead of creating new institutions through the ACM process, existing institutions could be modified to incorporate a broader range of functions and stakeholders (Folke et al., 2005).

While collaboration and increased communication is a key objective of the ACM approach, there are a number of barriers to achieving this in practice. Certainly, the uneven power between stakeholder groups, power struggles and stakeholders with vested interests can all undermine the success of the

process. For instance, there have been a number of documented examples where influential (often political) stakeholder groups have exerted their power over the decision-making process and outcomes (Lai, Hsu, & Nepal, 2013; Ruhanen, 2013; Tosun, 2006); thus undermining the process. Like collaborative management processes more generally, tokenistic participation can be a factor, as well as the ability of all stakeholder groups to sufficiently understand the issues and actions required to affect needed changes. In this case, the learning that occurs through an ACM approach becomes even more important.

2.3.2 Social learning

Learning is an important feature of the ACM approach, in particular, social learning. Social learning is defined as “the collective action and reflection that takes place amongst both individuals and groups when they work to improve the management of the interrelationships between social and ecological systems” (Keen et al., 2005, p. 4). Others describe social learning as “learning together to manage together” (Ridder et al., 2005, p. 11). Diduck (2010, p. 202) elaborates and describes social learning as ‘action group learning’ and defines it as “the processes by which individual learning outcomes become part of a web of distributed and mutual outcomes in a collection of individuals”. Here, the action group is composed of individuals forming cohesive but comparatively informal associations with often short lifespans to focus on targeted objectives and tasks.

The ACM approach is predicated on a process where new knowledge is generated (scientific and traditional/local) and learning occurs that is both interactive and iterative. Interactive learning generally occurs through the process of collaboration and interaction between the stakeholder groups (Berkes, 2009; Bos et al., 2013). Whereas iterative learning, or ‘learning-by-doing’, links to the adaptive management aspects of ACM (Doubleday, 2008) where stakeholders are engaged in designing and monitoring the effects of management interventions and actions, contemplating the impacts of these, and adjusting further action on the basis of lessons learnt. As such, learning is flexible and customised to specific places and situations, as well as different scales, stakeholders and organisations (Diduck, 2010).

In reviewing studies of ACM in natural resource contexts it was found that social learning had been particularly beneficial for addressing conservation issues (Armitage et al., 2011; Berkes, 2009). For instance, a study of forest management in Nepal showed that social learning had led to a shared and deeper understanding of conservation and poverty reduction between the different stakeholder groups (Khadka & Vacik, 2008). (Ridder et al., 2005) suggests that social learning can be most beneficial when: (i) there are stakeholders with different interests and resources; (ii) there is interdependency

amongst stakeholders to achieve their objectives; (iii) there is no existing agreement on the concerned problem; and, (iv) there are important issues to which the stakeholders need to devote their resources, such as money and time.

On the other hand, the success of social learning can be constrained by a number of the same barriers noted elsewhere including mistrust, conflict and competition amongst stakeholders, as well as access to information and knowledge (McCool & Guthrie, 2001). Additionally, less powerful participants may lose 'voice' in establishing consensus and mutual understanding. As such, it has been suggested that highly contested issues might not be appropriate to explore through social learning processes (Diduck, 2010; Schusler et al., 2003).

2.3.3 Shared rights, responsibility and decision-making

Shared rights, responsibility and decision-making are a further feature of the ACM process; within the literature, these principles generally refer to the legal and participatory empowerment of local communities (Armitage et al., 2007a; Berkes, 2007; Butler et al., 2011; Cundill & Fabricius, 2009; Solstrand, 2015). In particular, the co-management dimension of ACM emphasises the importance of shared or joint rights, responsibilities and decision-making power (Doubleday, 2008). This has been particularly effective in settings where there are shared land and/or resources and so further resonates with tourism in protected area contexts. For instance, Fabricius and Currie (2015) found ACM was useful in decentralizing natural resource or common pool resource management. In the case of forest management in Nepal (Karanth & Nepal, 2012) and joint forest management in India (Behera, 2009; Bhattacharya et al., 2010; Buchy & Hoverman, 2000), the decentralization of responsibility and the increase in shared rights were found to have an overall improvement on the management of local shared resources.

Carlsson and Berkes (2005) emphasise the importance of defining and negotiating the scope of shared rights and responsibilities. They note that ambiguous rights and responsibilities of different stakeholder groups will be likely to lead to conflict over resource use. Certainly, this aspect of ACM is fraught with contention. For instance, in many countries and contexts, government and other powerful stakeholder groups are unable or unwilling to divest their power or decision-making responsibilities (Kalikoski & Allison, 2010; Maskey et al., 2006; Nagendra et al., 2005). Lack of political commitment, top-down management, conflict, weak coordination, tokenism, and bureaucracy all contribute to undermine this aspect of governance (Batterbury & Fernando, 2006; Fisman & Gatti, 2002; Kalikoski & Allison, 2010; Tacconi, 2007).

In developing countries, governance systems are often characterised by corruption and skewed power relationships amongst stakeholders (Borrini-Feyerabend, 2003; Fabricius & Pereira, 2015; Pahl-Wostl, 2009; Snyder & Sulle, 2011). Coupled with additional inhibitors such as poverty, illiteracy, and access to decision-makers, the participation of local stakeholders in natural resource management and governance is often lacking or inefficient in such countries (Tosun, 2000; Tosun & Jenkins, 1996); a situation that arguably challenges the overall progress of developing countries (Jeffery, 2005; Pahl-Wostl, 2009; Snyder & Sulle, 2011).

Several studies have examined the decentralization of local institutions as well as political decentralization to facilitate economic development, rights and democratic culture and values. The objective is to facilitate overall local empowerment through improving governance systems (Batterbury & Fernando, 2006; Fabricius & Currie, 2015; Fisman & Gatti, 2002). Yet, often decentralization is not the expected panacea as it can create new conflicts and nepotism among stakeholders, lead to further corruption, and the emergence of new political actors who have a platform to enforce their power and control in local resource management (Batterbury & Fernando, 2006; Fabricius & Currie, 2015).

2.3.4 Building adaptive capacity and resilience

Building adaptive capacity and resilience amongst local stakeholders is an important objective and outcome of an ACM approach and this aspect was consistently identified through the review. Indeed, a number of authors have supported the importance of interactive and iterative learning amongst stakeholders in building local adaptive capacity and resilience (Armitage et al., 2007a; Eagles et al., 2002; Flores, 2014; Olsson et al., 2004; Prabhu et al., 2007). In natural resource and protected area contexts, adaptive capacity and resilience can include overcoming natural resource crises, addressing sustainability, and facilitating the development of sustainable livelihoods (Plummer & Armitage, 2007).

Previously noted principles such as enhanced collaboration and communication, as well as social networking, social learning, and linkages between different levels and scales of organisations and institutions, have all been found to positively contribute to the building of local adaptive capacity and resilience (Armitage et al., 2007a; Bec et al., 2016; Butler et al., 2015; Eagles et al., 2002; Erickson, 2015; Flores, 2014; Galappaththi & Berkes, 2015; Olsson et al., 2004; Prabhu et al., 2007; Smedstad & Gosnell, 2013; Trimble & Berkes, 2015). For instance, Smedstad and Gosnell (2013) conducted a study on natural resource planning and management in seven public riparian areas in the western

United States and found that the ACM strategy adopted, particularly the interactive and iterative learning, had led to greater social and ecological resilience amongst the local stakeholders.

In study of a northern Aboriginal community of Canada they found that developing community-level adaptive capacity through collaborative initiatives had improved the environmental resources of the community (Wesche & Armitage, 2010). In this case, technical and financial solutions were prescribed as short-term adaptations, while addressing the underlying structural principles of the social and institutional systems of the area were seen as long-term adaption strategies. Furthermore, the development of social and cultural capital, enhanced education, knowledge transfer and human resource development all had a positive impact on the adaptive capability of the local community in this case (Wesche & Armitage, 2010). Other authors have supported such findings noting that ACM approaches have enhanced local adaptive capacity and resilience which has in turn led to improved living standards for local people (Dearden et al., 2005; Worboys et al., 2005).

2.4 ACM conceptual framework

The characteristics of protected areas and the complexity of tourism supply in these contexts suggest that ACM may be a valuable practical approach to governance (Flores, 2014; Panyik, 2015). As such, the objective of this paper was to conceptually explore the application of ACM to the governance of protected area contexts which also serve as tourism destinations. Based on the extensive review and synthesis of the ACM literature discussed above, a conceptual framework is proposed that depicts the relationships amongst the four identified principles of ACM (communication and collaboration; social learning; shared rights, responsibility and decision-making; and, building adaptive capacity and resilience), alongside variables, processes and outcomes of an ACM approach (Figure 2.1). The framework is designed around the interconnected ‘lesson and learning’ aspect of the feedback mechanism that underpins the ACM approach. It is not proposed to be unidirectional or linear; instead cyclical and continuous in nature where the principles of ACM are dynamic and underpin all areas of governance.

ACM is an approach to governance but is also a process (British Columbia, 2013; Ruitenbeek & Cartier, 2001; Doubleday, 2008) and so can be conceived in two stages: a pre-implementation stage (consultation/problem assessment, planning and design) and a post-implementation stage (implementation, monitoring, evaluation, and applying remedies and adjustments). Both stages are underpinned by the four ACM principles outlined previously. Certain principles, however, may be more prominent at different stages of the process. For example, if we consider the ‘consultation/assess the problem’ stage, both ‘communication and collaboration’ and ‘social learning’ principles would

be relevant. Here, this would involve collaboration amongst stakeholders to identify, consider and discuss relevant issues and challenges for the destination. Each of the principles would also underpin the implementation stage. For instance, 'building adaptive capacity and resilience' will support stakeholders to implement actions arising from the process such as the development of new tourism products or services in the destination.

The conceptual model incorporates a range of variables that can also influence the ACM process. These are adapted from Plummer et al. (2012) who identified 12 distinct variables including learning, knowledge, networks, shared power, organisational interactions, trust, leadership, enabling conditions, conflict, shared responsibility, bridging organisations and incentives. These variables influence the process and its outcomes, but again are inter-related and apply to both the identified ACM principles and ACM process (Figure 2.1).

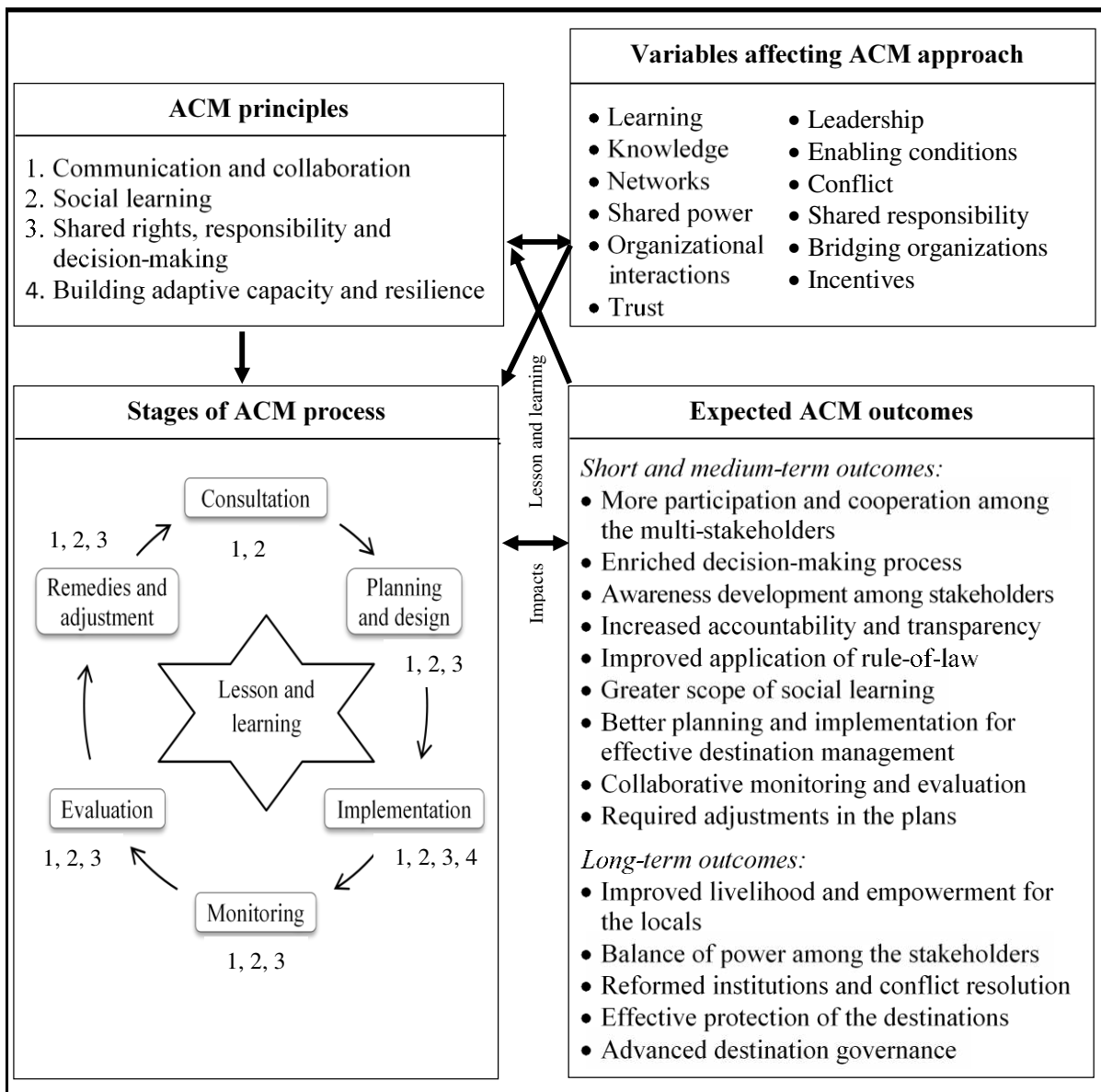


Figure 2.1: A conceptual framework of tourism destination governance with particular reference to protected areas through ACM approach

Sources: Adapted from; Armitage et al. (2008); Armitage et al. (2009); Berbés-Blázquez (2011); Berkes (2007); British Columbia (2013); Butler et al. (2016); Chapman et al. (2016); Charles (2007); Cundill and Fabricius (2009); Olsson et al. (2004); Pinkerton (2007); Plummer et al. (2012); Plummer and Fitzgibbon (2004a); Tai (2015).

The conceptual framework also includes potential or expected outcomes; short to medium term as well as long-term that can arise from the ACM process. It was identified through the review of previous ACM studies that in the short to medium term the ACM process had led to improved engagement and participation of more stakeholders in decision-making, improved accountability and transparency of stakeholder groups, and enhanced awareness and social learning (Berbés-Blázquez, 2011; Butler et al., 2016; Chapman et al., 2016; Charles, 2007; Chen et al., 2016; Kusumawati &

Huang, 2015; Lai et al., 2016; Levine, 2015; Pinkerton, 2007; Plummer, Kulczycki, & Stacey, 2006). Longer term outcomes have been found to include improved local livelihoods through alternative income generation activities, local community empowerment and more balanced power relationships amongst stakeholders, the establishment of new more collaborative institutions; and improved conflict resolution (Butler et al., 2015; Fabricius & Pereira, 2015; Levine, 2015; Mbaiwa, 2011; Pennington-Gray et al., 2014).

There are of course limitations and barriers of the ACM approach, and these would equally apply in tourism and protected area contexts. The extent to which the principles and variables legitimately underpin the process will be crucial to success and determine the extent to which the outcomes can in fact lead to enhanced governance. For instance, a lack of stakeholder capacity and tokenistic engagement has been found to create barriers to effective collaboration (Ruhanen, 2013). Further, an ACM approach is time consuming to implement as well as to gain acceptance and buy-in from the various stakeholder groups involved (Bown et al., 2013). Moreover, it is resource intensive, particularly in terms of human and financial resources (Bown et al., 2013; Cundill & Fabricius, 2009; Fennell et al., 2008). Others have noted that ACM can still be undermined by the influence of powerful stakeholders (often political) in the process which can create barriers to engaging less powerful stakeholders (Cundill & Fabricius, 2009; Khadka & Vacik, 2008).

However, the extensive literature on ACM suggests that, in other contexts such as natural resource management, the approach has been reasonably successful in addressing these inherent problems that often arise in collaborative settings. For instance, social learning has been found to create enabling conditions for not only learning but also collaboration. Social learning has also been found to support the establishment of shared rights, responsibility and decision making which in turn has been credited with resolving power struggles, mediating political influence and overcoming tendencies to revert to top-down decision making approaches (Lai et al., 2013; Tosun, 2006). In turn, this can reduce barriers to trust and enhanced conflict resolution (Batterbury & Fernando, 2006; Butler et al., 2015; Colfer, 2005; Fisman & Gatti, 2002; Leys & Vanclay, 2011; McCool & Guthrie, 2001).

The ACM framework is conceptual and is proposed as a starting point for further application and empirical testing in tourism and protected area contexts. The various challenges facing the governance of these areas were outlined previously and ACM may offer more practical steps to enhance governance. Maintaining the integrity of the protected area resources is important in continuing to attract visitors that can create revenue streams and improve the livelihood of the local communities. For example, Schultz, Duit, and Folke (2011) proposed the use of the ACM approach

for 146 UNESCO Biosphere Reserves as a means of reaching sustainable development goals as well as conventional conservation goals. Further, good governance is predicated on the participation of multiple stakeholders. Consequently, strong leadership through governance is vital to coordinate the diverse concerns and values of the community, balancing distorted power relationships and implementing policies and strategies (Trousdale, 1999).

The development of the ACM conceptual framework and its application to protected area tourism contexts highlights some broad research questions such as: (1) To what extent are the principles identified through the literature embedded in ACM processes in practice? (2) How do particular variables influence the outcomes from an ACM process? (3) Is ACM appropriate for the governance of protected area tourism destinations? Some examples of emergent research questions under three broad research areas are outlined in Table 2.2.

Table 2.2: Future research questions

ACM	Research questions and themes
ACM principles	<ul style="list-style-type: none"> • How does communication and collaboration among the diverse stakeholders of a protected area tourism destination affect the ACM process? Is communication horizontal or vertical? • How do partnerships influence the governance of tourism in protected areas? • How do different approaches to governance influence adaptive capacity and resilience of protected area tourism destinations? • What strategies and approaches might work best to develop adaptive capacity and resilience for protected areas? • How does social learning affect the governance of tourism in protected areas? • To what extent do shared rights, responsibility and decision-making influence governance of protected area tourism destinations?
ACM variables	<ul style="list-style-type: none"> • Does stakeholder conflict affect the governance of tourism in protected areas? Does an ACM approach to governance mediate the conflict amongst stakeholders? • How does social learning contribute to conflict resolution? • Who are the powerful stakeholders in tourism protected area governance systems? What roles and influence do powerful stakeholders have in decision-making? • To what extent does power undermine multiple stakeholder engagement and collaboration? • Is there a role for learning-by-doing in tourism destination governance in protected areas? • Can ACM enhance the building of trust between stakeholders in tourism protected area governance?
ACM outcomes	<ul style="list-style-type: none"> • How can an ACM approach to governance affect expected short and medium-term outcomes? Does the approach improve the achievement of these outcomes? • How can an ACM approach to governance impact on the achievement of long-term outcomes that are expected to accrue through a governance process? • Can ACM improve the governance of tourism in protected areas?

While ACM has received much support within the literature as an approach that can address the limitations of governance, empirical research that critiques the model is warranted. In particular, there is much scope to examine the process in the context of tourism in protected areas. There is also much scope to investigate particular aspects of the approach such as social learning which has to date received little attention in studies of tourism generally or tourism destination governance more specifically (Wray, 2012). Research methods used by researchers to address these questions and issues could be qualitative, quantitative or mixed depending on the research questions and issues to be investigated. Comparative case studies, as well as longitudinal approaches, are recommended to help understand the adoption of ACM principles and the variables that might influence ACM

outcomes both in the short and long term. A comparison of different tourism destination contexts (i.e. protected areas, built environments, etc.) is warranted to explore the nuances of differences in the governance approaches.

2.5 Conclusions

A paradigm shift is taking place in protected areas with a transition from traditional top-down to participatory bottom-up approaches to planning, management and governance. This shift reflects changing expectations of governance towards systems that can legitimately empower and benefit local communities (Eagles, 2009; Eagles et al., 2013). Top-down ‘command and control’ governance approaches are often criticised as they fail to consider the wide range of stakeholders who can affect or are affected by the outcomes of such decision-making. Importantly, it is recognised that such approaches are ineffective at addressing the underlying social and ecological system complexities and uncertainties faced by protected areas (Armitage et al., 2009; Muganda, Sirima, & Ezra, 2013; Stankey, Clark, & Bormann, 2005; Tosun, 2000, 2001, 2006), particularly those protected areas that are also tourism destinations and so face additional complexity in their governance systems. ACM has been suggested as one approach that may be appropriate for improving the governance of tourism in protected area contexts.

The key aspects of an ACM approach have been outlined in detail in this paper; identified through an extensive review of more than 80 published papers on ACM, mostly in natural resource management contexts. Importantly, this conceptual paper aimed to synthesise and discuss the key principles, variables and outcomes of an ACM approach and contextualise this within protected area tourism destinations.

ACM is an approach to governance, with action-oriented principles and variables. Certainly, the literature suggests that ACM offers advantages over other approaches to governance, in part due to its comprehensiveness and multiple dimensions. However, an ACM approach will not be the solution for every protected area. If the key ACM principles and variables are absent or unable to be successfully established, the ACM approach will clearly be compromised. Like all collaborative and participatory approaches, ACM is similarly dependent on legitimate as opposed to tokenistic engagement and meaningful participation by all stakeholder groups. Similarly, power, conflict, a lack of trust and lack of transparency can all undermine the approach. Empirical testing in practice is needed to validate whether the approach can be as successful in tourism protected area settings as it has been in natural resource contexts more broadly.

CHAPTER THREE: MANUSCRIPT TWO

Tourism governance in protected areas: investigating the application of the adaptive co-management approach

This chapter is based on a journal article which received a revise and resubmit from the Journal of Sustainable Tourism. The revised submission is under review. This manuscript is co-authored by L. Ruhanen and B. W. Ritchie.

Abstract

Protected areas have become popular tourism destinations; yet these areas are often plagued by poor governance systems, particularly in developing countries. Adaptive co-management (ACM) has been advocated as one approach to improve the governance of protected areas, yet empirical evidence from developing countries is lacking. This study investigates the application of the ACM approach in two protected areas in Bangladesh which are also important nature-based tourism destinations. Using Lawachara National Park and Sundarbans East Wildlife Sanctuary as cases, this qualitative study explored the extent to which an ACM approach was able to support the achievement of key governance principles such as participation, accountability, transparency, power, rule of law, and social learning. It was found that the approach was successful in facilitating the increased participation of a broader range of stakeholder groups, and the collaboration between them. Importantly though, it was the adaptive element of ACM which was found to have made the greatest contribution to improved governance with the approach providing new opportunities for stakeholders to engage in iterative learning. This aspect was found to be of particular importance for the sustainability of the protected areas with stakeholders reporting changes attitudes and behaviour towards protected area conservation.

Keywords: governance; adaptive co-management; protected areas; sustainable tourism; co-management organizations; Bangladesh

3.1 Introduction

As protected areas have become more popular as tourism destinations (Balmford et al., 2015; Becken & Job, 2014), tourism has concomitantly come to play an integral role in the overall governance of these areas. Tourism can generate a number of benefits for protected areas including, among others;

providing new sources for funding conservation initiatives (Mayer, Müller, Woltering, Arnegger, & Job, 2010; Whitelaw, King, & Tolkach, 2014), and, improving planning and management approaches which has been credited with slowing biodiversity loss (Brenner & Job, 2012). While there are positives, the relationship between tourism and protected areas is certainly complex. For instance, the economic objectives of tourism usually contrast with the conservation focus of protected areas (Wilson, Nielsen, & Buultjens, 2009). Further, poorly designed tourism infrastructure and services, as well as the increased ‘visitor traffic’, can negatively impact on the area and erode the natural resource base (Dinica, 2009). Given the natural resources are usually the foundation of the protected area’s tourism appeal, the destruction of these resources can have serious consequences for not only the destination, but also for its surrounding communities. To ensure tourism and other human activities do not negatively impact on protected areas and instead contribute positively to conservation, effective governance systems play an important role in the development and management of protected areas (Bramwell & Lane, 2011; Buckley, 2009; Dearden et al., 2005; Eagles, 2009) and ensuring that tourism is sustainable.

Governance is a multi-faceted concept that is underpinned by relationships (both formal and informal) between multiple stakeholder groups (public, private and other social actors in the system) as well as the systems that influence how stakeholders interact with one another (Baggio et al., 2010; de Bruyn & Alonso, 2012; Scott & Marzano, 2015). Governance is also a process whereby stakeholders determine, implement and evaluate the rules for their interaction to achieve collective outcomes (Beritelli, Bieger, & Laesser, 2007; de Fouloy, 2015). Governance systems will also determine, for example, how power and responsibilities are exercised, how decisions are taken, how accountability is ensured, and how citizens or other stakeholders are given the opportunity to have their say (Graham et al., 2003; Leung, Spenceley, Hvenegaard, & Buckley, 2015).

Effective governance is recognised as crucial for ensuring the sustainable development and management of tourism in protected areas (Leung et al., 2015; Plummer & Fennell, 2009). This is because well-functioning and effective governance systems allow tourism-related stakeholders, as well as the many other private and public protected area stakeholders, to coordinate, cooperate and collaborate in decision-making and management processes that are efficient, transparent and subject to accountability. While all destinations must negotiate the challenges of ensuring growth and development does not impact on the environment, protected areas are particularly complex in that environmental protection and conservation is legally mandated. The inclusion of tourism activities in these sites means that reconciling environmental conservation with private sector business interests

puts an added emphasis on sustainable development; arguably more so than in other tourism destination contexts.

Although more recent paradigms for protected area management have advocated integrative approaches to conservation and development (Becken & Job, 2014; Dearden et al., 2005; Plummer & Fennell, 2009), governance models that can best support both protected area governance and sustainable tourism development are limited (Eagles, 2009; Whitelaw et al., 2014). In fact, it is argued that tourism governance more broadly requires further investigation in practice (Eagles et al., 2013; Lai et al., 2016; Plummer et al., 2012; Plummer & Fennell, 2009; Ruhanen et al., 2010). One governance approach that may better support the integration of conservation and sustainable tourism in protected areas is 'adaptive co-management' (ACM) approach (Islam & Ruhanen, 2015; Lai et al., 2016; Plummer & Fennell, 2009). While ACM has been explored in natural resource and common pool resource contexts more broadly, tourism is often not considered. This is despite ecosystem services including tourism being identified as an avenue for future research (Williams & Brown, 2014). Yet as noted, the complexities of protected areas which are also tourism sites present additional governance challenges. Further, empirical research exploring adaptive management has been lacking and few success stories have been identified (Williams and Brown, 2014; Bown, Gray & Stead, 2013).

As such, this paper reports on an empirical study that sought to investigate how an ACM approach to governance can facilitate or inhibit the achievement of key governance principles such as participation, social learning, accountability, transparency, power, and rule of law. Two protected areas in Bangladesh which have implemented an ACM approach to governance were used as cases in this study. Examining protected areas in developing countries has received little attention, yet such cases can provide valuable insights into governance given the added challenges and complexities of these systems.

3.2 Literature review

'Good' governance systems have been found to support the active engagement of multiple stakeholder groups in decision-making, planning, implementation, monitoring and evaluation (Eagles, 2009; Gössling & Hultman, 2006; United Nations, 2014; Zeppel, 2012). For governance to be effective certain principles must be in place that can support the active engagement of stakeholders (Baggio et al., 2010; Zeppel, 2012). A review of key articles in the field of governance generally and tourism governance specifically (e.g., Borrini-Feyerabend, 2003; de Bruyn & Alonso, 2012; Eagles, 2008; Graham et al., 2003; Ruhanen et al., 2010; UNDP [United Nations Development Programme], 1997; Zeppel, 2012) identified a myriad of governance principles. These principles can be largely

grouped under: (i) participation – access and involvement of all relevant stakeholders in the decision-making process via legitimate institutions that represent participants’ interests and well-being (Eagles, 2009); and, (ii) accountability and transparency – decision-making processes and outcomes are lawful and communicated to stakeholders. Linked to accountability and transparency, (iii) rule of law – is concerned with the protection of rights, fairness and the adequacy of enforceable legal frameworks; (iv) power – sharing of power between traditional power holders and other stakeholders; and, (v) social learning – continuous and adaptive learning through interaction, engagement and collaboration.

While governance is still a relatively new area of inquiry in the field of tourism (Eagles et al., 2013; Lai et al., 2016; Plummer & Fennell, 2009; Ruhanen et al., 2010), it is increasingly gaining attention from researchers and policy makers alike as an overarching destination management approach that can better define and manage the relationships between multiple stakeholders and how they interact with one another (Eagles et al., 2013; Lai et al., 2016; Plummer et al., 2012; Plummer & Fennell, 2009). It is also recognised as important for addressing sustainable tourism development objectives (Bramwell, 2011; Bramwell & Lane, 2011; Liu, 2003).

While the establishment of strong and efficient governance systems is recognised as fundamentally important in protected areas, governance remains a challenging task. This is because the success of any governance approach is dependent on the extent to which diverse stakeholder groups can not only establish relationships but also maintain these relationships to cooperate and collaborate. When tourism is added to the mix, stakeholder relationships become even more complex; often because some stakeholders are only vaguely aware of what tourism is and how this industry sector affects other stakeholder groups and their interests (Scott & Marzano, 2015).

The inhibitors to good governance are often more prevalent in developing countries. Education levels and illiteracy can limit the capacity for a wider range of affected stakeholder groups to engage in the process. For instance, stakeholders may be less aware of tourism’s longer-term or more negative impacts and thus may not appreciate the need for sustainable tourism development or the importance of sustaining resources. The higher incidences of poverty in developing countries can pose an array of governance challenges, particularly around power and corruption (Kolstad & Søreide, 2009; Laurance, 2004; United Nations, 2014; Yüksel, Bramwell, & Yüksel, 2005). Corruption can impede a number of governance principles such as transparency, rule of law, and it can also serve to limit the participation of less powerful stakeholder groups, particularly local residents (Kolstad & Søreide, 2009). As such, it is recognised that governance systems need to be inclusive, flexible and adaptive

and focused on increasing the involvement of local stakeholders (Becken & Job, 2014; de Bruyn & Alonso, 2012; Whitelaw et al., 2014).

3.2.1 Adaptive co-management

ACM is an approach to governance which is considered to be more adaptive, flexible and inclusive (Armitage et al., 2007a; Bown et al., 2013; Khadka & Vacik, 2008; Olsson et al., 2004). Used extensively in natural resource management contexts, ACM is defined as a process where “institutional arrangements and ecological knowledge are tested and revised in an ongoing, self-organised and dynamic process of learning-by-doing” (Armitage et al., 2007b). ACM was developed in response to the failure of traditional management approaches to consider the diverse stakeholders who can affect or are affected by an organisation, as well as the underlying socio-ecological complexities and uncertainties in natural resource contexts (McCool, 2009; Muganda et al., 2013; Yüksel et al., 2005).

As a governance paradigm, ACM merges the iterative, ‘learning-by-doing’, elements of adaptive management (Armitage et al., 2008), with the co-management approach which is premised on the ‘joint management of the commons’ to share decision-making power between the State and a community of resource users (Carlsson & Berkes, 2005). The result is a distinct and innovative approach that combines stakeholder participation and shared action with a learning-based methodology (Armitage et al., 2009; Plummer & Armitage, 2007; Prabhu et al., 2007). Issues within the problem domain are addressed through stakeholder interaction and collaboration which necessitates the sharing of power in order to negotiate a common vision (Plummer & Armitage, 2007; Prabhu et al., 2007). The aim is to ensure sustainable resource use and socio-ecological resilience through a governance approach that incorporates different perspectives, uncertainties and complexities (Plummer & Armitage, 2007).

Notions of stakeholder collaboration, participation and joint decision-making are not new (Hall, 1999; Jamal & Stronza, 2009). However, these concepts are pivotal to governance more broadly and have been widely applied in both natural resource contexts and tourism destination management. However, it is the combination of the adaptive and collaborative elements of the ACM which are novel. According to Plummer (2009), the common components of adaptive management include complexity, diversity, resilience, adaptive cycle, adaptive capacity and learning-by-doing. These elements can all be seen to underpin the ACM approach. For instance, socio-ecological systems are complex and uncertain and it is unusual for an individual or organization to have the required expertise to manage such systems properly (Berkes, 2009) and so it is suggested that a range of

stakeholder groups should participate in decision-making to share their respective knowledge and expertise (Berkes, 2009; Fisher et al., 2007a). Indeed tourism has been recognised as a complex system that necessitates the application of adaptive management to resolve these complexities (Farrell & Twining-Ward, 2004).

Adaptive capacity is considered crucial for socio-ecological resilience and sustainability (Bown et al., 2013; Plummer & Armitage, 2007) and is largely dependent on the capacity of individuals to learn. For instance, Kolb's 'learning-by-doing' notes that stakeholders of different levels and scales can share their experiences which may lead to changes in their beliefs, ideas, and perceptions as they apply the knowledge gained to solve their problems (Kolb, 1984). Adaptive management encourages a strategy of knowledge sharing which involves experimentation with different measures and modifying actions to put into practice as a result.

Argent (2009) similarly notes that adaptive management is a cyclical process with four components: learning, describing, predicting and doing. Learning involves observing, data capture, monitoring and evaluation; describing uses models to summarise and represent systems; prediction is used to test policies, proposed actions and scenarios; and doing is experimenting and taking actions based on the results. When combined with the collaborative aspects of the ACM approach, the result is a more flexible (adaptive) system of management and governance that is tailored to specific places, times and situations (contextual) as well as to the diverse stakeholder groups affected by decisions (Armitage et al., 2009; Eagles et al., 2013; Fennell et al., 2008; Plummer & Armitage, 2007). From a sustainability perspective, through the ACM governance approach, conservation also becomes an integral part of development (Plummer & Armitage, 2007).

Despite having strong conceptual support and the potential advantages of adaptive management, studies showing that it works in reality are lacking (Bown et al., 2013). This may be due, in part, to most studies being undertaken in developed countries. Empirical research is lacking (Williams & Brown, 2014) especially in contexts where the right circumstances and scale might better support adaptive management to improve both technical knowledge and social learning (Bown et al., 2013).

3.3 Research context

To investigate how an ACM approach to governance could facilitate or inhibit the achievement of key governance principles, an empirical study of two protected area tourism destinations in Bangladesh was undertaken – Lawachara National Park and Sundarbans East Wildlife Sanctuary. There are 51 protected areas in Bangladesh and most of these sites are considered highly vulnerable;

largely due to illegal activities and anthropogenic pressure on the natural resources (Mollah & Kunda, 2004). The protected areas of Bangladesh have traditionally been centrally managed by the Forest Department using a top-down, ‘command and control’ management approach where local stakeholders, such as those who live in and around the protected areas, having no involvement in the management of the sites.

Protected area governance in a country such as Bangladesh is complex. The stakeholders involved in the governance processes range from those responsible for protection and enforcement of the protected area status through to those who illegally use the protected area resources for financial gain, usually because of their low economic status. As such, there was a long legacy of conflict between the stakeholders of the protected areas, not only due to the lack of communication and engagement on issues concerning the protected areas, but also due to the stakeholders’ competing interests. For instance, the Forest Department were concerned with protecting and conserving the natural resources while simultaneously other stakeholder groups were illegally exploiting the resource for commercial gain. This included both powerful elites but also local people who were financially dependent on the resource due to their low socio-economic situation.

In response to this myriad of challenges, ACM was introduced in 2003 in five of Bangladesh’s protected areas; the approach has since been adopted by 27 of the country’s 51 protected areas. The broad objectives of the ACM approach are to: protect and conserve the biodiversity of Bangladesh’s protected areas; facilitate capacity building initiatives for the local poor people to create alternative income generation opportunities; and, create new governance structures with a participatory focus (Fox et al., 2013). New co-management organisations were established to oversee the management and governance of these areas; Co-management Committees (CMCs) (representatives from various local government administration authorities, private organisations and citizen groups), and a Co-management Council (responsible for overseeing the actions of the CMC with the objective of increasing transparency and accountability in decision-making processes). These organisations, comprised of various elected local stakeholder representatives, play vital roles in their respective protected areas.

Two protected areas of Bangladesh utilising the ACM approach were selected as cases for empirical data collection in this study. Data was collected from two sites but these have been treated as a single data set in this paper. The reasons for this are that both sites - Lawachara National Park and Sundarbans East Wildlife Sanctuary – have similar socio-political situations that influenced the adoption of the ACM approach. Their governance challenges are also very similar in terms of the

demographics of the local people (high levels of poverty and illiteracy), and both sites faced pressure from powerful elites who used their power and influence to illegally benefit from the protected areas' resources. Importantly, the sites are two of the most important protected area tourism destinations in the country and in both tourism is promoted as an alternative income generation activity.

Lawachara National Park: Established in 1996, Lawachara (Figure 3.1) is located approximately 160km north-east of the capital of Bangladesh in Kamalganj *upazila* (sub-district) of Maulvibazar district. The park is approximately 1250ha and has 16 villages located on the outskirts of its zoned area (within a 5km zone) and 2 tribal (*Khasia*) villages located inside the park (Mollah & Kunda, 2004). Lawachara was the pioneering protected area to adopt the ACM approach in 2003.

The national park is a highly diverse source of biodiversity consisting of 293 faunal species, such as the hoolock gibbon, leopard cat and the king cobra, and 167 floral species. Combined with its rich diversity, the unique aesthetic beauty and cultural diversity has made the park an attractive tourism site for both domestic and international visitors. Controlled nature-based tourism was prescribed for the park under the ACM approach to generate alternative income sources and to facilitate the conservation of the park (NACOM [Nature Conservation Management], 2003; Nishorgo Support Project [NSP], 2006). Local residents were engaged in tourism activities such as tour guiding, providing accommodation and foods, and manufacturing handicrafts, among other (Ahsan, 2007; Elands et al., 2015).

Sundarbans East Wildlife Sanctuary: Established in 1977, this sanctuary (area of 31227ha) (Figure 3.1) is one of the six protected areas that make up the Sundarbans World Heritage Site. The Sundarbans are located in the Ganges delta approximately 290km south-west of the capital of Bangladesh in Dacope *upazila* of Bagerhat district. It is home to the world's largest single tract of halophytic mangrove forest and is therefore rich in biodiversity. There is no human settlement inside this protected area but there are settlements on the fringes of the forest particularly on the northern side. The Sundarbans is the last remaining habitat of the endangered Bengal tiger and tourism is popular in this area and visitors are attracted to the protected area in the hope of viewing the tiger. A co-management approach was introduced in 2008 and commenced in 2010.

The Sundarbans has much tourism potential, and the area receives visitors seeking to enjoy the natural scenery, unique plants and animals, and the beaches (M. R. Islam et al., 2011). Most tourists to the protected area visit by boat as much of the area is mangrove forest. There is little tourism infrastructure in the Sundarbans and safety and security of visitors has also been a concern. However, like Lawachara National Park the Sundarbans also face challenges in developing tourism due to a

lack of planning (Sarker, Reeve, Thompson, Paul, & Matthiopoulos, 2016; WWF [World Wide Fund For Nature], 2017). The area does however, have much potential as a nature-based tourism destination.

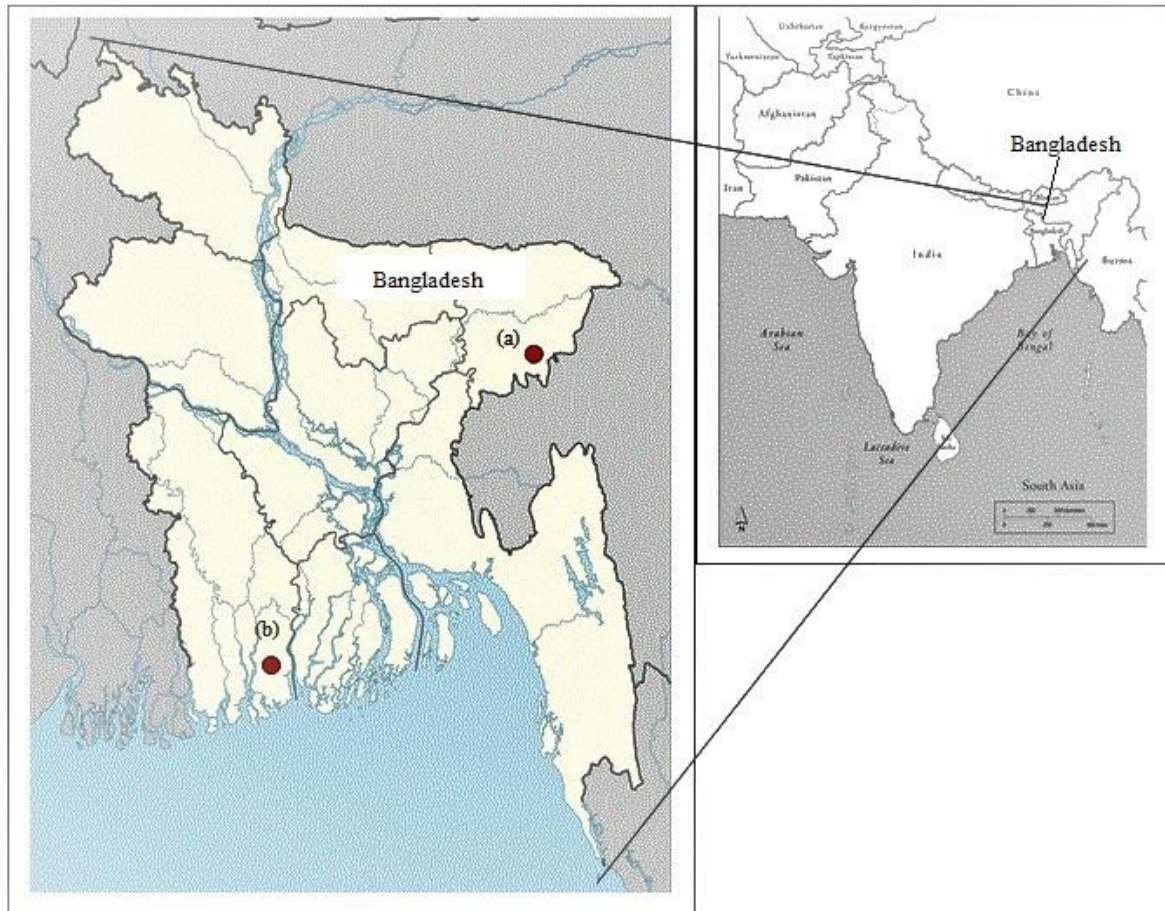


Figure 3.1: Location of (a) Lawachara National Park and (b) Sundarbans East Wildlife Sanctuary

3.4 Methodology

A qualitative methodology was used to explore how an ACM approach to governance facilitated or inhibited the achievement of key governance principles in protected area tourism destinations. A qualitative approach allowed the researchers to explore the study's aims by seeking the experiences and perceptions of the different stakeholder groups who are (or were) involved in the ACM approach. These included local residents living in or near the protected areas, co-management committee or council members, and representatives from the Forest Department, NGOs and the government.

In-depth, semi-structured interviews were undertaken with different stakeholders. Participants were selected using expert sampling techniques to identify those who had knowledge of, and involvement in, both the ACM process and tourism activities in the protected areas. The expert sample was

developed through initial consultation with representatives from the Forest Department, NGOs, and local leaders. Using this sampling strategy, a total of 47 participants participated in the study. Of these, 30 were from the Lawachara area (20 residents from four villages and 10 officials involved in management of the area) and 17 were from the Sundarbans region (10 residents from two villages and 7 officials involved in management of the area). Interviews were conducted face-to-face in the local language (Bengali) and were on average 50 minutes. Interviews were digitally recorded, transcribed verbatim and then translated into English for analysis. The local resident participants and official participants are coded as LP and OP respectively in the Results section alongside excerpts of the interviews (e.g. OP01).

The interviews were based around a series of questions that included: participants' involvement in the ACM approach; how key governance principles were incorporated in the ACM approach; and, how the ACM approach impacted on tourism activities and practices in the protected area. Interview transcripts were analysed using content analysis and a thematic coding technique (Creswell & Clark, 2011). Manual thematic analysis was applied which was verified through the use of analysis software, NVivo 11 Windows. The coding process was both theory-driven and data-driven, meaning that broad codes were established through both the literature review (i.e., principles of governance) and the interview data. The results and discussion are presented around the five principles of governance identified in the literature: participation; accountability and transparency; power; rule of law; and, social learning. The extent to which the implemented ACM approach facilitated or inhibited the achievement of the governance principles is considered within each of the five themes.

3.5 Results

3.5.1 Participation

The introduction of the ACM approach was considered by most participants (n=39) to have facilitated increased opportunities for stakeholder participation in the governance of the protected areas. These participants reflected on the marked differences in the levels of “involvement” and “ownership” that resulted once the ACM approach was implemented. Through their participation in CMCs, local residents were able to interact with the Forest Department and partner NGOs (responsible for implementing the ACM projects). Prior to the implementation of the ACM approach, when the Forest Department was the sole authority overseeing the management of the protected areas, participants discussed that there was little consultation with other stakeholder groups which had led to hostile relationships between the Forest Department and other stakeholders. However, almost all (n=45)

believed that the ACM approach had directly contributed to a reduction in hostility and conflict. They credited the ACM approach with providing new opportunities to develop relationships.

Previously it was not possible to have contact with the Forest Department! They kept the public away from their door! But now we can even talk with their higher officials and go to the forest offices to inform them of any issue. Now we have their mobile phone numbers and can ring them any time (LP32).

The situation has been improved now. Previously we hesitated to interact or share with the Forest Department. Now we are free to interact with them (LP18).

The adaptive elements of the ACM approach were also seen to have contributed towards stakeholder participation in protected area conservation. Different communication strategies were implemented to motivate local people to engage with the protection and conservation initiatives of the protected areas. Formal measures included CMC meetings and workshops, but it was also found that informal discussions as well as local cultural performances street songs (Bengali local folk songs) and pot songs (stories told through paintings on canvas) were effective in engaging locals in protected area conservation. The iterative learning aspects were particularly evident here. As one official participant noted,

Different stakeholders of this protected area [Lawachara] participate in various meetings, trainings, workshops and learn together the same thing. Though their receiving capacity is different, when they participate together their attitude changes. Then they deliver the message to their locality in their own way (OP10).

As the ACM process evolved it was recognised that simply talking about conservation would not be enough to overcome the legacy of the protected area's being treated as a consumptive resource. The local people living in and around the protected area are generally poor; have little education and few economic opportunities. The locals have always been economically dependent on the protected area for their livelihoods. It was therefore realised that incentive schemes for local people to engage in alternative income generation activities were needed in order to reduce their dependency on the protected areas. As explained by one of the local resident participants:

Earnings from tourism are helping people to restrain themselves from going to the forest illegally. Different tourism activities promote various economic activities in this area which encourage more participation, leadership and empowerment. The women of this area have been empowered through involving in various tourism activities by earning money (LP02).

While there had been a number of successes as local people turned to tourism activities such as tour guiding, providing accommodation and handicrafts manufacturing, these did not altogether stop the illegal activities from occurring in the protected areas. Some participants attributed this to the fact

that there were insufficient incentives (such as grants, loans, support) and not enough capacity building opportunities to entice local people to adopt the alternative income generation activities. Further, tourism activity is seasonal and often part-time so local residents continued to utilise the protected areas as sources for their livelihoods.

3.5.2 Accountability and transparency

Most participants (n=43) believed that prior to the introduction of the ACM approach there was little transparency in the Forest Department's activities; the Forest Department were not required to be accountable to the local stakeholder groups regarding their decisions and only reported up to higher authorities. As a result, many of the local residents discussed that in their view, the Forest Department officials had a "poor attitude", showed "indifference" and were "unresponsive" to the local people.

Previously the Forest Department used to treat... the local people merely as the illicit fellers. Whatever these officials did was considered as good and the local people as bad people. That was their normal views. There was no issue of accountability and transparency among those officials (OP19).

Participants in both of the protected areas believed that accountability and transparency had improved following the implementation of the ACM approach. The participatory approach of ACM discussed previously was seen an integral, as was the creation of the new institutional arrangements through the various co-management organisations which necessitated interaction between the differing stakeholder groups. A number of participants discussed that the approach allowed stakeholders to become aware of and understand the agendas and roles of other stakeholder groups.

The Divisional Forest Officer is now an Adviser of the CMC. We can now talk him and share our problems. And the local stakeholders can participate in park management through their representation in the CMC (LP16).

Communication gaps were evident. A number of participants (n=21) discussed that the different educational, professional and experiential qualifications of the different stakeholders were a barrier to communication, shared understanding and decision-making. As one of the local resident participants noted,

Good coordination is badly needed among various stakeholders particularly between the NGOs and the local government bodies to implement their [NGOs] activities in the local community (LP01).

There are different types of local residents varying their education, skills and culture. Therefore, communication gap between the local residents and officials should also be resolved to reduce conflicts and misunderstandings among them (LP01).

All participants noted that the CMC had played the most crucial role in improving stakeholder accountability and transparency. All activities (including tourism) that occurred within the Lawachara National Park were monitored by the CMC and so there was a level of accountability that had not existed before. Adaptive measures were evident in this principle also. For instance, while the CMC was accountable to its higher authorities (co-management council) and the partner NGOs, but weaknesses in the monitoring systems meant that the implementation of agreed actions did not always occur.

Even though accountability and transparency had improved, it was not able to overcome corruption amongst powerful stakeholders (usually political) who continued to exert their influence for personal gain; particularly over local residents who despite their involvement in decision-making for the protected areas still remained powerless against those with political or financial power. Participants also discussed a lack of political will to stop the illicit felling;

The politically influenced people played more power in the CMC and they also get some benefits by exercising their power (LP16).

We did not have any relationship with the Forest Department to manage the forest. Many local people were involved in illicit forest felling and wildlife poaching at that time. They are still active there although it has been reduced to some extent (LP10).

The local people have been aware of the conservation of the park to some extent but not much. The reason of it I suppose is there are 50 families in a village and out of them 10 are involved in illicit tree felling. The other 40 families are not harmful to the park. They are aware of these 10 families who are mainly the community patrolling group members (OP07).

As the ACM process progressed, participants noted that incremental changes could be observed. They discussed the fact that an increased array of stakeholder groups was equipped with the knowledge and understanding that allowed them to more critically and constructively query traditional power holders such as the Forest Department, but also NGOs and the CMC itself. Such questioning of the decision-makers in protected areas had certainly not happened prior to the introduction of the ACM approach, and through the ACM approach stakeholders had developed the requisite knowledge and capacities to be more confident in questioning others and holding them accountable to their actions.

Now we can know the structure or way to implement of a task through discussions. As a result we can ask questions to the concerned person why the task was not successful or not carried out properly which opens a scope towards accountability (LP15).

There is now a group of people who raise their voices together for the forest. Previously people did not discuss the forest but now they talk about their forest while they take tea together. It has become a topic for community discussion (OP09).

3.5.3 Power

Historically the Forest Department managed more than 10% of the total land area of Bangladesh and was regarded as one of the most powerful organisations in the country. The Forest Department officials acknowledged that they had previously held all of the power with one official stating:

Previously I was the king of the forest and took the decision on whatever I wanted. It was a one party ruling system (OP06).

The local residents held little to no power. Contributing to this unbalanced power relationship was the lack of education amongst the local people who were generally acknowledged as not understanding the impacts their ‘traditional’ activities had on the protected areas. Due to their economic situation and the limited options for sustaining a livelihood, they engaged in environmentally detrimental activities such as over-fishing, tree felling, and poaching. This not only led to the gradual destruction of the protected areas but also to them being repeatedly caught and prosecuted by forest officials. Forest officials would issue fines and penalties, seize property and cancel permits as a way to punish and control local communities and other stakeholders that used the protected areas. Most of the participants believed that prior to the ACM approach the forest officials treated the local people as “worthless”, “powerless” and “automatically guilty of any crime they were accused of”. As a result, most participants agreed that the relationship between the Forest Department and local residents was based on fear, distrust and avoidance.

Forest cases were the main weapon for the Forest Department at that time. Those convicted people were very poor and those cases provoked them more to commit the crimes repeatedly to meet-up the costs of those cases (LP12).

I always tried to protest against the illegal activities carried out in and around the Sundarbans. I cannot tolerate these activities which are detrimental for the Sundarbans. If I see any such activities then I catch them and hand over to the Forest Department for their legal actions. Unfortunately, I have to suffer a lot only due to this reason (LP07).

While some participants discussed that the ACM approach had positively changed the interactions between the Forest Department and other stakeholder groups, a number of participants (n=26) did not believe the changes to be widespread; instead suggesting they were tokenistic in nature. A number of participants discussed that the Forest Department had little interest in supporting the ACM activities and even less interest in collaborating with other stakeholders. Some participants attributed this to a fear of losing their established power base.

The Forest Department had sole power in the forest. They decided everything for the forest. There was no accountability regarding any tree felling in the forest to the local people (LP17).

Therefore, while some participants believed the ACM approach had been successful in reducing conflict through the establishment of new relationships, others saw the ACM approach as simply introducing new reasons for the stakeholder groups to have conflict.

Although the ACM approach had not eliminated all vestiges of power, most participants agreed that it had led to a reduction in the ‘power distance’ between the local people and the Forest Department. As explained by two local resident participants:

The influence of powerful players has been reduced significantly. Now local people of the CMC can judge what’s right and wrong; they are not convinced very easily by the influence of powerful players. As a result, now these influential players are not that powerful (LP02).

Less empowered people like women, fishermen and wood cutters have become aware of their rights and able to raise many questions to the concerned authorities. Thus they have been vocal on different issues (LP01).

3.5.4 Rule of law

The previously discussed challenges with accountability, transparency and power impacted on the governance principle, ‘rule of law’. Many participants spoke of the positive outcomes in terms of law enforcement following the introduction of the ACM approach. While there were challenges, the CMC and other organisations formed under the ACM governance structure were believed to have significantly improved awareness amongst the different stakeholder groups of the rules and regulations for the protected areas.

This was again an example of an adaptive measure as local people learnt through the course of various campaigns, meetings, and workshops about the legalities of the protected areas. Participants discussed how formal learning was reinforced through informal discussions and other awareness and communication strategies (such as the street performances noted previously). Adaptiveness was also evident in terms of the establishment of new social norms around protected area conservation.

Now if a single tree is illegally cut from Lawachara then the news is spread out very fast; which was not the case in the past. Now the people are more aware of illegal felling and they discuss it with each other (OP16).

Through the ACM approach community patrolling groups were established in the Lawachara National Park. Their purpose was twofold; to monitor activities in the park, but also to provide a new employment option for local people as some of the former fellers and poachers were employed to work in the community patrolling groups. These groups were noted by many participants to have been successful in reducing the illicit felling, poaching of wildlife and other anti-social activities in

this area. Again, adaptive elements were identified in this regard as the local people who became involved in tourism as an alternative livelihood option, became advocates for the park and played crucial roles in disseminating and monitoring the parks laws. For instance, tour guides were responsible for informing visitors of the park's rules and regulations and also monitoring and guiding visitor activity.

There are some trained eco-tour guides in the surrounding villages. There was no such guiding opportunity earlier. In fact I did not know much about the environment and the nature. But being a tour guide now I know many things about the forest and nature and the relevant legal issues to protect them (LP15).

Tourism was introduced as an alternative economic activity under the ACM approach yet the protected areas were not always safe locations for visitors due to theft and harassment. In response, a tourist police force was introduced in Lawachara to maintain law and order and ensure a safer tourist destination. As explained by one local participant:

One camera was snatched from this park nearly five years back. That camera was rescued. After this incident there is no such snatching. Now the law and order situation is better. Recently tourist police have been introduced by the government at the Lawachara which is a very good initiative. Nowadays, tourists can move alone in the park and this village (LP14).

This also supported other initiatives such as the community patrolling groups introduced through the ACM approach in improving the overall safety of the destinations. The majority of participants (n=38) discussed how as a result there was a reduced in anti-social activities but also a reduction in illegal activities such as felling.

The CMC plays a role to ensure a safe environment for the tourists. And to let the locals know that if fewer tourists visit the area then the revenue earning will be less and eventually they (the local communities) will have less amount of money for community development (OP11).

3.5.5 Social learning

Learning is implicitly and explicitly evident in each of the governance principles outlined previously. It is the adaptive and iterative aspects of ACM which were seen to have facilitated incremental improvements in each of the governance principles since the introduction of the approach. However, more specific learning and knowledge outcomes were also identified by participants as emerging from the ACM approach. For instance, a number of the participants (n=25) reported that they had little to no formal education regarding the protected areas. Their knowledge came from their family, friends and those they interacted with in the wider community. Knowledge was shared openly and handed down from one generation to the next. While such indigenous or traditional knowledge plays

an important role in how local communities preserve traditions and learn, it can, in the case of the protected areas of Bangladesh, perpetuate destructive practices that negatively impact on the environment. For instance, participants talked of their families felling trees from the protected areas for generations, other spoke of hunting which was a traditional practice.

The ACM approach is embedded in learning and in the two protected areas the learning was predominantly directed towards educating local stakeholders about the negative impact of their activities on the protected areas. Participants noted various formal and informal learning measures such as: formal and informal discussions within co-management organisations such as the CMCs; interactive events organised in conjunction with particular ACM projects; and opportunities for visitor-host interactions.

All participants discussed the ACM approach in a positive light with regards to its impact on stakeholder learning and believed the approach had played an instrumental role in increasing awareness and knowledge of the importance of protected areas. It was widely agreed that the ACM approach had provided more opportunities to learn, particularly when compared to previous approaches to protected area management where local stakeholders were excluded from the process.

Compared to the traditional approach, the ACM is a better approach from the position that it gives the opportunity to learn more from different stakeholders (OP13).

When five people sit together to discuss a matter, that is when learning occurs. ACM has been developed for this reason, so that the different stakeholders can interact together to make decisions...and learn from each other (OP19).

The stakeholders learn and work together. The ACM has brought them together as family members. Sharing among the stakeholders is prominent here. As they share every minor thing so trust has increased among them (OP10).

A number of participants (n=36) discussed the impact of the learning opportunities on the youth in the communities. They talked about the enthusiasm and motivation of the younger generation to conserve the protected areas but also to break out of the 'traditional' dependency on the natural resource.

There is a female tribal young club at Tipra village who worked together for hand looms. An NGO contacted with them and made a channel to sell their products. So, if they would not work together they would not get the facilities from the NGO for marketing their products. They have their club room where they can sit together and share each other and learn from each other (LP14).

While learning permeated every aspect of the ACM approach and was evident in each of the principles, in some cases it was not sufficient to break the cycle of dependency where the protected

areas are a resource for locals to exploit. In some cases, it was found that commitment to the cause was espoused but the reality was that the illegal activities were still continuing ‘behind the scenes’. In discussing the issue further with stakeholders engaged in illicit felling, they noted that while they were aware of the conservation issues they did not believe there was a viable alternative livelihood for them. Some participants attributed this failure to a lack of project monitoring, insufficient resources (particularly financial incentives), and education levels and illiteracy (ability to break out of the cycle).

3.6 Discussion and conclusions

This study sought to explore whether ACM, as an adaptive and collaborative approach to governance, could facilitate or inhibit the achievement of the key governance principles of participation, accountability and transparency, rule of law, power, and social learning. Insights into the introduction of the ACM approach to governing protected areas were provided as an alternative to traditional top-down management and governance approaches that had traditionally been used in Bangladesh and other developing countries.

While the ACM approach has been applied to natural resource contexts more broadly, this paper provides support to Plummer and Fennell (2009) suggestion that the approach has potential application for managing protected areas for sustainable tourism. However, as studies have indicated empirical research and cases showing the successful implementation of adaptive management are sparse (Bown et al., 2013; Williams & Brown, 2014). This is especially the case in developing countries and in an ecosystem services context (Williams & Brown, 2014). Lawachara and Sundarbans are two protected areas that are reliant on tourism for revenue generation and thus are suitable cases to explore the application of ACM; however, before the implementation of the ACM governance approach both areas were slowly being degraded due to poor management practices and thus were far from sustainable. From both a conservation and sustainable tourism perspective, this study has shown that the ACM approach can transform and improve governance practices to support sustainable tourism objectives, and support local community livelihoods. This study has provided empirical evidence for ACM, supporting the argument that under the right circumstances and scale adaptive management can be successful as it provides a tool for developing resilience to uncertainty (Bown et al., 2013).

On balance, participants in this study were supportive of the ACM approach and could identify improvements in each aspect of governance in the protected areas. Most participants recognised that poor governance practices had been the underlying cause of many of the major problems in both

Lawachara and Sundarbans protected areas and that the traditional approach to protected area management was not sufficient to resolve these issues. As a result, the protected areas had sustained ongoing degradation.

With its multiple stakeholder approach incorporating adaptive learning practices, the ACM governance approach was found to provide a more inclusive approach to management for the protected areas in this study. For both the Lawachara and Sundarbans areas, the ACM approach had facilitated opportunities to engage in alternative livelihood activities such as tour guiding, eco-cottage accommodation, and handicraft manufacturing. Involvement in both these new enterprises, as well as involvement in various ACM activities (such as membership in the co-management organisations, participation in informal and formal meetings and events), was important in helping to change the attitude of community residents towards the protected areas in which they lived. For the most part, this approach was successful in encouraging them to reduce their dependency on the protected areas and increase their involvement in conservation initiatives. Participation in the various ACM activities was also found to improve the once antagonistic relationship of the local people and the Forest Department officials.

However, the ACM approach could not overcome the well ingrained corruption and illegal activity of some stakeholder groups. Further, a legacy of top-down management by the Forest Department was difficult to overcome with many participants noting that they were resistant to change because it would dilute their power base. Similarly, the lack of political commitment hindered the success of the approach, and importantly the outcomes, in terms of protected area conservation. These factors were identified as the major inhibitors to improving the governance of the protected areas although arguably these are contextual issues as opposed to weaknesses of the ACM approach itself, and highlight the earlier points about the right scale and circumstances as prerequisites for success adaptive management.

Other barriers were identified in terms of how the approach was operationalised. For instance, insufficient incentives and capacity building opportunities created obstacles for some stakeholder groups to participate in the ACM activities. Other participants noted that the NGOs did not perform as well as expected, particularly in the early stages of the processes. A lack of experience and not being accepted by either the local people or the Forest Department hampered the efforts of the NGOs to introduce ACM. However, even the NGOs learnt to adapt and changed their approach to engagement which over time improved their credibility and acceptance amongst the local people and the Forest Department.

In this paper the two sites were treated cumulatively for the purposes of this study although there are of course distinctions in practice. The co-management approach was introduced in the Lawachara National Park in 2003 (first CMC formed in 2006) as one of the pioneer co-management sites in Bangladesh, whereas this approach was introduced in the Sundarbans site later in 2008 (first CMC formed in 2010). Lawachara is also a smaller protected area in comparison to the Sundarbans site and so tended to be more active. This can be in part attributed to having a smaller landscape/buffer zone compared with the Sundarbans site. As a pioneer co-management site, Lawachara received much media attention and so stakeholders here may have been more motivated to take part in ACM activities. In the Sundarbans, human pressure on site is much higher due to its wealth of resources and potential for generating livelihoods (fisheries, wood-based and non-wood based minor resources).

As a qualitative study, the findings here cannot be assumed to represent the situation in all protected areas either in Bangladesh or other developing country contexts. Moreover, there were limitations which might have influenced the findings of this study. Some of the official participants may not have fully disclosed their perceptions of the challenges due to the sensitivities of the topic. Despite being assured of the ethical protocols and confidentiality of the study, some officials were hesitant to answer some questions. This in part was why the decision was taken to treat the two protected areas as a cumulative case to protect the identity of participants. Moreover, some of the local participants had limited memories of the introduction of the process which may have affected their ability to comment on all aspects of the ACM approach. As such, further empirical investigations of ACM approaches that have been implemented in other contexts are warranted. There is an opportunity for further research to explore the additional principles of governance such as equity, efficiency, stakeholder rights, knowledge management, legitimacy, trust and ownership, as well as to understand the variations in governance processes and outcomes in differing contexts (i.e. developed and developing countries, nature-based or urban destinations, protected and non-protected areas).

CHAPTER FOUR: MANUSCRIPT THREE

Exploring social learning as a contributor to tourism destination governance

This chapter is based on a journal article which has been published in the Journal of Tourism Recreation Research. This manuscript is co-authored by L. Ruhanen and B. W. Ritchie.

Abstract

Social learning is a participatory process designed to create shared and common understanding amongst actors within a social unit. This exploratory, qualitative study applies social learning theory to explore how social learning underpins the process and outcomes of tourism destination governance. This paper presents the findings of in-depth interviews undertaken with 30 participants of the governance process implemented in the Lawachara National Park, a protected area in Bangladesh. The study found that social learning led to improved interactions amongst previously disparate groups of protected area tourism destination stakeholders. Participants reported that the creation of a more collaborative environment through the governance process led to new opportunities to learn about the socio-economic and ecological challenges facing the protected area, as well as alternative income generation activities such as tourism. The process was also credited with positively contributing to knowledge exchange, increased awareness and a change in behaviour by a number of the stakeholder groups who had previously used the protected area as a consumptive resource.

Keywords: adaptive co-management; capacity building; governance; protected areas; social learning; stakeholder collaboration

4.1 Introduction

Increasingly researchers in the field of tourism have moved from studies of tourism destination management to tourism destination governance (Svensson, Nordin, & Flagestad, 2005; Zahra, 2011; Zhang & Zhu, 2014). This shift reflects the recognition that governance is more appropriate for dealing with complex issues that require multi-stakeholder engagement and collaboration, and that 'good' governance can better support destination management and planning efforts (Colfer, 2005). Good governance is premised on cooperation and coordination amongst diverse groups of stakeholders through interactions which facilitate the building of trust, the establishment of formal and informal rules and norms, the sharing of power and joint decision-making (Wyss, Abegg, & Luthe, 2014; Zhang & Zhu, 2014). As Graham et al. (2003, pp. 2-3) note, 'governance is the

interactions among structures, processes and traditions that determine how power and responsibilities are exercised, how decisions are taken, and how citizens or other stakeholders have their say’.

As complex and dynamic socio-ecological systems, protected area tourism destination can present particular governance challenges. This can be attributed to the need to incorporate a more diverse group of stakeholders which, in some countries, could include other industry sectors that rely on the resource such as forestry, fisheries, mining, transportation, and tourism and recreation; the local residents living in and around the site, as well as the (often) additional levels of bureaucracy associated with protected sites (Berkes, 2009; Fisher et al., 2007a). While such a diverse array of stakeholders is a challenge, the wide range of knowledge and expertise that can be harnessed does present an opportunity for learning. Indeed, such opportunities for iterative knowledge sharing and learning has been identified as crucial for stakeholders to develop the necessary adaptive capabilities to respond to the complexities of dynamic social–ecological systems (Dale & Armitage, 2011; Pahl-Wostl, Mostert, & Tàbara, 2008). Such adaptive approaches to governance embed formal, as well as informal, learning opportunities where stakeholders observe the actions, behaviours and outcomes of others (Fisher et al., 2007a).

Social learning is recognised as a crucial function of governance (Berkes, 2009; Diduck, Banks, Clark, & Armitage, 2005; Pahl-Wostl, 2009; Paquet, 1999). Social learning refers to changes in knowledge and understanding that go beyond the individual to become situated within wider social units, networks or communities of practice (Reed et al., 2010, p. 6). Learning occurs as a result of the social interactions, exchanges and discussion between actors within a network. As such, social learning is active, iterative and generally seen to have a transformative role in facilitating stakeholders to address issues through collaborative actions (Koutsouris, 2009; March & Wilkinson, 2009).

Importantly social learning has been advocated as it aligns with the ‘bottom-up’ or adaptive approach that underpins good governance processes (Medema, Wals, & Adamowski, 2014; Pahl-Wostl, 2009). It can facilitate social change through the process of collaboration (Koutsouris, 2009) and in turn has been credited with empowering stakeholder groups such as local residents who often have little power in traditional management approaches (Rebuelta-Teh, 2007).

This study sought to explore how social learning is embedded in the governance of a protected area tourism destination. As noted, tourism destinations that are also protected areas present unique and complex governance challenges. Such challenges are further exacerbated in the context of developing countries where poor governance systems characterised by corruption, power imbalance, lack of coordination and conflict amongst stakeholder groups are often prevalent (Eklund et al., 2011).

However, these governance systems have received little focus from researchers (Borrini-Feyerabend, 2003; Snyder & Sulle, 2011). Therefore, this research explores the social learning processes that underpinned a governance approach implemented in the Lawachara National Park in Bangladesh. A qualitative study was used to understand the interactions and collaboration that occurred between stakeholders, as well as the stakeholders' perceptions of the influence social learning had on the governance process for the destination. These findings are considered in the context of the three factors of social learning: cognitive, behavioural and environmental.

4.2 Literature review

Social learning was first applied in the field of psychology to understand organisational behaviour and later extended to fields such as education, health, crime, sustainable management and natural resource management, as well as climate change (Higham, 2012; Pahl-Wostl, 2006; Rodela, 2011; Romina, 2014). In natural resource management, social learning is widely recognised as beneficial for facilitating the establishment of collaborative learning platforms where interaction between stakeholders generates the requisite knowledge and stakeholder capacity for decision-making (Berkes, 2009; Keen et al., 2005; Muro & Jeffrey, 2008; Pahl-Wostl, 2007; Siebenhüner, Rodela, & Ecker, 2016).

While the concept of social learning has been noted in tourism, it has received relatively little attention. For instance, Higham (2012) used social learning to address conservation management in wild animal populations, while in Wray (2012) study of sustainable tourism planning it was found that social learning helped to facilitate stakeholder engagement and generated an action cycle of learning with government, business and community stakeholders throughout the planning process. Koutsouris (2009) similarly concluded that social learning was important for achieving the participative approaches required for sustainable tourism development. These studies suggest that further exploration of the influence of social learning on tourism destination governance is warranted.

4.2.1 *Social learning theory*

Learning refers to the process of creating knowledge through the transformation of experiences (Kolb, 1984). While Miller and Dollard (1941) were the first to propose the term 'social learning theory', it is the later adaptation of the theory by Bandura and his colleagues (e.g. Bandura, 1969, 1977, 1979, 1986; Bandura & Walters, 1963) that is most often used in the literature (Albert, Zimmermann, Knieling, & von Haaren, 2012; Devi, Khandelwal, & Das, 2017; Gibson, 2004; Heydari, Dashtgard, & Moghadam, 2014; LaRose & Eastin, 2004; Othman, Suhaimi, Yusuf, Yusof, & Mohamad, 2012;

Swearer, Wang, Berry, & Myers, 2014). Here social learning theory combines cognitive learning theory (that learning is influenced by psychological factors) and behavioural learning theory (assumes that learning is based on responses to environmental stimuli) to describe the psycho-social functions of humans when learning occurs in the context of a social setting (Bandura, 1986). As a result, it has been suggested that social learning occurs as a result of the continuous interaction between personal or cognitive factors (e.g. beliefs, attitudes, knowledge, skills, self-efficacy), behavioural (responses to a particular situation) and environmental factors (e.g. learning environment, social norms, social motivation, incentives and penalties) in reciprocal patterns (Bandura, 1977; Bruning, Schraw, & Ronning, 1999; Dale & Armitage, 2011).

Social learning recognises that learning is not only based on an individual's own beliefs and expectations but also what they learn through observation and/or interaction in a social context (Bandura, 1977). Social learning can occur through observing the actions of others (models), as well as through situated learning. Both types of learning can evolve through participation and iterative interactions with others in the social network that can influence an individual's own behaviour (Bandura, 1977, 1986; Reed et al., 2010; Schusler et al., 2003).

4.2.2 Observational and situated learning

Cognitive factors influence observational learning processes and will govern whether a learner acquires new knowledge, information or skills which will influence their behaviour, a process referred to as mediation or modelling (Bandura, 1986). Some suggest that social learning results from observing the behaviour, attitudes and emotional reactions of models (i.e. parents, teachers, friends, work colleagues, etc.) and a person will imitate that behaviour depending on whether the model received a positive or negative outcome from the behaviour (Bandura, 1977).

Observational learning occurs through a mediation or modelling process that moves through four interrelated cognitive and behavioural sub-processes or stages: attention, retention, motivation and reproduction (Bandura, 1977, 1986). Attention is a cognitive sub-process of mediation that refers to an individual observing and responding to environmental stimuli to become aware of a particular behaviour with the intention to imitate or replicate (Bandura, 1986; Katsuki & Constantinidis, 2013). Retention then refers to the individual's capacity to memorise the behaviour, either through imagery or verbal retention. The success to which a behaviour can be retained for the purposes of imitation will determine the extent to which it can be reproduced (Bandura, 1986). The third of the mediation processes is motivation and is dependent on the individual's desire for either positive or negative reinforcement. An individual will observe whether the model has positive reinforcement

(rewards/incentives) or negative reinforcement (punishments or undesirable outcomes) (Bandura, 1986; Dulany, 1962, 1968). The final sub-process is reproduction which is dependent on the ability, either physical ability, skills, time or financial resources, of the individual to imitate the retained behaviour (Bandura, 1986).

The mediation process is presented as lineal and sequential, yet individuals can move quickly through the mediation process in any given situation to evaluate and make decisions about the extent to which a particular behaviour will be imitated (Bandura, 1986). However, observational learning alone cannot account for the rich interactions and exchanges that occur in a social context and so social learning theory has been extended to incorporate situated learning (Pahl-Wostl & Hare, 2004; Pahl-Wostl, Tàbara, et al., 2008).

The social interaction aspect of social learning is key in situated learning. Here learning is strengthened through interaction and the exchange of ideas and questions with the model as well as with each other in a social context (Bandura, 1977; Hoppitt & Laland, 2013). There is recognition that learning is more than the diffusion of knowledge but is an active process that emerges as a result of social interaction and collaboration among participants (Wenger, 1998).

4.2.3 Social learning and governance in practice

Social learning has been applied in a variety of fields and it has been noted that a variety of beneficial outcomes for governance can accrue. For instance, studies have shown that outcomes of social learning can include an enhanced awareness of issues affecting the network, the generation and sharing of new knowledge, the facilitation of capacity building and providing the impetus for decision-making and actions (Pahl-Wostl, 2009; Pinkerton, 1994). Albert et al. (2012) noted that social learning helped facilitate decision-making processes for climate change adaptation in Germany. They credited the social learning process with creating the foundation for further collaboration between local actors and external consultants which led to an increase in knowledge and skills regarding climate change adaptation strategies. Leys and Vanclay (2011) also focused on the knowledge generation outcomes but additionally identified the community capacity building that occurred amongst forestry stakeholders in Australia.

Medema et al. (2014) found that the multiple-loop learning that occurred through a social learning approach enhanced the ability of stakeholders to co-produce knowledge, engage in critical self-reflection and collaborate across a broader range of domains. Social learning processes have been claimed to support flexible multiple-loop and adaptive learning in the context of uncertainty and

change (Argyris & Schön, 1978; Cundill & Fabricius, 2009). Armitage et al. (2008) also identified the emergence of multiple-loop learning through collaborative learning processes in environmental resource management. Multiple-loop learning includes a progression through single-loop learning (routine errors are fixed by altering one's strategy or behaviour) (Diduck et al., 2005) to double-loop learning (reframing and revisiting underlying assumptions of an action by analysing cause-effect relationships) (Pahl-Wostl, 2009). Triple-loop learning can occur when learning can influence governing norms, protocols and principles or improve organisational capacity (Flood & Romm, 1996).

In the context of community forestry in Cameroon, Brown, Buck, and Lassoie (2008) emphasised the creation of new partnerships and relationships that emerged through the social learning process. They noted that this had led to divesting more responsibility for forest management to the local community. Other studies have linked the outcomes of social learning to the development of social capital including self-efficacy, trust, reciprocity and cooperation (Muro & Jeffrey, 2008; Pahl-Wostl, 2009; Schusler et al., 2003), a result of collaboration through social networks.

Social learning processes enable the preparation of innovative plans, relationships and knowledge (Prabhu et al., 2007) that can help support a more resilient social-ecological system (Berkes, Folke, & Colding, 1998) through improving the governance system and capacity building of local stakeholders of a destination (Pahl-Wostl, 2009; Schusler et al., 2003). Here, social learning process and its determining factors (personal, behavioural and environmental) produce various short, medium and long-term outputs which ultimately prepare a congenial environment for the application of ACM approach and improve the governance system of a tourism destination.

4.3 Methodology

This study sought to explore how social learning is embedded in tourism destination governance. A qualitative research methodology was applied which included face-to-face interviews using a semi-structured interview protocol. An adaptive approach (Yin, 2011) using stratified purposive sampling (Flick, 2007) allowed for the identification of interview participants. The stratification of potential respondents was based on the characteristics of resident status and functions (e.g. local stakeholders living in and around the national park and official stakeholders involved in park management), level of involvement in the park management process and/or the tourism industry. Finally, a judgment or expert sampling technique (Jennings, 2010) was applied to select sample respondents from the potential respondent classes. Officials of the Bangladesh Forest Department, partner NGO and local

community leaders (religious, social and political) were considered to be experts in assisting the researcher in selecting the participants for this study.

A total of 30 participants were recruited to participate in the study; 20 representatives from local communities (local residents living in and around the park within a 5-km radius). Participants from two villages (Lawachara *punji* and Magurchara *punji*) are situated inside the national park and the other two (Duluchara and Baligaon) are situated within five kilometres of the park's boundary. A further 10 participants involved in park management were also interviewed and included officials from the Forest Department, co-management organisations (CMOs), and the partner NGO. At this point no further interviews were sought as it was deemed that data saturation had occurred. The local resident respondents and official respondents are coded as LP and OP, respectively, in the Sections Results and Discussion alongside excerpts of the interviews (e.g. LP01).

The interview protocol consisted of open-ended and semi-structured questions that focused on stakeholders' participation and their role in park management; their interaction and relationships with each other and how they learnt from such interactions and how the learning that occurred impacted on the governance of the park before and after the application of the new protected area management approach i.e. adaptive co-management (ACM). The interviews were conducted in the local language Bengali which was recorded digitally, translated and transcribed by the primary researcher. The average duration of interviews was 50 minutes. Interviews had several limitations: the hesitancy by some respondents to engage in detailed discussion due to time constraints or a lack of knowledge (memory) of the learning processes; and some officials were hesitant to speak about negative aspects of the process.

After transcribing the interviews, a thematic coding process (Creswell & Clark, 2011) was applied. Both data-driven (emerged from imperial data/transcriptions) and theory-driven (emerging from the literature) coding processes were used simultaneously. These codes were then categorised into broader themes considering the objectives of the study and to develop various relationships between the codes and themes (Bryman, 2012; Creswell & Clark, 2011).

4.4 The study site and context of the study

The protected areas of Bangladesh are in a highly vulnerable condition due to various anthropogenic impacts which have been compounded by ineffective and poor governance systems. Generally the people of Bangladesh, irrespective of their literacy levels and status, lack awareness or have misconceptions about the importance of conserving natural resources (Masum & Akhir, 2010). This

has resulted in considerable degradation of certain flora and fauna species in the country (Foster-Turley, Das, Hasan, & Hossain, 2016).

Prior to the introduction of the new governance approach ACM, there was no mechanism for increasing awareness about park conservation amongst the local community. There was little interaction between the different stakeholder groups and the Forest Department was solely responsible for all management activities and decision-making for the park. The lack of communication and information exchange had led to mistrust between the Forest Department and local residents which had caused a history of conflict and confrontation between the groups.

The overall learning environment was also poor which served to reinforce local misconceptions about conservation (Aziz, 2008; Bruning et al., 1999; Mukul et al., 2014; Rahman, 2004). For instance, most of the local people were illiterate and uneducated which had led to many being illegally dependent on the natural resources of the park for their livelihoods. Poaching, deforestation and overall degradation of the park area were common (Mollah & Kunda, 2004; Mollah, Nath, Rahman, & Mannan, 2003; Mukul et al., 2014). Further, the local people were often supported by influential (mostly political) leaders to commit these illegal activities because of the financial interests of both of parties (Foster-Turley et al., 2016; Mukul et al., 2014; Mukul et al., 2012; Rashid & Khan, 2014). Therefore, the local peoples' socio-economic dependence and political environment shaped attitudes towards the environment and natural resource conservation.

To address many of the challenges associated with the park's governance, a co-management approach was introduced in 2003 with the aim of enhancing the institutional frameworks to better protect and conserve the biodiversity of protected areas of Bangladesh (Nishorgo Support Project [NSP], 2006). The Lawachara National Park was one of the pioneer co-management sites and as such was purposively selected as the study area for this research. The national park, a tropical rain forest with evergreen and semi-evergreen vegetation, was established in 1996 and covers an area of over 1250ha. Controlled nature-based tourism (or ecotourism) was selected as one of the alternative income generation opportunities through the co-management approach with the expectation that tourism would increase awareness for both hosts and visitors of the importance of park conservation (Elands et al., 2015). The national park has become a popular tourism destination for both domestic and international visitors due to its landscapes, ethnic cultural heritage, unique biodiversity and proximity to the country's capital city (M. W. Islam et al., 2011).

Various CMOs were created as governance and management bodies with the objective of facilitating collaboration between the diverse ranges of stakeholders in the destination. The interaction and

collaboration between these stakeholders generated a range of various learning experiences which were able to be re-applied through an iterative or action based learning approach; in doing so, this led to a more advanced form of governance, ACM (also see Aziz, 2008; Belal, 2013; Chowdhury, 2008; Fox & Mustafa, 2013; Haider, 2013; Rashid, Craig, Mukul, & Khan, 2013; Rashid & Khan, 2014).

4.5 Results

4.5.1 *Personal or cognitive factors*

With the exception of the reproduction phase of the mediation process, the three mediation sub-processes of attention, retention and motivation, are encapsulated within the personal or cognitive factors of social learning (Bandura, 1986). The attention phase occurs when people observe others' ('models') behaviour. The attention phase was clearly evident in this case through the establishment of CMOs or institutions under the ACM approach. These institutions created a new platform for local stakeholders to communicate with each other and in doing so were successful in attracting attention to, and increasing awareness of, the various issues that were impacting on the park and the surrounding communities such as resource degradation, illegal activities, environmental and climate change. As one respondent noted,

We very often go to the market and sit there and discuss different issues with the local people. There are many scopes for learning together (OP06).

Another respondent noted that,

Previously we treated trees as only trees. We did not know a lot about trees and its contributions in our environment. In fact, there was no such opportunity to learn more. So, the project started to make us aware of the forest. Different co-management organisations facilitated such awareness development activities (LP12).

Through the creation of new institutions, a broad range of stakeholder groups began attending formal events such as workshops, meetings, training and field visits. Such activities provided a forum for both observational and situated social learning for stakeholders. Here respondents cited the opportunities to engage in informal communication and awareness activities such as discussions and experience sharing, as well as communicating messages to the broader population through street songs and dramas. These formal and informal activities allowed participants to observe and learn from one another about the need for environmental protection and alternative income generation activities such as tourism. For instance, a number of participants discussed how local stakeholders began to rethink their traditional dependency on extracting natural resources from the park;

Various co-management projects made us [local people] aware of various issues of the park by providing us different training to start tourism activities in and around the park. I think without their initiatives we could not be familiar and aware of tourism (LP12).

4.5.2 Behavioural factors

Retention is an important part of the cognitive process of social learning (Bandura, 1986) as motivation and reproduction cannot occur if knowledge is not retained. In the study, retention, motivation and reproduction were clearly linked to the interests of the local people in altering their behaviour. As noted, many of the local community living in and around the park were illegally dependent on the park's resources and due to their socio-economic circumstances had little or no concern for the park as a protected area. As such, retention was found to have been most successful when the interventions focused on alternative economic activities that were not only legal but were considered to be 'respectable'. Respondents discussed this to be particularly important for the local youth living in and around the park. For instance,

I have built a house close to my parents' house. As I started to earn money from tourism so I did not want to be a burden of my parents. My son also works with me. Now I live with my son in our new built house. I took some bank loan to build the house. I pay my instalments through earning money from tour guiding (LP18).

Motivation underpins both the attention and retention phases; the extent to which stakeholders are motivated, through either positive or negative reinforcement, to observe and learn (Bandura, 1986; Dulany, 1962, 1968). It could be seen that the stakeholders had different motivations depending on their interests in the protected area as a resource. Some stakeholders were involved due to their interest in maintaining their subsistence livelihoods; others were engaged in tourism and recreational activities in the park as a source of alternative income. Some were also engaged in the process in order to protect their illegal commercial interests; indeed, some of these were acting on behalf (as a 'front') for political leaders or other powerful groups who sought to keep their interests hidden. Multi nationals such as petroleum companies also sought to be involved with the objective of ensuring they could continue to extract petroleum resources from the area. Others were involved due to their environmental concerns such as international stakeholder groups concerned with nature conservation.

Local community leaders, such as tour guides, community patrolling group members and handicraft manufacturers served to motivate other local stakeholders to participate in the various conservation interventions with the aim of enhancing the touristic appeal of the park. In fact, even the tourists themselves supported the motivation phase through their interactions with local community residents.

This was found to motivate local people to learn more about tourism as a livelihood option and also better understand the environment of the protected area. As one local resident noted,

We have learned a lot from the foreign tourists like sensitiveness to the environment by not polluting it by throwing garbage, cleanliness, talking gently, and so on. It has a great impact on the local people. I have noticed that now, some of the local people speak very gently, and do not quarrel or hit their wives! Moreover, the foreigners also have learnt from our culture and society such as drinking coconut water directly from the coconut, hand sewing and embroidering works on cloth, wearing lungi [a local dress for males] (LP15).

Strategies were also put in place to de-motivate certain behaviours such as illicit felling in the protected area. These included legal proceedings, warnings, withdrawing incentives such as loans or expelling individuals from activities such as community patrolling groups;

The community patrolling group members are under pressure as previous members were suspended from their group due to their unethical activities. There are still both bad and good members in these groups. However, due to awareness development now there is no outsider to cut trees from the park. Only some local members with the assistance of some corrupted officials are cutting trees (LP17).

Reproduction is the final phase and follows the attention, retention and motivation phases of the mediation process. Reproduction is a behavioural form of social learning theory that refers to the ability to emulate and perform a specific memorised behaviour or activity (Bandura, 1986). There were various examples of the reproduction phase. One was the establishment of community patrolling groups which were established to protect the park from destruction but also provided an alternative income generation activity for many of the former illicit fellers and poachers. Similarly, the promotion of tourism is another example. It could be seen in the study that the local people engaged in tourism enterprises were earning their livelihood as well as became aware of the importance of the park for their livelihood;

The objectives of these projects have been achieved to some extent. The overall environment of the park has been improved. The local people who have received various incentives from these projects have been benefitted but others have not benefitted much. I have also been benefitted being the eco-tour guide through receiving the training and other support (LP18).

4.5.3 *Environmental factors*

The stakeholders that respondents had cited as influential in the attention, retention and motivation phases of the mediation process were found to be NGOs, newly formed CMOs (as park governance bodies) and local trained tour guides. As one respondent noted,

There are tour guides in this area. They always talk with their neighbours particularly who are forest dependent and make them aware of conservation. In this way people begin to know about the park and the importance of protecting it (LP29).

The tour guides were considered to be important role models and mediators in and around the park and acted as advocates by talking to community members about the importance of conserving and protecting the park. These messages were reinforced by visits from ‘celebrities’ such as politicians, actors, journalists and sportsmen who offered their support for the conservation of the protected areas and drew further attention to the messages around conservation and alternative livelihoods. This was found to be particularly effective if the stakeholders felt that the disseminator communicated with sincerity and integrity.

Situated learning was particularly prevalent in terms of the environmental factors. For instance, ongoing and frequent interactions and discussions (both formal and informal) occurred more frequently. As one respondent noted,

Many stakeholders are gathering in various newly created co-management organisations. They discuss various issues together as well as follow-up the progress of their performance. This helps us to build-up a good relationship among these stakeholders and recalling previous messages and decisions (OP17).

Both verbal and imaginal representation systems of observational learning were found in the retention process. Yard meetings at the homes of local residents were cited by a number of the participants as one of the communication strategies that was effective for their learning. Here, in particular, local women would gather to discuss various issues relating to the park and their livelihoods. These forums were also used to establish new norms and understanding about the roles and responsibilities of local people in utilising the protected areas. The use of practical examples, as well as visits to other ACM project sites were also cited as beneficial in sharing information and promoting understanding amongst local stakeholders.

4.6 Discussion

Observational and situated learning was clearly evident in the three interlinked personal, environmental and behavioural factors of social learning. Embedding social learning in the governance approach, together with incentives such as loans and grants, were successful capacity-building initiatives and helped to facilitate the involvement of a broader range of stakeholder groups. Respondents all cited social learning outcomes to include improved interrelationships, awareness building, skill creation, new income opportunities and collaboration as positively empowering local stakeholders and, in turn, overall community development (Figure 4.1).

Outcomes of the social learning process were many and varied. Importantly, there was evidence of multiple-loop learning. For example, local tour guides who were engaged in the social learning

process then served as advocates for the key conservation messages they had learnt. Their interactions with others helped changed perceptions of the park as an extractive resource, and they also communicated these messages to the tourists; efforts which were all found to have reinforced the key messages being disseminated through other channels (Figure 4.1). As one respondent noted,

Tour guides can play an important role in this area. All the tourists should be guided by these tour guides. If we could interpret (either visually or verbally) to the tourists the do's and don'ts before their entrance into the park, then they can learn many behaviours and they could share those with their family and friends (OP06).

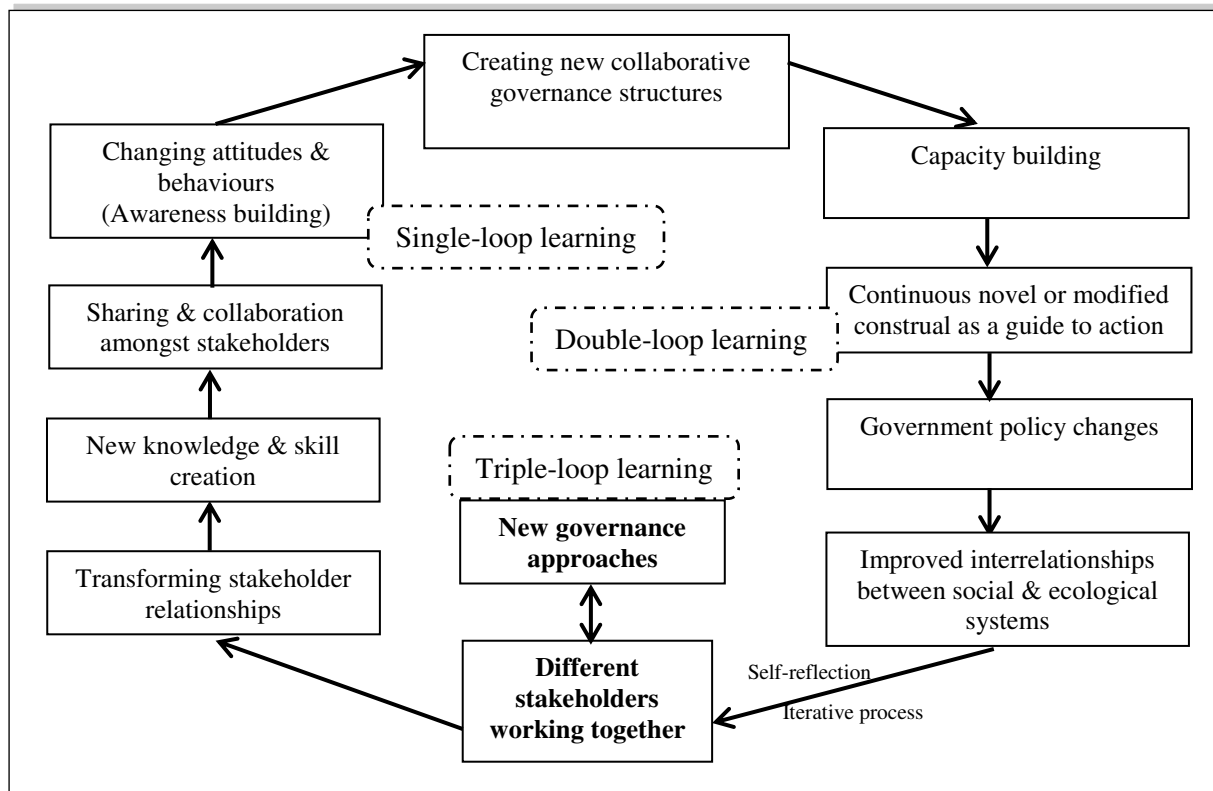


Figure 4.1: Social learning outcomes in the Lawachara National Park

Single-loop learning was more prevalent and was often linked with the introduction of alternative income generation activities (Figure 4.1). Destructive behaviours in the park such as poaching, illicit felling of trees and illegal resource extraction, as well as anti-social activities such as theft against tourists were all noted as improving;

There were some people here who used to take rifles in every night to hunt wildlife. But due to working together and an awareness of developmental programme these people's behaviour has been changed. Now they do not hunt anymore (LP23).

Here, learning about, as well as providing support for locals to engage in alternative income opportunities was a successful strategy. Many respondents discussed the importance of the various

capacity building initiatives that they believed had helped them learn about, and change their behaviour towards their usage of the park.

The process also prompted changes in government policy, laws and regulations for the protected area;

You may be informed that the government of Bangladesh is going to make a new Act on co-management where the transparency, accountability of the CMOs, how the decision will be taken, different project implementation and its expenditure and liability, who will audit and so on will be addressed (OP019).

Certainly, these new governance bodies played a vital role in the transition towards an innovative, participatory and adaptive governance system with their competency and leadership gradually increasing through various capacity building initiatives as well as 'learning-by-doing'. Because of this, they were gradually improving their organisational capacity to deal with multiple-loop learning (Figure 4.1). The change in management and governance approach from traditional to ACM was an example of triple-loop learning as it influenced governing principles/variables through the transformation of the structural context of Lawachara National Park governance and management. Such changes were based on governing assumptions, beliefs and paradigms (Armitage et al., 2008; Pahl-Wostl, 2009) of the park governance system.

While there were many positives, no process is perfect and there were many challenges associated with the introduction of social learning through the ACM approach to governance. It has already been noted that there were a diverse range of stakeholders engaged who often had competing interests. Corruption and power imbalances, as well as the 'elites' seeking to protect their own interests were found to undermine the process. It was also noted that while some local residents had become involved with the learning and other ACM activities, they had yet to change their behaviours. For example, some of the poor in the community did not change their illicit activities even though they knew that what they were doing was illegal and unlawful;

They were trained by the project staff for protecting the park and contributing in conservation efforts. They patrolled the park with the Forest Department staff. But some of them were dishonest and involved in illicit tree felling. I think they have strong political back-up and somehow law enforcement is weak against them (LP16).

The NGO participants in the study discussed the need to overcome many hurdles, particularly in the early stages of the process, around misunderstanding, miscommunication and conflict between the local stakeholders and the Forest Department. Armitage et al. (2008) also recognised the challenges of overcoming the embedded political and institutional processes and acknowledged that these do impose limitations on the process. Further, some respondents noted that the process was more

political than democratic, particularly within the CMOs, and this served to further obstruct shared decision-making and governance activities within the park. For instance, it was claimed that only ruling party representatives were selected for some of the governance bodies which limited the extent to which constructive debate could occur. Others noted that the necessary institutional arrangements were not in place to monitor and evaluate the outcomes of the ACM and social learning processes.

Other challenges that were seen to impede the process included a lack of resources; skilled and trained personnel, financial resources and logistical support were all noted. The dependency on foreign funding through loans and grants was seen as impeding the ongoing sustainability of the new governance system. A lack of awareness by local and official stakeholders about tourism was seen as a challenge as few involved in the process had experience with the tourism sector. It was also found that the lack of a strategic vision and plan for tourism in the park presented challenges.

4.7 Conclusion

This study sought to explore the social learning processes of a governance approach implemented for a protected area site. The three factors of social learning, cognitive, behavioural and environmental, allowed for the exploration of social learning in practice. Positive outcomes were identified including enhanced stakeholder engagement and collaboration, the creation and sharing of new knowledge, the development of (new) institutions, capacity building, incentives and empowerment. A number of challenges were similarly identified and many of these were a legacy of the past, the embedded interests of powerful elites, and the use of the protected area as a consumptive resource. Though there were challenges, the collaborations between the multiple stakeholder groups did contribute to improved social dynamics and overall community well-being, mainly through the generation of alternative income generation activities such as tourism.

This study has reinforced the importance of participatory learning platforms where stakeholders can gather, interact and learn in a collaborative manner (Koutsouris, 2009; Muro & Jeffrey, 2008). Various local governance bodies were formed after the introduction of the ACM governance approach including CMOs and co-management committees (CMCs). For instance, the CMC was a multi-stakeholder decision-making platform comprising representatives from various government departments (i.e. department of forest; fisheries; police and other law enforcement; local administration and government; and youth development and social welfare), civil societies and local community representatives. These bodies had a range of functions but importantly were responsible for changing local stakeholders' attitudes and behaviors towards the natural resources of the park and also to take proactive actions to facilitate its conservation and protection. These bodies served as

platforms where the multiple-loop learning process emerged through social learning helped to guide these local governance bodies to solve a range of problems by increasing collaborative interactions among the stakeholders where they learnt by ‘doing’.

Although recognised as supporting ‘good’ governance, the application of social learning to tourism destinations is a novel field of research (Higham, 2012; Koutsouris, 2009; Wray, 2012). More broadly, there is a lack of research on the complex learning processes associated with decision-making in a governance system (McCarthy, 2006). This empirical study adds to the body of knowledge related to the contribution of social learning in influencing the governance of tourism destinations, particularly in protected areas in the context of a developing country. The results from this study have found that social learning can influence both directly and indirectly the transformation process of a top-down to bottom-up governance approach. This ultimately influences the governance of tourism destinations where consensus was found based on constructive and critical debates among the stakeholders.

CHAPTER FIVE: CONCLUSION

5.1 Introduction

The previous three chapters investigated various impacts of the ACM approach in facilitating tourism destination governance in the context of protected areas of a developing country. This chapter provides the conclusions to the study by: discussing the various challenges that may occur when implementing the ACM approach in protected areas; summarising how the study has met the overall research aims and objectives of the research; articulating the theoretical contributions and managerial implications of the study; acknowledging the limitations of the research; and finally, by suggesting recommendations for future research. This chapter starts with an overview of the key research findings and provides a summary of the relationships occurring among the three research objectives (Figure 5.1). It also provides a summary of the main concepts of this research, that is, the ACM approach, governance, and social learning, thus illustrating the relationships that occur among these concepts in a tourism destination governance context (Figure 5.2).

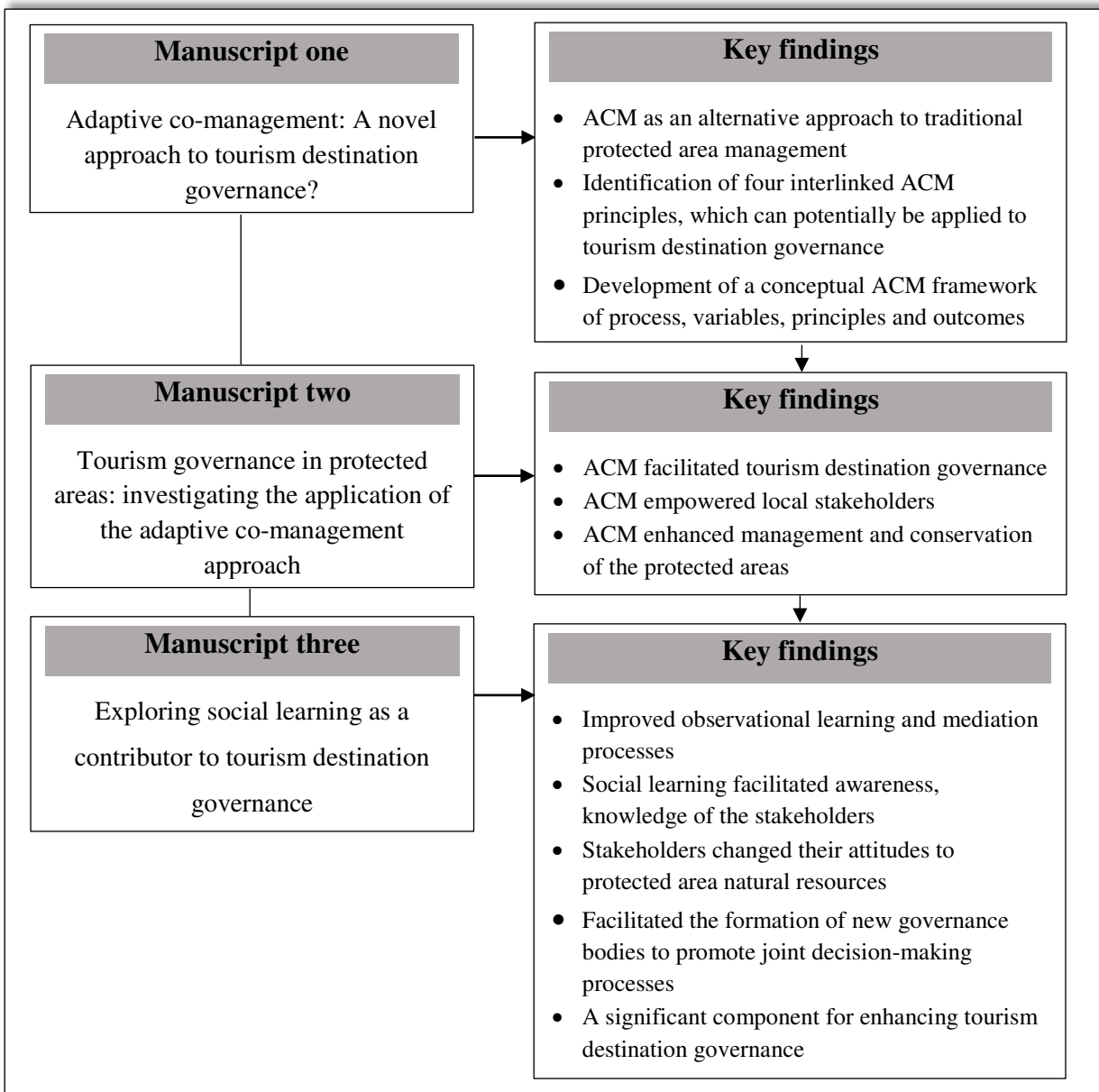


Figure 5.1: Major findings and relationships among the three manuscripts

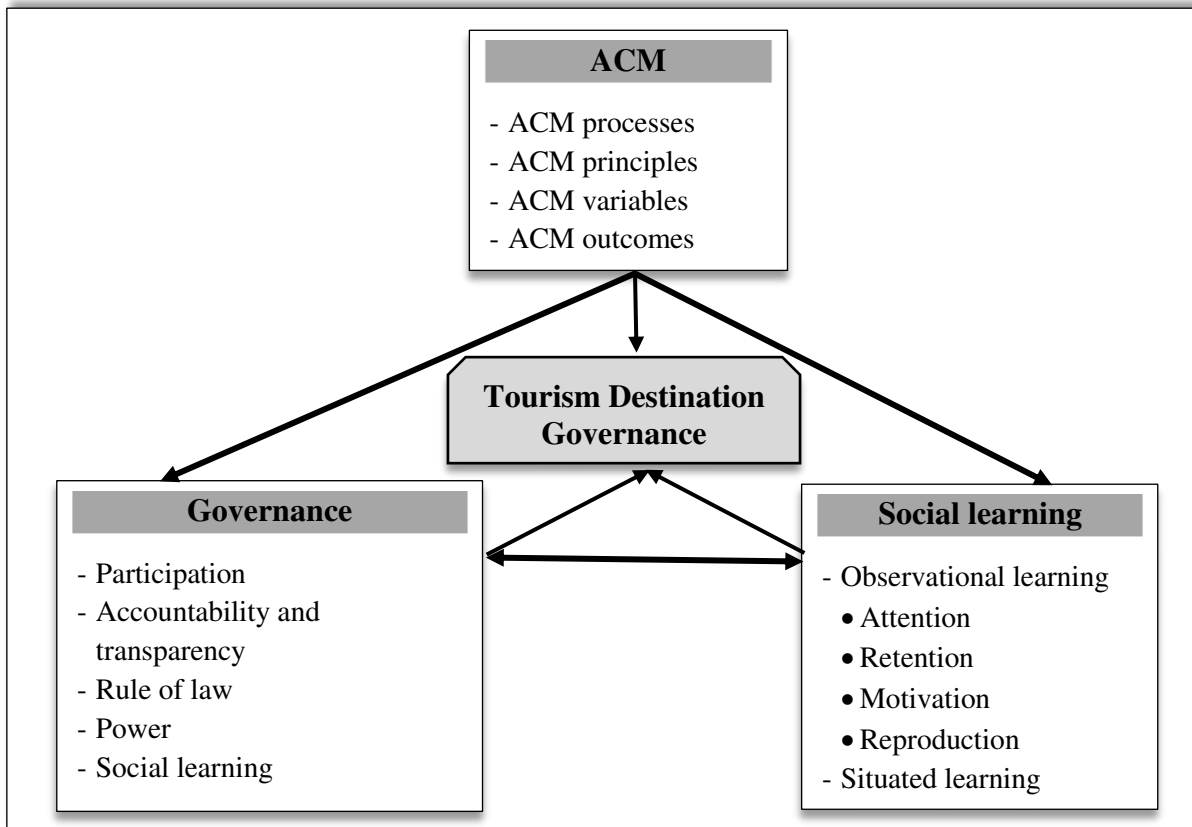


Figure 5.2: The relationships occurring among the ACM approach, governance, and social learning in a tourism destination governance context

5.2 Challenges of implementing ACM in the protected areas of Bangladesh

The two empirical studies (manuscripts two and three) of this research discussed the different contributions the ACM approach made to the management of two protected areas in Bangladesh. Given the word limitations of these manuscripts, a number of issues which impeded the implementation of ACM were not able to be adequately addressed. This section therefore discusses those issues that emerged during the study and which are pertinent to any discussion about the complexities and challenges of implementing the ACM approach in protected areas. This section begins with a discussion of the external pressures that threaten protected area management. It then discusses resourcing challenges related to protected area management, including adequate human resource capabilities and budgets. Finally, the issues of planning for tourism development are discussed.

5.2.1 External factors

The external factors that affected the progress of the ACM approach and thus challenged tourism destination governance process in both of the studied protected areas were related mostly to pressures from other industries. While it is not permitted to establish any industry within the boundary of 10-km of the Sundarbans forest area, which is declared as ecologically critical area in 1999 (Department of Environment, 2015), in reality there are still hundreds of illegal industries operating within this restricted zone. Despite a recent order by the High Court of Bangladesh to not allow any industry within the designated protected areas (The Daily Star, 2017), participants in this study alleged that the Department of Environment had, over the past years, issued site clearance certificates for 150 factories in these areas (The Daily Observer, 2017). The owners of these factories were often influential politicians who had purchased or leased the land at a low cost.

The activities of these illegal industries have been recognised as threatening the existence of the Sundarbans. The operations of these industries were seen to negatively impact on the willingness of the local resident stakeholders to promote the ACM approach. This is because many of the local people worked at those industries and were therefore worried their support and work within the ACM governance organisations might impact of their employment and create new conflicts. Moreover, the pollutants from those industries are potential threats to the ecosystems and biodiversity of the Sundarbans, thus ultimately impeding on many of the ACM initiatives designed to protect and conserve the mangrove forest. Because of such illegal industries and their operations, the enforcement of laws and regulations is a major and ongoing challenge for the implementation of any new policy arrangement in Bangladesh.

Another challenge threatening the management and protection of Bangladesh's protected areas is the Rampal Power Plant project. This massive coal-fired super thermal plant project is located very close to the Sundarbans (within 12-km) (Lang, 2017). While the power plant is estimated to generate 1,320 megawatts electricity, both local resident participants and official participants expressed their deep concerns about the power plant as it poses a threat to the Sundarbans area, which is a great source of carbon storage and the last abode of the Bengal tiger. There are also concerns that the plant will cause serious air and water pollution and the diversion of water to the plant, as well as the coal-carrying barges will severely impact on the ecosystem of the Sundarbans and threaten the livelihoods of the half-million people who depend on the mangrove forest (UNESCO [United Nations Educational Scientific and Cultural Organization], 2016). Already several hundred families have been forcibly evicted from lands of the plant and have also lost their livelihoods (Aitken, 2016; Hance, 2013). As

India could receive significant financial benefits by supplying coals to the power plant (Aitken, 2016; Hance, 2013) it has become a political battle ground.

Similar controversial projects have also threatened the Lawachara National Park area, which is a good reserve for petroleum resources. In 1997 there was a gas field explosion near Magurchara *punji* (village), causing massive damage to local settlements and destroying around 700 acres of the protected area. In 2008 there were controversial explorations by Chevron energy providers using explosives. This had negative impacts on both the resident wildlife, as well as to local housing. There were also protests from several civil societies and environmental groups against the explorations (Khan, 2010). From the perspective of the participants in this study, such controversial projects provided ongoing challenges to the implementation of the ACM approach in both the Lawachara and Sundarbans areas. On one hand the government was seen to be trying to promote the conservation of these protected areas through ACM; but on other hand, the government was also arranging to threaten these areas through such petroleum resource and power plant projects.

5.2.2 Challenges in protected area management

As well as the external challenges associated with balancing conservation efforts with financial exploitation of natural areas, there are also challenges related to the implementation of a protected area governance approach. Such challenges include: insufficient resources in terms of trained manpower, financial resources and logistic support; and the impact of competing interests and pursuit of self-interests by some officials (Chowdhury & Izumiyama, 2014; Mitchell, Alam, & Bari, 2004; Rahman, 2016; Shin, Miah, & Lee, 2008).

While the Forest Department has been implementing the co-management approach since 2003, they continue to suffer from the impacts of manpower shortages in terms of both co-management and tourism experts, as well as field-level operational employees. For example, there is a management Circle¹ called the 'Wildlife and Nature Conservation' within the Forest Department whose task is to manage and control all the protected areas of Bangladesh, including the implementation of co-management approach; and the frequent mobility of the employees of this Circle continue to affect

¹ Circle is highest management unit (in terms of geographical area) of the Forest Department. There are total nine Circles in Bangladesh Forest Department to manage all forest resources. There are several Divisions under a Circle. There are total seven 'Wildlife Management and Nature Conservation' Divisions (Dhaka, Chittagong, Moulouvibazar, Khulna, Rajshahi, Hobiganj and Sherpur) under the 'Wildlife and Nature Conservation' Circle to manage all the protected area resources.

the functioning of ACM approach. The employees of this Circle serve a maximum of three years in a posting, however many of them are transferred well ahead of this time. Unfortunately, these officials are not restricted to transfer within the same Circle and thus they may be transferred to other Circles of Forest Department where there is no involvement in protected areas and co-management applications. As such, the experiences and knowledge base of those employees transferred out of the protected area management area becomes lost, thus hampering social learning abilities. A further consequence of this continual transferral of employees is an acute shortage of experts in the Forest Department in the fields of protected area, ACM, governance and tourism. While some of the official participants were in favour of this transferral system claiming it facilitated capacity building by enabling employees to be competent across many types of forests and management approaches, they were not very particular about the reality of how this type of capacity building approach could be efficiently implemented to ensure specific natural area management knowledge was retained. Some of officials suggested a dedicated management workforce should be fostered through a special capacity building program that was developed specifically for protected area management and the focus of this dedicated management team would be the management and monitoring of the biodiversity and cultural diversity of the protected areas.

As well as labour force issues, issues with financial resources also impacts on the implementation of a successful governance system. In the study area, the implementation of the day-to-day activities (including conservation activities) of the Forest Department is affected by a serious lack of finance. The Department is highly dependent on foreign funds (either loans or grants) and receives insufficient funds to plan and implement development projects (Chowdhury & Izumiyama, 2014; Iftekhhar, 2006; Rahman, 2016). This lack of funds means that many development activities fail to continue after their formal funding period ends. Similarly, while funding of the implementation of the co-management approach (USAID funded) is still ongoing it has a limited budget. This means capacity building activities, incentives for alternative income generation opportunities, and other supports for the local stakeholders receive little funding. Moreover, the on-going project is earmarked to come to an end in 2017; however, no decision has yet been made with regards to its ongoing funding. As such, many of the officials interviewed in the study were sceptical about the sustainability of the project and its funding and project activities.

Another problem impacting on the management of Bangladesh's protected areas is a lack of logistic support. Some of the officials interviewed for this study complained of a lack of logistic support given to the preparation of the Forest Department and launch of the co-management project. They further added that there were very few capacity building and motivational initiatives offered to both official

and local residents to become involved in the project and partnering NGO officials had little experience in natural resource management. As a result, there was much confusion regarding the new protected area governance approach, particularly for the field level officials who did not receive adequate support to implement the approach. Such inadequacies lead to conflicts between the Forest Department, the NGOs, and other local stakeholders (see Table 5.1).

The colonial mentality and high-power distance culture of some of the Forest Department officials also hampered the implementation process as this power distance affected communication and relationships with the local stakeholders. This was particularly evident in the Lawachara park. Some of the people involved in the various co-management governance bodies are rich, powerful and politically influential. It was reported that some of these more influential people used their positions of power to control the natural resource-dependent poor people for their own self-interests. While many political campaigns focused on bettering the lives of the poor local people and politicians were elected on these promises, it was reported by several of the participants that many of the politicians did not commit to these promises and policies. Policies related to the Forest Department were also considered to not always be beneficial to the protected areas, nor the local stakeholders. Some Forest Department officials were also influenced by politicians, thus provoking conflict among the stakeholders, as the Forest Department officials were supposed to remain neutral and act in the best interest of the protected areas. Instead some were seen to act out of self-interest, thus obstructing both the governance system of the protected areas and the co-management objectives of the Forest Department. Despite the problems initially created from the traditional colonial mentality and high-power distance culture, this mentality has improved gradually through the application of the co-management approach which has been successful in strengthening the relationships (cooperation and coordination) among different stakeholders.

Table 5.1: Stakeholder conflicts under the traditional management approach

Causes	Effects
Less job opportunity for the locals	Dependent on natural resources
Poor governance	Poor management
Political commitment	Weak political supports
Capability of the Forest Department	Insufficient dealing with the local stakeholders

Source: Field interviews, 2015.

5.2.3 Challenges in tourism planning

Tourism is the only revenue generation activity allowed in the two protected areas of study. The co-management executive body (co-management committee or CMC as the executive committee of the park) of the Lawachara National Park receives 50% of total revenue generated as the entrance fee to the park (yet to be implemented in the Sundarbans site). This is mainly spent on paying the salary of some of the office bearers, creating tourist facilities and developing the local community. A portion is spent on the development of the villages located in and around the Lawachara area, where tourists visit. Yet, despite its importance as an income generation activity, there is currently no separate tourism master plan to guide and manage the tourism activities in either of the two protected areas of study. As a consequence tourism activities have not always been coordinated and strategic (Mollah et al., 2003). This lack of coordination and planning was seen by participants to be affecting the development of the protected areas, particularly in the creation of tourist facilities, security, awareness development and capacity building for the local resident and official stakeholders. There is therefore a need for the development of a strategic and adaptive plan that includes the active involvement of the local stakeholders and which ensures there is a revenue sharing system that includes the local community. Such a plan is not only important for ensuring a sustainable tourism industry in the affected protected areas, but also to ensure the empowerment and development of the local communities.

In the development of tourism plans for the study areas, planners also need to be cognisant of some of the other challenges currently affecting tourism in these areas. Communication gaps created by differences in various stakeholders levels of education and awareness of co-management and tourism was identified in this study as one of those challenges (Chowdhury & Izumiyama, 2014; Chowdhury & Koike, 2010; Mukul, Uddin, Uddin, Khan, & Marzan, 2008; Rashid, Craig, Jeffery, et al., 2013). Such educational and awareness gaps thus created new conflicts and challenges among the stakeholders under the ACM governance regime. For example, under the ACM approach, the two separate governance structures (i.e. the newly created co-management governance bodies and the traditional Forest Department) encountered some conflicts due to insufficient guidelines that separated their responsibilities. However, the reciprocal and shared interaction processes that occurred between these governance bodies gradually enriched the practical knowledge (through social and situated learning) of the participant members, thus also leading to improved relationships.

Despite of the above-mentioned challenges, the Government of Bangladesh is trying to implement the new governance approach and to institutionalise it in the mainstream of protected area management approach. In this regard, co-management approach has been addressed and recognised

in various legal documents of Bangladesh such as the Wildlife (Conservation and Safety) Act 2012 and the Bangladesh Forest Policy (Draft) 2016. What's more, the participants in this study were also generally satisfied with this new governance arrangement for the improved protection and conservation of the Lawachara and Sundarbans protected areas that the approach offers. The participants discussed working together to address and manage the different socio-economic, environmental and political challenges in implementing the ACM approach. They also acknowledged the importance of social learning and the ACM governance systems for gradually assisting them to learn more and manage challenges better. From this feedback this study has produced evidence in favour of ACM as an innovative and socially accepted protected area management and governance approach that has the future potential to be able to address the challenges discussed in this section.

5.3 Addressing the research objectives

The overarching aim of the study was to investigate the application of ACM an approach for facilitating tourism destination governance. The research was situated in the context of protected area management in a developing country - Bangladesh. Two protected areas, Lawachara National Park and Sundarbans East Wildlife Sanctuary, were used as the study locations. The research aim was addressed through three research objectives:

- i. to conceptually examine ACM as a governance approach in the context of tourism destinations;
- ii. to investigate how an ACM approach to governance can facilitate or inhibit the achievement of key governance principles such as participation, accountability and transparency, power, rule of law, and social learning; and
- iii. to explore how social learning is embedded in the governance of a protected area tourism destination.

The three research objectives are addressed in chapters 2, 3 and 4 respectively (see Figure 5.1). The following sub-sections overview and discuss each of the research objectives of the study.

5.3.1 Research objective 1: To conceptually examine ACM as a governance approach in the context of tourism destinations

The first objective of the study (chapter two) sought to conceptually explore whether ACM was an approach that could enhance tourism destination governance. There is an extensive body of literature that has focused on ACM in natural resource governance and management, but there has been little application of the concept to a tourism destination governance context, despite suggestions of the validity of such approach (Chen et al., 2016; Fennell et al., 2008; Plummer & Fennell, 2009). Certainly, studies have not sought to explore this concept in the context of developing countries specifically. The outcomes of this first objective included the identification and review of four interconnected principles of ACM: communication and collaboration; social learning, shared rights, responsibility and decision-making; and building adaptive capacity and resilience (Table 2.1).

Firstly, communication and collaboration denote the active involvement and engagement of different stakeholder groups including the local community in governance processes (Prabhu et al., 2007). Communication and collaboration can be supported by enhanced facilitation, negotiation and coordination amongst stakeholder groups (Armitage et al., 2008; Berkes, 2007; Towner, 2016). In turn, this can facilitate building trust, managing conflict, sharing power and rights (Armitage et al., 2009; Berkes, 2009; Mbaiwa, 2011; Park et al., 2012). Social learning was identified as the second principle and is “the collective action and reflection that takes place amongst both individuals and groups when they work to improve the management of the interrelationships between social and ecological systems” (Keen et al., 2005, p. 4) or “learning together to manage together” (Ridder et al., 2005, p. 11). The third principle, shared rights, responsibility and decision-making refers to the empowerment of local communities to be aware of, access and exercise their legal rights (e.g. access to natural resources), as well as their right to participate in decision-making processes (Armitage et al., 2007a; Berkes, 2007; Cundill & Fabricius, 2009). The fourth principle, building adaptive capacity and resilience, incorporates the development of skills, knowledge and confidence of stakeholders through various strategies (Armitage et al., 2007a; Eagles et al., 2002; Flores, 2014; Olsson et al., 2004; Prabhu et al., 2007).

From this review and identification of the key principles of ACM, a conceptual framework was developed and proposed to conceptually link the general principles of ACM with tourism destination governance. The framework identified key processes, variables, principles and outcomes which can each directly and indirectly influence the governance system of tourism destinations. The review allowed for the identification of a future research agenda which included: (i) To what extent are the principles identified through the literature embedded in ACM processes in practice? (ii) How do

particular variables influence the outcomes from an ACM process? (iii) Is ACM appropriate for the governance of protected area tourism destinations? (iv) How does social learning affect the governance of tourism in protected areas? (v) Is there a role for learning-by-doing in tourism destination governance in protected areas? (vi) Can ACM enhance the building of trust between stakeholders in tourism protected area governance?

Objective one of the study was conceptual in nature and designed to provide a foundation for the following two empirical phases of the research. Importantly, the future research questions and themes from the review provided guidance for the empirical data collection.

5.3.2 Research objective 2: To investigate how an ACM approach to governance can facilitate or inhibit the achievement of key governance principles

From the research gaps identified through objective one, the second research objective sought to investigate whether an ACM approach could contribute towards enhancing tourism destination governance. Two protected areas of Bangladesh, Lawachara National Park and Sundarbans East Wildlife Sanctuary, were used as the context to explore this objective.

Participants who had participated in the ACM approach in the study areas were overwhelmingly supportive of the approach and the success of the approach in improving destination governance processes. It was found that an ACM approach had positively transformed the management and governance practices of these two protected areas. Participants were also supportive of the extent to which the approach had increased the interactions between diverse stakeholder groups within the protected area context and most discussed the improvement in terms of the improved opportunities to participate in decision-making and planning for the protected areas, as well as the development of their local community.

Another positive outcome was the establishment of new institutional arrangements (co-management organisations) which were seen to be more successful at facilitating communication and interaction between stakeholder groups. These institutions were also found to support shared (or social) learning opportunities, as well as to provide a forum for joint decision-making and the creation of new knowledge about the management of the protected areas. Participants reported outcomes including increased accountability and transparency, rule of law, and more balanced power relationships. Most participants described that they were more empowered as a result of the ACM process.

The participants also identified some negative aspects or challenges associated with the ACM approach. They mentioned several external factors, protected areas management related challenges

and tourism planning related challenges. However, the generally positive response to the ACM approach could be linked to the fact that the vast majority of problems facing the protected areas in Bangladesh have been caused by poor governance and mainly caused by organisational corruption, competing interests of stakeholders, lack of implementation of rules and regulations, illiteracy, and unemployment. Therefore, the introduction of the ACM approach, while obviously not perfect, was clearly a vast improvement on what had taken place previously and this was reflected in the very positive perceptions of study participants.

5.3.3 Research objective 3: To explore how social learning is embedded in the governance of a protected area tourism destination

Social learning was identified (through both objective one and two of the study) as one of the key aspects that underpinned the ACM approach and many participants credited the social learning opportunities that emerged as pivotal to the success of the approach. As such, the third objective of the study sought to delve into this aspect of the process in more detail. This objective sought to explore how social learning facilitates tourism destination governance.

As previously noted, the ACM approach facilitated new opportunities for stakeholders to establish relationships, as well as regularly interact, communicate, and collaborate. This was in part, as noted, attributed to the creation of new institutions which facilitated such iterative stakeholder collaboration. However, in terms of learning more specifically, a ‘learning environment’ was created where stakeholders could observe others, as well as learn from formal learning actions. For instance, many participants discussed the opportunity to learn about environmentally friendly behaviours in the protected areas. This led to the creation of new knowledge amongst some stakeholder groups, such as the local community. The iterative and ongoing nature of the interactions was also found to lead to opportunities for multiple-loop learning (Pahl-Wostl, 2009). For instance, some participants discussed that, as a result of their new knowledge about the protected areas, they moved from consumptive resource usage to adopt alternative income generation opportunities (such as tourism).

In exploring how social learning facilitates destination governance, the factors that underpin social learning processes were also explored. It was found that interconnected internal factors (personal or cognitive), behavioural factors and external factors (learning environment) were operating in influencing different outputs through the four interlinked cyclic and continuous sub-processes of mediation. The empirical results of the study showed that the social learning was significant in terms of building capacities of various newly created local governance bodies to address various governance issues which ultimately enhanced the governance system of the Lawachara National Park.

Consequently, social learning was identified as an important component for tourism destination governance. The study also identified some of the challenges against the effective functioning of social learning, such as: lack of resources like manpower, financial and logistic resources for more training and other capacity building initiatives; lack of monitoring and evaluation; lack of political commitment; and trust building.

5.4 Theoretical contributions of the research

Tourism destination governance has become an important area of research in tourism studies in recent years (Zahra, 2011; Zhang & Zhu, 2014). The complexities of tourism destinations, particularly the need for collaboration amongst diverse and often competing stakeholders, has been acknowledged as hindering the practice of tourism destination governance (Beritelli, 2011; Bramwell, 2011; Hall, 2011; Schroeder, 2015; Snyder & Sulle, 2011). As such, it has been advocated that more attention should be given to the identification of appropriate governance models for tourism destinations (Eagles, 2009; Whitelaw et al., 2014). This study addressed this research gap by exploring new approaches to tourism destination governance.

The particular governance complexities and the challenges of managing tourism destinations in developing countries suggested that the ACM approach, which while new to tourism, could have applicability for tourism destination governance. While the literature, particularly in natural resource management, has explored the ACM concept quite extensively, few have linked the concept to tourism destination governance. As such, a key contribution of this research is that it has conceptually and empirically explored the ACM approach for tourism destination governance.

This study developed a conceptual framework for tourism destination governance using the ACM approach. This framework identifies the relationships among key processes, variables, principles and outcomes of an ACM approach and links this to tourism destination governance. The extensive literature review that supported the development of the framework provides a valuable and extensive review paper which will benefit others seeking to explore this topic area. The framework itself provides a basis for those seeking to undertake their own empirical investigations of ACM as an approach to tourism destination governance.

This research applied several governance principles (participation, accountability and transparency, rule of law, power and social learning) to study how these principles were influenced by the ACM governance approach in the context of tourism destination governance. It showed that the ACM approach facilitated these principles of governance to be implemented in this context which ultimately

enhanced tourism destination governance. The empirical findings of this initial exploratory study linking ACM and tourism destination governance provide the platform for further studies that explore the application of the ACM approach in various contexts where some other governance principles may be included.

Social learning has yet to be explored in any depth in tourism generally, or tourism destination governance specifically. This research supported claims in the literature that social learning is important for governance. This study also demonstrated that social learning is a key component of effective governance for tourism destinations. This study explored how social learning in the context of ACM approach contributed to destination governance in a developing country with considerable social-ecological and political complexities and uncertainties. It showed how social learning played significant roles in generating new knowledge and awareness that could enhance the effectiveness and efficiency of governance approach of such complex and uncertain destinations. Moreover, it portrayed how various multiple stakeholder participatory platforms like local co-management organisations could facilitate multiple-loop learning in solving various governance issues to enhance tourism destination governance processes. Therefore, this study also demonstrated that social learning as a process is a frame with which to analyse destination governance, diverse stakeholder interactions, and their engagement and collaboration.

In addition, this research contributed in the field management and governance of protected areas. Though there are various approaches and strategies for the management and governance of these protected areas, this research depicted how ACM as a governance approach can contribute to the governance of protected areas.

Much of the previous ACM research has been undertaken in the context natural resource management in developed countries. This study contributed new insights into the developing country context and highlighted the additional challenges of implementing governance in complex socio-ecological and political systems.

5.5 Managerial implications of the research

Based on the findings of the study, key practical implications for protected area managers and recommendations are provided.

5.5.1 Development of tourism destination governance

The study has provided empirical evidence of how ACM can perform in practice and thus provides evidence for how tourism destinations can use these processes to enhance the governance process. These findings have applicability for the management of other protected areas and tourism destinations who may seek to utilise ACM or a similar type of participatory governance approach. Table 5.2 provides an indication of some of the practical changes that as a consequence of the implementation of the ACM process, as identified through the study.

Of particular note is the adaptiveness component of the ACM approach. Utilisation of such an adaptive-based approach, through the application of social learning, can help deal with the various uncertainties and complexities of a tourism destination. In particular, it can assist in assessing the complexities of the various stakeholder relationships that exist in a protected area tourism destination.

Table 5.2: Protected area governance principles: before and after the ACM approach

Governance principles	Before ACM	After ACM
Participation	<ul style="list-style-type: none"> • Forest Department was sole manager • No access of local stakeholders • No access of NGOs 	<ul style="list-style-type: none"> • Collaborative and multi-stakeholder management approach • Local people can participate in decision-making process • NGOs can participate
Accountability and transparency	<ul style="list-style-type: none"> • Less or no accountability and transparency for both the local stakeholders and Forest Department • Poor relationship between Forest Department and local people 	<ul style="list-style-type: none"> • Better accountability and transparency from both sides • Improved relationships
Power	<ul style="list-style-type: none"> • Forest Department was very powerful • Political leaders were also very powerful • Local stakeholders were almost powerless 	<ul style="list-style-type: none"> • Local stakeholders become powerful • Forest Department and political leaders reduced their traditional power
Rule of law	<ul style="list-style-type: none"> • More illicit felling and wildlife poaching • Conflict between local people and Forest Department 	<ul style="list-style-type: none"> • Less illicit felling and wildlife poaching • Less conflict between local people and Forest Department
Social learning	<ul style="list-style-type: none"> • Less interactions among the stakeholders and less opportunity of learning together • Less awareness on protected area conservation 	<ul style="list-style-type: none"> • Better interactions among the stakeholders and great opportunity of learning together • More awareness on protected area conservation

Source: Field interviews, 2015.

5.5.2 *Integration of conservation and development*

Tourism development can help to engage the local communities in protected area conservation and thus generate sustainable local livelihoods (Stone & Nyaupane, 2016; Xu et al., 2017). However, it is a challenge to integrate both conservation and development i.e. sustainable development through tourism (Bhattacharya & Dubey, 2005; Hughes & Flintan, 2001). The study found that the two basic components of ACM approach, that is adaptive management and co-management, were pertinent to improving conservation and the livelihoods of local communities by practising efficient governance systems through strengthening collaboration among all the relevant stakeholders of these two protected areas. It facilitated the practice of environment-friendly tourism and empowered the local residents (particularly women and ethnic communities) through alternative income generation

opportunities. Therefore, the ACM approach can be considered as a valuable approach for enhancing the socio-economic outcomes for the local community.

ACM can also foster the conservation of protected areas through concepts such as Integrated Conservation and Development Projects (ICDP). The empirical findings, based on such lessons and learning (see Table 5.3) along with an effective monitoring and evaluation system, can be useful for protected area managers, decision makers and policy makers in forming new policies, strategies and action plans for better management to enhance the conservation and development of these tourism destinations.

Table 5.3: Reasons for preferring ACM as an alternative protected area management approach

Attributes of ACM
Better approach included local participation in different activities including decision making process
Increased alternative job opportunities
Encouraged tourism development
Better protection strategy
Created scopes of practicing governance in all activities
Motivation for following rules of law and conservation and building sense of ownership
Better interactions between different stakeholders and learning together
Flexibility in learning and management

Source: Field interviews, 2015.

5.5.3 Stakeholder power and commitment

The complexities associated with the diversity of stakeholders, power, misunderstanding and mistrust between powerful stakeholders and local grass-root level residents were important in the context of this study. Interaction and collaboration among the diverse stakeholders led to a reduction in stakeholders' competing interests and misunderstanding through the establishment of shared and common goals of protected area conservation. In reality, the participants explored both the success and failure in building trust among stakeholders. Most of the stakeholders treated trust building as the foundation of working together. This trust then eventually improved the governance status of a destination through improved accountability and transparency, more balanced power through and learning together which forced the powerful stakeholders to divest some of their traditional power and engage in new roles.

5.5.4 Empowerment

Although not perfect, the ACM approach did facilitate the creation of some capacity building initiatives for both the local residents and official stakeholders. For local residents this was essentially

through alternative income generation opportunities (often minority and disadvantaged people including women). Such capacity building initiatives also contributed towards new attitudes and behaviours towards the protected areas and made stakeholders aware of their responsibilities, rights and expectations. There are however opportunities to extend capacity building initiatives for more local residents, particularly those who are disadvantaged women, unemployed, dependent on the natural resources of protected areas and the members of local co-management governance bodies.

Such capacity building initiatives should be designed based on the needs assessment of these targeted local residents, however this also requires additional budgetary and logistical support. Some official participants suggested that the financial (either grants/loans) and logistic supports for such alternative income generation activities should be provided for a group of local residents and not for individual members. They found that many a times the individual supports were not utilised for creating alternative income generation activities but rather were spent on some other purposes, such as purchasing daily necessities or paying back loans.

Access to information by the local co-management leaders, concerned authorities and decision-making processes also needs to be improved to thus help these lead people make more educated and informed decisions. Moreover, these leaders need to be accepted by the society and recognised by the existing institutions as a return of their good deeds. At the same time however, careful monitoring of the leaders is required to monitor their performance and avoid any negative outcomes. The study indeed found the concept of leadership as an important component in the overall functioning of the ACM approach and facilitating tourism destination governance. Though the research did not study leadership styles some participants highlighted its importance in managing and governing the protected areas.

5.5.5 Awareness development

Awareness development has been identified as a cross-cutting issue of this study which is considered as a crucial outcome of the ACM approach. The study found that formal and informal meetings and discussions, and peer communication among the stakeholders was important in creating new knowledge about conservation and led to a reduction in the traditional dependency of local residents on the natural resources. Considering these findings, the study recommends the establishment of a social learning centre at each of the protected areas that may provide an environment where all stakeholders (both locals and externals) will have the ability to meet, exchange, and have access information related to the park and its communities. All the co-management governance bodies should also have unrestricted access to this platform to work together.

5.5.6 NGOs as mediators

Partner NGOs of the various co-management projects played crucial roles in facilitating and disseminating knowledge among different stakeholders in this study. They were particularly active in awareness building, educating local stakeholders on their rights and responsibilities, motivating local stakeholders on protected area conservation, and motivating local stakeholders to participate in various ACM interventions. They had direct contact with the Forest Department, project consultants, donors and other officials and local organisations so they could perform as negotiators or mediators. Based on these findings, the study recommends enhanced government support (particularly from the local government) to strengthen the activities of NGOs. There should be an effective monitoring and evaluation system to assess the relationship among the stakeholders and their activities in a governance system, and to also support mediation of potential conflicts and misunderstandings.

5.6 Limitations of the research

There are a number of limitations of this research. As the research was based on a qualitative study, the findings cannot be assumed to represent the situation in all protected areas in Bangladesh, nor in other developing country contexts. Therefore, the generalisability of the research findings is limited. The findings do however provide insights for other contexts to understand the potential applicability of the ACM approach in enhancing tourism destination governance specifically, or for protected area contexts more generally.

The local resident participants participating in the research were selected using expert sampling techniques. Expert sampling was used through initial consultation with representatives from the forest department, NGOs, and local leaders to identify those who had knowledge of, and involvement in, both the ACM process and tourism activities in the protected areas. As such, these results may not represent the full gamut of views regarding the ACM approach. Precautions were taken by the researcher to source as many experts as possible for referrals to avoid bias.

The research had budget constraints that limited the time spent in each of the study areas for data collection. The selection of more participants from both the local and official stakeholders, as well as some participants from some other stakeholder groups might have provided additional information that could enrich the findings of this study. Moreover, it could have strengthened the study to include additional protected area sites where conventional top-down protected area management approaches are still applied to assess the differences in terms of the effectiveness of the governance processes.

There were a number of technical terms such as adaptive management, co-management, adaptive co-management, governance and social learning used in this research. Though these terms and issues were familiar to most of the official participants, many of the local resident participants were not familiar with these technical terms. As a result, the researcher had to explain these terms using simple and native language with examples so that participants could understand these. Such translation and explanation might have missed some of the nuances of these terms or there may have been a misunderstanding on the part of the participants which may have affected the quality of their responses.

Although participants were assured of the confidentiality of their responses, there still might have been some hesitancy on the part of some participants to fully disclose their views. Finally, the ‘researcher’s subjectivity’ as a Forester and his previous field experiences might have influenced the data collection, as well as data interpretation of this study. However, precaution was taken to avoid such subjectivity and the research was aware of his potential biases. To help avoid subjectivity and bias, the supervisors of the research reviewed the interview protocol several times. In addition, pilot interviews helped to revise some of the questions of the interview protocol. The supervisors also monitored and guided the data analysis process, its interpretations and the overall research and its reporting regularly to avoid any biasness and preconception of the researcher that may have affected the study.

The final acknowledged limitation is that the first empirical study (chapter three) on the contribution of the ACM approach to tourism governance utilised the study of two protected areas (Lawachara National Park and Sundarbans East Wildlife Sanctuary), whereas the second study (chapter four) on social learning studied only one protected area (Lawachara National Park). This is because Sundarbans is relatively new to the application of co-management and, as such, the social learning process is still in its preliminary stages in this protected area.

5.7 Recommendations for future research

Future research avenues and questions emerged from the study based on its limitations and research findings. This study focussed on five dimensions of governance (participation, accountability and transparency, rule of law, power and social learning) and as such, there is scope to explore other recognised dimensions of governance, such as equity, efficiency, stakeholder rights, knowledge management, legitimacy, trust and ownership (Borrini-Feyerabend, 2003; Eagles, 2008; Graham et al., 2003; Ruhanen et al., 2010; UNDP [United Nations Development Programme], 1997) and the extent to which such aspects can be addressed through an ACM approach to tourism destination

governance. A more complete picture of the broader range of governance principles can improve our understanding of the applicability of the ACM approach for tourism governance in protected areas or any other destination.

The concept of leadership was found to be one of the key factors that facilitated tourism destination governance in the two studied protected areas. Leadership was also highlighted as an essential attribute for creating an enabling environment for the implementation of ACM approach. More specifically, in this research the leaders of the various co-management governance bodies and their leadership styles were seen to influence their followers and encourage those followers to adapt to changes implemented in the management of the protected areas. Furthermore, effectiveness of leadership was considered as one of the indicators of successful protected area management (Bruyere, Beh, & Lelengula, 2009; Jachmann, 2008; Leverington, Costa, Pavese, Lisle, & Hockings, 2010). Despite the findings related to the importance of effective leadership, there is lack of research into leadership in the context of protected areas. Future research may therefore be designed to study the contributions made by local stakeholders' leadership, as well as how different leadership styles affect and contribute to tourism destination governance, protected area management and the implementation of the various ACM interventions. Moreover, the relationships between political influence and power of the leaders can also be studied, particularly where such influences are remarkable.

Exploring the individual components of ACM principles (discussed in this research) also has further research scope. For instance, the role of social learning has, with some exceptions (see Wray, 2012), received little attention in tourism. Future research could therefore explore the contributions of social learning in facilitating sustainable development through sustainable tourism development, as well as how social learning may positively contribute to institutionalizing the ACM approach (or any other new destination management approach). It may also be valuable to examine the impacts of social learning processes in addressing and reducing power imbalances, mistrust and conflicts among diverse stakeholders, as well as how it can be used to improve tourism destination governance through the facilitation of stakeholder participation, partnership development and collaboration among diverse stakeholders, accountability, transparency, rule of law, fairness, equity and trust among stakeholders. From a tourist behaviour perspective, research could also investigate how the ACM approach may be used to influence tourist behaviour in a range of different tourism destination types, such as national parks, wildlife sanctuaries and other forms of protected areas and non-protected areas. Indeed, there is a dearth of research on the application of social learning in tourism, thus providing a large scope for research in this area.

Finally, future research should focus on extending this empirical research to test the conceptual framework proposed in this research (see Figure 2.1). Such research needs to assess the validity of the framework as a model that can be used to facilitate and improve tourism destination governance processes. Further comparative case studies will also help to better understand the adoption of the ACM principles by a tourism destination and its stakeholders, as well as those variables that might influence ACM outcomes both in the short and long terms. Cross-country and longitudinal studies are recommended to critically assess the application of ACM in tourism destinations and to assess actual outcomes and impacts on livelihood measures and quality of life indicators. A comparison of nature-based tourism destinations (i.e. protected areas, non-protected areas, world heritage site) and urban-based tourism destinations (built environments such as urban/city tourism); top-down and bottom-up governance systems; and developing and developed countries would also provide interesting topics for further increasing our understanding of the application of ACM in different settings. This study found ACM played a key role in helping tourist destinations to address the need to find a balance between conservation and the development of a tourism destinations. As sustainability becomes an ever increasingly important concept in tourism, research that facilitates the application of sustainable tourism practices like ACM will become more important.

5.8 Concluding remarks

Traditional, top-down management approaches have been unsuccessful in addressing problems with governance and conservation in the protected areas of Bangladesh, and arguably have contributed to some of the problems being experienced in the management of these areas. In an attempt to improve this situation, the ACM governance approach has been applied across a number of protected areas of Bangladesh, thus signalling a transition from traditional top-down to participatory bottom-up approaches. Previous research has suggested that such bottom-up approaches, when applied to protected areas, facilitate improved governance systems, as well as improved standards of living for local communities (Armitage et al., 2007b; Eagles, 2009; Eagles et al., 2013; Plummer et al., 2013; Rashid, Craig, Mukul, et al., 2013; Rashid & Khan, 2014; Timothy & White, 1999; Zhao & Timothy, 2015). The findings of this research indeed confirmed these previous findings. While research has indeed highlighted the positive application of bottom-up approaches to the management of protected areas, most of this research has occurred in the field of natural resource management, particularly forestry and fisheries. Relatively few empirical studies into protected area management take a tourism governance perspective (Bramwell, 2011; Bramwell & Lane, 2011) and even less refer to the application of ACM in tourism destination governance (Plummer & Fennell, 2009) particularly in

protected areas (Dearden et al., 2005). This research therefore sought to conceptually and empirically address these identified research gaps by examining the application of the bottom-up governance approach of ACM to tourism destinations located in protected areas.

Findings from this study showed that research participants were very supportive of the use of the ACM governance approach and noted that, as a result of its application, many aspects of the management and governance of the studied protected areas were improved. The ACM approach was applied in the study areas to encourage new, inclusive institutional arrangements that had a focus on protecting and conserving the local protected areas. Feedback from participants in this study showed that the application of the ACM governance approach was indeed successful in its aim to provide a more inclusive management approach. This study also found that the implementation of the ACM approach in the study areas resulted in the initiation of many successful protected area management interventions, such as: engagement by both officials and local stakeholders in joint decision making; collaboration by both the local community and the Forest Department in protection activities, such as patrols coordinated for the purpose of reducing illegal felling and hunting activities; joint stakeholder planning for the protected areas; and the development of new locally-based new institutions (CMOs). Environmentally friendly protected area-based, small-scale tourism-related enterprises were also developed as alternative income generation opportunities. All of these interventions facilitated in the development of pro-conservationist attitudes among the local and official stakeholders, thus leading to a reduction in the destruction of local protected areas and an improvement in local living standards. Overall, the application of the ACM governance approach in the study areas led to a significant reduction in traditional anthropogenic pressures on the natural resources and concurrently improved tourism development and the overall management of these protected areas.

Of particular interest to this study was the role of social learning in the ACM governance approach. This study found that social learning played a key role in facilitating heightened environmental awareness by local stakeholders, thus motivating them to change their attitudes and ways of living away from being bio-centric to more pro-conservation. Here, local stakeholders' involvement in various ACM interventions enabled them to learn different, more pro-environmentally focused behaviours. Through engagement in social learning processes, the relationships between local stakeholders and forest management officials also started to improve, thus ultimately enhancing the governance systems of the studied protected areas. As social learning processes involve a multiple stakeholder approach and consider the needs and interests of all stakeholders, as well as lessons and learnings of all stakeholders, a focus on implementing social learning is arguably essential in moving from a top-down to a bottom-up governance approach to protected area management. From this study,

it was also evident that social learning accelerated the creation of an overall congenial environment for the application of the various ACM interventions and therefore a focus on social learning is advocated as an important component for the effective governance of tourism destinations.

The application of ACM as a governance approach in tourism destinations was found, in this study, to provide a better and more adaptive destination management system which maximised and balanced benefits to local stakeholders and the local environment. While the ACM approach facilitated social learning processes, these social learning processes were concomitantly important to the successful implementation of the approach and its adoption by local stakeholders as a bottom-up focused approach to tourism destination governance. The empirical evidence from this study showed that although the three main inter-related concepts of ACM, governance and social learning are able to separately support good destination governance in protected areas, their outcomes are more beneficial when they operate together as a system. Due to its strengths and its bottom-up, participatory focus, the ACM approach may resolve many problems related to tourism destination governance, particularly in the context of developing world. As such, this approach has the potential to improve tourism destination governance systems around the world.

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APPENDICES

Appendix 1: Interview protocol

Co-management:

1. What were the roles of Forest Department in managing the natural resources of this protected area before starting co-management approach (CMA)?
2. How did they interact with the local community at that time?
3. If there was any other stakeholder involved in managing this protected area before starting CMA then what was their roles?
4. How did these stakeholders interact with the local community at that time?
5. Are you aware of what factors led to CMA being introduced in this protected area?
6. What is your overall experience with CMA? Tell me the details.
7. How do the local community participate? How did other stakeholders (e.g. Forest Department, NGOs, donors and others) participate? Please tell me the process with some examples.
8. How can the performance of CMA be improved for the protected area and local community?
9. How do lessons and learning or experiences assist CMA to be more effective?
10. What are the influences of CMA in tourism in and around the protected area?
 - a. What types of local residents are participating in various tourism activities?
 - b. Why do they participate in such tourism activities?
 - c. How are these activities influenced by CMA?
 - d. How are these activities changing the local community and protected area itself?
 - e. What are your expectations from CMA in practicing tourism?

Governance:

11. How did you interact (particularly emphasizing accountability and transparency) before the application of CMA?
 - a. with Forest Department (with local people: for officials)
 - b. with other stakeholders (like NGOs, civil society and so on)
12. How do you interact (particularly emphasizing accountability and transparency) after the application of CMA?
 - a. with Forest Department (with local people: for officials)
 - b. with other stakeholders (like the CMC, NGOs, civil society)
13. How do you evaluate these changes (if any) of interactions due to CMA?
14. What and why have been the changes in terms of the 'playing power' (especially in terms of voices, decision making and representations) of different stakeholders (local community, Forest Department, Tour Operators, NGOs, civil society, etc.) before and after CMA?
15. How does CMA influence to follow the rules of law in and around the protected area?
16. How can governance influence tourism in and around the protected area?

Social learning:

17. How do you learn about the following aspects?
 - a. Conservation of protected area resources
 - b. Management of the protected area
 - c. Activities of different stakeholders
 - d. Tourism
18. How does learning together work at this protected area and surrounding communities?
19. How does CMA influence this learning together?
20. How learning together can influence governing system (particularly emphasizing participation, accountability, transparency, power playing and following rules of law) of the protected area?
21. What are the problems created by working with different stakeholders? Why are these problems created? Please also focus on tourism stakeholders.
22. How can these problems be resolved?
23. Do you think that learning together by doing is important in addressing these problems? If so, why is it important for this protected area?
24. Why does learning together is important in tourism?
25. How does tourism influence participation of different stakeholders in various tourism activities?
26. How does learning together facilitate interactions (collaboration, networks and management) among and within the stakeholders with particular reference to tourism?
27. How does learning together contribute trust building among the stakeholders at this protected area?
28. Who can play their roles (also the most) in managing the stakeholders and interactions in tourism?
29. What are the factors of CMA responsible in such management of stakeholders?
30. Besides these, how can the relationships among the stakeholders can be improved? Please suggest.

Overall tourism:

31. What do you think about overall tourism status in this area?
 - a. Whether it is increasing or decreasing?
 - b. What are the opportunities of practicing tourism in this protected area?
 - c. What are the challenges of tourism practices focusing the protected area?
 - d. What are your suggestions to improve the tourism status at the protected area?
32. Please give your further comments related to this interview which are not covered.

Personal information:

33. Name of the protected area:
34. Name of the interviewee:
35. Designation and organisation (if official):.....
36. Address: Village- Union- Upazila (sub-district)-
37. Education: ①Illiterate ②Primary school ③High school ④SSC ⑤HSC ⑥Graduate ⑦Masters ⑧PhD

Thank you very much for your contributions in this research and allowing me your valuable time!!!

Appendix 2: Ethical clearance letter



Date: 26/04/2015

To: Md Wasiul ISLAM
From: Dr. Nicole Hartley, Deputy Chair UQBS Ethical Review Committee

RE: Your application for ethical clearance:
"Adaptive co-management as a facilitator of tourism destination governance – a case of protected areas in Bangladesh"

Dear Wasiul,

I am writing to inform you that the UQBS Ethical Review Committee has processed your application. You fulfil the requirements for expedited review of your application, and I have closely examined your documentation. I have determined that your ethical clearance application has been approved.

Approval is subject to the conditions listed on the additional notes document (attached) – please retain both of these documents for your records. Although not yet a formal requirement of the UQBS ethics process, we strongly encourage you to review your data management plan with your supervisor (see attached checklist).

If changes to the approved study protocol are required for any reason, please submit a written letter of ethical clearance amendment to the committee detailing all required changes and any implied ethical considerations (submit to Vivienne Balson, v.balson@business.uq.edu.au).

All the best for your research.

Regards,

Dr. Nicole Hartley
Deputy Chair, UQBS Ethical Review Committee

Dr. Tyler G. Okimoto (BA, MA, PhD)
Chair, UQBS Ethical Review Committee
UQ Business School
The University of Queensland
Brisbane, QLD, 4072, Australia

Phone: (+61 7) 3346 8043
Email: t.okimoto@business.uq.edu.au

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CRICOS Provider No: 15010R



Additional Notes to UQBS Ethical Approval

- (1) The official project title should be quoted on all documentation referring to the ethical approval.
- (2) Any adverse reaction to participation or any other incidents affecting the welfare of subjects attributable to the research should be promptly reported to the Ethics Committee.
- (3) Amendments to any part of the approved protocol (including change of Investigator/s), documents, or questionnaires protocols attached to the clearance must be submitted to the Ethics Committee for approval.
- (4) Unforeseen events that might affect continued ethical acceptability of the project must be immediately reported to the Ethics Committee.
- (5) The Principal Investigator and faculty supervisor/s are responsible and accountable for full compliance of the protocol by all investigators.
- (6) The Committee reserves the right to request viewing of project materials at any time, and to conduct a full audit of the project.

Appendix 3: Participant consent form

Dear Participant

RE: Adaptive co-management as a facilitator of tourism destination governance - a case of protected areas in Bangladesh.

As a participant in this research, your acceptance is required as confirmation of your informed consent to participating in this interview. By completing this interview, you agree that you have read and understood the “Participant Information Sheet” for this research project.

You understand that participation is completely voluntary, and you understand that you may withdraw (fully or partially) at any time. You are also free not to answer any of the questions if you choose to do so. If there is any necessity of the withdrawal of any data then the researcher will discuss with you regarding the process of withdrawing the data.

Data will be collected and organised with the details that allow the researchers to identify individual participants for further communication (if necessary). The age, gender, educational status, conflicts with other stakeholders and other personal information will also be treated confidentially as well as to protect your privacy. All the collected information will be used in general with anonymities and used only for research and academic purposes. No photo of you will be taken as this is not necessary for this study. Local values, norms and culture will be followed by the researcher during the data collection. Forest Department and other officials will be treated in the same manner.

The researcher will be responsible for the security of the collected interview data. All field notes, recordings and other forms of information will be stored safely and in a secured way. The soft copies of the interviews will be stored in different electronic devices (viz. sound recorder, laptop, UQBS Office desktop computer and several USB flash drives) as the back-up copies. The devices will only belong to the researcher. The laptop and office desktop will be password protected and only be accessed by the researcher. Care will be taken to secure these devices during my short absence from these devices. The recorded interviews will be transcribed by the researcher himself as soon as possible to make it more secured in terms of storage. Moreover, the data security and storage guideline of this university will be followed by the researcher such as a locked filing system.

This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical Conduct in Human Research. Whilst you are free to discuss your participation in this study with project staff (contactable on 0469637324), if you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Coordinator on 3365 3924.

Principal Investigator: Md Wasiul Islam

UQ Business School, The University of Queensland, St Lucia 4072.

Office phone: 0469637324; Email: m.islam@business.uq.edu.au

Principal Advisor: Assoc/Prof. Lisa Ruhanen; Office phone: 07 3346 7095; Email: l.ruhanen@uq.edu.au

Associate Advisor: Prof. Brent Ritchie; Office phone: 07 3346 7308; Email: b.ritchie@uq.edu.au

Appendix 4: Participant information form

Project title: Adaptive co-management as a facilitator of tourism destination governance – a case of protected areas in Bangladesh.

Principal Investigator: Md Wasiul Islam

UQ Business School, The University of Queensland, St Lucia 4072.

Phone: 0469637324; Email: m.islam@business.uq.edu.au

Principal Advisor: Assoc/Prof. Lisa Ruhanen; Office phone: 07 3346 7095; E: l.ruhanen@uq.edu.au

Associate Advisor: Prof. Brent Ritchie; Office phone: 07 3346 7308; E: b.ritchie@uq.edu.au

Objectives: The study seeks to explore how the principles of adaptive co-management, namely governance and social learning, enhance tourism destination stakeholder management and collaboration. The protected areas of Bangladesh have been taken as the context of this study. If participants are interested in learning more about the research aims and findings, they are encouraged to contact the researchers after completing the study. General findings of the study will be set to participants upon completion of the research project.

Involvement of participants: The data collection will be carried out through a semi-structured 'face-to-face interview' method following an interview protocol. The local and the national language (Bengali) will be used for collecting the required information from the local resident participants (respondents) as well as the local officials. English translation will be done by the researcher at the stage of transcription. Moreover, English will be used for the foreigners and other officials (if they feel comfortable) during their interviews. These interviews will be recorded with their prior permission. If permission is not provided then their responses will be noted down in the field diary. These interviews will take place at the time and location which is convenient to the participants. This will be fixed at the time of appointment seeking. Each of the participants of this research requires approximately 1 hour to collect the data.

Risks and Benefits: This research involves negligible risk to the participants. This study is focused on gathering information on the participants' individual knowledge and experiences regarding a management approach in facilitating tourism governance and stakeholder management and collaboration. Based on their responses the data will be analysed to address the research objectives.

This research will contribute to the existing scarce literature by adding some new theoretical and practical insights of how adaptive co-management approach contributes governance in tourism, how social learning works in stakeholder management and collaboration and also how it contributes in conflict resolution. Better understanding on adaptive co-management approach and some of its key principles will improve forming policies and plans to ensure better governance at the tourism destinations.

Participant confidentiality: All the interview information will be treated confidentially under this research and used only for research and academic purposes. Data will be collected and organised with coding process that allow the researchers to identify individual participants (if requires in future). Information collected from the participants will be used in general with anonymities. The age, gender, educational status, conflicts with other stakeholders, and other personal information will also be treated confidentially as well as to protect their privacy. No photo of the participants will be taken as this is not necessary for this study. Local values, norms and culture will be followed by the researcher during the data collection. Forest Department and other officials will be treated in the same manner.

The researcher will be responsible for the security of the collected interview data. All field notes, recordings and other forms of information will be stored safely and in a secured way. The soft copies of the interviews will be stored in different electronic devices (viz. sound recorder, laptop, UQBS Office desktop computer and several USB flash drives) as the back-up copies. The devices will only belong to the researcher. The laptop and office desktop will be password protected and only be accessed by the researcher. Care will be taken to secure these devices during my short absence from these devices. The recorded interviews will be transcribed by the researcher himself as soon as possible to make it more secured in terms of storage. Moreover, the data security and storage guideline of this university will be followed by the researcher such as a locked filling system.

Withdrawal from study: Participation is completely voluntary. The participants will be informed that they are free to withdraw their interview (partially or entirely) at any stage of the research. Every participant will be informed of this before starting the interview. If there is any necessity of the withdrawal of any data then the researcher will discuss with the specific participant regarding the process of withdrawing the data either partly or entirely.

This study adheres to the Guidelines of the ethical review process of The University of Queensland and the National Statement on Ethical Conduct in Human Research. Whilst you are free to discuss your participation in this study with project staff (contactable on 0469637324), if you would like to speak to an officer of the University not involved in the study, you may contact the Ethics Coordinator on 3365 3924.

Appendix 5: Application for the approval of gatekeeper for data collection

05 March 2015

Mr. Md. Yunus Ali
Chief Conservator of Forests
Bana Bhaban
Bangladesh Forest Department
Agargaon, Dhaka 1207.



Subject: Request for cooperation and assistance for a PhD researcher to conduct his field work.

Greetings from The University of Queensland, Australia!

It is my pleasure to inform you that **Mr. Md. Wasiul Islam** (Faculty Member, Forestry and Wood Technology Discipline, Khulna University, Khulna 9208 and an Ex-Assistant Conservator of Forests, SBCP during 2001-2003) enrolled in a PhD program at the UQ Business School (Tourism Cluster) of The University of Queensland, Australia on 2 January 2014. The working title of his PhD research is 'Adaptive co-management as a facilitator of tourism destination governance – a case of protected areas in Bangladesh'. I am his Principal Advisor. I strongly believe this research is an interesting study which will contribute in scientific knowledge by providing insights regarding the influences of adaptive co-management in promoting governance, roles of social learning in tourism practices and conflict resolution in the protected areas of Bangladesh.

At this stage of Wasiul's research, he needs to collect field data from three protected areas of Bangladesh (Lawachara National Park, Sundarbans East Wildlife Sanctuary and Bhawal National Park). He will collect data from local residents and the officials (Forest Department, Consultant Group and NGOs) in these three sites using face-to-face interview tools following a semi-structured interview schedule. Moreover, he requires different secondary information from Forest Department and relevant project stakeholders. Therefore, he requires cooperation and assistance from the Forest Department and other officials to accomplish his data collection phase. It should be noted here that after getting your permission to collect the research data, Wasiul will follow ethical research guidelines of this university which will be approved by 'UQ Business School Ethical Review Committee'.

In these circumstances, I am requesting you to extend your kind cooperation and assistance to Mr. Wasiul and take the necessary actions thus he can successfully complete his field work in these three protected areas. Also requesting you to inform the relevant field officials and partner NGOs in this regard to assist him during his field work.

Please do not hesitate to contact me for further information.

Thanking you,



Dr Lisa Ruhanen
Senior Lecturer &
Director of Tourism Postgraduate Coursework Programs
Tourism Cluster, UQ Business School
The University of Queensland
QLD 4072, AUSTRALIA
E-mail: l.ruhanen@uq.edu.au

Enclosure: Abstract of the above mentioned PhD research proposal (2 pages).

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Appendix 6: Letter of gatekeeper permission for data collection

Government of the People's Republic of Bangladesh
Office of the Chief Conservator of Forests
Forest Department
Ban Bhaban, Agargoan, Dhaka – 1207.

Letter no: 22.01.0000.02.038(Part – 6)2015–113

Date: 18/03/2015

To: Coservator of Forest
Wildlife and Nature Conservation/Khulna Circle.


Subject : Request for cooperation and assistance for a PhD researcher to conduct his field work.

Ref : Dr. Lisa Ruhanen, Senior Lecturer & Director of Tourism Postgraduate Coursework Programs, The University of Queensland on 05/03/2015.

A copy of the above mentioned letter has been included hereinafter for your information. Following the existing rules and regulations, permission for conducting the Research programme in the Lawachara National Park, Sundarban East Wildlife Sanctuary and Bhawal National Park could be given on condition with following the Terms and Conditions.

Terms and Conditions

1. In each time before entering in to the forest, he shall have to pay all dues of the Forest Department to the respective Forest Station.
2. During staying in the forest, existing all rules and regulations of the Forest Department must be followed strictly.
3. Nothing could be done which brings any loss of Forests and Environment.
4. During staying in the forest, respective Forest Officer to be informed about his presence in the forest. If Forest Officer wants to see or know any information about the research, he must show all informations at once. A copy of the result of the Research Work must be sent to the Forest Department after completion of his Research Programme.
5. Divisional Forest Officer keeps all rights to stop the Research Programme at once without showing any cause.
6. He must leave the forest area at once, after completion of his Research work or stopping the research work by the Divisional Forest Officer.
7. Without prior approval by the Divisional Forest Officer no equipment, chemical, arms and manpower will be allowed in the Forest.



(Md. Abu Naser Khan)
Assistant Chief Conservator of Forests
Management Plan Unit.
Phone 8181743.

Letter no: 22.01.0000.02.038(Part – 6)2015.

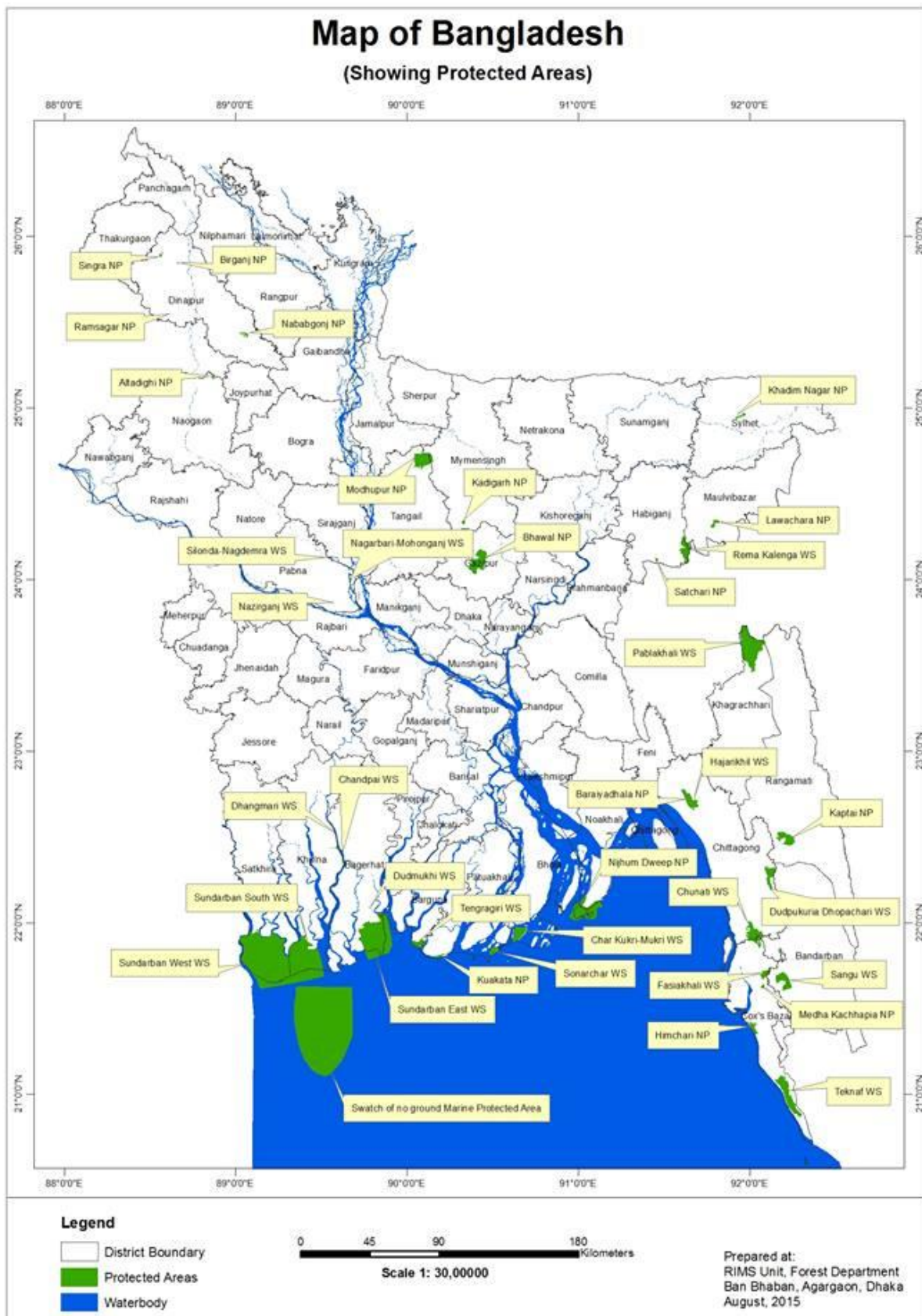
Date: /03/2015

Copy for information and necessary action :

1. Divisional Forest Officer, Sundarban East Forest Division, Bagerhat/Wildlife and Nature Conservation Division, Khulna/Wildlife and Nature Conservation Division, Mowlavibazar/Wildlife and Nature Conservation Division, Dhaka.
2. Mr. Md. Wasiul Islam, Faculty Member, Forestry and Wood Technology Discipline, Khulna University, Khulna.


(Md. Abu Naser Khan)
Assistant Chief Conservator of Forests
Management Plan Unit.
22.3.2015

Appendix 7: A map of protected areas of Bangladesh



Appendix 8: A list of protected areas of Bangladesh

Sl. No.	Name of PA	Location	Area (ha)	*Year
1.	Altadighi National Park	Naogaon	264.12	2011
2.	Baraiyadhala National Park	Chittagong	2933.61	2010
3.	Bhawal National Park	Gazipur	5022.00	1982
4.	Birgonj National Park	Dinajpur	168.56	2011
5.	Himchari National Park	Cox's Bazar	1729.00	1980
6.	Kadigarh National Park	Mymensingh	344.13	2010
7.	Kaptai National Park	Rangamati	5464.00	1999
8.	Khadimnagar National Park	Sylhet	678.8	2006
9.	Kuakata National Park	Patuakhali	1613.00	2010
10.	Lawachara National Park	Maulvibazar	1250.00	1996
11.	Madhupur National Park	Tangail	8436.00	1982
12.	Medha Kachapia National Park	Cox's Bazar	395.92	2008
13.	Nababgonj National Park	Dinajpur	517.61	2010
14.	Nijhum Dweep National Park	Noakhali	16352.23	2001
15.	Ramsagar National Park	Dinajpur	27.75	2001
16.	Satchari National Park	Habiganj	242.91	2005
17.	Shingra National Park	Dinajpur	305.69	2010
18.	Chadpai Wildlife Sanctuary	Bagerhat	560.0	2011
19.	Char Kukri-Mukri Wildlife Sanctuary	Bhola	40.00	1981
20.	Chunati Wildlife Sanctuary	Chittagong	7763.97	1986
21.	Dhangmari Wildlife Sanctuary	Bagerhat	340.00	2011
22.	Dudh Pukuria-Dhopachari Wildlife Sanctuary	Chittagong	4716.57	2010
23.	Dudhmukhi Wildlife Sanctuary	Bagerhat	170.00	2011
24.	Fashiakhali Wildlife Sanctuary	Cox's Bazar	1302.43	2007
25.	Hazarikhil Wildlife Sanctuary	Chittagong	1177.53	2010
26.	Nagarbari-Mohanganj Dolphin Sanctuary	Pabna	408.11	2013
27.	Nazirganj Wildlife (Dolphin) Sanctuary	Pabna	146.00	2013
28.	Pablakhali Wildlife Sanctuary	Rangamati	42087.00	1983
29.	Rema Kalenga Wildlife Sanctuary	Habiganj	1795.54	1996
30.	Sangu Wildlife Sanctuary	Bandarban	2331.98	2010
31.	Shilanda-Nagdemra Wildlife (Dolphin) Sanctuary	Pabna	24.17	2013
32.	Sonarchar Wildlife Sanctuary	Patuakhali	2026.48	2011
33.	Sundarbans (East) Wildlife Sanctuary	Bagerhat	31226.94	1996
34.	Sundarbans (South) Wildlife Sanctuary	Khulna	36970.45	1996
35.	Sundarbans (West) Wildlife Sanctuary	Satkhira	71502.10	1996
36.	Teknaf Wildlife Sanctuary	Cox's Bazar	11615.00	2010
37.	Tengragiri Wildlife Sanctuary	Barguna	4048.58	2010
38.	Swatch of No-Ground Marine PA	South Bay of Bengal	173800.00	2014
39.	Baldha Garden	Dhaka	1.37	1909

Sl. No.	Name of PA	Location	Area (ha)	*Year
40.	National Botanical Garden	Dhaka	84.21	1961
41.	Banshkhali Eco-Park	Chittagong	1200.00	2003
42.	Borshijora Eco-Park	Moulavibazar	326.07	2006
43.	Kuakata Eco-Park	Patuakhali	5661.00	2005
44.	Madhabkunda Eco-Park	Moulavibazar	265.68	2001
45.	Modhutila Eco-Park	Sherpur	100.00	1999
46.	Rajeshpur Eco-Park	Comilla	185.09	Not yet
47.	Sitakunda Botanical Garden and Eco-park	Chittagong	808.00	1998
48.	Tilagar Eco-Park	Sylhet	45.34	2006
49.	Bangabandhu Sheikh Mujib Safari Park	Gazipur	1493.93	2013
50.	Bangabandhu Sheikh Mujib Safari Park	Cox's Bazar	600.00	1999
51.	Ratargul Special biodiversity conservation area	Sylhet	204.25	2015
Total area			450773.12	

*Year of gazette notification.

Appendix 9: Structure of Co-management Council and Co-management Committee

Stakeholders	Examples of stakeholders	Co-management Council	Co-management Committee (CMC)
Local people	Forest resource users, indigenous people, Conservation Club, Community Patrolling Groups, People's Forum (PF)	Max. 39 (at least 33% women from PF)	Max. 14
Civil Society	Local respectable persons, teacher, physician, social worker, journalist, religious leader and freedom fighter	Max. 5	Max. 2
Forest Department	Assistant Conservator of Forest, Forest Range Officer and Station Officers	Max. 8	Max. 8
Local administration	Upazila Nirbahi Officer (UNO), Police, Border Guard Bangladesh, Coast Guard	Max. 3	Max. 2
Local government	Representatives from the Union Parishads	Max. 5 (at least 2 women)	Max. 2 (at least 1 woman)
Other government departments	Department of Agricultural Extension, Fisheries, Environment, Youth Development and Social welfare	Max. 5	Max. 1
Total		Max. 65 (at least 15 women)	Max. 29 (at least 5 women)

Advisors: There are 3 Advisors in co-management council. They are: local Member of Parliament (MP); Chairman, *Upazila Parishad* (sub-district council); and Divisional Forest Officer (DFO). There are also 2 Advisors in the CMC. They are: Divisional Forest Officer (DFO) and *Upazila Nirbahi* (executive) Officer (UNO).

..... *The End*