

Fachbereich Sozialwissenschaften

**Let's Get Political: Community Participation
in the MPA Establishment Process in Indonesia**



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To my late sister Winnie:

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Abstract

Marine Protected Area (MPA) establishment processes in Indonesia entered a new stage along with the shift of political regime in late 90s that marked the transition from a centralised, authoritarian regime to a more democratic, decentralised one. New legislation on MPAs has become more decentralised and democratic, and includes provision for the involvement of communities in the establishment of MPA. This research examined the body of legislation that covers community involvement in MPA establishment in Indonesia, and examined the extent to which the MPA establishment process has, in practice, become more democratic and decentralised. The research probed these issues using a qualitative methodology based on text/document analysis, interviews, focus group discussions, and participant observation. Field research sites were selected to be representative of different levels of government that can propose MPAs and different legal frameworks that can underpin their establishment. They are: the Savu Sea National Park, proposed by a provincial government, Derawan Archipelago Coastal Park, proposed by a district government, and no-take areas in Pangkep District, proposed by village governments. From the text/document analysis, it was found that MPA legislation provides opportunities for communities to be informed and consulted in the MPA establishment process. However, this falls short of the active participation of communities that, according to literature, is required in order for MPAs to be successful. Analysis of the results of field research showed that the complex web of legislation emanating from different levels of government resulted in context-specific patterns of community participation. Gaps in MPA legislation and mismatches with other national legislation have meant that current legislation is only fully operational for the establishment of national-level MPAs. However, there is no provision for community involvement in the management of national-level MPAs and, therefore no incentive for communities to participate in their establishment. The degree and form of community participation in the MPA establishment process was also dependent on the level of government responsible and/or budget availability. MPA establishment teams had to prioritise their use of the limited funding available. Teams tended to prioritise work with government agencies, whose support was needed to override or sidestep mismatches among evolving policies and legislation that might otherwise threaten the existence of the MPA. Consequently, community participation was usually considered a secondary priority. Moreover, an unforeseen outcome of the decentralisation process at a national level was that the power of local leaders was greatly enhanced. MPA establishment teams have to invest time and effort into getting approvals from these 'local kings', thereby pushing community participation further down the list of priorities. These circumstances represent a challenge to achievement of meaningful participation that is (at least) in accordance with the legislation. Two options to enhance community participation in the MPA establishment process are proposed. The first option is to involve communities in the framework of public-private partnerships; the second is to do so by establishing village-level MPAs. Both have opportunities and drawbacks; however in both cases communities will still rely heavily on other stakeholders (i.e. government and NGOs) to improve their capacity to participate meaningfully in the process. Commitment from these stakeholders is required to build the capacity of communities to play a leading role, not only in the establishment of MPAs but also in their subsequent management.

Keywords: MPA, community, participation, establishment, legislation, Indonesia.

Glossary

Acronyms

ACA	Academics
ALKI	International sea lanes in Indonesia (<i>Alur Laut Kepulauan Indonesia</i>)
BAPPEDA	The Local Planning Agency (<i>Badan Perencanaan Pembangunan Daerah</i>)
BKKPN	The National Aquatic Conservation Area Management Authority (<i>Balai Kawasan Konservasi Perairan Nasional</i>)
BLUD	Public-Private Partnership (<i>Badan Layanan Usaha Daerah</i>)
BPSPL	MOMAF regional office responsible for assisting the development of marine spatial plan (<i>Balai Pengelolaan Sumberdaya Pesisir dan Laut</i>)
COM	Communities
COREMAP	Coral Reef Rehabilitation and Management Program
DA	Derawan Archipelago
DKP	Marine Affairs and Fisheries Agency (<i>Dinas Kelautan dan Perikanan</i>)
DKPP	The Council for Conservation of Provincial Waters (<i>Dewan Konservasi Perairan Provinsi (of NTT)</i>)
DPRD	The Local House of Representatives (<i>Dewan Perwakilan Rakyat Daerah</i>)
FGD	Focus Group Discussion
GOV	Government
ha	hectare
I	Interview
IOSEA	The Indian Ocean – Southeast Asian
ITF	Indonesian Throughflow
IUCN	the International Union for Conservation of Nature
KIARA	People’s Coalition for Fisheries (NGO) (<i>Koalisi Rakyat untuk Perikanan</i>)
KKLD	District MPA (<i>Kawasan Konservasi Laut Daerah</i>)
LIPI	The Indonesian Science Institute (<i>Lembaga Ilmu Pengetahuan Indonesia</i>)
LPSTK	The Village MPA Management Authority (<i>Lembaga Pengelola Sumberdaya Terumbu Karang</i>)
MOMAF	Ministry of Marine Affairs and Fishery
MoU	Memorandum of Understanding
MPA	Marine Protected Area
<i>Musrenbang</i>	(Annual) Development Planning (<i>Musyawarah Perencanaan Pembangunan</i>)
N/A	Not Available
NGO	Non-Government Organisation
NP	National Park
NTA	No-Take Area
NTT	East Nusa Tenggara (Province) (<i>Nusa Tenggara Timur</i>)
PO	Participant Observation
PPP	Public-Private Partnership
PUSKIP	The Centre of Marine and Fishery Studies (<i>Pusat Studi Kelautan dan Perikanan</i>)
RTF	Rich Text Format
SA	Spermonde Archipelago
Solar	(The islands of) Solor, Lembata, and Alor
SS	Savu Sea
<i>Tim P4KKP</i>	The Savu Sea National Park Establishment Task Force (<i>Tim Pengkajian, Penetapan dan Perancangan Pengelolaan Kawasan Konservasi Perairan Laut Sawu</i>)
TNC	The Nature Conservancy
TNP	Aquatic National Park (<i>Taman Nasional Perairan</i>)
UN	The United Nations
UNHAS	Hasanuddin University (<i>Universitas Hasanuddin</i>)
WALHI	Environment Vehicle (NGO) (<i>Wahana Lingkungan Hidup</i>)
WWF	World Wildlife Fund

Levels of Government and Leaders in Indonesia

Government Level		Head of Government	
<i>Nasional</i>	National	<i>Presiden</i>	President
<i>Provinsi</i>	Provincial	<i>Gubernur</i>	Governor
<i>Kabupaten/ Kota</i>	District/ Municipality	<i>Bupati/ Walikota</i>	Regent/ Mayor
<i>Kecamatan</i>	Sub-district	<i>Camat</i>	Sub-district head
<i>Kelurahan/ Desa</i>	Hamlet/ Village	<i>Lurah/ Kepala Desa</i>	Hamlet head/ Village head
<i>Dusun</i>	Village cluster	<i>Kepala Dusun</i>	Village cluster head
<i>Rukun Warga (RW)</i>	Neighbourhood	<i>Ketua RW</i>	RW head
<i>Rukun Tetangga (RT)</i>	Neighbourhood cluster	<i>Ketua RT</i>	RT head

(Source: Indonesia constitution 1945, fourth amendment 2002).

Hierarchy of Indonesian Legislation

Indonesian	English
<i>Undang-Undang</i>	Law
<i>Peraturan Pemerintah</i>	Government Regulation
<i>Peraturan Presiden</i>	Presidential Regulation
<i>Keputusan Presiden</i>	Presidential Decree
<i>Peraturan Menteri</i>	Ministerial Regulation
<i>Keputusan Menteri</i>	Ministerial Decree
<i>Peraturan Daerah Provinsi</i>	Provincial Regulation
<i>Peraturan Gubernur</i>	Governor Regulation
<i>Keputusan Gubernur</i>	Governor Decree
<i>Peraturan Daerah Kabupaten/ Kota</i>	District Regulation/ Municipality Regulation
<i>Peraturan Bupati/ Walikota</i>	Regent Regulation/ Mayor Regulation
<i>Keputusan Bupati/ Walikota</i>	Regent Decree/ Mayor Decree
<i>Peraturan Desa/ Kelurahan</i>	Village Regulation/ Hamlet Regulation
<i>Peraturan Kepala Desa/ Lurah</i>	Village Head Regulation/ Hamlet Head Regulation
<i>Keputusan Kepala Desa/ Lurah</i>	Village Head Decree/ Hamlet Head Decree

Remark: regulations administer process, while decrees administer a target from the process. (Source: Law No.12/2011 on the Establishment of Legislations and Law No.6/2014 on Villages).

Currency Conversion Rate

This thesis follows the currency conversion rate that has been rounded during the field research.

Euro/EUR (€)	Indonesian Rupiah/IDR (Rp.)
1	14,000

Metric Conversion

1 Gross Tonnage (GT) = 100 feet³

= 2.83 m³

1 hectare (ha) = 10,000 m²

= 0.01 km²

1 nautical mile (nm) = 1.852 km

Chapter 1: Introduction

“Fishermen from Manggarai [district] who fish beyond the permitted zones in the Komodo National Park suffered traumatic experiences. The park rangers arrested and harassed them, for example forcing them to act like komodo dragons or to stand directly under the sun for hours” (I SS ACA 24.01.2014).

The quote above is an example of Marine Protected Area (MPA) management challenges in Indonesia. The MPA in question had been legally established and its regulations were enforceable by law; however local communities remained unaware of its existence. From the perspective of park rangers, local communities were violating national park regulations, whereas from communities’ perspective their access to the fishing grounds had been cut off. This study explores the efforts by the Indonesian government to improve the MPA planning and management, focusing on the establishment process.

1.1. Marine Protected Area (MPA) as a Concept

1.1.1. Traditional Protection of Marine Areas

Practices for the protection of certain coastal waters for seasonally harvesting, sometimes related to religious beliefs, have been known since time immemorial (Noel & Weigel 2007). Examples include practices of indigenous people in the Pacific Islands (Polunin 1984, Govan *et al.* 2008), Canada (Ban *et al.* 2009), and Indonesia (Novaczek *et al.* 2001, Ruddle & Satria 2010). Typically such practices involve regulation of harvesting times of particular species or of marine resources in general in order to ensure that yields (i.e. catches) are distributed equitably among members of the community (Novaczek *et al.* 2001, Cinner 2005, Govan *et al.* 2008). Also in Indonesia, communities with access to marine resources have traditionally regulated the issue of fishing permits, in order to prevent conflicts among fishermen over access to the fishing grounds (Wilson & Linkie 2012). These traditional practices are underpinned by shared ethnicities, kinship (i.e. clans), and/or beliefs (Polunin 1984, Cinner 2005). Traditional leaders decide on the closing and harvesting periods, and sanctions for those who violate the rules include fines or even public humiliation (Novaczek *et al.* 2001, Govan *et al.* 2008).

However, many of these traditions are no longer operative. Inward migration of people from different ethnicities and beliefs contributes to the abandonment of traditional marine resource and management and protection practices (Cinner 2005, Ruddle & Satria 2010). Typically, the only thing that migrants to an area and its indigenous inhabitants have in common is nationality; hence migrants prefer to abide by state legislation rather than local rules based on values that they do not share (Thorburn 2000, Ruddle & Satria 2010).

In the Savu Sea, Indonesia, *Lilifuk* and *Panadahi* are examples of traditional practices that (until recently) had been wholly or partially abandoned (Milla *et al.* 2013). *Lilifuk* literally means “pool” and refers to areas of water on the continental shelf where the water remains as a pool even during the spring low-tide (Anakotta *et al.* 2009). There were several *Lilifuks* around the Timor Island, each was managed by a particular clan that harvested the marine resources on a seasonal basis (Anakotta *et al.* 2009, Milla *et al.* 2013). The *Lilifuk* at Kuenheun village in Kupang District covers an area of 20,000m²

and is managed by *Baineo* clan (Kuenheun Village Regulation No.1/2012). However the unwritten authority of clan leaders was weakened by the arrival of migrants of different ethnicities as well as by internal conflicts within the clans. As the result, the tradition of seasonal harvesting in *Lilifuks* (hereafter often referred to as *Lilifuk* practices), gradually faded away (Anakotta *et al.* 2009, I SS COM 11.02.2014).

The practice of *Panadahi* is unique to a coastal marine area of around 764 ha at the western end of Raijua Island (Milla *et al.* 2013). *Panadahi* is the closure of the area to fishing, following a revelation received by the animist leader of the community of *Jingtiu*; hence there is no particular pattern to the periods of closure. No harvesting is allowed during the *Panadahi* and normal harvesting is resumed when it is lifted by the leader. Violation to the rules would result in bad karma (PO SS COM 28.02.2014). since the majority of the inhabitants of Raijua Island are now Christians (Sabu Raijua Statistics 2014), this practice is widely seen as a relic of the past that is not in accordance with Christian beliefs (PO SS COM 28.02.2014). However, many people, including Christians are superstitious and choose not to violate the *Panadahi*, as they believe that bad things happened to violators (PO SS COM 28.02.2014).



Figure 1. *Lilifuk and Panadahi*. Left: A man tries to find space to place his net in a *Lilifuk* during the harvesting season in 2014 (Photo: R. Andra). Right: The researcher with the traditional leader of the *Jingtiu* community (Photo: WB).

1.1.2. Development of the MPA Concept

At the international level, the need to protect marine resources was first identified in the 50s, led by the United Nations (UN) (Kelleher & Kenchington 1992). In 1962, the International Union for Conservation of Nature (IUCN) highlighted the importance on protection of coastal and marine areas, as a topic for consideration by its Commission on National Park and Protected Areas (Kelleher & Kenchington 1992, Dudley 2008). The term ‘Marine Protected Area’ or MPA first appeared within this year and since then has been widely used in scientific literature (Noel & Weigel 2007).

The definition of the term MPA by IUCN has changed over time (Table 1). In the first definition, an MPA is a marine area reserved by legislation for the purpose of environmental protection, i.e. under the management of a national government agency, in accordance with IUCN recommendations (IUCN 1988). This definition excludes traditional marine protected areas, as they are subject only to customary laws that may or may not be incorporated into state legislation. In 1991, in order to give recognition to a wider range of MPAs, IUCN revised its definition (Kelleher & Kenchington 1992, No.2 in Table 1), acknowledging traditional marine protected areas as MPAs even if their management regimes are not in accordance with established ecological principles (Kelleher & Kenchington 1992, Kelleher 1999). However, in 2008 IUCN decided to merge the term MPA into the wider concept of ‘protected area’, that henceforth covered both marine and terrestrial protected areas (Dudley 2008). This new definition (No.3 in Table 1) emphasises the conservation objectives of protected areas; thus

traditionally protected marine areas that have no conservation objectives are not considered protected areas by this definition (Day *et al.* 2012). Conservation is normally not an explicit objective of traditional marine protection regimes as their primary purpose is the organisation of resource extraction (Polunin 1984).

No.	Year and references	Definitions
1.	1988 (IUCN 1988 p.105)	“Any area of intertidal or subtidal terrain, together with its overlying waters and associated flora, fauna, historical and cultural features, which has been reserved by legislation to protect part or all of the enclosed environment”
2.	1991 (Kelleher & Kenchington 1992 p.7)	“Any area of intertidal or subtidal terrain, together with its overlying waters and associated flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment”
3.	2008 (Dudley 2008 p.8)	“A clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values”

Table 1. MPA definitions by IUCN.

Although the IUCN definition of MPA is widely used (Noel & Weigel 2007), it is not universally accepted. Different institutions, such as the Food and Agriculture Organisation (FAO), the Convention on Biological Diversity (CBD) and, in the USA, the National Research Centre (NRC), Ocean Studies Board (OSB) and co-authors use the IUCN’s definitions as a point of departure for tailoring new definitions of MPA according to their needs (NRC 2001, FAO 2011). These definitions accord varying degrees of recognition to traditional marine protected areas (e.g. No.2 in Table 2) and areas whose primary objective is the management of fisheries (e.g. Nos.1 & 3 in Table 2). At a country level, Indonesia has developed its own definition of MPA that focuses on fishery management objectives (No.4 in Table 2). This definition is contained in the Fisheries Law (Law No.31/2004), that is further discussed in Section 1.7.2. In this study, the IUCN’s second definition of MPA is used (No.2 in Table 1), that includes community and village-level practices to protect marine areas that are found in Indonesia.

No.	Definitions	Institutions that develop the definitions
1.	“A discrete geographic area that has been designated to enhance the conservation of marine and coastal resources and is managed by an integrated plan that includes MPA-wide restriction on some activities such as oil and gas extraction and higher levels of protection on delimited zones, designated as fishery and ecological reserves within the MPA”	Committee on the Evaluation, Design, and Monitoring of Marine Reserves and Protected Areas in the United States; Ocean Studies Board; Commission on Geosciences, Environment, and Resources; National Research Council (NRC 2001 p.12)
2.	“Any defined area within or adjacent to the marine environment, together with its overlying waters and associated flora, fauna, and historical and cultural features, which has been reserved by legislation or other effective means, including custom, with the effect that its marine or coastal biodiversity enjoys a higher level of protection than its surrounding”	the Convention on Biological Diversity (CBD) (FAO 2011 p.11)
3.	“Any marine geographical area that is afforded greater protection than the surrounding waters for biodiversity conservation or fisheries management purposes”	Food and Agriculture Organisation (FAO) (FAO 2011 p.9)
4.	“Efforts to protect, preserve, and utilize fish resources, including the ecosystems, types, and genetics to ensure the existence, availability, and continuity by maintaining and increasing of quality of value and variety of fish resources”	Indonesian Ministry of Marine Affairs and Fisheries (MOMAF) (Law No.31/2004 Article 1 Clause 8)

Table 2. Definitions of MPA from different institutions.

1.2. Benefits and Limitations of MPAs

1.2.1. Benefits

Marine Protected Areas are conceptualised as a tool for fishery management or biodiversity conservation objectives (Roberts 2000, NRC 2001, Pomeroy *et al.* 2004, Laffoley 2006). Various studies have found that the establishment of MPAs has a positive effect on the fish populations and catches (Russ & Alcala 1996, Alcala *et al.* 2005, Christie 2005, Ardiwijaya *et al.* 2008). MPAs provide safe havens for fish to reproduce and to grow. The increasing number of fish will then spill over from the MPAs to adjacent waters, where the fishery industry can benefit (Kelleher 1999). Some impressive data is provided by Alcala *et al.* (2005), the result of 20 years of research in the Philippines. Fish biomass and total catch increased following the establishment of an MPA, went down when the MPA was disestablished, and increased again after reestablishment.

An MPA can be designed for biodiversity conservation objectives, for example to protect certain species, a habitat, an ecosystem, or even a whole seascape. In general terms, an MPA is designed to provide a secure place for aquatic species to live and to minimise disturbance (Fox *et al.* 2012). In 2007, at least 6,000 MPAs were known to exist (Wood 2007), across a range of developed countries such as the United States and European countries, as well as in developing countries such as Indonesia and Tanzania (Noel & Weigel 2007). Most MPAs are located in coastal waters and on continental shelves (Wood 2007).

1.2.2. Limitations of MPAs

However, despite these positive results, MPAs show limited to no success in addressing wider environmental issues such as climate change (McLeod *et al.* 2009) and ocean acidification (IOC UNESCO *et al.* 2011); nor do they contribute significantly to the protection of migratory species (Agardy *et al.* 2003), or conservation of deep-sea and high-seas areas (Kaiser 2005, IOC UNESCO *et al.* 2011). These issues transcend the borders of MPAs; they can only be addressed by international agreements on effective policies to tackle transboundary problems at sea (IOC UNESCO *et al.* 2011).

It is also argued that the establishment of MPAs can lead to increased competition over use of congested fishing areas (Sanchirico *et al.* 2002, Agardy *et al.* 2003). Moreover, the 'spillover' effect does not always occur. Impacts of MPAs on fish stocks are dependent on a variety of factors, including the dispersal range of fish larvae, the habitats of different fish life stages, and the mobility of fish species (Agardy *et al.* 2003, Botsford *et al.* 2003, Kaiser 2005). Fisheries management cannot be based on MPAs alone; further regulations are required (Pomeroy & Pido 1995, Christie *et al.* 2002, Kaiser 2005).

In the recent MPA definition (Dudley 2008), MPAs aim to conserve biodiversity as the main objective with fishery management as a non-essential objective (Day *et al.* 2012). This definition disqualifies the traditional MPAs or community-managed MPAs, as the motivation for their establishments is the sustainable harvest of aquatic species (Novaczek *et al.* 2001, Cinner 2005, Anakotta *et al.* 2009, Day *et al.* 2012) rather than biodiversity conservation (Polunin 1984). Weeks *et al.* (2010) describe how community-based MPAs in the Philippines failed to achieve biodiversity conservation objectives. This disqualification may provide disincentives for coastal communities to establish new MPAs.

1.3. Scientific Principles of MPA Design

Current MPA designs have improved greatly, compared with earlier initiatives that sometimes amounted to little more than the delineation of certain marine areas (Noel & Weigel 2007). Factors such as the scientific, economic, and social importance of the area under consideration have now to be taken into account in designing MPAs (Kelleher 1999). Growing environmental problems, such as climate change and ocean acidification, also shape the requirements of MPA design (McLeod *et al.* 2009, Fernandes *et al.* 2012). Nonetheless, the scientific principles primarily used as criteria for the selection of areas for MPAs are: representation, replication, and connectivity (e.g. Ballantine 1997, Kelleher 1999, Botsford *et al.* 2003, IUCN WCPA 2008, McLeod *et al.* 2009, Lowry *et al.* 2009, Fernandes *et al.* 2012).

1.3.1. Representation

This is the first principle to consider in designing MPAs, to ensure that biodiversity conservation objectives are achieved (Ballantine 1997, Kelleher 1999). The representation principle requires protection of a range of different habitats in order to maximise the chance of protecting all species within a geographic area (Ballantine 1997). The range of protected habitats should cover habitats used by different life stages of species such as nursery and spawning grounds (IUCN WCPA 2008, McLeod *et al.* 2009). Further criteria may be applied depending on any additional objectives of the MPA e.g. fishery management or climate change risk reduction (Fernandes *et al.* 2012).

1.3.2. Replication

In order to reduce the vulnerability of a marine system to environmental degradation caused by events such as storms or oil spills, replication of protected habitats is necessary (Ballantine 1997, Kelleher 1999, IUCN WCPA 2008, McLeod *et al.* 2009, Fernandes *et al.* 2012). Then, if one habitat is destroyed, there are alternate replacement habitats available to species to minimise disruption of the system. As the geographical areas of MPAs are often constrained by political or administrative boundaries, developing small-scale MPAs that connect into a network may be an option to fulfil the replication principle (IUCN WCPA 2008, Lowry *et al.* 2009, McLeod *et al.* 2009, Fernandes *et al.* 2012). There is no scientific basis for determining the number of replicate habitats required, and in practice this also depends in the availability of financial resources (Fernandes *et al.* 2012); however, Kelleher (1999) suggests minimum two of replicates, while McLeod *et al.* (2009) and Fernandes *et al.* (2012) suggest three replicates.

1.3.3. Connectivity

In identifying replication sites, the designs of MPAs should consider connectivity between or among sites, including by means of larval dispersal and movement of species (Botsford *et al.* 2003, IUCN WCPA 2008, McLeod *et al.* 2009, Fernandes *et al.* 2012). Larval dispersal can accelerate replenishment of destroyed habitats; whereas connectivity through the movement of species provides more comprehensive protection to marine systems (Kelleher 1999, Botsford *et al.* 2003, IUCN WCPA 2008, McLeod *et al.* 2009, Fernandes *et al.* 2012). Ocean currents, such as the Indonesian Throughflow (ITF) (Tomascik *et al.* 1997), are an important influence on larval dispersal and the movement of species and thereby also key determinants of connectivity.

Lowry *et al.* (2009) suggest that 'political' connectivity is also relevant in the design of MPAs, as sometimes the selection of areas for protection is based on political considerations rather than scientific principles. For example, an area may be declared an MPA due to its popularity as a tourism

destination (Lowry *et al.* 2009). In this case, despite insufficient scientific justification, declaration of the MPA can boost political commitment to the conservation of marine areas. This may be expressed, for example, through provision of financial support and establishment of dedicated management authorities, thereby contributing to the sustainability of MPAs and conservation of the marine environment in general (Kelleher 1999, Chuenpagdee *et al.* 2013). Where such political opportunities exist, MPAs should be established quickly, without waiting for scientific justification, since by the time all the scientific evidence is in place it may already be too late (Roberts 2000).

1.3.4. Influence of Scientific Principles on the Size and Management of MPAs

Based on scientific principles, MPAs should cover large areas to ensure coverage of larval dispersal areas and the movement range of aquatic species (IUCN WCPA 2008, McLeod *et al.* 2009, Fernandes *et al.* 2012). Single large MPAs are preferred (IUCN WCPA 2008, McLeod *et al.* 2009, Fernandes *et al.* 2012) at least 10 – 20 km in diameter (McLeod *et al.* 2009). However, Fernandes *et al.* (2012) suggest that the optimal size of an MPA will depend on its objective. For example, to protect sea turtle nesting grounds, an MPA could consist of a single beach, and would not need to cover the dispersal areas of the sea turtles. The importance of effective management should also be taken into account in determining the size of an MPA. It is relatively easy to enforce the protection of small MPAs; while larger ones require considerable financial support if they are to be managed effectively (Christie *et al.* 2002, IUCN WCPA 2008, Fernandes *et al.* 2012). If establishing a large-scale MPA is not possible, for example due to financial constraints or the need to respect administrative boundaries, establishing network of small-scale MPAs may be a solution that complies with all three scientific principles (IUCN WCPA 2008). A network of small-scale MPAs may also benefit from knowledge exchange among different management authorities; this may accelerate achievement of the network's goals (IUCN WCPA 2008).

1.4. Challenges on the MPA Establishment and Management

The availability of finance has an importance influence on both the size of MPAs and their management. For example, it will determine the number and calibre of staff employed by MPA management authorities, and influences the design of enforcement and surveillance systems (Rife *et al.* 2013). However, finance is not the only factor that determines the success of MPAs. Most MPAs, particularly in developing countries, face the challenge of the so-called 'paper parks' phenomenon. Paper parks are legally established by government authorities, for example by a ministerial decree, however their management is poorly implemented, and their protection is weakly enforced (Christie *et al.* 2002). In extreme cases, people living around them may even be unaware of their existence (Christie 2004, Kareiva 2006, Baitoningsih 2009, Rife *et al.* 2013). In fact, Rife *et al.* (2013) found that finance was not the principal factor limiting of the success of MPAs. It is often argued that inadequate participation of the local resource users is the main reason for the failure of MPAs (e.g. Christie *et al.* 2002, Pomeroy *et al.* 2001, Pollnac & Pomeroy 2005, Kareiva 2006, Baitoningsih 2009). Local resource users, or local communities, are usually the stakeholders most affected by the establishment of an MPA; therefore their concerns should be acknowledged and taken account of in the design and management of the MPA (Kareiva 2006). Local communities should be involved at the earliest possible stage (e.g. Chambers 1983, Govan *et al.* 1998, Borrini-Feyerabend *et al.* 2004b); otherwise, failure to involve them may give rise to conflicts (Gustave & Borchers 2004) and traumatic experiences such as that described in the quote at the start of this chapter.

1.5. Community and Community Participation

This section discusses the importance of community participation in the MPA establishment process. It starts by reviewing definitions of community and participation that underpin different approaches to community participation in the MPA context.

1.5.1. Definitions of Community

The term 'community' is used and understood in many different ways and is not easy to define. Although authors have defined the term 'community' in different ways as shown in Table 3, a community is generally considered to be homogenous, as a small spatial unit, and/or with member who share common interests and needs (Agrawal & Gibson 1999, Cooke & Kothari 2001). These common perceptions simplify the more complex reality. A community can be greater than a village and often consists of various actors with different interests and norms (Agrawal & Gibson 1999, Cooke & Kothari 2001, Armitage 2005, Ferse *et al.* 2010).

No.	Authors' name and references	Definitions
1.	Singleton & Taylor (1992 p.315)	"A set of people (i) with some shared beliefs, including normative beliefs and preferences, beyond those constituting their collective action problem, (ii) with a more or less stable set of members, (iii) who expect to continue interacting with one another for some time to come, and (iv) whose relations are direct (unmediated by third parties) and multiplex."
2.	Govan <i>et al.</i> (1998 p.2)	"People who live or work in the area, the 'geographical' or local community."
3.	du Toit <i>et al.</i> (2004 p.13)	"A local rural population that depends to some significant degree on its natural environment for subsistence."
4.	Pomeroy <i>et al.</i> (2004 p.213)	"A group of people with common interests (possibly living in a particular local area)."
5.	Pomeroy and Rivera-Guib (2005 p.9)	"Can be defined geographically by political or resource boundaries or socially as a community of individuals with common interests."

Table 3. Different definitions of the term 'community' from several authors.

Considering that people who live in a particular rural area have common interests is a common misconception of the term 'community' (Cooke & Kothari 2001, Armitage 2005). The concept of a community as sharing one ethnicity, language, and/or religion is perhaps applicable only to indigenous communities (Pimbert & Pretty 2000, Borrini-Feyerabend *et al.* 2004b). Village communities, especially in coastal areas, are heterogeneous in terms of ethnicity, language, and/or religion due to their relative accessibility (Chozin 2008, Pauwelussen 2010, Lampe 2012), for example compared to inland mountainous or forested areas. Hence their interests are varied. Furthermore, people's livelihoods are not necessarily based on exploiting the surrounding natural resources, and therefore do not always share norms derived from a common interests in using them sustainably (Agrawal & Gibson 1999, du Toit *et al.* 2004). For example, on the Spermonde Archipelago, Indonesia, although majority of inhabitants are fishermen or works in fishery-related businesses, significant numbers of people also work in other sectors such as forestry (Baitoningsih 2009), while others are migrant workers (PO SA COM 22.03.2014). Treating the 'community' as a homogenous unit may result in favouring one particular ethnic group, social class, or religion (Beaumont 1998, Ferse *et al.* 2010). On the other hand, common interests link communities living in different areas (Govan *et al.* 1998), either through shared sources of livelihoods (such as diving) or as a result of contacts established by traveling communities.

As the term ‘community’ has a broad scope, it is important to determine its definition for the purposes of the research that is being carried out. For example the above definition by Govan *et al.* (1998, Table 3 No.2) was one developed for a particular study. In this case the communities were bound together by shared residence in a certain geographical area, despite their diversity of interests. The working definition of ‘community’ for this study is a synthesis of definitions in Table 3 and those in Indonesian MPA legislation (Section 1.7.3.2). For the purposes of this study, a ‘**community**’ is a group of individuals bound together in a social system that is associated with their place of living in villages in coastal areas or on small islands, whose territories are wholly or partly inside the MPA in question, and who are affected by and/or interested in the MPA establishment process.

1.5.2. Definitions of Participation and Level of Participation

In the late 1960s, citizen participation emerged as a new paradigm for democratic planning and policy making (Arnstein 1969). Since then, the term ‘participation’ has been applied in different contexts such as agriculture (Fraser & Restrepo-Estrada 1998), health (Morgan 2001), and development (UNICEF 1990). In each context, the term has its own tailored definition. In the natural resource management realm, several definitions of ‘participation’ have been provided by different authors and organisations (Table 4).

No.	Authors’ or organisations’ name and references	Definitions
1.	UNRISD (1979) in Borrini-Feyerabend (2004a p.65)	“Organized efforts to increase control over resources and regulative institutions in given social situations, on the part of groups and movements of those hitherto excluded from such control.”
2.	Michael Cernea (1991) in Govan (2007 p.3)	“Empowering local people to mobilize their own capacities, be social actors rather than passive subjects, manage their resources, make decisions and control the activities that affect their lives.”
3.	The World Bank (1996 p.3)	“A process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them.”
4.	Ribot (1996 p.1)	“Communities having decision-making powers or control over resources that affect the community as a whole.”
5.	Pomeroy <i>et al.</i> (2004 p.215)	“A process involving/ providing the opportunity for an individual person (every relevant stakeholder) to participate in management.”

Table 4. Definitions of the term ‘participation’ in the natural resource management subjects.

In these definitions (Table 4), the word ‘control’ is most used (5 times) and the word ‘resource’ follows (4 times). Participation in the natural resource management context emphasises on the right of communities to control their surrounding natural resources. Therefore this study also emphasises the need for communities to play a leading role in the management of their surrounding natural resources, and consider this to be the principal objective of community participation.

Interest in community participation arose as a response to criticisms that conservation and development projects were conducted in a top-down way and did not have tangible effect on local communities, although these projects were intersecting with the life of local communities (Beaumont 1998, Borrini-Feyerabend *et al.* 2004a, Govan 2007). As the term ‘participation’ became a buzzword, conservation and development projects started to involve local communities the project planning and management (e.g. Kelleher & Kenchington 1992, World Bank 1996, Borrini-Feyerabend *et al.* 2004a). These experiences led to widespread discussion about the degree of involvement. Participation in a project context can be used as a means or an end; the results of participation will be determined by how it used (Oakley 1991). As a means, participation is used to obtain communities’ approval for pre-determined goals of the projects (Oakley 1991, Cooke & Kothari

2001); whereas as an end, it is used to empower communities in decision-making processes to define the goals of the projects (e.g. Oakley 1991, World Bank 1996, Borrini-Feyerabend *et al.* 2004a, Govan 2007).

Considering the different uses of participation, several authors define the level of participation based on the degree of involvement in the decision-making processes (Table 5). All authors consider the highest level of participation to be when communities, or citizens, or ‘the governed’ have more control than government over the decision-making process.

Level of participation from the highest to the lowest	Arnstein (1969)	Sen & Nielsen (1996)	Pimbert & Pretty (2000)	Govan (2007)
1	Citizen control	Informative	Self-mobilisation	Fully active
2	Delegated power	Advisory	Interactive participation	Deciding together
3	Partnership	Cooperative	Functional participation	Consultation
4	Placation	Consultative	Participation for material incentives	Information collection
5	Consultation	Instructive	Participation by consultation	Passively informing
6	Informing		Participation in information giving	
7	Therapy		Passive participation	
8	Manipulation			

Table 5. Level of participation from different authors.

The typologies of participation shown in Table 5 were developed in different settings. Arnstein’s ladder of participation (1969) was developed based on experiences in urban settings; while Pimbert & Pretty (2000) developed their typology of participation based on experiences in a range of terrestrial protected area settings. Both Sen & Nielsen (1996) and Govan (2007) focus on participation in aquatic, and particularly marine settings. This study uses the typology developed by Sen & Nielsen (1996). They use simple terminology that focuses on the balance between government and community involvement in the decision making process. The typology describes a transition from complete government control to complete community control; the middle level corresponds to a situation where government and communities have an equal role in the decision making process (Figure 2). This concept of ‘balance transition’ is not found in Govan’s typology of participation (2007) in which the lowest three levels represent arrangements where the government has control, one higher level is where government and communities have an equal role, and the highest level is where communities play the principal role.

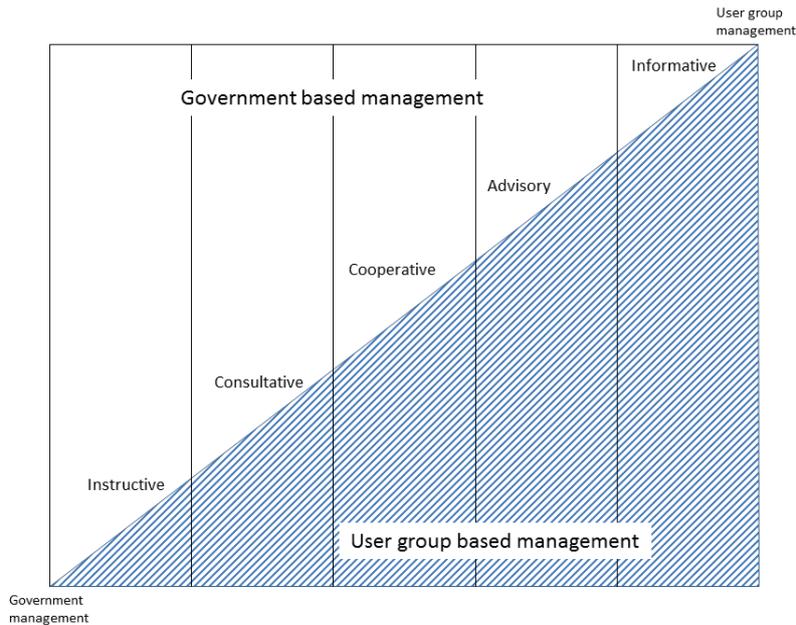


Figure 2. Level of participation according to Sen & Nielsen (1996).

Although Sen & Nielsen (1996) use the term ‘co-management’, rather than ‘participation’, this typology also applies to participation. The two terms are intertwined as the level of participation determines the type of co-management, and no co-management can occur without participation (Smith 2012). Furthermore, this typology was developed to cover different stages of management including planning (Sen & Nielsen 1996). Therefore Sen & Nielsen’s typology (1996) is the most suitable tool for this research.

1.5.3. Community Participation in MPAs

The degree of involvement of local communities, particularly the direct resource users, plays a determining role in the sustainability of the MPAs (Beaumont 1998, Kessler 2004). Collaborative decisions that are made by local communities and MPA authorities together will be widely accepted, leading to increasing compliance and reduced expenditure of resources on surveillance activities (e.g. Pomeroy 2001, Kessler 2004, Dalton 2005, Smith 2012). These potential benefits motivate the incorporation of community participation practices into MPA establishment projects (e.g. Pomeroy & Pido 1995, Newman & LeDrew 2005). Successful outcomes have been reported in several cases, for example in the Philippines (Pomeroy & Pido 1995, Pollnac & Crawford 2000, Christie *et al.* 2002, Balgos 2005) and Indonesia (Newman & LeDrew 2005). However, these successes were obtained through long and continuous efforts; the experiences highlight the fact that participation is a long and complex process that requires considerable time and resources, particularly if the aim is to actively involve stakeholders in the establishment and management of the protected area (e.g. Chambers 1983, World Bank 1996, Govan *et al.* 1998, Borrini-Feyerabend *et al.* 2004b, Kessler 2004, Wells & McShane 2004).

However, a more limited vision of participation, requiring less time and effort, aims merely to gain local communities’ approval for pre-determined goals (Oakley 1991, Craig & Porter 1997, Cooke & Kothari 2001, Hajer 2005). MPA establishment projects from Indonesia (Elliot *et al.* 2001, Baitoningsih 2009, Glaser *et al.* 2010) provide examples of this more restricted form of participation; typically they consist of a few one-off events (such as consultation meetings) that exclude most of the local direct resource users.

Many suggest that decentralisation increases the opportunity for community involvement in policy development (e.g. Ribot 1996, Ahmad & Hofman 2000, Hickey & Mohan 2004, Larson & Ribot 2004). Although strictly speaking decentralisation simply means delegation of power from central/national to lower level governments, the current understanding of decentralisation emphasises local democracy; this is sometime called as “democratic decentralisation” (Seymour & Turner 2002, Larson & Ribot 2004). Understood in this sense, decentralisation provides opportunities for communities to take part in the management of their surrounding natural resources (Larson & Ribot 2004), including MPAs. Decentralisation should involve programmes to build the capacity of communities to manage their MPAs (Pomeroy *et al.* 2001, Wever *et al.* 2012).

In line with moves in many different countries towards decentralisation, the Indonesian government of the Reform Era (Section 1.6.5) has taken steps to increase local community involvement in MPA establishment and management, in order to improve management practices, achieve conservation goals, and prevent ‘paper parks’ outcomes.

1.6. History of MPA Establishment in Indonesia

MPAs have existed in Indonesia since the pre-colonial era (Idrus 2009). Since that time, forms of management have been transformed, from traditional protection practices associated with particular social groups, to the current models governed by the national legislation.

1.6.1. Pre-Colonial Era (≤ 17th Century)

As described in the Section 1.1.1. MPAs that existed in this era were areas where specific measures were taken by particular clans, or ethnic or religious groups, for the management of marine resources, principally fisheries (Ruddle & Satria 2010). Examples for MPAs during this era include (1) the seasonal harvesting of marine species, called *sasi* in Maluku (Evans *et al.* 1997, Harkes 2000) and in Papua (McLeod *et al.* 2009), and *Lilifuk* in Timor (Anakotta *et al.* 2009); (2) periodic closure of fishing grounds, known as *Panadahi* in Raijua; and (3) regulations for issuing fishing permits, called *seke* in North Sulawesi, or *awig-awig* in Lombok and *petuanan laut* in Maluku (Ruddle & Satria 2010). In some places the name given to a marine area management practice is based on the title of the local ruler, rather than a description of the practice. An example is the regulation of fishing permits in Aceh that is known as *Panglima Laot* (Wilson & Linkie 2012).

1.6.2. Colonial Era (17th Century – 1945)

The Dutch colonial government began to establish protected areas in the early 20th century following an international movement toward the protection of game species and/or scenic landscapes (Crib 1988, Boomgaard 1999, Jepson & Whittaker 2002). The protected areas were managed by the Forestry Service of the Dutch colonial government’s Department of Economic Affairs (Crib 1988).

Sixty six protected areas were established during this era (Jepson & Whittaker 2002) including three sites that contain marine areas i.e. Sukawayana Nature Reserve in West Java, Napabalano Nature Reserve in Southeast Sulawesi, and Banyuwangi Selatan Reserve (Jepson & Whittaker 2002). However, the marine areas in these three protected areas were merely an extension of terrestrial areas; none of them were designated as MPAs (Wood 2007).

1.6.3. Post-Independence Era (1945 – 1965)

In this era, no new protected area was established, terrestrial or marine (Woods 2007). During this time, Indonesia was still struggling to gain international recognition as a new country, to combat insurgencies, and to decide on the direction of its national development (Suryo 2000, Booth 2010).

1.6.4. New Order Era (1966 – 1998)

In the New Order (*Orde Baru*) era, protected areas were managed under the Ministry of Forestry, continuing the arrangement of the colonial era (Crib 1988) and reflecting the land-based development paradigm that was predominant in Indonesia at the time (Satria & Matsuda 2004, Dirhamsyah 2006, Idrus 2009, Syarif 2009, Siry 2011, Wiadnya *et al.* 2011).

Scattered references to marine affairs and fisheries in the legislation divided responsibility for their administration among the ministries of Forestry, Agriculture, and the Environment (Kusuma-Atmadja & Purwaka 1996, Satria & Matsuda 2004, Dirhamsyah 2006, Syarif 2009, Siry 2011).

Legislation pertaining to the established of protected areas was enacted in 1990. According to this law (Law No.5/1990), known as the biodiversity conservation law (Kusuma-Atmadja & Purwaka 1996, Syarif 2009), protected areas are divided into three categories: national parks, forest parks, and nature tourism parks (Law No.5/1990 Article 29 Clause 1).

Although this law mainly targets land or forest protection, seven ‘Marine’ National Parks were established at Cendrawasih Bay, Bunaken, Taka Bonerate, Seribu Islands, Wakatobi, Togean and Karimunjawa (Patlis 2005, Wiadnya *et al.* 2011).

1.6.5. Reform Era (1998 – present)

Following the economic crisis in 1997, there were growing demands to reform the government, and particularly for more decentralisation. The demands were manifested in student demonstrations throughout the country, which eventually forced Soeharto to step down from the presidency (Suryo 2000, Seymour & Turner 2002). The Reform era transformed the government and introduced a more decentralised system, in which greater power and autonomy was given to provinces and districts (Seymour & Turner 2002, Fritzen 2007, Idrus 2009, Syarif 2009, Siry 2011). In the first law setting out the authority of local government (Law No.22/1999), district government were given the authority to manage marine areas up to four nautical miles from the coastline (Article 10 Clause 3), while provinces were given the authority over marine areas between four and twelve nautical miles from the coast (Article 3). In the revision of this law (Law No.32/2004), these authorities were retained (Article 18 Clause 4).

Another key transformation of the Reform era was that the marine sector was accorded the same priority as the agriculture sector (Siry 2011), in recognition of the fact that Indonesia is the largest archipelagic country in the world (Syarif 2009). Accordingly, in 1999, a new ministry to deal with marine issues was established that later became the Ministry of Marine Affairs and Fisheries (MOMAF) (www.kkp.go.id).

MOMAF took steps to improve the MPA establishment process in order to prevent mismanagement and avoid the repetition of conflicts that had occurred under the administration of the Ministry of Forestry (Gustave & Borchers 2008). The MPA establishment process now incorporates more decentralised (Satria & Matsuda 2004, Siry 2009) and bottom-up processes (Satria & Matsuda 2004, Syarif 2009) that provide opportunities for different stakeholders to be involved (Siry 2011).

Efforts to establish MPAs were accelerated, particularly after President Yudhoyono announced a commitment to establish 10 million ha of MPAs by 2010 at the conference on the Convention on Biological Diversity in Brazil in 2006 (Rosen & Olsson 2012). In response to this commitment, MOMAF designated the Savu Sea National Park in 2009 as the first MPA under its administration (MOMAF Decree No.38/2009).

1.7. The MPA Establishment Process in Indonesia

The MPA establishment process is governed by different pieces of legislation. Marine protection is first mentioned in Law on Fisheries of 2004, which includes an article stating the importance of conserving fishery resources (Article 13). The supplementary regulations issued to operationalise this law allow for the establishment of 'aquatic conservation areas' (*Kawasan Konservasi Perairan – KKP*) (Government Regulation No.60/2007, MOMAF Regulation No.2/2009).

A supplementary regulation to another law enacted by MOMAF, the Law on the Management of Coastal Zones and Small Islands of 2007, mentions three different categories of 'conservation area', i.e. coastal and small islands conservation area (*Kawasan Konservasi Pesisir dan Pulau-pulau Kecil – KKP3K*), maritime conservation area (*Kawasan Konservasi Maritim*), and protected coastline (*Sempadan Pantai*) (MOMAF Regulation No.17/2008).

Thus, legislation on MPAs is scattered amongst different pieces of more general legislation and is not easy to find. In addition to this complexity, before the two abovementioned laws were enacted, MPAs were already being established following processes not set out in law, in the framework of the nationwide Coral Reef Rehabilitation and Management Program (COREMAP).

1.7.1. COREMAP

COREMAP was started in 1998, and included innovative proposals for establishment of MPAs, outside the existing legal framework that placed them under the administration of the Ministry of Forestry. The programme aimed to protect, rehabilitate, and manage the use of coral reefs and their associated biological resources in accordance with sustainability principles. This programme was designed and intended to be carried out by the Indonesian Institute of Science (*Lembaga Ilmu Pengetahuan Indonesia – LIPI*) and funded through loans from the World Bank and Asian Development Bank (Baitoningsih 2009, Glaser *et al.* 2010). The project sites were selected based on the results of past research by *LIPI* that had identified coral reefs under threat from human activities, and thus in need of protection (www.coremap.or.id).

COREMAP was designed as three-phase project, each to last for approximately five years. The project area comprised 15 sites across Indonesia. After the establishment of MOMAF, management of the project was transferred to this new ministry; while *LIPI* continued to serve as an information and training centre for the project (Baitoningsih 2009, www.coremap.or.id).

Following recommendations of international agencies, such as by IUCN, COREMAP involved communities in the MPA establishment process (Kelleher 1999, DKP 2006, PPTK Unhas 2006). Communities were given the opportunity to select the areas that they wanted to fully protect; it was hoped thereby that they would be committed to protecting them (COREMAP & DKP 2006, DKP 2006, PPTK Unhas 2006). The programme worked with village communities; each village within COREMAP's area of operations was expected to identify one no-take area (NTA) (Table 7) and set up a village NTA

management authority (*Lembaga Pengelola Sumberdaya Terumbu Karang - LPSTK*). These NTAs became the core zones of the MPAs established in each of the programme's 15 operational areas (COREMAP & DKP 2006, DKP 2006).

In order to safeguard the NTAs, COREMAP provided each village with a motorised wooden patrol boat, a digital camera, a pair of binoculars, a communication radio, and a set of snorkelling equipment (Baitoningsih 2009). COREMAP also provided financial support, infrastructure, and training. Each village received a 'village grant' of one hundred million Rupiah (> € 6,800) and Seed Fund of fifty million Rupiah (> € 3,400). Village grants were intended to support three sets of activities i.e.

- (i) Village infrastructures development such as pier development, wave breakers, etc.
- (ii) Conservation and rehabilitation programmes such as mangroves planting.
- (iii) Capacity building programmes such as trainings for tourist guides, coral reef assessment, etc. (DKP 2006, Baitoningsih 2009, Glaser *et al.* 2010).

'Seed funds' were revolving funds, provided to communities as a start-up loan. Each recipient received one million Rupiah (\pm € 69) that s/he was required to pay back with interest of two hundred Rupiah (\pm € 14) after a year. Seed funds supported alternative livelihood activities; the aim of these funds was to reduce human pressure on coral reefs (DKP 2006, Baitoningsih 2009).

1.7.1.1. The Implementation of COREMAP

COREMAP was criticised by NGOs from the outset, mainly due to use of loans to provide financial support (Kompas 02.05.2013). In addition there were concerns about the high level of corruption in Indonesia, which was an unintended negative outcome of decentralisation (Patlis 2005, Hofman *et al.* 2009). The prospects of COREMAP successfully distributing money at district and village levels, without any provision for sanctions if any mismanagement occurred, were considered unpromising. Critics predicted that COREMAP would not succeed rehabilitating the coral reefs, or improving their management (Kompas 02.05.2013).

Research by Baitoningsih (2009), Nurliah (2012), and Brock (2013), among others, confirmed these pessimistic predictions. The NTAs selected by communities were areas of no ecological value (COREMAP 2009); hence they did not meet the requirements for the core zone of an MPA. Furthermore, monitoring of these NTAs showed that, in the majority of cases, coral reef cover was decreasing (Nurliah 2012). Other aspects of programme implementation, such as the use of facilities and funds, were also mismanaged. For example funds were used for purposes that were not related to environmental conservation (Baitoningsih 2009, Glaser *et al.* 2010). Despite the provision of financial support for alternative income generating activities, with aim of reducing pressure on coral reefs, communities remained almost entirely dependent on fishing for their livelihood (Brock 2013).

Following the end of COREMAP Phase II in 2011, the project was evaluated by the World Bank in 2012 and by the Indonesian Audit Board (*Badan Pemeriksa Keuangan - BPK*) in 2013. These two evaluations came to different conclusions regarding the success of the programme. The World Bank rated the implementation of COREMAP as 'moderately satisfactory' (World Bank 2012), whereas the Indonesian Audit Board stated that COREMAP had been unable to secure the protection of coral reefs (BPK 2013). Neither organisation recommended that the programme should be discontinued; however they recommended several improvements for Phase III that was due to start in mid-2014 (World Bank 2012, BPK 2013).

1.7.2. Law on Fisheries

The Law on Fisheries (No.31/2004) is the first law under administration of MOMAF that recognises the needs to conserve fishery resources. As the title of the law suggests, the principal aim of conservation of Indonesian marine areas is sustainable management of fishery resources, rather than biodiversity conservation as suggested by IUCN (Dudley 2008). Supplementary regulations provide further explanation of how the conservation of fishery resources is to be operationalised, including identification of categories of protected areas and details of the corresponding establishment processes (Government Regulation No.60/2007, MOMAF Regulation No.2/2009 and 30/2010). The hierarchy of this law and its supplementary regulations is shown in Figure 3.

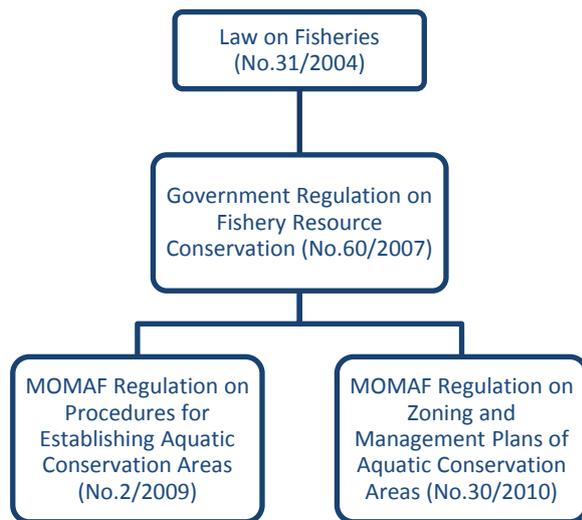


Figure 3. Hierarchy of Law on Fisheries and Its supplementary regulations.

In the Government Regulation on Fishery Resource Conservation (No.60/2007), a protected marine ecosystem is called an aquatic conservation area (*Kawasan Konservasi Perairan – KKP*) (Table 7) and this category of protected area consists of four sub-categories: national parks, tourism parks, nature sanctuaries, and fish sanctuaries (Article 8). Zones in each sub-category include some or all of the following: strictly protected areas called core zones, fishery-related use areas called sustainable fishery zones, non-fishery use areas called utilisation zones, and areas used for other purposes called other zones (Article 17 Clause 4).

1.7.2.1. Establishment Process of Aquatic Conservation Areas

In the MOMAF Regulation on Procedures for Establishing Aquatic Conservation Areas (No.2/2009), five steps are required to establish an MPA (Figure 4). A proposal for establishing an aquatic conservation area may come from different stakeholders, including individuals, communities, research institutes, education institutes, government agencies, and NGOs (Article 9 Clause 1). By giving different stakeholders the opportunity to propose aquatic conservation areas the intention is to improve on the former centralised process administered by the Ministry of Forestry.



Figure 4. Steps of the Aquatic Conservation Area establishment process (MOMAF Regulation No.2/2009 Article 3).

A proposal should contain a justification for establishment of the MPA on ecological, socio-cultural, and economical grounds; and a map of the proposed area. This proposal is then submitted to local government (mayor/regent, governor) for approval of conservation areas at district or provincial level, or to the Minister of Marine Affairs and Fisheries (i.e. MOMAF) for approval of national conservation areas at trans-provincial areas (Article 8 Clause 1g). Following approval of the proposal, the responsible government body forms an assessment team to undertake a survey and appraisal of the proposed conservation area (Article 13). This team assesses the justifications for the proposed areas, socialises the proposed areas to communities and corresponding local government authorities, and organises public consultations to gain inputs on the category and total area of the proposed area (Article 14 – 17). Outcomes of these activities are recommendations with respect to the category and total area of the conservation area, and the make-up and role of its management authority (Article 19), which are used as the basis for designation of the proposed area by the responsible local government authority or the Minister of Marine Affairs and Fisheries (Article 20).

The next stage is endorsement of the designated aquatic conservation area by the Minister of Marine Affairs and Fisheries. In order to obtain endorsement, a designated area is required to have a management plan (Article 22). The detailed content of the required management plan is not spelled out in the Regulation on Procedures for Establishing Aquatic Conservation Areas. Comprehensive requirements for management plans are set out in the MOMAF Regulation on Zoning and Management Plans of Aquatic Conservation Areas (No.30/2010). In effect, compliance with the requirements of this regulation represents an additional step between designation and endorsement. The final step of the establishment process is to place boundary markers around the endorsed areas (MOMAF Regulation No.2/2009 Article 24 – 26).

1.7.2.2. Role of Communities in the Aquatic Conservation Area Establishment Process

As mentioned above, communities may propose an aquatic conservation area. However, if the proposal comes from a different stakeholder, the role of communities is limited to being informed and consulted about the proposal. First, they are informed (in Step 2) about the proposed aquatic conservation area through ‘socialisations’. Second, they are consulted (also in the Step 2) in order to provide inputs on the category of the proposed area and its total area. The procedure for conducting socialisations and public consultations is not mentioned; these could involve whole communities or only their representatives. According to MOMAF Regulation on Procedures for Establishing Aquatic Conservation Areas, this is the role of communities if the proposals do not originate from them.

However, in the subsequent MOMAF Regulation on Zoning and Management Plans of Aquatic Conservation Areas, the role of communities is enhanced. They are to be publicly consulted on the zoning and management plans of the proposed areas in two rounds of consultations (Article 30). Again, the procedure for conducting these two rounds of public consultations is not elaborated. However, even though this regulation requires communities to be involved in more than one step of the MPA establishment process, their role is still limited. The entire process is mandated to government and the role of communities is limited to being informed and consulted.

Furthermore, the Fisheries Law and its supplementary regulations do not contain any provision for objections or opposition from communities. It seems that the whole aquatic conservation area establishment process is designed to gain support and approval from local communities. Since there is no provision for arbitration, the process can only be successfully concluded by avoiding disputes

altogether. The process as set out in current regulations seems poorly adapted to social and political conditions in the more democratic Reform era.

1.7.3. Law on the Management of Coastal Zones and Small Islands

This law (No.27/2007) governs the spatial planning of coastal areas up to 12 nautical miles from the coastline (and is also known as the coastal spatial planning law). This law establishes four categories of use in coastal and marine areas: general use area, conservation area, area of strategic national importance, and sea lane. Each district and province that has coastal areas should allocate their areas accordingly. Further details of the procedure for developing coastal spatial plans are set out in the MOMAF Regulation on Management Planning of Coastal Zones and Small Islands (No.16/2008). Specific procedures for conservation areas are set out in the MOMAF Regulation on Conservation Areas within Coastal Zones and Small Islands (No. 17/2008). The hierarchy of this law and its supplementary regulations is shown in Figure 5.

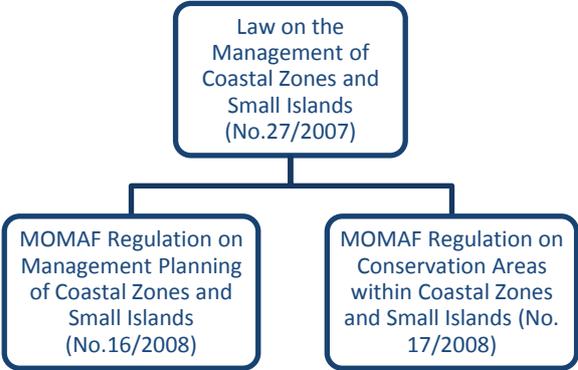


Figure 5. Hierarchy of Law on the Management of Coastal Zones and Small Islands and its supplementary regulations.

The law mandates the establishment of conservation areas in coastal and marine areas and include a definition of conservation area (Table 7). Furthermore, the MOMAF Regulation on Management Planning of Coastal Zones and Small Islands (No.16/2008) defines four categories of conservation area: aquatic conservation area, coastal and small islands conservation area, maritime conservation area, and protected coastline (Article 15 Clause 4). The procedures for establishing different categories of conservation area are set out in the MOMAF Regulation on Conservation Areas within Coastal Zones and Small Islands (No. 17/2008). However, since aquatic conservation areas are already governed by a different regulation, this regulation only governs two categories of conservation area, i.e. coastal and small islands conservation areas and maritime conservation areas. Aquatic conservation areas are governed by the Fisheries Law and its regulations, as explained in Section 1.7.2 above. It is intended that protected coastline should be governed by a separate regulation; however no such regulation has been issued to date.

According to this regulation, the category coastal and small islands conservation area (*Kawasan Konservasi Pesisir dan Pulau-pulau Kecil – KKP3K*) consists of four sub-categories, i.e. coastal park, small islands park, coastal sanctuary, and small islands sanctuary (Article 5). In contrast to the other categories, no specific deifintion of this category is provided, beyond the general definition of a conservation area. The maritime conservation area (*Kawasan Konservasi Maritim – KKM*) category consists of two sub-categories, i.e. maritime customary protected area and maritime cultural protected area (Article 7).

The zones of coastal and small islands conservation area and maritime conservation area categories are similar. They are: core zones, where access and use of marine resources is highly restricted; limited-use zones set aside for specific purposes, and general purposes areas called other zones (Article 31 – 32).

1.7.3.1. Establishment Process of Coastal and Small Islands Conservation Areas

This study focuses on MPAs as tools for aquatic biodiversity conservation and fishery management (Section 1.1.2) and therefore on MPA categories with these objectives. Hence, no further consideration is given to maritime conservation areas, which are established to protect features of cultural and historical importance (Table 7), nor to protected coastlines, which do not have an aquatic component.

The steps of the establishment process for coastal and small islands conservation areas are similar those for aquatic conservation areas (Figure 4) (MOMAF Regulation No.17/2008 Article 9). However, there are differences in the details. The proposal to establish a coastal and small islands conservation area may come from different stakeholders; however in the MOMAF Regulation on Conservation Areas within Coastal Zones and Small Islands, NGOs are not mentioned (Article 10). Furthermore, in Step 2 of the process, ‘socialisations’ are not mentioned (Article 11 Clause 3). Only one round of public consultation is required at this stage; as in other regulations, no details are given on how the consultations should be conducted.

Endorsement of coastal and small islands conservation areas requires zoning and management plans. However, in contrast to aquatic conservation areas, whose zoning and management plans are governed by a separate regulation (No.30/2010), no such regulation exists for coastal and small islands conservation areas.

1.7.3.2. Role of Communities in the Coastal and Small Islands Conservation Areas Establishment Process

Different definitions of ‘community’ are given in this law and its regulations (Table 6). The law states that the interests of different communities should be accommodated in the design of coastal spatial plans (Law No.27/2007 Article 61). However, the role of communities in coastal spatial planning, and particularly in the establishment of coastal and small islands conservation areas, is even more limited than for the aquatic conservation areas. Their involvement limited to the Step 2 of the process; moreover the absence of a regulation on zoning and management plans further limits their involvement. There is no provision for community input to these plans. There is provision for objections to be voiced during the establishment process in the coastal spatial planning law. However, objections can only be raised before the plans are endorsed (Article 60 Clause 1g), which seems impossible to apply given the very limited provision for communities involvement prior to this stage. The principal objective of the establishment process is to obtain support and approval from communities.

Terminologies	Definitions
Community (Article 1 Clause 32)	“Community’ includes communities governed by customary law, local communities, and traditional communities living in coastal areas and on small islands”
Community governed by customary law (Article 1 Clause 33)	“A group of people who have lived in a certain geographical area for generations in the Republic of Indonesia; who have strong ties to their ancestral lands and their natural resources; and are governed by traditional governance institutions, and customary law that is in accordance with the legislation”
Local community (Article 1 Clause 34)	“A group of people whose daily life is ordered based on custom that are accepted as valid common values, but who are not entirely dependent on the resources of coastal areas and small islands”
Traditional community (Article 1 Clause 35)	“A traditional fishing community that has a customary right to fish or carry out other activities that are not illegal within the archipelagic waters”

Table 6. Different definitions (paraphrased) of 'community' in the amended Coastal Spatial Planning Law (Law No.1/2014).

The coastal spatial planning law was amended in response to objections that were raised to a provision in the chapter on rights for the use of coastal waters (*Hak Pengusahaan Perairan Pesisir – HP3*) for permits for the use of coastal areas to be granted to private sector stakeholders (Article 16 – 22). Although the law stated that, in granting such rights, consideration should be given to the interests of coastal communities, the Indonesian national NGOs *KIARA* considered that the law would marginalise coastal communities by putting well-resourced private sector organisations and communities with limited resources together in the same arena (*KIARA* 2013). Communities would likely lose their fishing grounds to private sector organisations that laid claim to these areas. *KIARA* submitted a legal objection to the Indonesian Constitutional Court and won the case. The coastal spatial planning law was amended in 2014 (Law No.1/2014) and the MOMAF Regulation on Management Planning of Coastal Zones and Small Islands was correspondingly revised in 2014 (No.34/2014). However, the regulation on conservation areas, including the establishment process, remains the same.

1.8. Connections and Inconsistencies in MPA Legislation

Marine conservation areas in Indonesia have many names, based on the categories and sub-categories defined in different pieces legislation and derived from the national project conservation initiatives of COREMAP (Table 7). In this study, the term ‘MPA’ is used in a general sense to refer the marine conservation areas in the study sites (Section 1.1.2); in more detailed discussions these are given their full title in accordance with the categories and sub-categories defined by the legislation.

Terminologies and Sources	Definitions
No-Take Area (COREMAP & DKP 2006 p.5)	“Coastal and marine areas that may include coral reefs, mangrove forests, seagrass and/or other habitats that are selected to be closed permanently from fishing activities and collection of marine life, and whose management (including planning, monitoring, and evaluation) is conducted jointly by government, communities, and other parties”
Conservation Area (Law No.27/2007 Article 1 Clause 20)	“Coastal areas and small islands with certain special ecosystem characteristics which are protected for the purpose of sustainable management”
Aquatic Conservation Area (MOMAF Regulation No.2/2009 Article 1 Clause 8)	“An aquatic area that is protected and managed through the use of zoning system, for the purpose of sustainable management of fishery resources and their environment”
Maritime Conservation Area (MOMAF Regulation No.17/2008 Article 1 Clause 21)	“Indigenous protected areas and maritime cultural, archaeological, and historical sites, and/or sites of religious rituals or customs that are in accordance with nature conservation efforts within coastal zones and small islands”
Protected Coastline (MOMAF Regulation No.17/2008 Article 1 Clause 9)	“Land along the coastline with a width proportional to the shape and physical condition of the beach, of at least one hundred meters from the highest tide landward”

Table 7. Different types of marine conservation areas in Indonesia.

1.8.1. Connections

Although aquatic conservation area was the first category of MPA to be defined in the Indonesian legislation under MOMAF, later legislation clarified that this is just one of a wider range of conservation area categories. The Coastal Spatial Planning Law (No.27/2007) further states that conservation areas are one of four use categories to be applied in the spatial allocation of marine areas (Article 10). Figure 6 provides a summary of the full range of options for marine spatial allocation, including the categories and sub-categories of MPAs in the legislation.

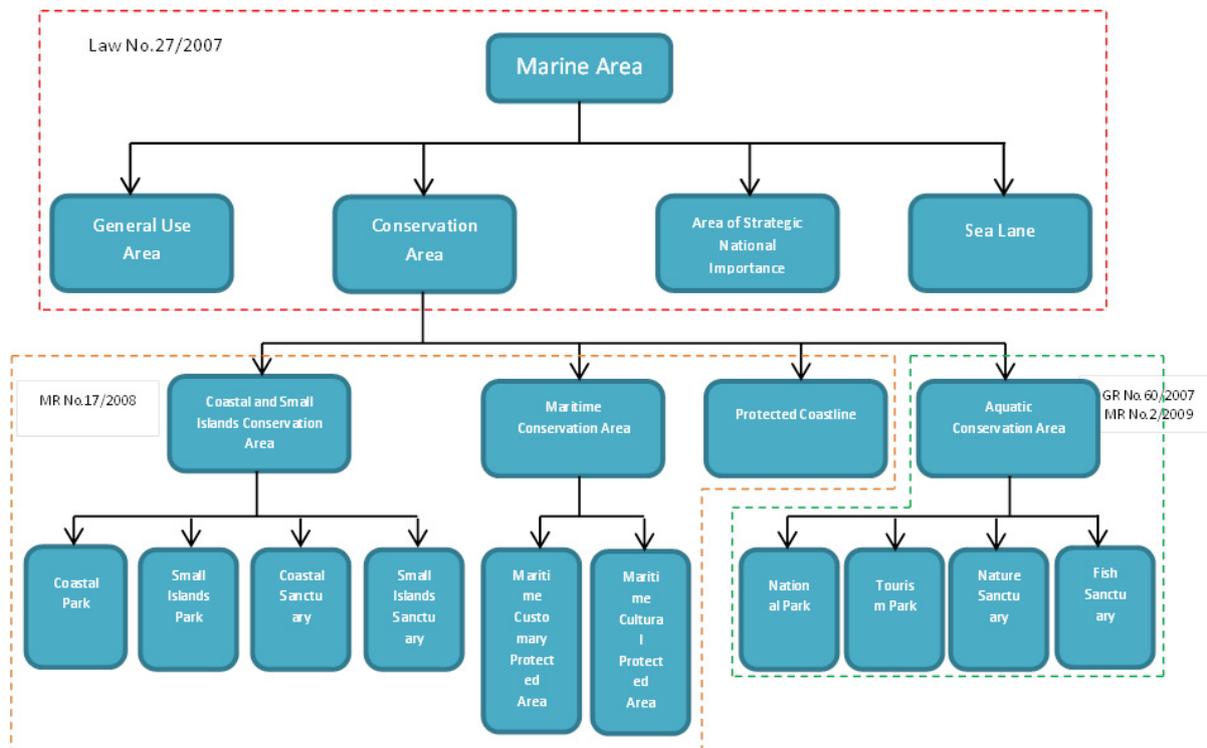


Figure 6. Marine spatial allocation and the categories of conservation area. GR = Government Regulation, MR = MOMAF Regulation.

To date, the fisheries law and the coastal spatial planning law are broadly compatible. However, additional categories of MPAs may be introduced in the future, particularly outside the coastal areas e.g. in the zone between the limits of territorial waters and the boundary of the exclusive economic zone (EEZ) (UNCLOS 1982) following the enactment of Law of The Sea (No.32/2014).

1.8.2. Inconsistencies

The legislation pertaining to MPAs is scattered in different laws and regulations (Figure 6), and inconsistencies can be found among them, as discussed earlier in the Section 1.7.3.1. Moreover, the difference between aquatic conservation areas and coastal and small islands conservation areas is unclear (Wiadnya *et al.* 2011). Coastal areas covers marine waters up to 12 nautical miles from the coastline (Law No.27/2007 Elucidation) and aquatic conservation areas may also located within this range (MOMAF Regulation 2/2009 Article 8 Clause 1g). Furthermore, marine ecosystems e.g. mangroves, coral reefs, and seagrasses are connected and all play a role in the life of marine species; hence protecting ecosystems in aquatic area only, without the others at the coastlines, will not provide benefits for conservation (Section 1.3.1). This issue has now been settled but based on consensus rather than science. If an MPA has a bigger portion of waters, it belongs to the aquatic conservation area category; whereas an MPA that has a bigger portion of land areas is a coastal and small islands conservation area (PO NGO 03.02.2014). A summary of inconsistencies in the MPA legislation is presented in Table 8.

No.	Topic	Aquatic Conservation Areas (MOMAF Regulation No.2/2009)	Coastal and Small Islands Conservation Areas (MOMAF Regulation No.17/2008)
1.	Proposers	Mentions NGOs (Article 9 Clause 1)	Does not mention NGOs (Article 10 Clause 1)
2.	Survey & potential appraisals	Mentions 'socialisation' activities (Article 13 Clause 3b)	Does not mention 'socialisation' activities (Article 11 Clause 3)
3.	Scope of areas	Up to 12 nm from the coast (Article 8 Clause 1g)	From the inland border of coastal sub-districts (<i>kecamatan</i>) up to 12 nm from the coast (Elucidation)

Table 8. Summary of inconsistencies on MPA legislation.

These inconsistencies were found by analysing the texts of the legislation. Further inconsistencies, as well as loopholes in the MPA legislation, may well emerge in practice, during the establishment of different categories of MPA in Indonesia. One objective of this study is to identify and analyse these inconsistencies, including mismatches between MPA legislation and other legislation that affects community participation.

1.9. Management Levels of MPA in Indonesia

According to MPA legislation, the levels of government that can accept the submission of MPA proposals are district/municipality, provincial, and national (MOMAF Regulation No.2/2009 Article 9 Clause 2, No.17/2008 Article 10 Clause 2). Hence, MPAs are managed within these levels of government, i.e. at a regional level by districts/municipalities or provinces, or at a national level. However, the legislation states that MPAs can be proposed by a range of stakeholders (Section 1.7.2.1 & 1.7.3.1), and provides the opportunity for individuals and communities to propose MPAs in village areas. In this case, the district/municipal government would most likely hand over the management authority to the respective village government in order to ensure the effective management of the MPA. Management of small-scale MPAs may not need higher-level government involvement; in fact it is more likely that this will just create bureaucratic problems (Pomeroy *et al.*

2004). COREMAP has adopted more or less similar approach. The no-take areas are proposed by communities, and their management authorities are attached to village government. Thus in practice, MPAs in Indonesia can be managed by national, regional, and village level authorities.

1.9.1. National-level MPAs

As implied by the name, the management authorities of these MPAs are national government agencies. In this case, MOMAF sets up management authority offices to manage one or more MPAs. To date the only example of this is the National Aquatic Conservation Area Management Authority (*Balai Kawasan Konservasi Perairan Nasional - BKKPN*) in Kupang, East Nusa Tenggara that manages the Savu Sea National Park (MOMAF Regulation No.19/2007). The Savu Sea NP is an aquatic conservation areas; to date, no national-level coastal and small islands conservation areas have been established in Indonesia.

National-level MPAs are defined as MPAs that are located in trans-provincial areas (MOMAF Regulation No.2/2009 Article 8 Clause 1g, No.17/2008 Article 25 Clause 1a). However the one national-level MPA established to date, i.e. the Savu Sea National Park (MOMAF Decree No.5/2014), is entirely located within a single province. Hence there is an inconsistency between the legislation and its implementation. This possibly reflects the fact that the national park was set up hurriedly in order to comply with commitments made under the Convention on Biological Diversity, and/or a desire to enhance the prestige of MOMAF by establishing the first MPA under its administration (Section 1.6.5).

1.9.2. Regional-level MPAs

Management authorities of regional-level MPAs are agencies of provincial or district/municipal governments. These governments may delegate an existing government agency to manage the MPA or establish a new organisation to do so. An example of MPA management authority at regional-level is the Marine Affairs and Fisheries Agency (*Dinas Kelautan dan Perikanan - DKP*) of Batang District in Central Java; which was appointed as the management authority of the Ujungnegoro-Roban Coastal Park by a Batang Regent Decree (No.18/2012).

MPAs at regional-level are managed by management authorities corresponding to their locations. MPAs located in district/municipal waters, i.e. up to four nautical miles from the coastline, are managed by district/municipal governments. MPAs located in trans-district/municipal waters are managed by the corresponding provincial government (MOMAF Regulation No.17/2008 Article 25). Although regional-level MPAs are located in areas governed by regional government, categories of MPAs are not based on their location. The term 'district MPAs' (*Kawasan Konservasi Laut Daerah – KKLD*) does not appear in the legislation. However, the term sometimes appear in the names given to MPAs (I NGO 06.02.2014), for example the Berau District MPA (*KKLD Berau*), so named due to the absence of legislation on MPA categories at the time (Section 3.2.1).

1.9.3. Village-level MPAs

MPAs located in village waters may be managed traditionally (Section 1.1.1) or by formal management authorities, such as those set up by COREMAP (Section 1.7.1). They are also sometimes called locally-managed marine areas (LMMAs) in the literature; however, in-line with the Indonesian legislation, this study identifies them as village-level MPAs.

In some case village-level MPAs can emerge from responses by communities to local-level problem situations (Glaser *et al.* 2010), as in the following example from Berau District.

The village of Tanjung Batu lies on the northern coast of Berau District. Most of the fishermen in Tanjung Batu use non-destructive fishing gears such as hand line fishing and stationary lift nets; however, destructive fishing practices using bombs and cyanide were formerly also common in the village waters. Such practices disturbed the non-destructive fishermen; they rightly considered that they had a negative impact on the fishery. They reported the illegal practices to the field office of marine affairs and fisheries and to the police, but received a negative response in both cases. Both agencies said that they had insufficient budgets to patrol the village waters. In mid-2010, upset that their concerns were not being addressed by government agencies, the non-destructive fishermen of Tanjung Batu decided to hold a big demonstration in order to gain attention of higher-level government authorities. At that time, TNC had a village facilitator in Tanjung Batu as part of its community outreach programme. The facilitator convinced the fishermen to cancel the demonstration and suggested they set up a community group to voice their concerns to local government. The fishermen agreed and *Jala* was established. Its first activity was to collect money from its members to finance joint patrols of police and field office of marine affairs and fisheries at waters around the village. The patrols were subsequently expanded to involve the army and navy, and since then become *Jala's* trademark activity (JP Monthly Report 2010).

Following on from the patrol activities, *Jala* proposed establishing a village-level MPA in a reef area of around 2,100 ha that the members considered to be aggregation ground for fish. The objective was that this resource should be utilised mainly for the benefit of residents of Tanjung Batu. This proposal was accepted by the village government in mid-2011 and later on was incorporated into the design of the Derawan Archipelago Coastal Park (Section 3.2.3). In addition, *Jala* ran a number of campaigns in favour of non-destructive fishing practices. As an incentive, a prominent middleman who was a member of the group agreed to pay a higher price for fish caught using non-destructive practices. The fish is marketed as an 'environmentally friendly' product and sold at a slightly higher price. Part of the profits from the sale of fish is used to finance the patrols (JP Monthly Report 2011-2012).



Figure 7. *Jala* and *Lekma Lamin*. Left: Water patrols organised by *Jala* involving government and law enforcement offices. Right: *Labuan Cermin* ecotourism site with decent facility (Photos: WB).

Another example of a village-level MPA is from the southern coast of Berau, in a village called Biduk-biduk. In the early 2000s, an asphalt road was constructed linking the area to the district capital. Realising that the village had become accessible to outsiders, an elder of the village decided to market an area called *Labuan Cermin* as a tourist attraction. *Labuan Cermin* is a secluded bay where sea water meets fresh water and creates two layers of water, with fresh water as the upper layer. Due to this fresh water content, this bay is used as natural swimming pool. In order to manage the

area, the elder recruited villagers and established a community group called *Lekma Lamin*. As part of its community outreach program, TNC approached *Lekma Lamin* and provided a series of training courses on ecotourism management and environmental topics. In 2012, *Lekma Lamin* and the village government of Biduk-biduk proposed an MPA covering the *Labuan Cermin* and its surrounding forest with total area of around 2,000 ha (JP Monthly Report 2010-2012). The MPA was legalised under a Berau regent's decree in 2013 (No.290/2013). Later on, this MPA was also incorporated into the design of the Derawan Archipelago Coastal Park (Section 3.2.3).

1.10. Community Participation According to Legislation and in Practice

As discussed in the Sections 1.6 to 1.9, the practice of community participation in the MPA establishment process in Indonesia does not always correspond to the aims of community participation as set out in the legislation. The legislation states that communities should be informed and consulted (Section 1.7.2 & 1.7.3). In practice, communities often assume a bigger role in the establishment process.

1.10.1. According to Legislation

The term 'community' is explicitly defined only in the Coastal Spatial Planning Law and its regulations. There is no explicit definition of community in the Fisheries Law. However, the role of the communities is essentially the same in both laws, and consists of being informed and consulted (Section 1.7.2 & 1.7.3). Guidelines or requirements on how to involve communities are not provided; this aspect is open to interpretation. But it is certainly not envisaged that communities should be equal partners with government (Sen & Nielsen 1996) (Section 1.5.2) or become decision makers in their own right (Borrini-Feyerabend *et al.* 2004a). The main benefit of the provision for community participation in MPA legislation under the administration of MOMAF is that communities are likely be more aware of the establishment of an MPA in their area than under previous legislation administered by the Ministry of Forestry. Hence, unpleasant 'surprises' are less likely than they were before.

1.10.2. In Practice

In reality, community participation practices are different to those set out in the legislation. Communities often play a more active role in decision making than envisaged by the legislation. COREMAP delegated the process of nominating no-take areas to communities and deciding how village grants should be spent to communities (DKP 2006, Baitoningsih 2009, Glaser *et al.* 2010). Despite doubts about its overall effectiveness (Section 1.7.1.1), there is no doubt that the design of the programme incorporated the delegation of several key decision making processes to the communities.

As discussed in Section 1.9.3, several village-level MPAs received assistance from NGOs. Initially, these areas did not meet the criteria for MPAs. However, as community capacity improved over time, NGOs helped the communities to adjust the specification of the local protected area to be in accordance with MPA principles (Section 1.3). The role of in capacity building programmes has been extensively discussed in the literature and they have become specialistd in this line of work (e.g. Fernandez 1987, Pomeroy *et al.* 2001, OED 2002, Kessler 2004, Hastings 2011). NGO capacity building programmes train communities to identify problems, analyse them, and make decisions together

through discussions, with the objective of fully delegating responsibility of decision making to the communities (Braus 2011).

In Indonesia, international NGOs such as TNC and WWF have been involved in the establishment and/or management MPAs (Newman & LeDrew 2005, Gustave & Borchers 2008, Syarif 2009). Typically, NGOs have community outreach department that are in-charge of implementing capacity development programmes in local communities (JP Monthly Report 2010 – 2012). The new MPA legislation (Section 1.7.2. & 1.7.3) that requires communities to be informed and consulted about proposed MPAs provides an opportunity for NGOs to apply their specialist skills to ensure compliance with the legislation.

1.11. Rationale of the Research

There are three different perspectives that shape community participation in the MPA establishment process in Indonesia. First, community participation in the MPA establishment process is governed by MPA legislation; according to this, the role of communities is to be informed and consulted. Second, there are NGOs that have a reputation for promoting active community participation, including in the establishment and subsequent management of MPAs. Lastly, some communities have set up their own MPAs and have their own understanding of community participation based on these experiences. The three stakeholders associated with these different perspectives, i.e. government, NGOs, and communities, have to work together in the MPA establishment processes underway in several parts of Indonesia. This study investigates how these different perspectives shape community participation in the MPA establishment process. Furthermore, the study will analyse additional factors that potentially shape community participation and, provides recommendations for best practices in the current circumstances.

1.12. Research Objectives and Questions

Based on the abovementioned rationale, the objectives of the study are (1) to identify and describe community participation practices under current MPA legislation and (2) to identify and analyse the drivers of these practices. In order to achieve these objectives, this study is designed around two overarching questions: (1) How do government and NGOs influence the practices of community participation? (2) How do communities perceive the importance of participation and how do they wish to participate?

The overarching questions were further detailed into five research questions:

1. How do government and NGOs interpret and implement community participation in the MPA establishment process?
2. How do communities perceive community participation in the MPA establishment process? How do they wish to participate?
3. How do the different interpretations among stakeholders (government, NGOs, communities) affect the MPA establishment process?
4. Which other factors shape community participation in the MPA establishment process, and in what way?
5. What are the feasible options for improving current community participation practices?

1.13. Structure of Thesis

This thesis consists of six chapters, including this chapter. Chapter two explains the methodology of this research. Three chapters of results and their discussions follow. They are structured according to the emerging research findings. Chapter three discusses the MPA establishment processes in Indonesia, influenced by legislation enacted by the national government and different ministries. Chapter four discusses the practices of community participation in the MPA establishment process. It discusses how different perceptions of community participation also contribute to shaping the role of the communities, and identifies the general level of participation as being 'instructive' and 'consultative', based on the categories proposed by Sen & Nielsen (1996). Chapter five develops policy recommendations based on the current legal frameworks and the findings of this study, in order to achieve a higher level of community participation. Chapter six concludes the thesis by summarising the findings, answering the research questions, and outlining the contribution of this research to discussions on community participation in MPA establishment processes worldwide.

Chapter 2: Methodology

This chapter presents the methodology used in this research. First, the research sites are described. This is followed by the rationale for employing qualitative research. Explanations are provided of research methods, informant selection, and the data collection process, and finally data analysis.

2.1. Research Sites Selection

The selection of Marine Protected Areas (MPAs) as research sites aimed to cover: a) different levels of government that can propose MPAs and b) different legal frameworks that can underpin their establishment. These criteria were applied in order to examine the extent to which level of government and legal framework affect the level and nature of community participation (Table 9). The selected research sites (Figure 8) were amongst the first to implement the new legislation for MPA establishment in Indonesia.

No	Site	Proposing Government Level	Location			Legal Framework
			Village	District	Province	
1	Savu Sea National Park	Provincial	---	---	East Nusa Tenggara	Law on Fisheries
2	Derawan Archipelago Coastal Park	District	---	Berau	East Kalimantan	Law on The Management of Coastal Zones and Small Islands
3	Laiya No-Take Area (as part of Pangkep district MPA)	Village	Laiya	Pangkep	South Sulawesi	COREMAP project (started before the previous two laws were enacted)

Table 9. Selected research sites.

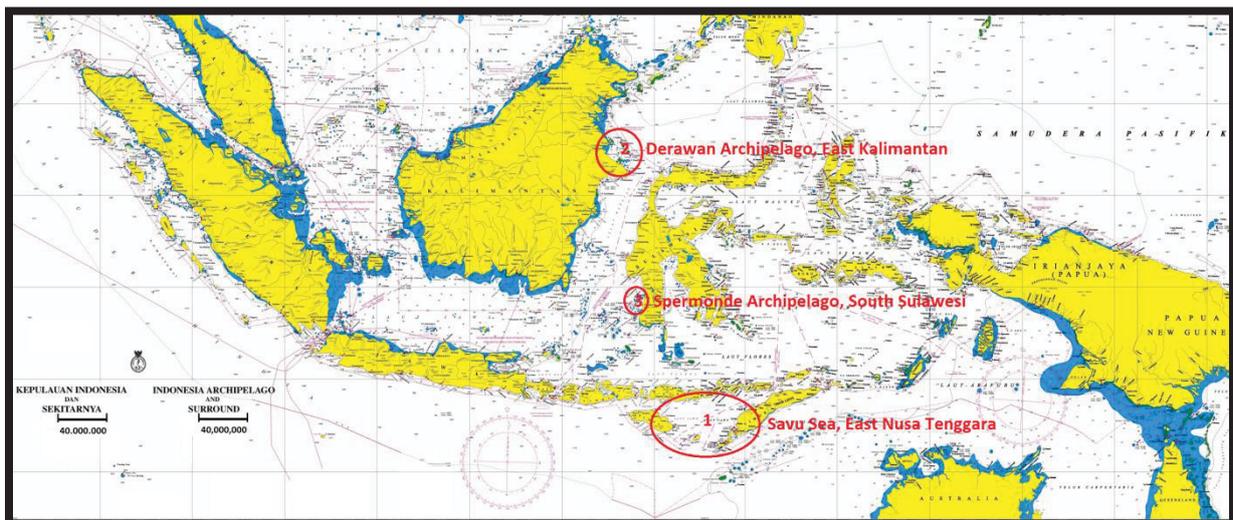


Figure 8. Research areas (Source: adapted from Hydro-oceanographic office Indonesian Navy 2013).

2.1.1. Research Sites Description

This section provides brief descriptions of biophysical, economic, and social conditions at each site.

2.1.1.1. Savu Sea National Park

The Savu Sea is located in the eastern part of Indonesia, surrounded by the islands of Flores, Timor, and Sumba, which enclose a triangle-like marine area. The Savu Sea belongs to the East Nusa Tenggara (*Nusa Tenggara Timur – NTT*) province, which ranks third in poverty among 34 provinces in Indonesia (Indonesia statistics 2015).

The Savu Sea is the site of a convergence of water masses from the Indian Ocean and the Banda Sea (Tomascik *et al.* 1997, Potemra *et al.* 2003), which creates an upwelling phenomenon (Ningsih *et al.* 2013). In addition, the Savu Sea is one of the marine passages through which water flows from the Pacific Ocean to the Indian Ocean. This Indonesian throughflow (ITF) transports planktonic larvae that settle on reefs along its way (Tomascik *et al.* 1997) (Section 1.3.3). These upwelling and throughflow processes provide a rich source of nutrients for marine species. The depth of the Savu Sea is varied, reaching 4,000 m its deepest point (Gordon *et al.* 2003), making it suitable as a large marine mammals lane (Kahn 2002).

Based on an ecological survey in 2011, the Savu Sea National Park consists of coral reef, mangrove, and seagrass ecosystems (Milla *et al.* 2013) (Table 10). The entire Savu Sea is famous as a corridor for migratory marine mammals, which served as justification for establishment of an MPA (Kahn 2002). Twenty two species of marine mammals have been identified within the area including 14 species of whales, seven species of dolphins, and one species of dugong (Rudolph *et al.* 1997, Kahn 2005, Mustika 2009).

Although East Nusa Tenggara has a vast marine area and rich ecosystems, the fishery sector accounts only 4.14% of provincial revenue with total production of 104,500 tons (NTT statistics 2014) (Table 11). Agriculture is the most important economic sector, with cassava the dominant crop.

East Nusa Tenggara is notable for its cultural diversity: 17 ethnicities and 44 traditional languages have been identified; as well as 11 local traditions relating to marine area management (Milla *et al.* 2013). However, only five of these, which do not contradict religious beliefs, are still being practiced (PO SS COM 28.02.2014). Roman Catholics are the largest religious group within the province representing around 56% of its population, followed by other Christians (34%) and Muslims (9%) (NTT statistics 2014).

2.1.1.2. Derawan Archipelago Coastal Park

Derawan Archipelago is located in the central part of Indonesia, in northeast coastal waters of Kalimantan Island in the Sulawesi Sea. Derawan Archipelago belongs to East Kalimantan (*Kalimantan Timur*) province and Berau district, which ranks ninth in wealth among approximately 500 districts in Indonesia (Indonesia statistics 2015).

Derawan Archipelago is affected by the ITF as it flows through Sulawesi Sea towards the Makassar Strait (Tomascik *et al.* 1997, De Vantier *et al.* 2004). This continuous flow provides water mass supply (De Vantier *et al.* 2004), and combines with complex eddies in the northern part of Sulawesi Sea (Masumoto *et al.* 2001) and freshwater inflows from downstream rivers, to create a system with unique potential for the distribution of nutrients and marine biota (De Vantier *et al.* 2004, DKP Berau 2014b). The islands of Derawan Archipelago lie parallel to the coast of East Kalimantan and serve as barrier islands (Tomascik *et al.* 1997). The depth between the coast and the archipelago ranges from 0 – 500 m, while the depth offshore may reach 2,000 m (Gordon *et al.* 2003, DKP Berau 2014b).

The Derawan Archipelago consists of six out of 13 islands in Berau district. The district has coral reef, mangrove, and seagrass ecosystems (Wiryanan *et al.* 2005, DKP Berau 2014b) (Table 10). Berau is famous as a nesting site of green (*Chelonia mydas*) and hawksbill (*Eretmochelys imbricata*) turtles. Around 5,000 green turtles land each year, more than at any other site in Southeast Asia (Wiryanan *et al.* 2005). The uninhabited island of Sangalaki is where most of the turtles lay their eggs; but the entire sandy beach along the coast of Berau is a nesting site (Bennett 2005, Wiryanan *et al.* 2005, Christianen *et al.* 2014). Turtle eggs are a culinary delicacy in the area (Bennet 2005). Another unique marine feature is the salt-water lake on Kakaban Island that home to four species of stingless jellyfish (Ismuranty *et al.* 2004).

Although Berau is blessed with marine biodiversity, the fishery sector, with an annual catch of 15,884.4 tons, accounts for only a very small portion (0.04%) of total revenue of the district (Table 11). Mining is the most important economic sector, with coal the main product (Berau statistics 2014).

Berau is home to diverse ethnic groups with their own traditions, including some known as sailors and fishermen, such as the Bajau, Buginese, and Mandarese peoples who live in coastal areas and on small islands (Bennett *et al.* 2005, Wiryanan *et al.* 2005, Pauwelussen 2010). However, I could find no evidence of local marine area protection traditions being practiced by its residents, either in the literature or from my experience of working there. Islam is the largest religion in Berau (84.63%), followed by other Christian (9.6%) and Roman Catholic (5.36%) (Berau statistics 2014).

2.1.1.3. Pangkep District MPA

Pangkep district is located in South Sulawesi, the eastern part of Indonesia. Its marine area stretches from part of the Spermonde Archipelago off the southwest coast of Sulawesi Island to an archipelago in far western Sulawesi towards Kalimantan, and to an archipelago in far southern Sulawesi near West Nusa Tenggara (Baitoningsih 2009).

Spermonde Archipelago lies in the Makassar Strait, which is on the route of the ITF (Tomascik *et al.* 1997). The combination of the ITF and upwelling system, in the area brings nutrient rich waters that make Makassar Strait one of the highly productive marine areas in Indonesia (Tomascik *et al.* 1997, Gordon *et al.* 2003, De Vantier 2004). Water depth in the archipelago ranges from 0 – 50 m, conforming four ecological zones (Hoeksema 1990), while the offshore depth may reach more than 100 m (Coremap 2010).

Pangkep district has coral reef, mangrove, and seagrass ecosystems (Manuputty 2012); however only coral reefs that have been widely studied (as early as 1930 by Umbgrove) due to their status as the largest reef in Sulawesi (Tomascik 1997). Mangroves are found on only three islands i.e. Bangkombangkoan, Sabangko, and Sagara. Total areas of mangroves and seagrasses are unknown (Manuputty 2012) (Table 10).

Although the marine area of Pangkep is extensive and highly productive resource, the fishery sector accounts for only 1.56% of the revenue of the district, with a total annual catch of 119,891.75 tons. Manufacturing is the principal economic sector, with furniture the main product (Pangkep statistics 2013). Information about the main fisheries products is not available (Table 11); however it is known that aquaculture produce is almost 13 times greater than fisheries catch (Pangkep statistics 2013). A wide range of fishery products have been identified (Baitoningsih 2009, Deswandi 2012), including reef and pelagic fishes, crabs, squids, shrimps, and sea cucumbers (Schwerdtner Manez & Ferse

2010). Sea turtles (Baitoningsih 2009), sea bamboo *Gorgonian* (Order: Gorgonacea) (Ferse *et al.* 2014), and Moray eels (Schwerdtner Mañez & Husain Paragay 2013) are also harvested, depending on the market demand (Ferse *et al.* 2014, Nurdin & Grydehoj 2015). At least 19 fishing gears have been identified (Ferse *et al.* 2014), ranging from the simple pole and line (Idrus 2009) to the use of destructive materials such as bomb and cyanide (Chozin 2008).

The principal ethnic groups in Pangkep are the Buginese and Makassarese (Lampe 2012), followed by Bajau, Mandar, and populations of Arab and Chinese descent (Deswandi 2012). The four local ethnic groups have strong links to the sea, as fishermen and sailors (Chozin 2008, Lampe 2012). Islam is probably the only religion present within the district (Deswandi 2012, Lampe 2012) and shapes the social structure including fishing activities; for example no fishing activities take place on Friday (Deswandi 2012).

There are numerous traditions in the area relating to the use and protection of marine resources (Glaser *et al.* 2010, Deswandi 2012). For example, islanders consider that the reef surrounding each island belongs to island's territory (Glaser *et al.* 2010). Fishermen from different islands need to ask permission to fish this reef (Idrus 2009, Glaser *et al.* 2010); and no bomb fishing is allowed as it is considered that this could endanger the island, for example by causing buildings to collapse (Baitoningsih 2009). However, no marine area protection applies on reefs outside the islands' territories (Idrus 2009, Deswandi 2012). In the 'no man's land', all fishing activities are tolerated, on the basis of 'first come first served': fishermen that come late in an area cannot force out those that arrived earlier (Neil 2008). Destructive fishermen may operate close to hook and line fishermen without conflict, non-destructive fishermen may even take advantage on the left over fish from the bomb fishing (Idrus 2009, Deswandi 2012). Such arrangements appear to derive from belief in the principle of *Mare Liberum* that the sea belongs to God and is given to the common, to utilise as they see fit (Poelinggomang 2002). Local people believe that marine resources will never be exhausted, and that God will keep providing to them; they express this belief by saying that as long as there are leaves in the land, so there will be fish in the sea (Neil 2008, Deswandi 2012).

	Ecosystems	Savu Sea	Derawan	Pangkep
No. of species	Coral reefs	532	413	224
	Mangroves	15	26	10
	Seagrasses	10	8	7
Total area (in hectare/ha)	Coral reefs	63,339.32	61,126.95	27,021.71
	Mangroves	5,109.53	80,277	N/A
	Seagrasses	5,320.62	10,058.97	N/A

Table 10. Summary of ecosystem data from the three research sites. (Source: Wiryawan *et al.* 2005, COREMAP 2010, Manuputty 2012, Milla *et al.* 2013, DKP Berau 2014).

	Savu Sea	Derawan	Pangkep
Main fishery products	Pelagic fishes other than tuna (26.58%)	Pelagic fishes (57.2%)	N/A
	Eastern little tuna <i>Euthynnus affinis</i> (11.13%)	Other prawns (5.90%)	(with a wide range of products depending on the market demand)
	Skipjack tuna <i>Katsuwonus pelamis</i> (11.02%)	White prawn <i>Fenneropenaeus indicus</i> (4.61%)	
Main fishing gears used	Gillnet (43.83%)	Pole and line (27.66%)	N/A
	Pole and line excluding the skipjack pole and line (<i>huhate</i>) (33.44%)	Gillnet (21.40%)	(at least 19 have been identified)
	Others (9.43%)	Bamboo or rattan fish trap or <i>bubu</i> (18%)	
Fishery households	37,415 (3.53% in the province)	18,845 (32%) located within the park. The precise number of fishery households is unknown	13,341 (15.37%) including mariculture
	11,576 (1.1%) live bordering the national park. It is unclear whether this number includes households involved in mariculture		1,705 (1.96%) live bordering the MPA

Table 11. Summary of fishery data from the three research sites. (Source: Berau statistics 2012, Nanlohy 2013, Pangkep statistics 2013, Berau statistics 2014, DKP Berau 2014b, Ferse et al. 2014, NTT statistics 2014, www.fishbase.org).

2.2. Methodological Approach

In order to understand community participation in the MPA establishment process, I needed to understand how different stakeholders perceive the concept of community participation. Data on the perception of stakeholders is needed because articles regarding community participation in the legislation are open to interpretation (Section 1.10). Perceptions are influenced by various factors such as beliefs (Denzin & Lincoln 2005), knowledge (Peshkin 2001, Perecman & Curran 2006), and experience (Peshkin 2001, Silverman 2011), which are different for each individual. Perception data have been used in research to understand phenomena that cannot be detected by natural science research (Peshkin 2001). Such data also provides inputs for the design of programmes targeting the public, such as sustainable tourism (Eshliki & Kaboudi 2012), malaria prevention (Kannathasan et al. 2008), climate change awareness raising (Whitmarsh 2008), and MPA management (Tamti & Indar 2012).

Qualitative research is often used to obtain perception data (Perecman & Curran 2006), as it is a methodology that focuses on people's understanding a process or a phenomenon (Denzin & Lincoln 2005), including what caused it (Silverman 2011), and how (Baxter & Jacks 2008, Silverman 2011) and why it occurred (Denzin & Lincoln 2005, Baxter & Jacks 2008); and this goes beyond testing or measuring (Perecman & Curran 2006). Qualitative research obtains data using multiple methods (Perecman & Curran 2006). Results are then interpreted, analysed, and constructed by the researcher in order to gain a better understanding of the process or phenomenon of interest (Seale 1999, Maxwell 2004, Silverman 2011).

Perception data obtained from qualitative research has been used to assess the social aspects of MPAs e.g. Pomeroy *et al.* 2004, Glew *et al.* 2012, Bunce *et al.* 2000 and understand people's behaviour and opinions toward MPAs. Such an approach has also been used to study specific social aspects of MPAs, such as community participation (Fiske 1992, Newman & LeDrew 2005, Singleton 2009, Elliot *et al.* 2011, Abecasis *et al.* 2013), legislation (Balgos 2005, Patlis 2005, Bartlett & Manua 2008), and management (Clifton 2003, Foale & Manele 2004, Gehardinger *et al.* 2009, Lowry *et al.* 2009, McConney & Pena 2012).

In this research, I wanted to look at the MPA establishment process and see which stakeholders (governments, communities, non-governmental organisations/NGOs, academics) acted as drivers in the process, and whether stakeholders played similar roles at each research site. Furthermore, I wanted to know the differences and the similarities of processes at the three research sites, at different levels of government and under different legal frameworks. I did not aim to quantify any aspect, such as the number of community members that participated or the number of stakeholders involved, or to compare the knowledge of MPAs between participants and non-participants. Hence, I chose to employ qualitative research because it is the most suitable methodology to obtain perception data regarding community participation in the MPA establishment process. The abovementioned literature also provides a solid precedence for using a qualitative approach to address my research questions. In addition, I employed a deductive approach, analysing the results with reference to theories (Silverman 2011) about the MPA establishment process.

Drawbacks of a qualitative approach include possible doubts about the reliability of the data (Seale 1999, Silverman 2011). The focus is on subjective appreciations of a situation, which are uncovered by analysing words and images (rather than numbers), observation (rather than experiments) and open-ended interviews (rather than survey questionnaires) (Silverman 2011). To ensure the reliability of data, qualitative research employs multiple methods to gain an in-depth understanding of the researched subject (Tashakkori & Teddlie 1998, Seale 1999, Maxwell 2004, Silverman 2011, Denzin 2012) and allow researchers to see a single social phenomenon from different perspectives (Denzin & Lincoln 2005, Denzin 2012). This is known as triangulation (Tashakkori & Teddlie 1998, Seale 1999, Maxwell 2004, Perecman & Curran 2006, Silverman 2011). For this research, I used triangulation to gain an in-depth understanding (Denzin 2012) of community participation in the MPA establishment process. I realised that the use of different methods was unlikely to uncover the whole reality (Maxwell 2004, Denzin 2012). However, it was useful for cross-validation (Denzin 2012), to reduce potential bias from using only a single method (Seale 1999), and to prevent or minimise dishonesty by the informants (Denzin & Lincoln 2005, Perecman & Curran 2006).

2.3. Research Methods

In applying the triangulation principle, interviews and participant observation are the most common methods to use (Silverman 2011, Denzin 2012); these methods were used to obtain primary data. In addition, I employed focus group discussions (FGDs) in the particular setting (Kitzinger 1995, Morgan 1996) of the Derawan Archipelago, and text/document analysis to obtain primary and secondary data (Silverman 2011). The following sections explain how each method was used; Figure 9 depicts the relations between them.

2.3.1. Text/Document Analysis

Text/document analysis is used to understand any recorded situation and the perspective of the writer on it (Silverman 2011). For this research, I used text/document analysis to explore the interpretation of the concept of community participation as set out in Indonesian legislation governing the MPA establishment process. I looked at how community participation concepts are defined in the legislation and identified community participation activities that are mentioned. I contrasted these with different concepts of community participation described in the literature, especially relating to the MPA establishment process; and to levels of participation as defined by different authors (such as Arnstein 1969, Sen & Nielsen 1996, Pimbert & Pretty 2000, and Govan 2007). This gave me insight into how the Indonesian government understands the concept of community participation. I also used document analysis to analyse community participation in drawing up the legislation on MPAs establishment process (Section 1.10.1).

In addition, I used text/document analysis to understand the MPA establishment process in each research site from available reports such as zoning and management plans, bearing in mind that local processes likely involved some adjustments to the regulatory framework established in the legislation (Patlis 2005). I took account of the fact that such reports are written from the perspective of the organisations that produce them and their accounts may be different from the reality on the ground (Silverman 2011).

I used the results of text/document analysis to formulate questions for interviews and FGDs, focusing on my research topic i.e. community participation in the MPA establishment process. The questions centred on four themes:

- (i) Perceptions of community participation,
- (ii) Implementation of community participation activities,
- (iii) MPA establishment process, and
- (iv) MPA establishment legislation.

I developed semi-structured questions that involved open-ended answers to obtain an in-depth understanding of the issues (Silverman 2011), for example to understand how a situation occurs and why (Perceman & Curran 2006). Furthermore, I developed four sets of questions for different informants: governments, communities, NGOs, and academics (Section 2.4). Each set of questions covered the four themes and focused on the role of the respective institution in community participation activities in the MPA establishment process. (The list of questions is in the Annex 1).

2.3.2. Interviews

Interviews are used to obtain comprehensive understanding of the perceptions and opinions of an informant (Tashakkori & Teddlie 1998, Silverman 2011). In this research, I employed interviews with individuals to obtain primary data, which I compared with reports on the MPA establishment process at each research site (Denzin & Lincoln 2005). All interviews were conducted with prior and informed consent (Silverman 2011). I explained the purpose of the interview and the use of the answers, gave an assurance of anonymity of the informants, and requested permission to record the interview with a voice recorder.

After receiving permission from the informant to proceed with the interview, I started by asking for personal information, including full name, place of origin, ethnicity, work position, and education. Rapport was established during the initial stage of the interview by asking questions based on the

informant's replies and maintaining a relaxed manner in order to build natural conversation (Perecman & Curran 2006, Silverman 2011). I then asked the informant to describe the MPA establishment process around his/her area. Further inquiry following the list of questions was based on the informant's answers to make the interview flow naturally. To ensure the interviews could flow naturally, I had to listen carefully to the answers given by the informants while structuring the follow-up questions. The technique of asking follow-up questions after listening to answers carefully is a required skill in conducting open-ended interviews (Silverman 2011). I finished the interviews after all the questions in my list had been answered, including any incidental related questions.

The interviews were conducted in Indonesian language (*Bahasa Indonesia*), except for one case in Raijua Island in the Savu Sea MPA. One of the informants understood the Indonesian language passively and could only speak the local Sabu dialect. Therefore, I requested for a help to translate the answers. The translator was a person from the same area and ethnicity as the informant. Employing a translator was the best option to overcome the language challenge; however I had to rely solely on the translator's explanation. If the translator is not a professional, there may be some misinterpretation (Phelan & Parkman 1995), as I encountered in this research. When I was working on Raijua Island, I had a counterpart recommended by a local church. This person understands the Sabu dialect passively, thus he suggested adding a local person to help with translating the interview. During the interview, there was an occasion when, after I asked a question, the translator responded immediately. However my counterpart advised the translator to ask the informant first, and apparently the answer given was quite different. Having two persons that understand the Sabu dialect was the key to ensure the accuracy of the translated answers.

2.3.3. Focus Group Discussions (FGDs) on Derawan Archipelago

FGDs are used to gather information from several informants who have more or less similar characteristics such as gender, profession, or interest (Kitzinger 1995, Morgan 1996, Perecman & Curran 2006, Silverman 2011). Compared to consecutive interviews, FGDs may involve less logistical difficulties, and reduce the amount of travel and time required by the researcher (Morgan 1996). However, logistical issues were not the only justification for conducting FGDs, which are different from 'group interviews' conducted with several informants consecutively at one place (Kitzinger 1995, Morgan 1996). FGDs emphasize group interaction (Kitzinger 1995, Morgan 1996, Bernard 2006) and enable the researcher to observe group dynamics during the discussion and consensus reaching process (Kitzinger 1995, Morgan 1996, Bernard 2006), if any. Observing who controls the direction of the discussion (Bernard 2006) and who is in charge of the decision making process (Kitzinger 1995), are examples of researcher tasks during FGDs. In conducting FGDs, researchers need facilitation skills to encourage each participant to get involved in the discussion (Kitzinger 1995, Morgan 1996, Bernard 2006, Silverman 2011).

I used FGDs to gather information from community groups in Derawan Archipelago Coastal Park, Berau (Section 1.9.3). These groups were self-initiated, established based on shared interests of the members in relation to the management of marine area, and legalized by the notary office in Berau. These groups are not based on traditional bonding or rituals that may recognise the leader as the sole decision maker (Kitzinger 1995), or government-established groups where all decisions are directed (Section 1.7.1). Decisions are taken by consensus, members are used to exchanging ideas in a forum, practices which made the groups suitable for FGD purposes. Group members had experience of managing marine areas and involvement in the Derawan Archipelago Coastal Park

establishment process. I considered them as local experts, whose standpoint on the MPA establishment process could be compared with information in the available reports. In addition, I did not find similar self-initiated community groups in the Savu Sea National Park and Spermonde Archipelago; therefore I conducted FGDs only in Derawan.

Before starting FGDs, I also explained the purpose of the interview and the use of the answers, assured the anonymity of the informants, and asked for their permission to record the interview with a voice recorder. I started the FGDs by asking participants to tell me about the history of the groups including the motivation for establishing them. An informal atmosphere was established to maximize group participation during the discussion (Kitzinger 1995, Perecman & Curran 2006). For example, I asked each participant's story and motivation for joining the group. After receiving information about the group's history, I asked FGD participants to describe the MPA establishment process in their area. I asked follow-up questions, based on the list of questions, after most or all participants had expressed their opinions. I avoided interrupting the discussion but guided it back if it went off of topic (Silverman 2011). I finished the FGDs after all the questions in my list had been answered, including any incidental related questions.

Although I encouraged each participant to talk, in one of the FGDs, a few participants dominated the discussion. This situation is commonly found and has been acknowledged as one of the pitfalls in FGDs (Kitzinger 1995, Morgan 1996, Bernard 2006, Perecman & Curran 2006, Silverman 2011). 'Silent participants' may not be accustomed to voicing their opinions in public. They prefer to let others answer, to avoid being criticized by them (Silverman 2011). The best way to deal with this situation is conducting further individual interviews with the silent participants (Kitzinger 1995, Morgan 1996, Silverman 2011). However in this case, I could not conduct individual interviews due to time constraints. In addition, despite being dominated by a few participants, the FGD had involved dynamic discussion and provide sufficient information for my research, which was triangulated by separate interviews and participant observation (Denzin 2012).

The number of participants in a FGD is restricted by the ability of the researcher to moderate a group discussion (Morgan 1996, Bernard 2006). The higher the number, the higher the chance of only few participants is involved (Morgan 1996). In this research I moderated the FGDs alone. The first FGD on December 4th 2013 consisted of seven participants and the second one on December 13th 2013 consisted of ten participants. Overall, despite the presence of silent participants, the FGDs flowed well due to my familiarity with the groups and the fact that they were accustomed to open discussions.

2.3.4. Participant Observation

Participant observation is a research method to understand the social setting of a study, in which the researcher involves himself/herself in activities with the subject of research, or the informants (Tashakkori & Taddlie 1998). The activities may, or may not be related to the research topic as this method is also used to ensure the reliability of the informants (Perecman & Curran 2006, Silverman 2011). I used the participant observation method to obtain a thorough understanding of the on-going MPA establishment process by attending events such as workshops, meetings, and a public consultation. My involvement was as a passive participant; I documented the events in a notebook and photographic form. During these formal events I observed the interaction of people, focusing particularly on how informants contributed to the discussions. I also identified groups of informants who flocked together and noted those that seemed to be isolated. The identification of peer groups

was confirmed by observation of informal social activities such as ‘hanging out’ (Perceman & Curran 2006): who were most likely to hang out with whom. These observations were used to understand the answers given by each informant and provided insight into the extent to which an informant was considered as reliable or trustworthy by others (Tashakkori & Taddlie 1998, Maxwell 2004, Denzin & Lincoln 2005).

The credibility of an informant is in part shaped by the perception of others, including the researcher (Denzin & Lincoln 2005). I recognized the potential for subjectivity in my own perception that might be driven by the majority view of my informants (Taylor 2011) through the rapport that I had built with them. An isolated informant may be a reliable one despite being treated as an outcast by the others. In order to be as objective as possible, I treated participant observation as a complimentary method to the interviews and FGDs. I did not use the findings from participant observation as the main data, but rather crosschecked them with the findings from other methods to understand the situation thoroughly.

While carrying out the formal and informal activities described above, sometimes I met individuals who were not listed as my targeted informants but had connections with the MPA establishment process. These included former officers of institutions involved in the MPA establishment process, or current officers of institutions that had been previously involved in the process. I talked to these individuals without recording the discussions and asked about their involvement in the MPA establishment process. These talks were documented in a notebook and considered as part of the participant observation (Silverman 2011).

2.3.5. Social Media Follow-up

Although the field research was concluded in April 2014, some of the informants were still in contact with me, providing updated information, until early 2015. Communication was made through social media, such as Blackberry messenger, Whatsapp, and Facebook. The information from social media follow-up was coded as participant observation.

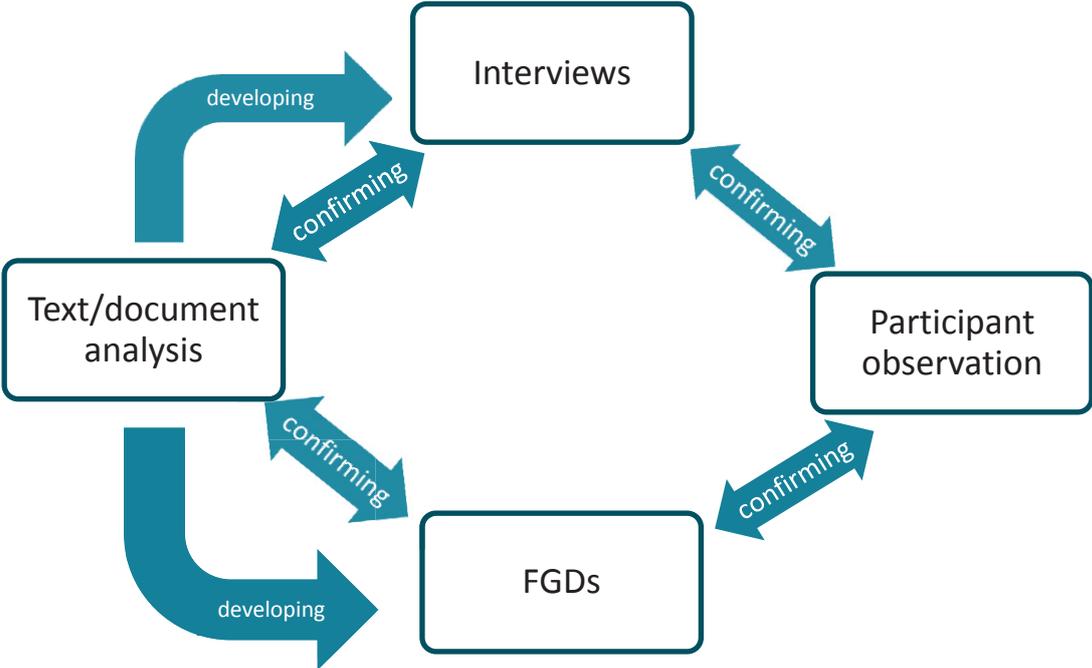


Figure 9. Relation of each method in complimenting the others.

2.4. Informant Selection

In selecting informants, I employed the purposive sampling method (Tashakkori & Teddlie 1998, Silverman 2011). Selection of informants was based on their involvement in the MPA establishment process. I did not question people at random or those not familiar with the MPA establishment process even if they were familiar with other marine issues.

First, I referred to the legislation on MPA establishment to identify stakeholders likely involved in the process. The legislation identifies government agencies and communities as the main stakeholders in the process, but also provide an opportunity for NGOs, academics, the private sector, and individuals to be involved, particularly in proposing the MPAs. Second, I identified institutions that were involved in producing the reports and maps in the three research areas. I found that NGOs were directly involved in the MPA establishment process at two sites: the Savu Sea National Park and Derawan Archipelago Coastal Park, while academics were directly involved at all the three sites. Third, I used my network of contacts in NGOs, academics, and government agencies to identify individuals or organisations that played a role in the process, either as proponents or opponents. Based on the information obtained, I purposively selected four groups of informants i.e. members of government agencies, communities, NGOs, and academics. The largest number of informants was from government agencies.

In selecting informants, I also used the snowball-sampling method (Tashakkori & Teddlie 1998), adding additional informants based on recommendations from the targeted informants. The number of informants was determined by a saturation point at which no new information appeared to be obtained, or multiple informants mentioned similar information (Morgan 1996).

2.4.1. Informants from Government Agencies

For government agencies, I selected individuals attached to government offices involved in the MPA establishment process, often as members assigned to the task forces set up by the head of local government. At the Savu Sea, the task force was set by Governor of East Nusa Tenggara (Decree No.180/2009); and on the Derawan, by the Berau District Regent (Decree No.207/2011). In Pangkep District, no task force was established and the MPA establishment process was conducted by COREMAP staff, i.e. government officials working in the Marine Affairs and Fishery Agency of Pangkep District (*Dinas Kelautan dan Perikanan – DKP – Pangkep*). Additional personnel required for the process were hired under contract as consultants (Baitoningsih 2009).

2.4.2. Informants from Communities

For communities, I selected individuals who were directly involved in the MPA establishment process, and leaders of communities that were involved in and/or affected by the establishment of the MPAs. Of all the targeted stakeholder groups, communities may be the most difficult to define, as discussed in the Section 1.5.1. In this research, I developed a working definition for the term **'community'** *as a group of individuals bound together in a social system that is associated with their place of living in villages in coastal areas or on small islands, whose territories were wholly or partly inside the MPA in question, and who are affected by and/or interested in the MPA establishment process.*

An exception was made when I received recommendation from an NGO to interview an informant. The informant was a community representative of a village in Lamalera, East Nusa Tenggara. The informant lives in Jakarta and his village is not part of the Savu Sea National Park. I interviewed him

due to his opposition to the inclusion of the village in the territory of the proposed National Park. By interviewing him, I was able capture another point of view of the MPA establishment process in Indonesia.

In some cases, it was difficult to decide which stakeholder group an individual was affiliated to. Some individuals in villages worked village government officials. Although I coded these individuals as government officials, in practice it was not easy to distinguish whether their answers represented their views as government officials or as community members. I had to look carefully at their answers (in transcribed form) to determine the position they adopted for each answer.

2.4.3. Informants from NGOs

For NGOs, I selected individuals attached to NGOs that were involved in the MPA establishment process i.e. as members of a task force. In addition, to obtain a range of perspectives on MPAs, I selected individuals involved in the MPA establishment process from outside the three research sites and individuals opposed to the MPA establishment legislation.

2.4.4. Informants from Academics

For academics, I selected individuals working in universities and scientific institutes who were involved directly in the MPA establishment process, as members of a task force, or indirectly as observers of the process. For individuals working as part of a task force, I used the questions for NGOs, as their involvement was initiated by NGOs. For observers of the MPA establishment process, who were not familiar with the processes at the three sites, I used a different set of questions specifically for academics. These questions were about MPAs in general in Indonesia, not centred on any particular MPA.

2.4.5. Number of Informants

There were 96 informants in this research, consisting of 50 individuals from government agencies, 24 from communities (including two community groups in FGDs), 13 from NGOs, and nine academics (Figure 10).

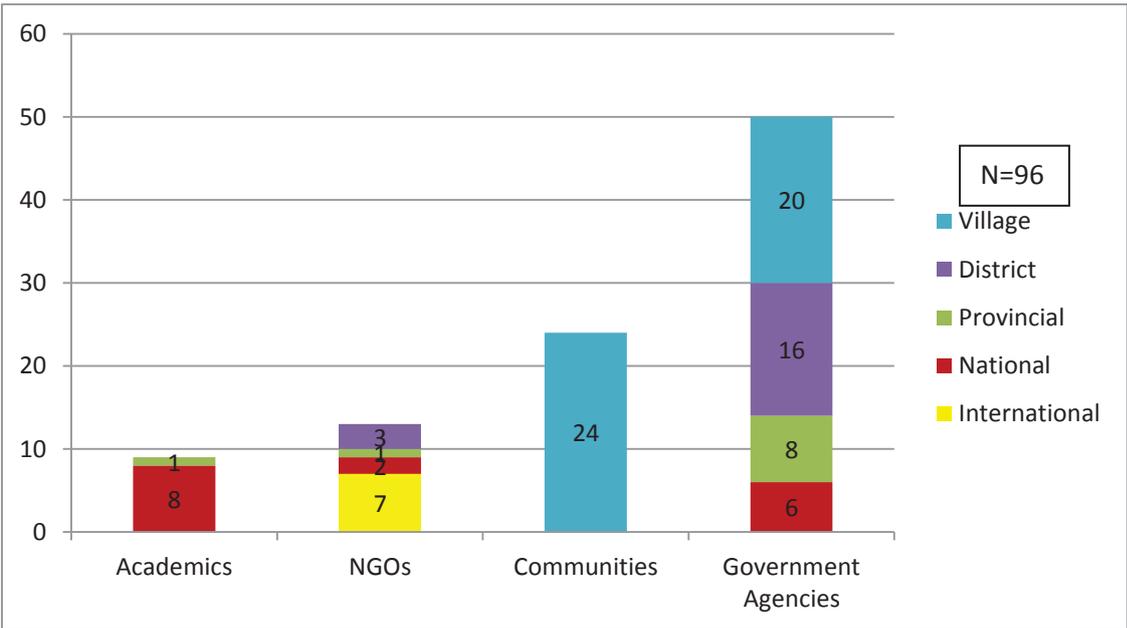


Figure 10. Number of informants based on their affiliations.

2.5. Data Collection Process

I collected my primary data for six months from October 2013 to April 2014. Local counterparts, known from my previous work in the area, introduced me to the informants. They facilitated access to the research sites and to data such as maps and documents. Sometimes these counterparts acted as informants themselves. In the Savu Sea and Derawan Archipelago sites, the counterparts were staff of The Nature Conservancy (TNC), an NGO involved in MPA establishment process that I was affiliated to it in the past. In the Spermonde Archipelago site, counterparts were members of staff of Antroponesia, an NGO established by marine anthropology graduates from Hasanuddin University in Makassar, South Sulawesi, whom I had worked with when carrying out research for my masters' degree.

Having counterparts that had previously worked in the research areas provided great benefits, especially by facilitating introductions to informants. Most of the time I did not have to introduce myself or my affiliation as my counterparts explained it, although rather briefly. Informants were never suspicious or acted negatively toward me. They often included me in their social circle immediately, which enabled me to attend various meetings and events related to my research without formal invitation. However, informants often assumed that I was affiliated to the same stakeholder group as the counterpart who introduced me. For example in the Savu Sea and Derawan sites, sometimes informants asked me about TNC's strategy, even though I had explained my independent status. The perceived association of the researcher with a particular stakeholder might influence an informant's answers (Mosse 1994, Tashakkori & Teddlie 1998).

This is one example of considerations that could bias the information provided by informants. Informants may act as 'good participants' as described by Tashakkori & Teddlie (1998), giving answers based on what they think is expected by the researchers. Alternatively, 'apprehensive participants' tend to answer questions according to what is socially acceptable; their answers are influenced by normative values. However, I am confident that most of my informants behaved as 'faithful participants' (Tashakkori & Teddlie 1998) and answered my questions truthfully. In most cases, they displayed no hesitation in voicing criticisms. In addition, due to the informants' closeness to my counterparts, I was considered trustworthy. Talking to me provided an opportunity for informants to voice concerns that they could not otherwise express. They perceived my research as a way to draw the world's attention to what was really happening within the areas; hoping that in this way their voices could be heard.

In collecting primary data, the place I selected to visit first was Derawan Archipelago in Berau District, due to my experience working in the area in 2009 – 2012. I stayed there for approximately two months and took advantage of my familiarity with most of the informants to test my questions. I did not change the content of the questions, but made some adjustment to the vocabulary according to the informant's affiliation. The second site I visited was the Savu Sea in East Nusa Tenggara. I had never been to the Savu Sea area and only knew a few people there; hence I allocated more time for my field research in this area, staying for approximately two and a half months. The last site I visited was the Spermonde Archipelago in Pangkep District, where I had conducted research into the MPA establishment process in 2008 – 2009. Data from the previous research (Baitoningsih 2009) served as the baseline data for this research, and was updated during my visit, which lasted about two weeks.

In addition to visiting the research areas, I had to travel to interview some informants who work at the national level based in different cities i.e. Jakarta, Bogor, Makassar, and Denpasar. The schedule of my data collection process is presented in Table 12.

Itineraries	Location	Month						
		Oct	Nov	Dec	Jan	Feb	Mar	Apr
Field research preparation to Derawan	Jakarta							
Field research preparation to Savu Sea								
Field research preparation to Spermonde								
Interview with informants at national level	Bogor							
	Jakarta							
	Denpasar							
	Makassar							
Field research	Berau District							
	East Nusa Tenggara Province							
	Pangkep District							

Table 12. Itineraries of field research activities to obtain primary data.

2.6. Data Analysis

Data analysis is the most important step in research, providing a bridge between data collection and the discussion. The quality of data analysis determines the quality of the discussions and the overall research (Silverman 2011). I used AtlasTi software for analysing my qualitative data due to its user-friendly features and its availability within the research institute (Weitzman & Miles 1995, Friese 2013) where I work. The process is explained in the following section.

2.6.1. The Use of AtlasTi

All recorded interviews and FGDs were transcribed in their original language i.e. Indonesian in MS Word Rich Text Format (RTF) files as required by the software (Friese 2013); the transcript of each interview or FGD was saved as one file. First, I grouped the answers to questions in each transcribed file thematically, in accordance with the four themes (Section 2.3.1 and Annex 1). Within each theme, I looked for common issues that arose in the answers. These common issues were assigned codes, thus each code served as piece of the puzzle in each theme (Weitzman & Miles 1995, Tashakkori & Teddlie 1998, Silverman 2011).

Common issues at one research site might be different from those at other sites. Therefore, I used different codes for each site. Table 13 shows the number of codes, grouped thematically, assigned for each site. A complete list of codes is given in Annex 2.

Site	Number of codes in each theme			
	MPA establishment legislation	Perception of community participation	Implementation of community participation activities	MPA establishment process
Savu Sea	3	7	28	27
Derawan	4	7	31	26
Spermonde	0	3	4	11

Table 13. Number of codes within each theme in each site.

In quoting the informants, the following abbreviations are used: I for interviews, FGD for focus group discussion, PO for participant observation; SS for Savu Sea, DA for Derawan Archipelago, and SA for Spermonde Archipelago; GOV for governments, COM for communities, NGO for NGOs, and ACA for academics. These codes are followed by the date when the data was obtained. For example, a participant observation of a government informant on Derawan Archipelago on the first of November 2013 is written as: PO DA GOV 01.11.2013.

To ensure consistency in coding, I coded the transcriptions iteratively (Weitzman & Miles 1995): twice on-screen and once in printed form. After coding all the files, I built the puzzles for each theme (Tashakkori & Teddlie 1998) and site by visualising the data in network view; a function in AtlasTi that displays networks among codes (Friese 2013). Network view helps in tracking down who says what, and in examining the codes based on themes, informant group, research site, or other groupings if necessary (Friese 2013). For example for the 'MPA establishment legislation' theme at the Savu Sea site, I assigned three codes: informants who knew about MPA legislation, those did not know, and those who said that they knew but answered incorrectly. To visualise which group individual government informants belonged to, and the corresponding level of government in each case, I made the network view shown in Figure 11. The names of the informants are blanked out to maintain their anonymity.

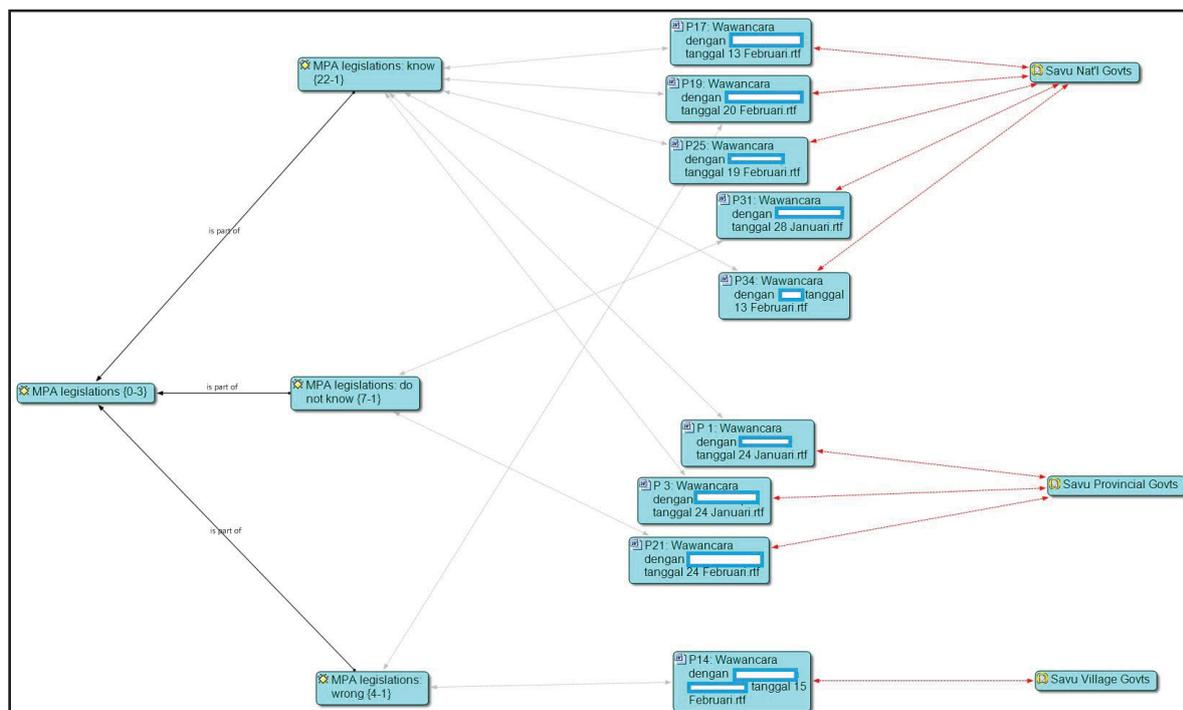


Figure 11. A network view of knowledge of government informants regarding MPA establishment legislation at the Savu Sea site.

I used the network views, to compare and contrast the coded answers from the three research sites under each theme. I analysed and grouped them to develop discussions to answer my research questions (Weitzman & Miles 1995, Tashakkori & Teddlie 1998, Silverman 2011). For example, from the codes derived from answers to questions regarding 'MPA establishment legislation' and 'MPA establishment process' themes; I developed a chapter about the MPA establishment processes in Indonesia. Since the themes 'perception of community participation' and 'implementation of community participation activities' were related, I used codes derived from answers to questions about these two themes to develop a chapter about community participation in the MPA establishment process. Finally, drawing on discussions developed around answers to all four themes, I considered the options for community participation in the MPA establishment process in Indonesia as a separate chapter.

2.6.2. Story Boxes

Although I analysed and grouped the codes to develop discourses to answer my research questions, not all the codes were used for this purpose. The unused codes represent narrations that came up when an informant was explaining about the background to her/his answers. These narrations served as supporting data to understand the rationale of the answers and are presented as story boxes throughout the following chapters. The story boxes also present material obtained from participant observation.

Chapter 3: MPA Establishment Processes in Indonesia

This chapter describes and analyses the Marine Protected Area (MPA) establishment process, including the role of communities within the process, at the three research sites. Indonesia's new legislation on MPAs is complex to implement. The chapter reveals that legislation on MPAs is also inconsistent and incomplete. It is mismatched with other legislation enacted by the national government that frames the actions and policies of different ministries. These complexities shaped the role of communities in the process.

3.1. Savu Sea National Park

The Savu Sea National Park consists of 10 districts in the province of East Nusa Tenggara (Milla *et al.* 2013, NTT statistics 2014).

3.1.1. Background and Designation Process

Whale protection was the initial justification for establishment of an MPA at the Savu Sea. Research on whales, and the whaling tradition around the area (Figure 12, Left) (Barnes 1986, Barnes 1996), started in the 1980s (Rudolph *et al.* 1997). However, this research only seems to have come to the attention of the government of Indonesia in the early 2000s, when long-term research by Ben Kahn (Kahn 2002, Kahn 2003, Kahn 2005) mapping the migratory route of whales through waters around the islands of Timor, Sumba, Solor, and Alor led to recommendations being made to the Ministry of Marine Affairs and Fisheries (MOMAF/ *Kementerian Kelautan dan Perikanan - KKP*) to protect them (Kahn 2002, PO SS NGO 24.01.2014).

World Wildlife Fund (WWF) Indonesia initiated discussions on the importance of protecting marine mammals in Indonesia, particularly whales, in 2005. WWF proposed the waters around the islands of Solor, Lembata, and Alor (or Solar) as an MPA (Figure 12, Right) (I SS GOV 24 & 25.01.2014; 13 & 26.02.2014, I SS ACA 24.01.2014; 18.02.2014). These waters serve as a whale migration corridor and two of the islands practice traditional whaling i.e. Solor and Lembata (Barnes 1986, Barnes 1996, Rudolph *et al.* 1997, Mustika 2009, I SS GOV 24 & 25.01.2014; 13 & 26.02.2014, I SS ACA 24.01.2014; 18.02.2014). The proposal was well received by MOMAF, as it was in accordance with the previous recommendation on whale protection by Ben Kahn (I SS ACA 18.02.2014).

The idea of protecting whales by establishing the Solar MPA was presented to the East Nusa Tenggara provincial government and other stakeholders at the provincial level, such as universities and local NGOs. They appreciated the idea; the provincial government followed it up by forming a task force consisting of stakeholders from government agencies, academia, and NGOs to establish the MPA (I SS GOV 29.01.2014, I SS ACA 18.02.2014). The task force proposed a larger MPA, covering the entire whale migration corridor and its surrounding ecosystems within the province. This newly proposed MPA, called the Savu Sea MPA, consisted of three 'blocks': the Solar area, Sumba Strait, and the islands of Timor, Rote, Sabu, and Batek (I SS GOV 24 & 29.01.2014; 13.02.2014, I SS ACA 18.02.2014, PO SS NGO 24.01.2014).

MOMAF provided extensive support to the initiative. At the time, as a new ministry, MOMAF had not endorsed any national-level MPA, but it was keen to do so (I SS NGO 23.01.2014, I SS GOV 26.02.2014) (Section 1.6.5 and 1.7.2). Hence the proposed provincial-level MPA was further expanded to become a national-level MPA and named the Savu Sea National Park (*Taman Nasional Perairan Laut Sawu – TNP Laut Sawu*) with total area of approximately 4.5 million ha (I SS NGO 23.01.204, I SS GOV 29.01.2014; 13 & 26.02.2014, PO SS NGO 24.01.2014).

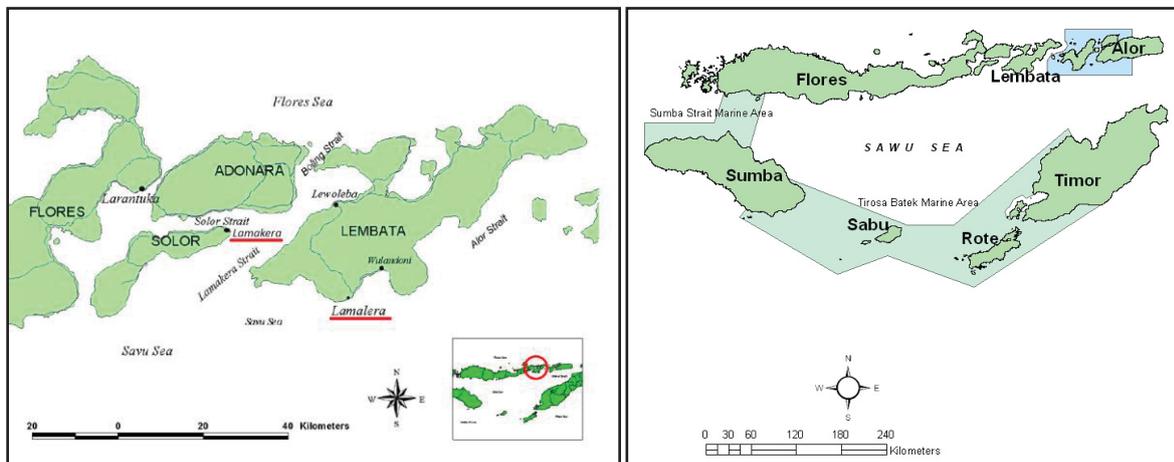


Figure 12. Solar area. Left: Villages that perform traditional whaling: Lamakera on Solor and Lamalera on Lembata (source: Mustika 2009). Right: Initial proposal of the Savu Sea MPA, which include Solar area (source: TNC 2009).

As the initiative gathered pace, another international NGO, The Nature Conservancy (TNC), entered the arena and provided financial support for a capacity building programme, including training in MPA 101, MARXAN¹ software, and facilitation skills, for stakeholders at the provincial level (I SS GOV 24a; 24b; 29.01.2014; 12; 13; 26.02.2014, I SS NGO 23 & 29.01.2014; 02 & 18.02.2014, I SS COM 18.02.2014). In February 2009, MOMAF enacted the regulation on Procedures for Establishing Aquatic Conservation Areas. Considering the timeframe, it appears that the regulation was intended to facilitate the establishment of the Savu Sea National Park (Section 1.6.5). Furthermore, it was envisaged that the designation of the park would be announced at the World Ocean Conference in May 2009 in Manado, North Sulawesi to gain international recognition for Indonesia’s marine conservation efforts (I SS GOV 28 & 29.01.2014; 13 & 20.02.2014, PO SS NGO 23.01.2014).

However, the whaling community in Lamalera village, Lembata Island resented the national park initiative. This community considered the initiative a threat to their long whaling tradition and their wider social system (Story Box 1). At a press conference organised with the support from the national NGOs *WALHI* and *KIARA*, the representative of Lamalera community publicly expressed their opposition to the proposed National Park, and particularly the inclusion of the Solar waters (I SS COM 05.04.2014, Kompas 23.03.2009).

Story Box 1. Whaling community in Lamalera village.

Lamalera is a fishing village on Lembata Island (Figure 12), with 1,834 inhabitants (Wolandoni Statistics 2014). Lamalera community has a tradition of whaling and further traditions that revolve around it, which makes it different from other fishing villages in Indonesia (Barnes 1986, Mustika 2009). The whaling takes place using traditional sailing boats without engine; with 10-15 men in each

¹ MARXAN is software for conservation planning developed by the University of Queensland, Australia. It is widely used for MPA zoning in Indonesia, including at the Savu Sea National Park (Milla *et al.* 2013) and Derawan Archipelago Coastal Park (Wiryawan *et al.* 2014).

boat (Mustika 2009). The whaling requires various rituals, only selected men with a clean soul, or clean track record according to Lamalera's norms, may take part. Any bad luck in whaling is traced back to wrongdoing in past generations to ensure that the next whaling is better (I SS COM 05.04.2014). The captured whale is divided among the community in accordance with a social hierarchy (Mustika 2009); however nobody left empty-handed, including households that do not have men participating in the whaling. The women take whale meat to barter for crops with communities in the hinterland (I SS COM 05.04.2014). The bones are carved as decorations and the oils are used for cooking, lighting, and medicine; nothing is left unused (Mustika 2009). No one really knows when and how this tradition was started; as early as 1624, an anonymous Portuguese document described how the community derives its trade from whales (Barnes 1986). There is another whaling community in Lamakera in the Solor Islands; however this community captures whale opportunistically and has no barter trade system (Barnes 1996).

As the World Ocean Conference approached, no understanding was reached between the Lamalera community and MOMAF. The community representative rejected the national park initiative despite an assurance from MOMAF that traditional whaling would not be banned. The representative considered the assurance as just 'sweet talk' to pave the way for the designation of the planned national park (I SS COM 05.04.2014, Kompas 13.05.2009). From MOMAF's point of view, protection of whales would sustain the whaling tradition. By having a national park, surveillance activities within the area would be intensified and commercial whaling activities, if any, and other activities that harm whales would be prevented; hence the whales would be protected as a resource for traditional whaling. Lamalera community maintained its opposition; they even chased away representatives from the task force that came to the island to discuss the issue. In the end, to solve the problem, MOMAF decided to omit the Solar block from the proposal, leaving the proposed national park consisting of two blocks with a total area of 3.5 million ha (I SS NGO 23.01.2014, I SS GOV 29.01.2014; 13 & 26.02.2014, I SS ACA 24.01.2014). The Savu Sea National Park was designated on May 8th 2009 under a MOMAF decree (No.38/2009, Kompas 13.05.2009).

3.1.2. Towards the Endorsement Process

Following the designation process, in June 2009, the governor of East Nusa Tenggara established a new task force (*Tim P4KKP*) to develop the management plan of the park (East Nusa Tenggara's Governor Decree No.180/2009) as required for endorsement of the park by MOMAF (GR No.60/2007).

3.1.2.1. Involved Stakeholders

The new task force consisted of individuals from: government agencies at national and provincial levels, community organisations at provincial level, NGOs at international and provincial levels, academics at provincial and municipality levels, and law enforcement agencies i.e. the police and the navy (East Nusa Tenggara's Governor Decree No.180/2009). As for WWF, after its principal area of interest was omitted from the national park, its involvement diminished. WWF even closed its Solar office in Lembata island due to the pressure from Lamalera community (PO SS NGO 30.01.2014).

The stakeholders involved in the process changed over time. Several organisations and individuals left, while others joined the process as their interest grew (Annex 3). Although the new task force initially represented stakeholders at national and provincial levels, over time stakeholders at district to village levels also became involved. Thus the total number of stakeholders involved tended to increase. At least 31 stakeholder affiliations were identified over the course of the establishment

process. This large numbers of stakeholders reflects the complex challenges involved in establishing a national-level MPA.

3.1.2.2. Development of Management Plan and the Role of Communities

Initially, TNC played an important role in providing guidelines for developing the management plan. At the time there was no legislation setting out the structure of an MPA management plan (PO SS NGO 23.01.2014, I SS GOV 29.01.2014), and TNC's guidelines were based on its experience in other MPAs such as in the Komodo and Wakatobi Islands. The management plan was developed based on secondary data such as from statistic agencies, universities, and TNC. The section on zoning merely provided a framework on defining the zones; the zoning itself had still not been determined (Kapitan *et al.* 2010, PO SS NGO 23.01.2014, I SS ACA 24.01.2014, I SS GOV 25 & 29.01.2014; 13.02.2014).

In December 2010, the regulation on Zoning and Management Plans of Aquatic Conservation Areas came into force, which required the task force to revise the plan. By this time, the management plan started in 2009 was complete and the process of socialisation to districts government offices had been underway for several months (I SS GOV 29.01.2014). However, this plan was not in accordance with the new requirements for endorsement of the management and zoning plans. These stated that the management plan should consist of: annual plan, mid-term (five-year) plan, and long-term (20 year) plan; whereas the zoning plan should contain precise coordinates of each zone and a list of activities permitted within it. Furthermore, the regulation stipulated that, in drawing up the management plan, two public consultations should be undertaken (PO SS GOV 23.01.2014, I SS GOV 29.01.2014).

In revising the plan, the task force had to obtain primary data through ecological surveys and mapping. The task force members had to be trained in these techniques by TNC and universities before they collected data in the field. Ecological surveys were conducted using satellite imagery. A groundtruthing process, conducted by a survey team deployed in the field, complemented this. The survey team's activities included species identification and measurement of coral cover, as well as gathering information from communities through participatory mapping (Milla *et al.* 2013, PO SS NGO 23.01.2014, I SS GOV 29.01.2014, I SS NGO 02.02.2014).

For participatory mapping, several villages were combined to take part in one mapping exercise to reduce the cost (I SS GOV 29.01.2014, PO SS NGO 23.01.2014). The survey team asked participants to map marine ecosystems, fishery resources, and fishing grounds around the villages. Fishing practices, such as targeted species in each season, duration of fishing, and fishing gears and boats used, were also recorded (PO SS NGO 23.01.2014). All the data were then aggregated and computed, using MARXAN, to define the exact coordinates of each zone. The legal status of proposed zones was also reviewed to avoid mismatches with other legislation (I SS GOV 20 & 24.02.2014). The zoning plan, including the proposed permitted activities, was presented in public consultations to obtain public opinion on the plan, particularly from direct users as the most affected stakeholders. Concerns of the communities, particularly regarding restriction on their activities, were discussed in the consultation and could be altered. Following the first public consultation, the zoning plan was revised and presented in the second public consultation (Milla *et al.* 2013, I SS NGO 23.01.2014; 02.02.2014, I SS ACA 24.01.2014, I SS GOV 25.01.2014; 13 & 26.02.2014, I SS COM 18.02.2014). The final design of the proposed Savu Sea National Park can be seen at the left side of Figure 13.

3.1.2.3. MPA Management Authority and Transformation of the Task Force

During the development of the management plan, an issue arose regarding the status of the management authority. As the national park was a national-level MPA, by regulations the management authority should be an agency of the national government i.e. in this case the *BKKPN* (*Balai Kawasan Konservasi Perairan Nasional*) Kupang office (MOMAF Regulation No.19/2007, Kapitan *et al.* 2010, I SS GOV 29.01.2014). Accordingly, the task force in charge of developing the zoning and management plans would have accomplished its mandate and would be disbanded (East Nusa Tenggara's Governor Decree No.180/2009, I SS GOV 29.01.2014). The plans would be handed over to *BKKPN* Kupang as the sole national park management authority. *BKKPN* Kupang, as a regional office of MOMAF, submits report to MOMAF, not to the provincial government or to other stakeholders at the provincial level. The transparency of such management arrangements was called into question. If management activities did not go as planned, there would be no mechanism for stakeholders at provincial level to review them, even though the park covers provincial territory (I SS NGO 02.02.2014, I SS GOV 20.02.2014). In effect, the *BKKPN* office is untouchable by the provincial government; although the provincial House of Representatives (*Dewan Perwakilan Rakyat Daerah/DPRD Provinsi*) may appeal against decisions of the corresponding provincial government, it may not question the actions of a higher level government authority (Law No.23/2014).

In order to ensure that *BKKPN* Kupang would implement all recommendations from the plans, the task force discussed the problem with the Governor of East Nusa Tenggara. As a result, the Governor enacted a decree on the Council for Conservation of Provincial Waters (*Dewan Konservasi Perairan Provinsi NTT – DKPP*). The decree granted a mandate to former task force members, and additional individuals who participated in the park establishment process, to support the management of MPAs within the whole province, including the existing MPAs established by the Ministry of Forestry (Section 1.6.4), such as the Komodo National Park and Kupang Bay Marine Tourism Park (East Nusa Tenggara's Governor Decree No.74/2013, I SS GOV 13 & 24.02.2014, I SS ACA 18.02.2014).

As set out in this decree, support for the management of MPAs is envisaged as focusing on promoting community participation; for example by developing mechanisms to accommodate the concerns of communities and providing capacity building programmes for them. The decree does not challenge the authority of *BKKPN* to manage conservation areas; it is grounded in the principle that government of communities is responsibility of provincial governments. Although MOMAF regulation on *BKKPN* states that one of its main tasks is to empower communities within and around aquatic conservation areas, the authority of local governments to govern communities is enshrined in a national law; a regulation is inferior to a law if there is any incompatibility between them (Law No.32/2004, MOMAF Regulation No.19/2007, PO SS GOV 21.01.2014, I SS NGO 02.02.2014, I SS GOV 13 & 24.02.2014, I SS ACA 18 & 20.02.2014).

The decision to distribute roles at the Savu Sea National Park management may have arisen due to doubts over the credibility of one of the executives of *BKKPN*, which made members of task force reluctant to hand over entire responsibility for implementing the management plans to *BKKPN* (PO SS NGO 21.01.2014, I SS GOV 26.02.2014) (Story Box 2). The quote below is an example of a frustration from an informant regarding *BKKPN*.

“Why don't you have a specific question about [how I feel on] the *BKKPN*?” (I SS GOV 26.02.2014).

Story Box 2. Controversy surrounding one of the BKKPN executives.

The *BKKPN* Kupang office was established in 2007 in accordance with MOMAF regulations. In 2010, there were several vacant positions in the organisation including one of the executive posts. During that time, task force members had been working together for quite a while, which made them unified. In order to facilitate future collaboration between the task force and *BKKPN*, members of the task force proposed a candidate for the position to MOMAF, a local government officer with a doctoral degree. The recommendation was based on his level of education and his East Nusa Tenggara ethnicity. Although he did not pass the proficiency test for the post, members of the task force argued that this candidate would perform well in managing the then proposed national park. Accepting the argument, MOMAF appointed him (I SS GOV 28.01.2014, I SS NGO 02.02.2014, PO SS GOV 26.02.2014).

However, later on, this executive's work performance was considered disappointing by members of the task force. He was viewed as uncooperative, unreliable, and not clear on MPA issues. Discussions between him and the members rarely reached a consensus, and after a while they grew apart (I SS NGO 02.02.2014, PO SS GOV 26.02.2014). In all the interviews with task force members, there was always moment where they expressed their negative attitudes toward him (I SS ACA; GOV; NGO 23.01 – 03.03.2014). This disharmony appeared clearly in the participant observation of meetings, where he mostly stood alone while the task force members gathered in a big group (PO SS GOV 28.01.2014; 20.02.2014).

3.1.2.4. International Sea Lanes and the Endorsement

The zoning and management plans were finalised in November 2013 and submitted to MOMAF for endorsement. However, at this stage a further complication unexpectedly arose. One of the officials in MOMAF considered that the zoning plan of the Savu Sea National Park was not in accordance with the Coastal Spatial Planning Law (Section 1.7.3).

His first objection to the proposal was as follows: the proposed national park includes part of two international sea lanes (*Alur Laut Kepulauan Indonesia – ALKI*) at the Savu Sea i.e. between Timor Island and Sabu Island, and between Sabu Island and Rote Island (Figure 13). These lanes provide free passage to international commercial ships between the Pacific Ocean to the Indian Ocean (UNCLOS 1982, GR No.37/2002).

According to MOMAF official, international sea lanes within the country are under the jurisdiction of the national government, and may not be placed within a conservation area. The Coastal Spatial Planning Law states that such lanes are areas of special national strategic importance (PO SS NGO 21 & 23.01.2014, I SS GOV 28.01 2014; 20.02.2014; 03.03.2014). In responding to this criticism, the task force consulted with an expert on international marine law and a representative of the Indonesian Navy. Neither saw any impediment under Indonesian law to the designation of the international sea lanes as part of conservation area, as long as the lanes were not designated as the core zone. They pointed out that integrating international sea lanes into a conservation area could intensify surveillance activities in the lanes, which would contribute to protecting Indonesian sovereignty (PO SS NGO 21.01.2014, I SS GOV 28.01.2014). However, the MOMAF official maintained his opinion (PO SS NGO 21 & 23.01.2014, I SS GOV 28.01.2014).

A second objection raised was that there were two districts (i.e. Sabu Raijua and Rote Ndao) within the proposed park whose entire territorial waters were included in the park. The official considered that this measure went against Coastal Spatial Planning Law by neglecting the needs of other marine

users (Section 1.7.3). MOMAF official referred to a similar case in Berau district, where objections had been raised after the entire district waters were designated as an MPA (PO SS NGO 23.01.2014) (Section 3.2.1.1).

The task force was asked to revise the zoning plan, which its members hesitated to do as the zoning plan represented a consensus reached through multi-level public consultations. However, the official would not allow the process to proceed until the zoning plan had been revised. The official never provided any scientific rationale for the reduction of the zones; he merely demanded that the two district waters should have conservation-free areas (Story Box 3) (PO SS 23.01.2014). With no bargaining power, and despite feeling the fatigue of having worked on the issue for many years, the task force was forced to revise the plan. They were also unwilling to create further delays by contesting the issue. The MPA establishment process had been using national government funds since 2009 and a further extension might generate suspicions of corruption. A final consideration was that the zoning plan is not an immutable document; it may be revised every five years. By getting endorsement for what was possible at the time, the task force considered it was buying time, and hoped to be able to revise the plan in the future (PO SS NGO 21 & 23.01.2014, I SS GOV 24.02.2014).

In reducing the zones, the task force had to find a way to avoid making excessive reductions in area to the Cetacean Protection Zone and zones that were identified as fishing grounds by communities. Whales are the flagship species of the Savu Sea; reducing the area where they are under protection could affect the achievement of the goals of the park. Zones designated as fishing grounds had been identified by communities; achieving consensus had required several rounds of discussions. Therefore reducing their areas might decrease the trust of communities toward the task force. In the end, the core zones were retained but the areas of other zones were reduced, including the fishing grounds and the Cetacean Protection Zone (Figure 13, Right). The revision process was undertaken by a few members of the task force and MOMAF officials, without participation of the communities (PO SS NGO 21 & 23.01.2014).

Story Box 3. Behind the zoning reduction.

In negotiations over the zoning plan with MOMAF, one of the informants observed that the official within the ministry who raised objections to the plan only seemed to care about Rote Ndao district. Although the revision that was demanded applied to two districts, the official always insisted that a substantial portion of waters belonging to Rote Ndao should be taken out of the park. He never demanded the same for Sabu Raijua district. The informant recalled a previous experience, when he had attended a presentation on the potential for offshore mining around Rote Ndao. He assumed that the demand to reduce the area or protected zones in this district was intended to avert possible restrictions on offshore mining development, which might benefit to the official (PO SS NGO 21 & 23.01.2014).

The Savu Sea National Park was finally endorsed on January 27th 2014 by a MOMAF decree and became the first national park under the administration of MOMAF. The park covers 3,355,352.82 ha. The management authority of the park is *BKKPN* Kupang, while the Council for Conservation of Provincial Waters acts as a bridge for communication between community and the park (MOMAF Decree No.5/2014, East Nusa Tenggara's Governor Decree No.74/2013, PO SS GOV 18.02.2014).

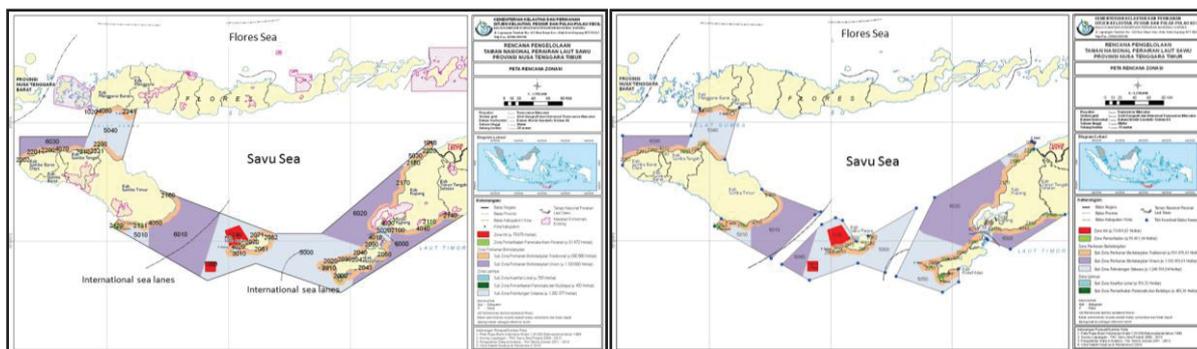


Figure 13. The Savu Sea MPA. Left: The proposed area after two rounds of public consultations. Right: The endorsed area of the Savu Sea MPA by MOMAF. The cut off beige colour represents the fishing ground, and the light blue colour represents the Cetacean Protection Zone (source: TNC 2013).

3.2. Derawan Archipelago Coastal Park

The Derawan Archipelago Coastal Park covers the eight coastal and small islands sub-districts within Berau district (Berau statistic 2014, DKP Berau 2014a). The MPA establishment process in Berau can be divided into three stages, during which different management regimes were proposed: the district MPA, coastal spatial planning, and the coastal park.

3.2.1. Background and Designation of Berau District MPA

Biodiversity was the main justification for establishing an MPA in Berau. In 1982, two islands were endorsed as protected areas: Sangalaki Island as marine tourism park, covering 208 ha, to protect the nesting site of sea turtles; and Semama Island as wilderness area, covering 200 ha to protect a stopover area for migratory birds (Gantt 2006, Kusumawati & Visser 2014). Both were initially under the administration of the Ministry of Agriculture. Management of these two islands, including any income generated, was transferred to the Ministry of Forestry following its establishment in 1984 (www.dephut.go.id).

Discussions regarding marine area management started in 1998 (Ismuranty *et al.* 2004), in response to increased interests shown in the Derawan Archipelago, as diving activities and other related marine attractions attracted increasing numbers of international visitors (Keulartz & Zwart 2004, Pauwelussen 2010). Several international, national, and local/district level NGOs started to work on the archipelago. TNC and WWF entered the arena in 2000, with TNC focusing on MPA establishment and WWF on sea turtle conservation (Keulartz & Zwart 2004, Wiryawan *et al.* 2005, Gantt 2006). In 2003, these NGOs decided to collaborate and set up a 'Joint Program' with other conservation organisations to avoid duplication of marine conservation activities (Wiryawan *et al.* 2005, Kusumawati & Visser 2014).

The Joint Program promoted establishment of a district MPA based on the Local Autonomy Law (Wiryawan *et al.* 2005), as no legislation existed for the establishment of MPAs under MOMAF at the time. The Local Autonomy Law stated that district governments have the authority to manage marine areas up to four miles from their coastline (Law No.32/2004 Article 18). By applying this principle to Berau district, the Joint Program identified a marine area covering a total of 1.27 million ha under the authority of the district government (Figure 14, Above left) (Wiryawan *et al.* 2005). To gain support for the idea of a district MPA, the Joint Program organised a number of workshops and meetings, with government agencies that worked on environmental issues.

In 2005, the Berau District MPA (*Kawasan Konservasi Laut Daerah Berau/KKLD*) was designated under a Berau regent's regulation. It covered 1.27 million ha, including the previously established protected areas (Wiryawan *et al.* 2005, I DA GOV 26.11. & 16.12.2013, I DA NGO 26.11.2013, Kusumawati & Visser 2014). This designation committed Berau district to manage its marine area according to conservation principles.

3.2.1.1. Objections to Berau District MPA

Designation of the district MPA was criticised by other marine resource users, such as coal mining and logging companies. These users said that they had never been invited to take part in the development of the district MPA. They had concerns regarding possible alteration of sea lanes for conservation reasons (I DA GOV 27.11 & 06.12.2013). In different reports on the establishment process, these users were never identified among the stakeholders involved in the process, and neither were the police or the district transportation agency (Keulartz & Zwart 2004, Bennett 2005, Wiryawan *et al.* 2005, Gantt 2006, I DA GOV 26.11.2013, Kusumawati & Visser 2014).

These objections were the first of a series of challenges to the establishment of the Berau District MPA. In the same year, a new Regent was elected, who distanced himself from the MPA establishment process (Kusumawati & Visser 2014). At the same time, most of the organisations allied to the Joint Program left, leaving only TNC and WWF to work on the MPA establishment process. The high turnover of staff in these organisations further delayed the process (I NGO 29.11.2013) (Section 3.2.3).

Furthermore, individuals who benefited from the trade in turtle eggs were publicly and, on occasion, violently expressing their opposition to any sea turtle conservation measures (PO DA NGO 23.11.2013). Weak support for the MPA from the new Regent may have been one factor that allowed such actions to occur (Kusumawati & Visser 2014) (Story Box 4). In the face of these multiple challenges the Berau District MPA establishment process entered into a hiatus (PO DA NGO 23.11 – 23.12.2013).

Story Box 4. Turtle eggs saga.

Consumption of sea turtle eggs has been practiced in Berau since time immemorial. The events described here, related to the coastal park establishment process, are only a small part of long and complex story. In early 2000, WWF initiated a sea turtle conservation programme on Derawan Archipelago. At the time, rights to harvest turtle eggs were assigned by auction, and no information was available on numbers of turtle nests or eggs (I DA GOV 27.11.2013). The turtle egg auction contributed as much to the revenues of Berau district as logging and mining (Keulartz & Zwart 2004). WWF developed proposals for an alternative livelihood programme with marine tourism as the main activity. In 2001, sea turtle egg harvesting in Sangalaki and Derawan islands was forbidden by a Berau regent's instruction. However, harvesting was still allowed on other islands i.e. Belambangan, Sambit, Bilang-bilangan, Mataha, and Balikukup under a Berau regent's decree, which also appointed one local company as the official harvester (Gantt 2006). This arrangement was discontinued when Indonesia signed the Indian Ocean – Southeast Asian (IOSEA) Marine Turtle Memorandum of Understanding (MoU) in 2005, making sea turtle egg harvesting illegal (www.ioseaturtles.org). The head of the official harvesting company, who became the Village Head of Derawan Island, accused WWF as of being anti-social organisation that represented foreign interests. Since then, the village government has not appreciated NGO presence on Derawan Island, and this has also affected the perception of district government officials toward NGOs (I DA GOV 27.11.2013).

The tug of war over sea turtle conservation was a lot more complicated than suggested by this brief

summary; however, the human factor probably played a big role. The previous Regent, who also designated the district level MPA, issued turtle conservation legislation enacted in Berau district. When the Regent was replaced, the implementation of the legislation also ceased. One informant considered that this enabled people who opposed the regulations to take control the situation for personal benefit (I DA GOV 27.11.2013).

3.2.2. Coastal Spatial Planning

The MPA establishment process had to be adjusted after the enactment of the Coastal Spatial Planning Law in 2007 and its supporting regulations in 2008 (Section 1.7.3). The Berau district government welcomed the new legislation as they came from the national level, considered different marine resource users, and involved a broader range of government agencies. The results of earlier efforts to establishing the Berau District MPA were set aside, since they were not compatible with the new law. The law was seen as a gateway to establish an MPA with a stronger legal justification (I DA GOV 27.11, 03 & 06.12.2013).

The Berau planning agency (*BAPPEDA*) and the marine affairs and fishery agency (*DKP Berau*) started work on the coastal spatial plan in 2009. The Joint Program tagged along; however its role was minimal. Although the plan was mandated under a decree from the Berau Regent, in practice it was subcontracted to lecturers in the Bogor Agriculture Institute, without socialisation or public consultation with communities (I DA NGO 26.11.2013, I DA GOV 27.11; 03 & 06.12.2013, PO DA NGO 23.11 – 23.12.2013).

In accordance with the categories defined in the MPA legislation, the lecturers recommended the establishment of two new conservation areas: an aquatic conservation area and a coastal and small islands conservation area (Figure 14, Above right) (Section 1.7), in addition to the existing protected areas. Data on the area was taken from the Joint Program (FPIK 2009).

3.2.2.1. Socialisation of the Coastal Spatial Plan

In an attempt to become more actively involved, the Joint Program decided to socialise the coastal spatial plan in villages in 2011. During the hiatus in the MPA establishment process, the Joint Program had shifted the focus of its work to capacity building in the communities, including development of village-level MPAs in Tanjung Batu and Biduk-biduk villages (Section 1.9.3). The Joint Program considered socialisation as a gateway to prepare communities for the public consultation that is required by MOMAF Regulation on Management Plans of Coastal Zones and Small Islands (MOMAF Regulation No.16/2008 Article 22, JP Monthly Report Jan – Mar 2011).

However, the public consultations were subsequently conducted only at the district level; with sub-district heads representing the communities. TNC (Story Box 5) criticised the exclusion of communities in public consultations; however this criticism did not affect the process. The public consultations were considered valid by Berau district government and it was assumed that sub-district heads would inform communities. The coastal spatial plan was considered accomplished in December 2011 (JP Monthly Report Dec 2011).

Story Box 5. Joint Program disjoined.

In mid-2011, the collaboration of TNC and WWF in the Joint Program was terminated. The two organisations could no longer find any areas of common interest. This development was predicted by Keulartz & Zwart (2004), who argued that different interests need different strategies. Working in a

similar area is a good justification for collaboration; however a joint strategy further requires shared measurable goals.

TNC decided to continue working on MPA issues, while WWF focused on particular species issues, i.e. sea turtles and groupers (JP Monthly Report June 2011).

In 2012, the enactment of Berau coastal spatial plan was put on hold to wait for the accomplishment of a terrestrial spatial plan. Berau district government wanted to enact both plans simultaneously, as a comprehensive spatial plan covering terrestrial and marine areas (I DA NGO 29.11.2013).

3.2.3. Background and Designation of Derawan Archipelago Coastal Park

3.2.3.1. Background

The pause in the coastal spatial planning process triggered a new opportunity for MPA establishment. Around this time, TNC acquired a new staff and so did the *DKP Berau*. These two people took advantage of the moment, creating a clean slate for renewed efforts toward MPA establishment in Berau. They recruited a professor from Mulawarman University in Samarinda, the provincial capital, as an advisor. The professor's good reputation was considered an asset for negotiation with Berau government officials, particularly the Regent. This renewed momentum was also a response to the on-going revision of the Law on Local Government, which it was anticipated, might take away district's authority to administer the adjacent marine area (Story Box 6) (I DA GOV 26.11.2013, I DA ACA 26.11.2013, I DA NGO 29.11.2013).

Story Box 6. Revision of the decentralisation law.

The implementation of Law on Local Government, or also known as the local autonomy law or decentralisation law (Section 1.6.5), encountered problems arising from overlapping regulations and responsibilities of authorities at national, provincial, and district levels (Seymour & Turner 2002, Firman 2009). District governments, as the new power holders, enacted regulations that sometimes clashed with higher level regulations; using 'the will of the people' as justification (Seymour & Turner 2002, Hadiz 2004, Firman 2009). In 2014, this law was revised. One of the revisions made to the law is that district governments no longer have the right to manage marine areas, without approval from provincial governments. The new legislation gives provincial governments the right to manage marine areas within 12 nautical miles of the coastline (Article 27 Clause 3).

During the field research period, the revision of the decentralisation law had not yet been enacted. If Berau district could establish an MPA before the law was enacted, the district government would have authority to manage it. A change in the law would not affect the previous decision unless it is specifically mentioned (I DA GOV 26.11.2013, I DA NGO 26.11.2013). The loss of jurisdiction over marine areas provided a strong incentive for Berau district government to establish an MPA. Loss of jurisdiction would also entail loss of district revenue, not only from the fishery sector but also from extractive industries, such as offshore oil and sea sand. The transfer of authority over marine areas to provincial governments meant that district governments could no longer issue mining permits, and could only serve as intermediaries for provincial administrations. A further consideration was that a fewer stakeholders would have to be consulted than for establishment of a provincial level MPA (I DA NGO 29.11.2013) (Section 3.1.2.1).

3.2.3.2. Towards the Designation Process

The MPA establishment process in Berau began again, incentivised by the on-going revision of the Local Autonomy Law and taking advantage of the suspension of the enactment of the coastal spatial plan. An experts meeting on May 2013 discussed the urgency of establishing a district MPA, including revision of the conservation areas proposed in the coastal spatial plan, and the need for community involvement. This meeting also discussed the category of conservation area, or MPA to be established (Section 3.2.2). Establishing two conservation areas, of different categories, might take longer and require more investment. Considering the urgency of the situation, it was decided to establish a single category of conservation area. The category 'coastal and small islands conservation area' was selected as the coastal and small islands area in Berau is more extensive than its marine area. Within this category the type of conservation area chosen was 'coastal park', similarly justified on the basis that the coastal area of Berau is more extensive than that of its small islands (Minutes of Meeting 2013a, I DA NGO 26 & 29.11.2013).

The design of the proposed coastal park was finished in July 2013, as an amended version of the proposed conservation area in the coastal spatial plan (Figure 14, Below left). The total area of the proposed coastal park was 285,266 ha and it was named 'Derawan Archipelago Coastal Park', since the archipelago was widely known. The existing protected areas under the Ministry of Forestry were not included into the proposed coastal park; however the waters outside their boundaries were included (Minutes of Meeting 2013b, I DA GOV 26.11.2013, I DA NGO 29.11.2013). To legalise the coastal park establishment team, a Decree of the Head of *DKP Berau* named TNC and the Centre of Marine and Fishery Studies (*Pusat Studi Kelautan dan Perikanan/PUSKIP*) of Mulawarman University as team members. The head of *PUSKIP* was appointed as chairman of the team (*DKP Berau's* Head Decree No.523/2013).

3.2.3.3. Public Consultation and the Role of Communities in the Proposed Coastal Park

Following approval of the design of the proposed coastal park by Berau's Regent, the establishment team programmed a public consultation as required by the regulation (MOMAF Regulation No.17/2008). TNC was the sole institution with funds available to conduct a public consultation; however these were not sufficient to carry out a public consultation in 29 villages. It was therefore decided to conduct the public consultations in three sub-district capitals: Batu Putih, Tabalar, and Pulau Derawan, since these three towns were also accessible from surrounding sub-districts (Minutes of Meeting 2013b, I DA GOV 26.11.2013, I DA NGO 29.11.2013).

In conducting public consultations, the establishment team presented the proposal for the coastal park to representatives of village governments and communities, and explained the benefits it would bring. Participants from each sub-district then formed groups to discuss zoning proposals and permitted activities. Any concern that arose was discussed in order to identify the best option for the district government and the communities (I DA GOV 04.12.2013, FGD DA COM 13.12.2013).

Concerns were expressed by community representatives from Maratua Island, who attended the public consultation in Pulau Derawan sub-district in August 2013. They realised that their fishing ground was designated as part of the 'core zone' to which access is fully restricted. Knowing that their community would oppose the idea, the representatives asked *DKP Berau* to conduct a separate public consultation on the island. The request was granted (I DA GOV 26.11.2013, PO DA NGO 23.11.2013).

However, the proposed coastal park was designated in September 2013 under a Berau regent decree before the additional public consultation had been conducted. Designation was fast-tracked under pressure from the Regent, and nobody had the courage to object, fear of losing this window of opportunity (Berau's Regent Decree No.516/2013, I DA GOV 26.11.2013).

The additional public consultation was conducted in November 2013 in Maratua Island. Options given by the *DKP Berau* did not include redesigning the entire core zone. The agenda of consultation was similar to previous ones; however, this time participants were grouped into villages to discuss the disputed core zone. Since part of the core zone had to be retained, following the discussion, it was agreed to re-designate part of the area as a limited-use zone, thereby reducing total area of core zone from 15,097 ha to 11,212 ha (Figure 14, Below right) (PO DA NGO 23.11.2013). The *DKP Berau* then had to submit the revised zones of the coastal park to the Regent for approval (I DA GOV 26.11.2013).

3.2.3.4. Management Authority and Current Status of the Coastal Park

Issues regarding the identity and formation of the management authority arose during the development of management plan. Although the establishment team understood that the management authority has to be a government agency, existing agencies did not have the capacity to manage the vast coastal park (Story Box 7). In addition, community and/or NGO representation in the organisational structure of government agencies is forbidden, unless representatives become government employees. A possible option considered was a public-private partnership (PPP) (*Badan Layanan Usaha Daerah/BLUD*). PPPs are administered under regulations of the Ministry of Internal Affairs. However, setting up a PPP would require considerable time and investment, due to the complex requirements, such as submission of a business plan (The Ministry of Internal Affairs Regulation No.61/2007, I DA GOV 26 & 27.11.2013, I DA ACA 26.11.2013).

Story Box 7. Allowed budget for agencies at district level.

The permitted budget for an MPA management authority at district level would be insufficient to manage the conservation area. According to the Government Regulation on Local Government Organisations, a new agency set up at district level, for example to manage a conservation area, may only have simple organisation structure (i.e. head of agency and two departments), and may manage an annual budget not exceeding IDR 100 million or around € 7,143 (Article 1 and 25). For comparison, TNC's annual budget for Derawan in 2010 – 2011 was € 91,441; this covered activities including reef health monitoring, surveillance of destructive fishing practices, and community outreach. The funding available to a local government agency would be insufficient to cover similar activities within the coastal park. Although Berau is a relatively wealthy district, a government agency of this kind still not be permitted to manage more than the allowed budget (GR No.41/2007, I DA ACA 26.11.2013).

Today, Derawan Archipelago Coastal Park is still at the designation step. The total of area of the proposed MPA is 285,266 ha. Revision of the law on local government, which gives provincial government the authority to manage marine areas, has put the process on hold. MOMAF has still not decided on arrangements for management of conservation areas at district level. It is hoped that suitable arrangement can be found that solves the problem encountered in Berau district (PO DA NGO 04.03.2015). Berau's coastal spatial plan was officially approved on August 28th 2014 under a Berau district regulation (Berau District Regulation No.8/2014).

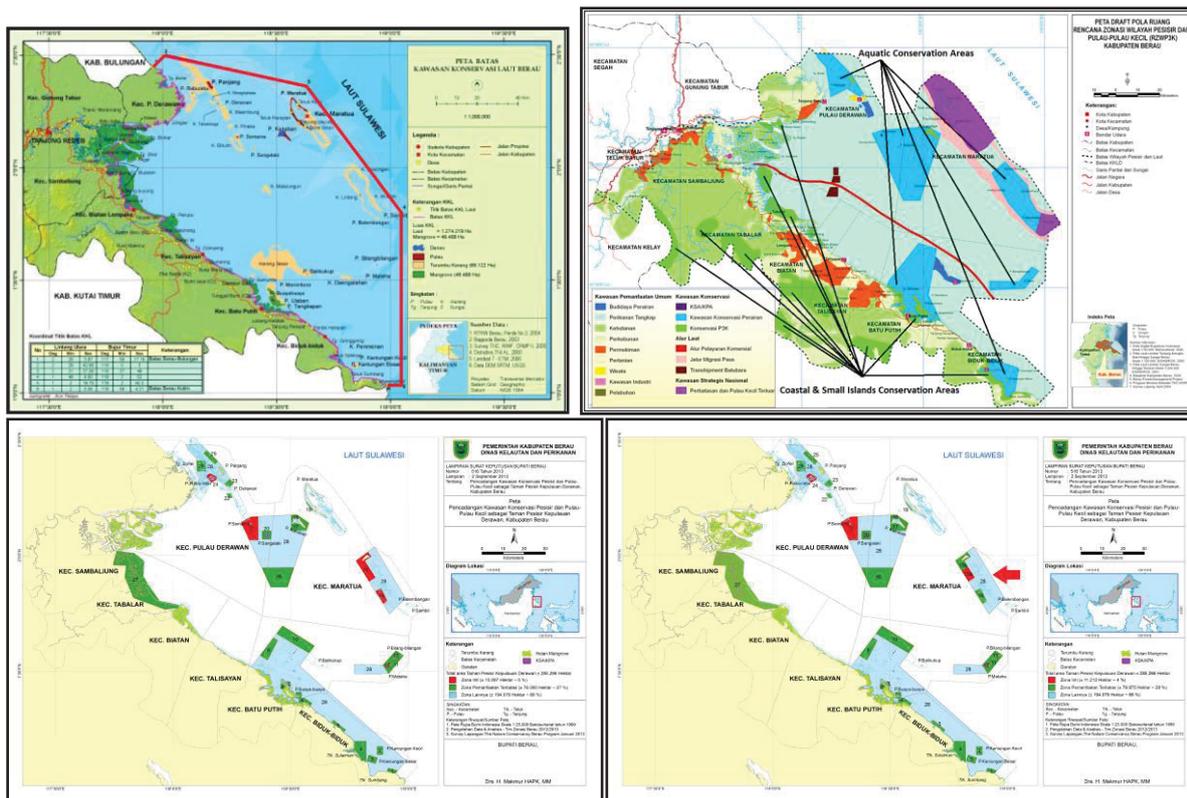


Figure 14. MPA designs in Berau through different management regimes. Above left: The district MPA. The red line shows the district MPA's border (source: Wiryawan et al. 2005). Above right: The coastal spatial plan. The blue colour represents the proposed Aquatic Conservation Areas; the dark green colour represents the proposed Coastal and Small Islands Conservation Areas (source: FPIK 2009). Below left: The coastal park design before the core zone was reduced. Below right: The final coastal park design. The red arrow shows the reduced core zone (source: TNC 2014).

3.2.4. Stakeholders of Berau MPA

Stakeholders of Berau MPA have changed continually over the course of an establishment process that has lasted almost 20 years. Each stage of the process and proposed management regime involved different stakeholders and interests. At least 29 stakeholder affiliations were identified across different stages of the process. The list of stakeholders, including their interests and standpoint towards the proposals in question, is in Annex 4. The list shows the large number of stakeholders – and the complexity of stakeholder configurations- involved in establishing an MPA at district level.

3.3. Pangkep District MPA

The proposed Pangkep District MPA covers part of Spermonde Archipelago consisting of 41 islands in 16 hamlets and villages in two sub-districts (Coremap 2009, Pangkep Statistics 2014). The MPA establishment process in Pangkep can be divided into two stages, when proposals were developed for two different conservation management regimes: (1) no-take areas (NTAs) in the Coral Reef Rehabilitation and Management Program (COREMAP) and (2) Pangkep District MPA.

3.3.1. No-Take Areas set up by COREMAP

3.3.1.1. Background and Involved Stakeholders

Work on COREMAP's proposal for an MPA in Pangkep district started in 2006, before any of the MPA establishment legislation was enacted. It was an innovative proposal for establishment of an MPA

apart from the existing legal framework under the administration of the Ministry of Forestry (Section 1.7.1). The project covered 112 islands with total area of around 167,513 ha (Manuputty *et al.* 2006). Of all these islands, 41 islands with total area of around 21,485.8 ha are part of the Spermonde Archipelago (COREMAP 2009); the other are part of archipelagos in far west towards Kalimantan Island and far south near the West Nusa Tenggara province (Baitoningsih 2009).

As COREMAP is a national project, the involvement of the district government agency was the result of a top-down process. MOMAF instructed the marine affairs and fishery agency in Pangkep (*DKP Pangkep*) to set up a unit to work exclusively on the project (DKP 2006, PPTK Unhas 2006). MOMAF also provided guidelines on the MPA establishment process (DKP 2006). The project entrusted Hasanuddin University (*Universitas Hasanuddin/UNHAS*) in Makassar with design of the MPA (PPTK Unhas 2006, Baitoningsih 2009). In implementing the design, the project hired individuals as consultants or short-term employees (Baitoningsih 2009).

In developing the proposal for an MPA, COREMAP involved limited range stakeholders from Pangkep district (Annex 5). Annex 5 shows that out of 20 stakeholder affiliations, only 12 were involved in the MPA establishment process. The eight stakeholders excluded were government agencies that it was considered might develop incompatible programmes or policies towards the MPA. In fact, *DKP Pangkep* was the only government agency actively involved (PPTK Unhas 2006).

3.3.1.2. Design of the MPA

The design of the MPA in Pangkep district combined ecological and social principles in order to ensure that the MPA protected ecologically valuable areas in ways that corresponded with the needs of local communities. These were guiding principles of COREMAP at the national level (www.coremap.or.id). The proposed MPA covered the whole of Pangkep district, with the intention that village communities would nominate and then select areas to become the core zones or no-take areas. Additional zones were defined based on the study conducted by the Hasanuddin University in Makassar (DKP 2006, PPTK Unhas 2006, Baitoningsih 2009, Glaser *et al.* 2010).

3.3.1.3. Establishment of No-Take Areas and the Role of Communities

The team of consultants facilitated the selection of no-take areas by communities. The team was deployed in villages to conduct meetings in which communities were asked to nominate reefs around their villages to become no-take areas. Such areas would be strictly protected and no activities would be permitted (DKP 2006). Members of the consultant team undertook diving surveys in all nominated reef areas to assess the extent of live coral cover. Results of the assessment were presented to the communities to inform the final selection of no-take areas (PPTK Unhas 2006). Other considerations, apart from good coral coverage, were distance and visibility of the nominated areas from the village; these were taken into consideration in order to facilitate detection of violations. Each village was asked to select one no-take area, which would be designated as part of the core zone of the district MPA (PPTK Unhas 2006, Baitoningsih 2009, Glaser *et al.* 2010). An example of no-take area can be seen at the left side of Figure 15.

COREMAP prepared a template for village regulation of the selection of no-take areas, which was then signed by village heads to bring it into force. Hence, it appears that village governments proposed the no-take areas. The regulation confirmed that the selected no-take areas would be strictly protected and stipulated punishments in the case of violations. However, the signed

regulations were taken away by the project as supporting documents for their reports; and village governments retained no copies of them (Baitoningsih 2009, Glaser *et al.* 2010).

Communities also played a role in the management of no-take areas with technical and financial support from COREMAP. Each village had a management authority (*Lembaga Pengelola Sumberdaya Terumbu Karang/LPSTK*), village motivators, an information centre, and a surveillance boat (Baitoningsih 2009, Glaser *et al.* 2010). In addition, COREMAP provided funding through grants and micro credits to reduce pressure on coral reefs. Grants were directly disbursed to each village, whereas micro credits only available for eligible individuals (Baitoningsih 2009, Glaser *et al.* 2010, Brock 2013).

3.3.1.4. End of the No-Take Areas Management

COREMAP ended in 2011 and so did the management of no-take areas in Pangkep. Infrastructure built during the project period was abandoned and deteriorated (Baitoningsih 2009, Glaser *et al.* 2010), institutions that had been set up became inactive (PO SA COM 22 - 24.03.2014), and the no-take areas were no longer maintained (Nurliah 2012) (Story Box 8 & 9). A quote from an informant below describes how nothing remained from the project.

“Community members wanted to be involved [in COREMAP project] because they get paid” (I SA GOV 22a.03.2014).

Story Box 8. Criticisms on COREMAP.

COREMAP may be described as a controversial project. In the beginning, it attracted criticisms because it was financed by a loan scheme (Section 1.7.1). It was further criticised during its implementation, for example over the selection of the no-take areas and of the involved communities (Baitoningsih 2009, Glaser *et al.* 2010), and general financial mismanagement (Kompas 02.05.2013, I NGO 13.01.2014). An evaluation of the project conducted by the Indonesian Audit Board in 2013 found supporting evidence for these criticisms (BPK 2013).

Story Box 9. A Surviving No-Take Area in Laiya Island.

Almost all the no-take areas set up by COREMAP were neglected after the project ended. However, the protection of the no-take area at Laiya Island (Figure 15) was continued due to its sacred value. This no-take area is located near a cemetery, and fishermen are afraid of getting bad karma if they disrupt the resting souls (I SA GOV 22a & 22b.03.2014, PO SA COM 22 – 24.03.2014). Such taboos that lead to protection of an area are commonly found within the archipelago; with or without the formal designation of no-take areas, communities would never disturb such areas (Glaser *et al.* 2010).

Most inhabitants of Laiya Island were not fishermen, which made the no-take area completely undisturbed. They were known as timber traders; nowadays, they work as boat crews away from the island (PPTK Unhas 2006, I SA GOV 22.03.2014).

3.3.2. Transformation to Pangkep District MPA

In 2009, acknowledging the lack of scientific basis for the selection of the no-take areas, COREMAP adjusted the design of Pangkep District MPA (COREMAP 2009). By that time, several legislation regarding MPAs had been enacted. As COREMAP was merely a project, its legal status was inferior to national legislation; hence the new design had to be in accordance with the legislation (I SA GOV 20.03.2014). The project contracted an NGO called Pascal to develop the design of Pangkep District

MPA (*Kawasan Konservasi Laut Daerah Pangkep/KKLD Pangkep*) based on ecological data from surveys carried out in 2002, 2006 and 2008 (COREMAP 2009, Nurliah 2012) (Figure 15, Right). Local communities were not involved in this process (I SA GOV 20.03.2014), and the legal framework for the MPA was the Fisheries Law and its supporting regulations (COREMAP 2009) (Section 1.7.2).

In 2010, the Regent of Pangkep enacted regulations, based on the design that had been prepared, for the Establishment and Management of Pangkep District MPA. However the regulations were incompatible with MPA legislation in a number of ways. First, the regulations used the term ‘district MPA’ or *KKLD* that was never used in the MPA establishment legislation (Section 1.9.2). Second, a regent had no authority to establish an MPA even though it is at a district level (Section 1.7.2.1). Third, the management plan of a proposed MPA should include a 20-year plan in which was not present in the 2010 regulation. However, these regulations were recognised as a designation step by MOMAF (Ruchimat *et al.* 2012, Ahdiat 2014). Following designation, zoning and management plans would be required to get endorsement.

However, MOMAF regional office responsible for assisting the development of coastal spatial plan (*Balai Pengelolaan Sumberdaya Pesisir dan Laut/BPSPL*) asked *DKP Pangkep* to revise the design of the MPA. The plan designated most of the Pangkep marine area as a conservation area, leaving little space for other uses as required by the legislation (Section 1.7.3). In response to the suggestion, *DKP Pangkep* said that further work on the proposal would have to wait for the funding of the next instalment of COREMAP, as the agency had no budget allocation (I SA GOV 20.03.2014).

Today, the Pangkep District MPA may be considered as being at the designation step (Ruchimat *et al.* 2012). The proposed MPA covers an area of 171,931.708 ha (COREMAP 2009, Pangkep’s Regent Decree No.109/2009). However, the process has been put on hold until further funding from COREMAP becomes available. The next stage of the project is envisaged to start in 2015 (I SA ACA 19.03.2014).

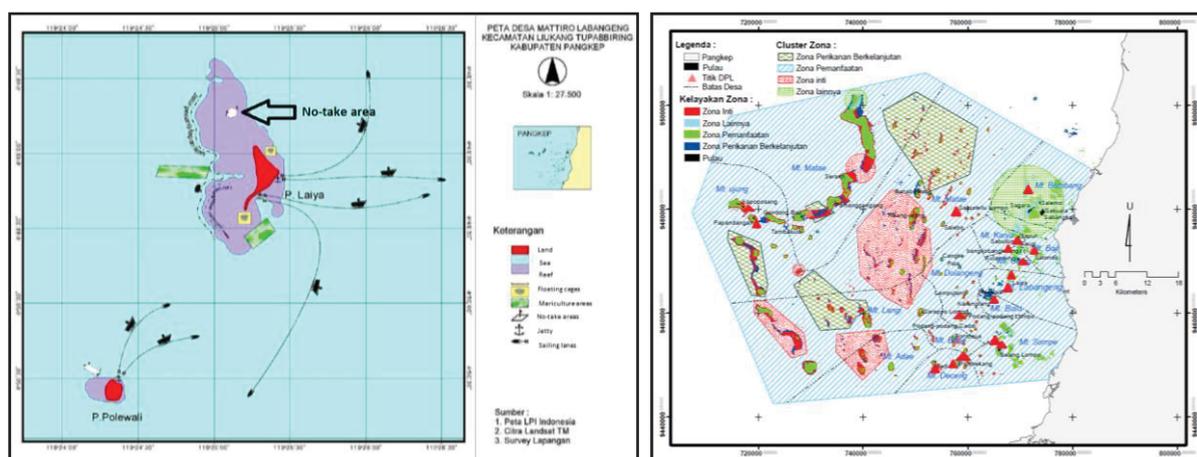


Figure 15. Pangkep District MPA. Left: No-Take Area of Laiya Island (source: PPTK Unhas 2006). Right: The design of Pangkep District MPA. Red colour is core zones and red triangles are villages’ no-take areas (source: COREMAP 2009).

3.4. Lessons Learned from the MPA Establishment Processes

The MPA establishment processes in the three research sites were based on different legal frameworks; however they are all under the administration of MOMAF. MPA establishment at the Savu Sea was based on Fisheries Law and its supporting regulations, and at Derawan Archipelago on

Coastal Spatial Planning Law and its supporting regulations. Pangkep MPA was developed as part of a national coral reef management programme i.e. COREMAP. The experiences at the three sites show how the need to relate to different strands of the intertwined legislation delayed the process, hindered community participation, and led to confusion about which agencies were responsible for administration of the areas. In all cases, the process required multi-stakeholder involvement, and enormous financial and human resources. Despite this complexity, MPA establishment remains appealing to local governments due to the expectation of receiving a financial benefit, prestige, and recognition by the national government.

3.4.1. Enactment Period of Legislation and Its Consequences for the MPA Establishment Process

Legislation on MPA establishment process was enacted in parallel with the establishment processes at the three research sites. All the processes had to be adjusted in order to be in accordance with the new enacted legislation. Changes were also made to the local autonomy law that framed the participation of sub-national authorities in MPA establishment and management. This resulted in the process on Derawan being placed on hold. These legislative changes led to confusion. As one informant expressed it:

“And then what? If the legislation changes, so does our MPA?” (FGD DA COM 04.12.2013).

Table 14 shows timeline for the MPA establishment process at each site alongside a timeline showing the enactment of legislation and other policy decisions relevant to the establishment of MPAs.

Year	Enactment of Legislation and National Policies	Savu Sea	Derawan Archipelago	Pangkep
1998	COREMAP Phase I started with <i>LIPi</i> as the implementing agency			
1999	Establishment of MOMAF			
2003			Establishment of Joint Program	
2004	<ul style="list-style-type: none"> COREMAP Phase I ended and Phase II started, with MOMAF as the implementing agency Law on Fisheries Law on Local Government (Local Autonomy) 		Initiation of Berau District MPA	
2005		Initiation of Solar MPA	<ul style="list-style-type: none"> Designation of Berau District MPA Replacement of Berau Regent 	
2006	Commitment to establish 10,000 ha of MPAs by 2010 in Convention of Biological Diversity in Brazil.			<ul style="list-style-type: none"> COREMAP project started Establishment of no-take areas, with community involvement Establishment of management authorities at village level

2007	<ul style="list-style-type: none"> • Law on the Management of Coastal Zones and Small Islands (Coastal Spatial Planning) • Government Regulation on Fishery Resource Conservation 	Establishment of <i>BKKPN</i>		
2008	<ul style="list-style-type: none"> • MOMAF Regulation on Management Planning of Coastal Zones and Small Islands • MOMAF Regulation on Conservation Areas within Coastal Zones and Small Islands 			
2009	MOMAF Regulation on Procedures for Establishing Aquatic Conservation Areas	<ul style="list-style-type: none"> • Initiation of Savu Sea MPA, replacing the Solar MPA • Designation of the Savu Sea National Park • Establishment of the task force • Development of management plan without community involvement 	Development of coastal spatial planning without community involvement	<ul style="list-style-type: none"> • Development of the design of Pangkep District MPA without community involvement • Designation of the district MPA
2010	MOMAF Regulation on Zoning and Management Plans of Aquatic Conservation Areas	Public consultation of management plan at provincial and district levels		Enactment of management plan of the district MPA under Pangkep Regent Regulation
2011	COREMAP Phase II ended	Revision of management plan and development of zoning plan, with community involvement	<ul style="list-style-type: none"> • End of Joint Program • Socialisation of coastal spatial planning at village level by TNC • Public consultation at district level without community involvement 	COREMAP Phase II ended
2012		Public consultation at village level	Coastal spatial planning was put on hold	
2013		<ul style="list-style-type: none"> • Submission of zoning and management plans • Establishment of the Council for Conservation of Provincial Waters • Revision of zoning plan without community involvement 	<ul style="list-style-type: none"> • Initiation of Derawan Archipelago Coastal Park • Public consultation at sub-district levels, with community involvement • Designation of the coastal park • Development of management plan without community involvement 	<ul style="list-style-type: none"> • <i>BKSPL</i> advised <i>DKP Pangkep</i> to revise the design of the district MPA • Establishment process of the district MPA was put on hold

2014	<ul style="list-style-type: none"> • Revision of Law on Local Government (Local Autonomy) • COREMAP Phase III started 	Endorsement of the Savu Sea National Park	<ul style="list-style-type: none"> • Establishment process of the coastal park was put on hold • Endorsement of Berau (including marine) spatial plan 	
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Table 14. Timelines of MPA establishment processes and related legislation and policies.

3.4.1.1. Consequences for Establishment at the Savu Sea

Adjustment to the regulatory framework led to the communities becoming involved in the establishment process. The park establishment process was fully supported by MOMAF, including the enactment of the regulation on Procedures for Establishing Aquatic Conservation Area in 2009 to facilitate the establishment process. However, the proposal had to be adjusted following the enactment of the regulation on MPA zoning and management plans, which occurred after the task force had already developed and socialised a management plan. This was a ‘blessing in disguise’ as it required comprehensive data, previously lacking at this site, which could only be obtained by involving local communities (i.e. in the verification of ecological data). Had the regulation been enacted much later, the establishment process might have been accomplished without community involvement.

However, further adjustment, to bring the proposal in line with coastal spatial planning law, was undertaken without community involvement. This decision had to be taken to reduce the already lengthy establishment process. Revising the plans in the future was considered preferable to repeating public consultations at village level. In this case, different interpretations of legislation within MOMAF (it depended on whom one talked to) led to confusion. Nobody from the ministry alerted the task force to the fact that the MPA proposal had to be in accordance with existing coastal spatial planning law. The task force seemed to believe that coastal spatial planning could be adapted to take account of the existence of the MPA. It seems that MPA establishment process will remain patchy and disconnected (Ferrol-Schulte *et al.* 2015) until MOMAF standardises its interpretation of legislation and develop a comprehensive approach to the management of marine areas in Indonesia, or as one informant put it:

“[MOMAF] should speak in unison about its legislation, don’t make us confused” (I NGO 06.02.2014).

3.4.1.2. Consequences for Establishment on Derawan

The coastal spatial planning law served as a new gateway for establishment of an MPA following objections to the designation of Berau District MPA. On initiating the district level MPA, none of the NGOs involved were aware of coastal spatial planning issues or had experience of establishing an MPA. At the time TNC and WWF had work experience in MPAs established under the Ministry of Forestry, i.e. Komodo National Park (Mous & Gorrez 2001) and Bali Barat National Park (Syarif 2009). In fact, the concept of coastal spatial planning – and the governance of Indonesia’s marine areas – only arose after the start of the Reform Era (Siry 2009). With no direct knowledge of coastal spatial planning or previous experience of MPA establishment, the NGOs worked closely with environmental agencies and the main office of Berau district government, but neglected to involve other stakeholders. In particular, other marine resource users such as mining and logging companies were not considered as stakeholders. These users were not informed, let alone involved in the process; ignorance of the proposal and the MPA concept led them to oppose it. In the subsequent

development of the coastal spatial plan, these users were involved in the public consultation and expressed no opposition to the plan, as the conservation area did not disrupt the sea lanes (JP Monthly Report Dec 2011).

However, the coastal park establishment process had to be put on hold due to a series of conflicting interlinked legislation that hinder community involvement. Attempts to involve communities in the coastal park management were stymied by changes to the local autonomy law. The revised legislation restricts the authority of district governments to manage their marine areas (Law No.23/2014 Article 27 Clause 3). Although the aim of the revision was to limit district governments' freedom to issue mining permits (Story Box 6), it also affected MPA establishment processes. MOMAF needs to build bridges between provincial and district governments in order to support establishment of MPAs at district level; otherwise, establishment of MPAs at district level will remain impossible under current legislation².

3.4.1.3. Consequences for Establishment in Pangkep

COREMAP functioned as a separate entity within the MPA establishment process. Although MPA legislation acknowledges the right of communities to propose an MPA, the rest of the establishment process is top-down with government agencies as the executor (GR No.60/2007, MOMAF Regulation No.2/2009). The legislation never considered the possible role of COREMAP in the establishment process. Thus, the bottom-up process that COREMAP promoted was disconnected from the official establishment process.

In order to be in accordance with the legislation, COREMAP needed to adjust its MPA establishment process even though it had started prior to their enactment. The existing design of Pangkep District MPA needs to be adjusted to conform to coastal spatial planning law. This is, unfortunately, easier said than done. COREMAP was developed as a system involving complex financial mechanisms and coordination among different institutions; which makes it difficult to change (Weber de Morais *et al.* 2015). In the next phase of COREMAP, MOMAF will need to ensure that the project's proposals fit with the legislation and do not simply lead to setting up institutions for the duration of the project (as was the case with the initial no-take areas in Pangkep). Otherwise, establishing an MPA in Pangkep will be an iterative and costly process.

3.4.1.4. Creating and Taking Advantage of Opportunities as a Strategy

At all three sites the establishment process had to be adjusted to comply with newly enacted legislation. As the legislative frameworks changes, taking advantage of the opportunities that arise is a strategy that can be used to speed up the process. Such an opportunity arose at the Savu Sea from the hype of the World Ocean Conference, which created a favourable political conjuncture for the designation of the park (Section 3.1.1). An opportunity also arose on the Derawan Archipelago when the Regent was told about the proposed revision to local government law, and this motivated him to continue the MPA establishment process (Section 3.2.3). In Pangkep, the continued availability of COREMAP funding provided the opportunity to adjust the MPA design (Section 3.3.2). All of these opportunities originated from actions taken by higher-level government agencies or leaders involved in the establishment process. Appealing to higher-level authorities was a common strategy used to create an opportunity.

² During a meeting in September 2015, an Indonesian academic informed that MOMAF is developing legislation to address the MPA establishment process and management at district level.

Although Indonesia has taken steps towards more decentralised government, top-down command is still being practiced. Governance is still reliant primarily on leaders rather than the system (Suryo 2000, Siry 2009). It is therefore a sensible strategy to approach higher government agencies or leaders to start the wheel of the MPA establishment process turning. The proposed Solar MPA became the Savu Sea NP after MOMAF became involved; the MPA establishment process in Berau was restarted after the Regent agreed to do so; and at Pangkep the continuation of the MPA establishment process is dependent on the district receiving funding from the national government. However this opportunistic approach to MPA establishment may contribute to inconsistency of legislation, as policies that emerge from the process respond to conditions at a specific moment without considering the bigger picture (Ferrol-Schulte *et al.* 2015).

3.4.2. Inconsistency and Loophole in Legislation that Hinder Community Participation

Inconsistencies in legislation governing the MPA establishment process are discussed in Section 1.8.2. Findings during field research revealed additional subtle inconsistencies and loopholes that hinder community participation. An inconsistency was found between the ability of stakeholders to propose an MPA and their restricted eligibility to take part in the subsequent establishment process (Figure 16). Similarly, those that take part in the establishment process may not be eligible to become members of the management authority (Figure 16).

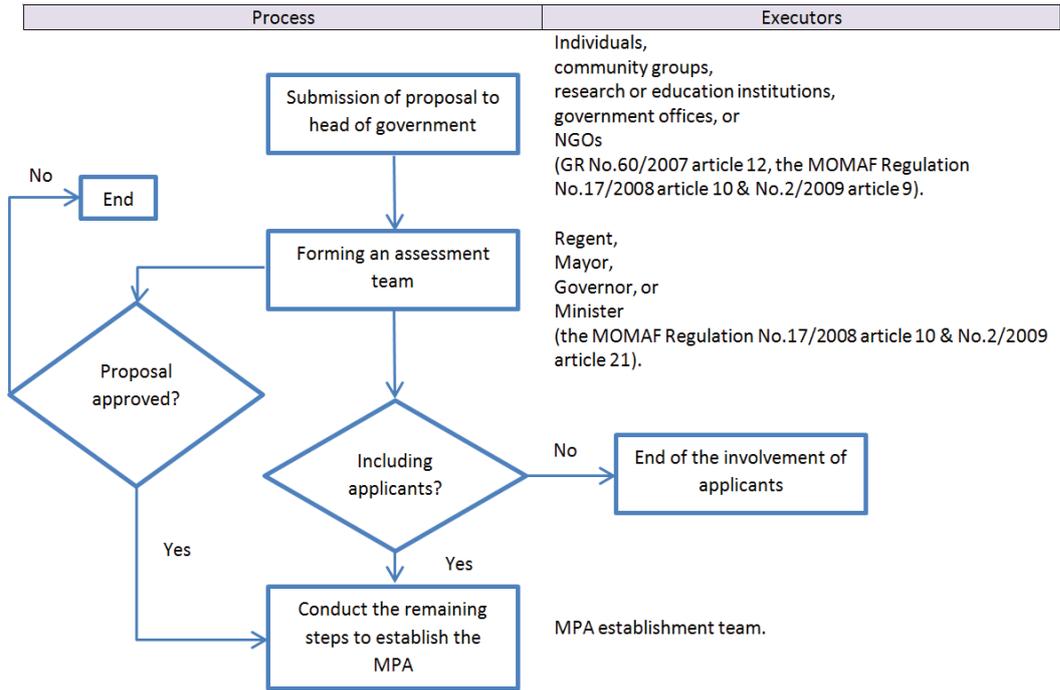


Figure 16. Diagram of involvement of non-government stakeholders.

By increasing the range of actors able to submit proposals for the establishment of an MPA, MOMAF intended to improve on pre-existing regulations for MPA establishment enacted by the Ministry of Forestry (Section 1.6.4). Providing more stakeholders with the opportunity to propose an MPA is seen as a way of reducing the perceived ‘exclusivity’ of MPAs; i.e. to counter the perception that MPAs are primarily restricted use areas imposed by government decree. However the involvement of non-government stakeholders may often end after the proposal is submitted (Figure 16). The possibility of subsequent exclusion from the process may be a disincentive for initiating a proposal.

An MPA proposal should consist of a preliminary study and map or other scientific justifications (MOMAF Regulation No.17/2008 & No.2/2009). Fulfilling these requirements requires considerable investment; the prospect of subsequent exclusion from the process may make the applicants feel their investment will be wasted. In addition, the stipulation that the MPA management authority is a government agency, with no provision for involving non-government stakeholders in its organisational structure, is a further disincentive to proposing an MPA.

This inconsistency was highlighted by proposals for the Derawan Archipelago that consider the community as an object to be managed, not as a subject involved in its management (Section 3.2.3.3 & 3.2.3.4). Communities in Tanjung Batu and Biduk-biduk villages had established village-level MPAs, which later on were incorporated to the coastal park (Section 1.9.3) (Monthly Report 2010g, DKP Berau 2014a&b). These communities played a role in establishment of the coastal park, as a bridge facilitating communication between district and village governments. They were also involved in the meetings at district level and in organizing public consultations (Minutes of Meeting 2013a-h). However, representatives of these communities could not be involved in the park management unless they become civil servants. A community as such is not allowed to manage public funds received by a government institution; it is only allowed to receive grants. It is feared that to do otherwise would lead to corruption. These communities had invested resources in the coastal park establishment process as encouraged by the legislation (MOMAF Regulation No.17/2008 & No.2/2009). Having received nothing in return, they may well be unappreciative of any future coastal park policies.

A similar situation arose at the Savu Sea; however in this case the affected stakeholders were not communities but the task force members. Appointment of *BKKPN* as the management authority (MOMAF Regulation No.19/2007) had closed any opportunity for other stakeholders to take part in the park management. In this case, the task force lost their investment in developing the zoning and management plans due to their ineligibility to be members of the MPA management authority. The imbalance between investment in the MPA establishment process and the lack of subsequent opportunity to take part in MPA management will inevitably discourage stakeholder involvement.

A loophole in legislation can make a consensus forged in multi-level public consultations worthless. At the Savu Sea, this happened when the task force was asked to reduce the zoning plan by a MOMAF official. This instruction was communicated verbally by the ministry, *BKKPN*, to TNC; no official letter was ever sent (PO SS 23.01.2014). In MOMAF Regulation on Procedures for Establishing Aquatic Conservation Areas, there is no clear procedure for evaluation of a submitted zoning plan (Article 22 Clause 1 – 4). Such loopholes provide opportunities for any high-ranking official to request adjustment without just cause or official justification, bypassing the public consultation process.

3.4.3. Mismatches between Legislation that Hinder Community Participation

The MPA establishment process at district level is framed by a variety of national legislation enacted by central government and different ministries, which are mismatched with respect to promotion of community participation. At Derawan Archipelago, collaboration between communities and government agencies was unfeasible due to restrictions on membership of the management authority. Of all the legislation related to the MPA establishment process, the management authority is mentioned only in the Government Regulation on Fishery Resource Conservation, where it is described as a government agency that in accordance with legislation (Article 15), without further

elaboration. Legislation on government agencies is administered under a Government Regulation, which obviously, is only concerned with government-related issues (GR No.41/2007).

In order to develop a management authority at district level that could include community and allows income generation (Story Box 7), the only currently available option is a public-private partnership (PPP) (Linder 1999). However, setting up a PPP is a complex process (The Ministry of Internal Affairs No.61/2007), which would cause further delays to any MPA establishment process. Developing a consortium to address this partnership between government agencies and communities is not the best option. A consortium is merely an agreement, not a legal entity. Involvement in a consortium is voluntary, which may limit the commitment of the members. Hence, the establishment team rejected the idea of a consortium in favour of an appointed management authority consisting of full-time staff. MOMAF only became aware of this difficulty when the coastal park establishment team brought it up. It seemed that MOMAF has never considered that communities could form part of an MPA management authority, despite encouraging them to propose MPAs. One informant describes such situation perfectly:

“It’s like inviting people to your house, but when they come, you don’t let them to come in” (I DA ACA 26.11.2013).

National legislation on local government administration, i.e. the autonomy law, also played a role in hindering community participation in district level MPAs. Revision of this law withdrew district jurisdiction over the management of marine areas (Law No.23/2014 Article 27 Clause 3). Indirectly, this also excludes communities from management of MPAs. Although communities are encouraged to take part in natural resource management (Article 354 Clause 3c), managing a district level MPA without participation by the district government is inconceivable. Any problem that arose would have to be referred to the provincial government, which would undoubtedly be a costly and time-consuming process. MOMAF needs to find a mechanism to distribute MPA management between provincial and district governments, so that problems arising locally can be solved without undue bureaucratic process.

The district MPA in Pangkep may encounter similar challenges. The next phase of COREMAP focuses on institutionalising its approach at district level (World Bank 2014). Presumably, the village management authorities (*LPSTKs*) are among its target institutions. Thus the lack of mechanisms for involving communities and district governments in the management of MPAs is likely to be problematic for the project.

Such challenges did not arise at the Savu Sea NP, as participation of communities and other stakeholders in the national park management authority was never an option. The *BKKPN* is the sole management authority, other stakeholders had to find other ways to make their voices heard. The transformation of the task force into Council for Conservation of Provincial Waters created an institution that was able to work in parallel with - and to act as a ‘watchdog’ for - the *BKKPN*. However this role is not considered in any legislation³.

³ In June 2015, MOMAF enacted a regulation on Partnership of Management of Aquatic Conservation Areas. This topic is discussed in Section 5.1.3.

3.4.4. Multi-stakeholder Involvement

Although village communities may be the most affected by the establishment of MPAs, the findings from the three sites showed that involvement of other stakeholders was needed to prevent any objection or even dispute, and to avoid mismatched policies (Kessler 2004, Varjopuro *et al.* 2008). Multi-stakeholder involvement can be expected to strengthen the MPA design through providing inputs from different perspectives (NOAA 2007, Smith 2012); however the experience from the three sites demonstrate how the perspective of government agencies was always prioritised over those of local communities.

At the Savu Sea, involvement of different government agencies, academics, community groups, NGOs, and law enforcement agencies contributed human resources in the park establishment process. Although it involved the highest number of stakeholders, compared to the other two sites, and it took time to get everybody in the same MPA boat, the process was not affected by disputed or mismatched policies.

However, this approach did not take account of perspectives at the community level. The focus was on provincial level; involving communities was a secondary consideration. Failure to communicate the legislation to the Lamalera community closed off any possibility of dialogue (Section 3.1.1). Although there can be no certainty that involving communities from an early stage would have prevented resistance, it seems clear that in this case it failure to do so led to mistakes in the designation of areas for protection.

By contrast, the Berau District MPA establishment team was quicker to learn the consequences of excluding key stakeholders. Initial objections from different marine resource users provided motivation for involvement of a wide range stakeholder in the subsequent MPA establishment process in Berau. Although the current coastal park establishment process does not involve mining and logging companies, the proposal is consistent with the coastal spatial plan, in which conservation areas are separated from sea lanes used by these companies.

In Pangkep, the number of stakeholders involved is far fewer (Annex 5) than at the other two sites (Annex 3 & 4), due to exclusion of several stakeholders. Exclusion could potentially lead to disputes, especially with marine resource users with interests outside of conservation and fishery issues. Even if no dispute occurs and the MPA is established without multi-stakeholder involvement, it may end up as 'Paper Park' due to mismatches with policies of other government agencies. If *DKP Pangkep* wants to establish a district MPA successfully, it needs to involve all stakeholders within the district.

3.4.5. Financial and Human Resources as Success Factors

The MPA establishment process at the three research sites could take place because they received external financial support. This external support acted as the engine that kept the processes running on an open-ended basis. However, the process in Pangkep was put on hold to wait for until another instalment of external funding became available. Experience from all three sites demonstrated the high cost of establishing an MPA. Funding is required for collaboration with multiple stakeholders, providing capacity building programmes, conducting surveys, and organising public consultations. The cost of setting up an MPA is likely to be proportional to its level: national level MPAs cost more than district scale ones, as more stakeholders are involved. Cost is likely to be a factor that hinders districts or provinces, and of course communities, from establishing MPAs. The following quote describes the situation from a local government perspective.

“... to manage an area, it needs funding. Provincial government has limited capacity to manage [an area], from the funding perspective” (I SS ACA 18.02.2014).

Only provincial governments are currently able to establish MPAs because district governments no longer have authority to manage marine areas (Law No.23/2014). However, poor provinces such as East Nusa Tenggara could not provide the financial resources required without external help. Considering these financial issues, it may be more feasible for Indonesia to create networks of small-scale MPAs rather than small numbers of large-scale MPAs (Section 1.3.4).

Financial support is important for establishing an MPA; however, experience at Pangkep showed that money is not the only thing needed to keep the process running. Investment in human resources is needed for the MPA to take root within local government and communities, as demonstrated at the Savu Sea and Derawan Archipelago, to create capacity to manage the MPA following its establishment. The MPA establishment process at the Savu Sea created a group of committed individuals from different backgrounds through long process of interaction, which made them like a band of brothers. On Derawan Archipelago, there were two committed individuals who accelerated the process: one from the *DKP Berau* and one from TNC (Section 3.2.3.1). It was the compatibility of these two actors that enabled the MPA proposal in Berau to be adjusted to fit into the coastal park regime. By contrast, the MPA proposal in Pangkep did not take root strongly and no committed individuals emerged from the process; as a result the no-take areas were left abandoned once the financial support ended.

Possible pitfall of this reliance on committed individuals is that their commitment is given on a voluntary basis. If these individuals are transferred to a new position, or their other work demanded more attention, they will have less time to devote to the MPA establishment process. An example of this occurred at the Savu Sea, when a government official who had previously worked in an environmental agency was transferred to a new office that did not work on marine issues; as a result his involvement decreased (I SS GOV 24.02.2014). In the Derawan Archipelago, the TNC staff member responsible for the MPA establishment was transferred to a more responsible post in Jakarta, which meant she had less time for Berau. To address this potential loss of support that is provided in a voluntary basis, MPA establishment teams need to continue recruiting supporters and to provide capacity building programmes down to village level, in order to increase the number of committed stakeholders.

Investing in human resources is the niche role of NGOs (OED 2002), as confirmed by the experience at the Savu Sea and Derawan Archipelago. The World Bank has recognised the low capacity of government agencies for capacity building and the ability of NGOs to fill the gap (OED 2002). This is supported by experiences from other countries (Fernandez 1987, Ozhan 2000, Barsimantov 2010, Hastings 2011). The rigid arrangements in government agencies, such as top-down chains of command, the requirement for strict working hours and attendance records, and complicated administrative procedures are considered to hinder efforts by them to reach out to communities. The reaching out process requires flexibility and, usually, cannot be formulated as an objective to be achieved within a specific time frame. The following quote describes the contrast between the approaches of government officials and NGO staff to community outreach:

“If I look in the field, it is the NGO that is closer to community instead of us, the people with government uniform. We are supposed to be closer to community than NGOs. Maybe it is a

recruitment mistake, or maybe the [employee] recruitment system does not fit with the [required] criteria, I am sorry but I am jealous. I asked TNC [staff], “What are your advantages [that mean] you could get closer to community?” Or maybe it is the spirit of conservation [that makes] a government employee different than NGO staff when being sent to the field. [When] NGO staffs go to the field, they seem proud about it. I saw it. NGO staffs that go to the field seem happy to be among community, so they really mingle and [the targeted work] could be achieved. Government employees only pursue for position or fulfil the [administrational] work. I always criticise it. Especially, conservation areas are in remote areas and far from the urban area, we need people who are happy with such kind of atmosphere, which can be sensitive and getting close to community. Well, oh, I do not know whether the government [agencies] could adopt a recruitment system such as in NGOs” (I SS GOV 13.12.2014).

3.4.6. The Needs to Have MPAs for Local Governments

The MPA establishment process is complicated, time consuming, and resource intensive; yet local governments were keen to have MPAs, due to the anticipated financial benefit, prestige, and recognition by the national government. For the East Nusa Tenggara provincial government, as the third poorest province in Indonesia, having an MPA means gaining additional financial support to manage the area under its jurisdiction (Spergel & Moye 2004). In addition, as the MPA there is a national-level one, it can be expected to increase national and international attention on the province, and provide an opportunity for the provincial government to be present in the same arena as higher-level government agencies and institutions (Firman 2009).

In Pangkep, even if COREMAP ends, there is potential to develop further projects to support the established MPA. The MPA is seen as one of the COREMAP’s success stories. Even though, overall, the project mainly gained national recognition due to the controversy surrounding its supposed failings (Story Box 9). As for Berau district government, it saw the MPA as an opportunity to gain financial benefit, in contrast to the two national-level protected areas in its territory that do not generate revenues for the district government. However, the unresolved status of the MPA means that Berau has not yet received the attention from the national government that it was hoping for.

The financial expectation overtakes the long bureaucratic chain that may burden small-scale fishermen, which is in fishing permits issuance. MOMAF has hierarchical arrangement for issuing fishing permits (MOMAF Regulation No.2/2011; 5/2012; 18/2013 on Fishing Lane) and none of them consider MPAs. This means, having MPAs may extend the administration process as the number of authority in a given area is expanded. Furthermore, such different authorities may be located in different cities. Unless the MPA management authorities and the *DKPs* come up with a solution to cut down the extended process, it would overburden the fishermen, so that having an MPA may not look appealing to them.

3.5. Conclusion of Chapter Three

Legislation of the MPA establishment process only applies to MPAs at the national level, as the new Local Autonomy Law does not affect them. The clear management authority rules that exclude communities are also in accordance with the legislation on Local Government Organisations (GR No.41/2007). The legislation on MPAs are not implementable at district level, as they link to other national legislation that prevent district governments from establish MPAs and involving communities in MPA management authorities. The legislation require community participation;

however the absence of enabling legislation on further participation³ above means that in practice this is impossible. Examples from the three sites showed that the legislation favour national-scale MPAs that exclude communities from future management, and therefore provide no incentives for participation.

Future legislation to address the gaps at district level could be enacted. However, as long as the development of legislation only addresses specific problems without examining their roots, new legislation may serve only to transfer one problem to elsewhere.

This chapter shows the complex web of legislation contributed to shaping the practice of community participation. The following chapter describes and analyses additional factors that determined the level of participation.

Chapter 4: Practices of Community Participation in the MPA Establishment Process

Community participation in the MPA establishment process has changed under new legislation developed by MOMAF compared with former legislation when MPAs were under the administration of the Ministry of Forestry. This chapter analyses how different perceptions on community participation influenced the MPA establishment process at the three research sites. With respect to the degree of participation, community participation at all three sites was of the ‘instructive’ and ‘consultative’ types as defined by Sen & Nielsen (1996) (Section 1.5.2). Several factors influenced the degree of participation, including expected outcomes, level of MPA, budget availability, and local government.

4.1. Different Perceptions on Community Participation

Informants perceived the concept of community participation differently; as revealed by their responses to the question: “In your opinion, what is the meaning of ‘community participation’?” (Annex 1). Keywords from the answers were coded, counted, and then grouped based on the affiliation of the informants. A summary of concepts of community participation, in their answers is shown in Table 15. The table only shows data from the Savu Sea and Derawan, due to the limited number of informants from Pangkep.

		Savu Sea			Derawan			
		Government officials	NGOs	Academics	Government officials	NGOs	Academics	Communities
Keywords	Obtaining support from communities (1)	Having a sense of ownership in the process (1)	Providing information and opinion (1)	Supporting government programs (6)	Transporting aspirations and ideas from village level to sub-district level (1)	Contributing to government's programs (1)	Understanding government programs (2)	
	Understanding the meaning of MPA (2)	Making a positive contribution (1)	Making decisions together (1)	Supporting the MPA establishment process (4)	Being involved in something (2)		Contributing ideas and energy (2)	
	Being involved in government policies (1)	Voluntary contribution for community and village development (2)	Communicating communities' aspirations (1)	Contributing ideas and energy (3)	Making decisions for own benefit (2)		Enabling communities including the minorities to voice their opinion (1)	
	Contributing to government programmes (2)	Fulfilling communities' needs (1)	Becoming actively involved (1)	Playing an active role to become self-reliant and less dependent on the government (4)	Playing roles in policy making, planning, implementation, evaluation (1)		A struggle to improve the current situation (1)	
	Being involved in planning and implementation (2)	Obtaining social welfare (1)	Supervising the whole MPA process (1)	Showing willingness to take part in change (1)			Being involved in a decision making process (1)	

	Acting as 'loudspeaker' for government programs (1)	Being involved in the whole MPA process (5)
	Voluntary involvement (2)	Empowered communities making decisions on an issue (1)

Table 15. Responses given in answer to the question: ‘What is the meaning of community participation’? Similar keywords were grouped where they referred to the same concept; numbers in brackets shows the numbers of keywords used to describe each concept. Some informants used more than one keyword; hence numbers in the brackets do not correspond with the number of informants who referred to the concept. Confused answers (such as given by some informants from communities at the Savu Sea) were discarded and not coded.

At the Savu Sea, perceptions of government informants could be distinguished from those of other informant groups. Eight out of 19 (42%) government informants gave answers that were centred on supporting government programmes and policies. An official from the MPA management authority even mentioned that participation means that communities become a ‘loudspeaker’ to inform a wider audience of communities about government programmes (I SS GOV 20.02.2014). In contrast, answers from NGO and academic informants focused on independent decision making for the benefit of communities, in the case five out of seven (71%) NGO and academic informants. Only one government official mentioned this aspect (I SS GOV 29.01.2014).

At Derawan, this pattern was not visible. Answers, such as “community involvement in the decision making process”, were given by informants from NGOs, government agencies, and communities alike. Answers that centred on supporting government programs were also given by communities and academics, as well as government informants (Table 15).

In Pangkep, based on my previous study in this region, community participation was organised by COREMAP. Communities were involved in defining the no-take areas and setting up the village management authorities (Baitoningsih 2009).

4.2. The Needs for Community Participation

The next question asked informants why they thought community participation was important (Annex 1). The answers were also coded, counted, and then grouped based on the affiliation of the informants. As this was a follow-up question, the answers formed similar pattern to those given to the previous question. The two basic reasons given for the importance of participation were: 1) to make communities comply with the MPA rules, and 2) to provide opportunities for communities to manage their surrounding natural resources.

4.2.1. Complying with the MPA Rules

Informants who said that communities should participate to obtain approval for MPA establishment and to ensure compliance with MPA rules considered compliance as a result of participation. For this to happen, communities need to be informed about the function of MPAs from an early stage of the MPA establishment process (I DA GOV 03;06;12.12.2013, I SS GOV 24.01.2014). For these informants, compliance is the goal of participation, and all necessary means should be employed by government to ‘educate’ communities until they ‘understand’. An example of this attitude is shown in the following quote.

“We have to give continuous socialisations to communities about the benefit of MPAs.” (I DA GOV 03.12.2013).

The compliance of communities was seen as important to ensure that MPAs could function properly, because compliance was believed to reduce the surveillance costs of MPAs (e.g. I SS GOV 13.02.2014, I SS ACA 18.02.2014). However, a few informants also pointed out that, while local communities may detect a violation quickly, this would not necessarily reduce the surveillance costs. For example, when the violators are fishermen from outside the community equipped with fast boats, communities with standard boats may not be able to respond quickly enough (I DA COM 10 & 11.12.2013).

Communities who raised objections to the establishment of an MPA and its proposed rules were considered to be ill informed, and ‘not to have participated yet’ (e.g. I DA GOV 26.11.2013, I SS GOV 03.03.2014). Hence, different forms of persuasion were practiced in order to make communities ‘participate’. At least, 15 strategies mentioned by the informants in order to make communities participate, as shown in Table 16.

No.	Strategies	Number of informants who mentioned
1.	Convincing communities to comply	37
2.	Hierarchical meetings	26
3.	Taking care in selecting participants to invite and the location of meetings	25
4.	Frequent communication	23
5.	Having facilitators	21
6.	Mentioning the benefit of MPAs	14
7.	Using available fora or events	14
8.	Bottom-up	14
9.	Using religious contexts	4
10.	Raising awareness	4
11.	Approaching local leaders	4
12.	Using simple terminologies	3
13.	Exchange visits to successful MPA sites	2
14.	Mentioning the MPAs as part of government programmes	1
15.	Using the media	1

Table 16. Strategies to make communities participate mentioned by the informants.

If communities agreed to participate, compromises and trade-offs might be necessary to secure their approval for establishment of the MPA and compliance with its rules. Compromises with communities occurred in Pangkep in selecting no-take areas, and as a result the areas chosen do not fully meet the ecological requirements for core zones (Section 1.3 & 3.3.1.3). At both the Savu Sea and Derawan compromises reached with communities involved the authorities agreeing to overlook illegal activities (Story Box 10).

Story Box 10. Compromise and Trade-off in Defining the Zones.

At the Savu Sea, a compromise was reached in West Manggarai District where the fishermen had practiced pair-seine fishing (www.fao.org/fishery/geartype/304/en) for generations. This fishing gear is banned by law (MOMAF Decree No.02/2011). The fishermen agreed to comply with the zoning of the proposed national park in return for a promise by the task force to provide them with modified fishing gear (I SS ACA 24.01. & 20.02.2014).

On Derawan, a community on Maratua Island requested an additional public consultation (Section 3.2.3.3). Community members, inhabitants of one of (four) villages on the island, were cyanide fishermen. Even the head of the village practiced this destructive fishing practice. In the beginning, they were opposed to the designation 'core zone' for their fishing ground; they wanted it to be designated 'other zone' (Section 1.7.3). In response, *DKP Berau* offered to reduce the total area of the core zone, and to change the designation of the remaining area to 'limited-use zone'. The *DKP Berau* official in-charge of the consultation approached the discussion like a teacher disciplining her students, speaking loudly in a high-pitched voice. In order to reach a consensus quickly, as the Regent had already issued a decree approving the zoning proposals (Section 3.2.3.3), the *DKP Berau* offered an aquaculture project to provide an alternative livelihood for the destructive fishermen. The proposed project was a trade-off for the designation of their fishing grounds as core zones (PO DA COM 25.11.2013).

Interestingly, compliance was also mentioned by nine (out of 39 individuals from 22 interviews & 2 FGDs, or 23%) community members who had not learned about the benefits of MPAs through involvement in NGO programmes. For these community members, government programmes are developed for the welfare of society; complying with the rules, certainly, is the obligation of communities. An example of this belief is shown by the quote below.

“The government as the leader will not put us in a wrong way... it would not put us in any harm.”(I DA COM 01.12.2014).

Similar sentiments were expressed with respect to the traditional of village-level MPAs at the Savu Sea, known as *Lilifuk* (Section 1.1.1). This moribund tradition was revitalised, with the support of a village government, in the establishment process for the Savu Sea National Park. The clan that practiced *Lilifuk* felt grateful towards the village government for helping to preserve the tradition; in return the clan felt obliged to comply with any rules that were established (I SS COM 11.02.2014).

4.2.2. Providing an Opportunity to Manage Surrounding Marine Resources

Informants who said community participation is a forum for collaborative decision-making between communities and government recognised communities as direct resource users with a right to be involved in making decisions that may affect their livelihoods. In a large and populous developing country such as Indonesia, human resource and budget constraints mean that the government has little or no presence in more remote areas (I DA NGO 29.11.2013, I NGO 10.02.2014). Limited government terms and the resulting lack of continuity may also contribute to the unsustainability of government programmes and policies (I ACA 06.01.2014). Community participation is needed to establish MPAs that are embedded in local decision making structures and to prevent 'paper parks' phenomena (I ACA 15.11.2013, I DA ACA 26.11.2013, I DA NGO 29.11.2013, I DA GOV 16.12.2013, I ACA 06.01.2014).

Community members and village government officials who had experience of NGO programmes shared a similar attitude towards government programmes. They were critical in questioning new 'top down' programmes that came from higher levels of government and wanted to play a role in the decision-making processes (FGD DA COM 04 & 13.12.2013). The following quote exemplifies this attitude.

“The government should not be able to make any rules that it wants. The rules should be recognised by communities, and inputs from the communities are needed to ensure that they can be implemented.” (I DA GOV 04.12.2013).

At all three sites, the initiative to establish an MPA came from NGOs and/or higher levels of government. Their proposals were not necessarily in line with what the communities expected from the establishment of an MPA.

4.2.2.1. Community Objectives for MPAs

Examples from the three sites showed that communities had interests and reasons for supporting the establishment of MPAs that went beyond the intended conservation purposes. Communities had various expectations from MPAs including:

- 1). Seasonal harvesting or provision for closed seasons exemplified by *Lilifuk* and *Panadahi* practices at the Savu Sea,
- 2). Exclusive utilisation rights, including protection from destructive fishing practices and the unwanted presence of fishermen from outside the area, exemplified by the *Jala* community group on Derawan and communities in Pangkep (Glaser *et al.* 2010), and
- 3). Community-based ecotourism as practiced by the *Lekma Lamin* community group on Derawan.

Lilifuk is a fisheries management tradition that was practiced in the village of Kuenheun, Kupang District (Section 1.1.1). The practice was moribund when the Savu Sea NP was first proposed, but it was revitalised in the course of the national park establishment process. The area was incorporated into the national park as a ‘traditional sustainable fishery sub-zone’. Legal recognition of the practice in Kuenheun meant that the practice was also binding on members of other communities and clans. The clan gained increased self-esteem from the legal recognition of its tradition, the authority to manage the marine area around the village, and the right to sell fishing permits during the harvesting time (I SS COM 11.02.2014, I SS GOV 15.02.2014, PO SS GOV 15.02.2014).

Panadahi is a practice by the *Jingtiu* animist community at Raijua Island, Sabu Raijua District (Section 1.1.1). In contrast to *Lilifuk*, *Panadahi* tradition was still alive, although complied with to a limited extent, at the start of the national park establishment process. During the development of zoning and management plans (Section 3.1.2.2), this practice was drawn to the attention of the task force by the sub-district government officials in Raijua Island. Like *Lilifuk*, the area concerned was subsequently incorporated as one of the ‘traditional sustainable fishery sub-zones’. The plan was to accord legal recognition to the practice at sub-district level, thereby making it binding not only on the *Jingtiu* community but also on all communities in the sub-district (PO SS NGO 23.01.2014). However, neither the traditional animist leader nor any other community representative was ever involved in the establishment process. The information about the practice provided by the sub-district officials differed from the account given in an interview carried out as part of this study by the traditional leader (I SS COM 01.03.2014, PO SS COM 28.02.2014). For example, according to the officials, the *Panadahi* area is open for fishing for two years and then closed for two years (Milla *et al.* 2013). Whereas according to the traditional leader, there is no particular pattern in the closing; it depends on a revelation that he receives (Section 1.1.1). The village head, where the traditional leader resides, confirmed this fact by saying that he had only experienced one closed fishing period due to *Panadahi* in his life (PO SS GOV 01.03.2014).

On Derawan, although the *Jala* community group initially decided to protect the marine area around the village of Tanjung Batu from destructive fishing; it subsequently went further by proposing to manage the area as an exclusive fishing territory (Section 1.9.3). The group members wanted to control access by fishermen from outside of the Derawan Sub-district. They believed that the establishment of the Derawan Archipelago Coastal Park would legally grant them the exclusive right to manage the marine area around Tanjung Batu. Hence members of the *Jala* community group were actively involved in the coastal park establishment process (FGD 04.12.2013).

In Pangkep, each island has an 'exclusion zone' where fishermen from other islands need informal permission from island leaders to fish the surrounding reefs (Glaser *et al.* 2010). Each island community preferentially uses a certain type of fishing gear; the use of different gears that could impact negatively on the community fishery is forbidden. By requiring fishermen from different islands to ask for permissions, potential conflicts of interests are avoided. Members of island communities enforce the rules by chasing away any violators. The no-take areas set up by COREMAP include some of the reefs surrounding these islands; but even where they do not exist, island communities still protect the surrounding marine area (Glaser *et al.* 2010).

Elsewhere on Derawan, the *Lekma Lamin* community group in Biduk-biduk village was interested in protecting a marine area called *Labuan Cermin* due to the potential for tourism that could generate economic benefits for the village community (Section 1.9.3). Community group members preserved the area, in as close to a pristine state as possible in order to market it as natural tourism. Villagers generated income from providing boats, accommodation, food, and other services. These benefits provided a strong incentive for the community to protect the area, as shown by their willingness to take on a commercial company with considerable financial resources (Story Box 11). In this case, conservation objectives go hand in hand with the expectation of economic gain. The proposed Derawan Archipelago Coastal Park aims to generate benefits for local people from tourism activities; the community wanted to be part of this and reasoned that a pristine area would attract more tourists (FGD 13.12.2013).

Story Box 11. Conservation vs. Palm Oil Plantation.

The protection of *Labuan Cermin* and its surrounding forests was legalised under a Berau regent's decree (No.290/2013). However in the same year, the Berau district government issued a permit for a palm oil plantation encompassing the protected area. At a meeting to inform communities of the proposal, two out of four villages in the area affected by the proposed plantation rejected the idea. The two villages that opposed the proposal were participants in TNC's capacity building program, and one of these was located in the area covered by the MPA (PO DA NGO 23.11.2013, I DA COM 11.12.2013, PO DA COM 10-13.12.2013, I DA GOV 16.12.2013).

The company tried to convince communities by exerting influence over their village government officials. These officials were promised shares in the plantation. Despite repeated attempts by the village government officials to convince villagers of the benefits of the proposed palm oil plantation in the area, the communities maintained their opposition. In the end, the plantation area was reduced to avoid encroaching on the two opposing villages (I DA COM 11.12.2013, PO DA COM 10-13.12.2013, I DA GOV 16.12.2013). Although in this case, communities were able to prevent the environment degradation that the palm oil plantation would have caused, similar policy mismatches are likely to occur in the future.

4.2.2.2. Challenges and Suggestions for Communities to Establish MPAs

Different communities had different reasons for wanting to protect their marine areas. However, these aspirations were difficult to harmonise with the MPA legislation. Several informants with different affiliations considered, on their own, communities are incapable of realising their interests in the formal MPA establishment process. They mentioned that the process is “too complicated” or “requires too much energy”; in addition the communities “need guidance to carry out the establishment process” (I DA ACA 26.11.2013, I SS GOV 28 & 29.01.2014, I SS GOV 13.02.2014a&b, I SS ACA 18.02.2014). Similarly, members of the *Jala* community group on Derawan commented on the complexity of MPA establishment process and their limited capacity to undertake it; hence they considered that detailed guidance was required (FGD DA COM 04.12.2013).

Some informants suggested that village-level MPAs could be set up to enable communities to get what they wanted from MPAs. The justification for this view was that having a functioning MPA is more important than its size. Therefore, village-level MPAs would be sufficient for communities to achieve their aspirations (I SS GOV 24.02.2014). One informant suggested that village-level MPAs could be authorised by provincial governments in order to secure their legal status (I SS GOV 28.01.2014). Furthermore, in the opinion of one village government official, village-level MPAs could be financed from village budgets (I DA GOV 16.12.2013). The requirements to access the village budgets would be that the village governments acknowledge the MPA and its management authority (I DA GOV 17.12.2013).

However, an example from Derawan showed that establishing a village-level MPA does not always achieve the objectives of communities. Village-level MPAs are prone to threats from mismatched policies (Story Box 11), just like larger ones. In addition, recognition from the village heads might come with strings attached. The *Lekma Lamin* group faced attempts by the village head of Biduk-biduk tried interfere in the group’s policies, which made the group hesitate to request recognition for its proposals (I DA GOV 16&17.12.2013).

4.3. Perceptions on Community Participation in MPA Legislation

Although the new legislation on the MPA establishment process in Indonesia requires community participation, there are no clear guidelines available for putting this requirement into practice. The legislation mentions ‘when’ and ‘how many’ participatory activities should be conducted, and specifies the type of participation (‘socialisation’ or ‘public consultation’), but there is no indication of ‘how’ participatory activities should be conducted (Section 1.10.1). As a result the practice of community participation differed at each research site. To address this issue, informants were asked: “In your opinion, does the MPA legislation address the community participation topic adequately? Please give reasons!” Not all the informants answered this question, as some of them were not acquainted with the legislation. This question was answered by 44 informants who were involved in the development of MPA proposals, i.e. government agencies at national; provincial; and district levels, NGOs, and academics.

4.3.1. Encouraging Communities to Participate

According to 32 out of 96 informants (33%), the new MPA legislation opens up an opportunity for communities to participate in the MPA establishment process. Their answers were based on the difference between the previous legislation administered by the Ministry of Forestry and the current legislation administered by MOMAF.

Nine informants, from all stakeholder groups at the Savu Sea National Park, also referred their answers to the establishment of the Komodo National Park. This park is in the same province but established by the Ministry of Forestry. Conflicts in the Komodo National Park (see e.g. Down to Earth 2003, Gustave & Borchers 2007, Erb 2012) were considered to be due to the exclusion of communities from the establishment process. The quote below describes how the MPA establishment process in Komodo NP was perceived negatively by communities.

“In West Manggarai [District], we encountered a big challenge due to the [previous experience of] establishment of the Komodo National Park that is managed by the Ministry of Forestry, where there are only prohibitions [on resource use]. [Communities] considered that they had become the victim of the Komodo National Park, hence [they asked]: if there is another national park, would this mean they couldn't go to the sea?” (I SS GOV 26.02.2014).

These 32 informants also commented on the lack of the guidelines for participation in the legislation. However, they argued that guidelines are too detailed to be incorporated in legislation (I SS NGO 23.01.2014, I SS GOV 24; 25; 29.01.2014, I SS ACA 20.02.2014). Over-detailed legislation can lead to rigid implementation that may not be appropriate for every site. Legislation should only provide a framework for addressing the issues; in this sense, the existing regulations have been effective in opening up opportunities for community participation. Informants that have law education background developed these arguments in more detail (I SS NGO 23.01.2014, I SS ACA 20.02.2014). All 32 informants affirmed that the practice of community participation will be different at each site; thus successful implementation will rely on the commitment of the government agency concerned.

However, one academic informant mentioned that government agencies could only act within a corridor of rigid legal rules, to ensure proper use of the allocated budget and to prevent corruption. The lack of legal guidelines may therefore limit the options for community participation available to government agencies, since improvisation may lead to a perceived misuse of public funds. By contrast, NGOs have malleable rules that enable them to support community participation activities where greater flexibility is required (I ACA 15.11.2013).

4.3.2. Discouraging Communities to Participate

Twelve informants (12.5%) considered that the new legislation does not provide any opportunity for community participation (I ACA 06.01.2014, I NGO 13.01.2014). According to these informants, participation was designed as a set of mandatory activities to support government programmes. Even though the current government is trying to make a break with previous top-down systems, in reality, the practices are no different (I ACA 06.01.2014). Not only does the legislation fail to provide opportunities for communities to express their opinions on their own initiative (I ACA 06.01.2014, I NGO 13.01.2014), there is also no provision for sanctions if communities are not involved in the MPA establishment process (I NGO 13.01.2014). One informant from the NGOs pointed out that an MPA may still achieve legal endorsement without community participation, as there is no mechanism in place to assess whether communities have participated or not. The Coastal Spatial Planning Law provides a mechanism for communities to express any disagreement or opposition (Story Box 12). However, objections can only be registered during a limited period of time before the establishment of an MPA. This limits the rights of communities and means that they have no redress for problems that arise after the establishment of an MPA (I NGO 13.01.2014); whereas ideally participatory processes should incorporate a 'grievance mechanism' enabling communities to engage with government policies on an on-going basis (I NGO 05.02.2014). Community participation should take

place at all stages, from establishment of the MPA, through to implementation to evaluation (I NGO 05.02.2014).

Story Box 12. Revision of Coastal Spatial Planning Law.

The Indonesian Constitutional Court annulled articles concerning the role of communities in the coastal spatial planning process (Articles 1, 14, 16, 20, 23, and 60) due to a legal objection led by the NGO KIARA (the Constitutional Court of Indonesia 2011). Objectors argued that the law placed communities in a disadvantaged position in negotiations with other, more powerful stakeholders (Section 1.7.3.2). The annulment caused the Coastal Spatial Planning Law (Law No.27/2007) to be amended (Law No.1/2014). However, other legislation on the MPA establishment process still puts communities in the same arena with other stakeholders that have greater power and resources, as no entity ever submitted a legal objection.

When communities participate in the MPA establishment process, the setting for participation needs to be carefully considered to avoid forcing or steering the process and to prevent manipulation of the results (I ACA 06.01.2014, I NGO 13.01.2014). The legislation puts communities in an arena that is shared with government, NGOs, and businesses that have greater power and resources, i.e. in terms of knowledge, access to technology, financial resources, and power. This imbalance represent a form of indirect discrimination (I ACA 06.01.2014, I NGO 13.01.2014) (Story Box 12). A few informants were opposed to the idea of bringing communities together with government and businesses; they considered that the government should protect the rights of communities to continue fishing as they have been doing for generations (I ACA 06.01.2014, I NGO 13.01.2014).

4.3.3. Capacity Building Program as a Requirement for Community Participation

Almost all informants at the three sites recognised the knowledge differential between government and communities. They referred to the low level of education of communities as the reason for their inability to fully comprehend the government's MPA proposals. These informants affirmed that capacity building programmes were needed to improve communities' knowledge of MPA topics. Two NGO informants mentioned that capacity building programmes can serve as a bridge connecting communities to government (I DA NGO 26 & 29.11.2013).

On Derawan Archipelago, two community groups, i.e. *Jala* and *Lekma Lamin*, had been involved in capacity building programmes organised by TNC (Section 1.9.3). Their involvement in the MPA establishment process was more advanced than other community groups at the other two sites (Section 3.4.2). In a self-appraisal of their capacity, they stated that they had learned a lot, included how to make and present Power Point presentations, and how to go about collaborative decision making, and discussions with higher level authorities such as the Berau district government. (FGD DA COM 04 & 13.12.2013, PO DA COM 10 & 11.12.2013). One of the community group members describes how his capacity was improved in the quote below.

“If I have to describe all the benefits that I gained, it's not possible; it would take more than a day to explain. The point is, I started from 0 or 1, and now I am at [level] 9.” (FGD DA COM 04.12.2013).

At the Savu Sea, two existing community groups had long been involved in the traditional management of local fishery resource (*Lilifuk* and *Panadahi*). These two community groups had never

been involved in capacity building programmes organised by NGOs; their involvement in the MPA establishment process was limited or none. The *Lilifuk* tradition had been abandoned before the start of the MPA establishment process (Section 4.2.2.1), while the leader of the *Panadahi* tradition were never been involved in the MPA establishment process (Section 4.2.2.1). Differences between the capacity building programmes at Derawan and the Savu Sea were reflected in the degree and nature of participation at the two sites (I NGO 04.02.2014).

In Pangkep, capacity building was provided by COREMAP, but the content of the training programmes was decided by the project without consultation and did not reflect communities' own perceptions of their needs (Baitoningsih 2009).

4.4. Practices of Community Participation

Based on the low level of education of communities in the three sites, simplified explanations of the MPA concept were given. At all sites used the same metaphor of a 'fish bank' to explain the MPA concept (Story Box 13). Community participation activities were designed, not only based on the steps (Figure 17) and requirements of the MPA legislation, but also on the circumstances at each site.

Story Box 13. The Fish Bank Concept.

The 'fish bank' was widely used as a metaphor to illustrate the MPA concept (Agardy 1994). MPAs, particularly the no-take or core zones, are conceptualised as a bank where fish can be saved. If the fish saving is left undisturbed, it provides interest in form of more fish. As the fish population grows, it spills over to adjacent waters and the fishermen reap the benefit of abundant fish. This concept has been criticised as not all fish species follow this kind of pattern of dispersal (Agardy 1994, Abesamis & Russ 2005). Nonetheless, animated presentation of this concept was used widely in MPA presentations to grab the attention of participants. The quote from community informant below describes the impact of the presentation.

“Through the pictures on the [presentation] slides, [we learned] that the fish spawn in [a certain] area. We cannot fish in the [core] zones, only on the borders. So we can get the fish that come out of the [core] zones.” (I DA COM 18.02.2014).



Figure 17. Steps of MPA establishment process according to the MPA legislation (MOMAF Regulation No.17/2008, No.2/2009 & No.30/2010).

4.4.1. Practices at the Savu Sea

Communities played a role in providing data for the design of the MPA. After the draft design had been completed, they discussed the proposed zones and permitted activities within them in two rounds of public consultations (Section 3.1.2.2). The consensus reached during the consultations was set out in a written document that was signed by the attendees, thereby legitimatising the agreement (PO SS NGO 23.01.2014).

Communities first learned about the plan for establishing a national park when they were asked by members of the MPA task force to map their marine area. The communities were first involved after the park had been designated. They were not involved in the process of designation (Step 2 in Figure 17), which, according to the regulation, should involve socialisation and public consultation activities

(MOMAF Regulation No.2/2009 article 13 clause 3). In fact, this regulation legitimised a process that had already taken place, in an improvised fashion, without any legal basis. The regulation was enacted in order to present the designation of the park as an achievement to the World Ocean Conference (Section 3.1.2.1), which was held in Manado in May 2009.

Village governments and district-level NGOs selected the participants of public consultations, with a total number of 50 people per consultation event instead of per village (I SS GOV 12.02.2014). The number of participants was determined by the availability of funds (Section 3.1.2.2) and most of the participants were government officials at sub-district and village levels (PO SS COM 17.02.2014). Few fishermen were represented, not only because there were a few allotted invitations, but also due to the conflicting schedule between the consultations and the fishermen's working hours. Sometimes housewives around the consultation venues were mobilised in order to achieve the target of 50 invitations (I SS GOV 12.02.2014). These arrangements resulted in the traditional leader of *Panadahi* being overlooked, even though the *Panadahi* area was designated as one of the traditional sustainable fishery sub-zones of the proposed MPA (Section 4.2.2.1).

Apart from the abovementioned practices, communities were not involved further in the park establishment process, including when the zoning plan had to be revised (Section 3.1.2.4). Only one of the two rounds of community participation required by regulation in the MPA establishment process (Steps 2 and 4 in Figure 17, Section 1.7.2), was carried out at this site.

4.4.2. Practices on Derawan Archipelago

During the long MPA establishment process at this site, the role of communities, as well as those involved, changed over time. In the development of proposals for a district MPA, only communities on Derawan and Maratua islands were invited to meetings and workshops (Section 3.2.4). In drawing up the coastal spatial plan, communities were merely informed about the proposals (Section 3.2.2.1). Lastly, in the development of proposals for a coastal park, communities played a role in confirming the proposed zones and the permitted activities within them in a single round of public consultations (e.g. I DA NGO 29.11.2013, I DA GOV 04.12.2013, FGD DA COM 13.12.2013). The consensus reached during the consultations was set out in a written document that was legitimised by the signatures of the attendees (I DA NGO 29.11.2013).

Although the term 'conservation' was not foreign to communities in the area, they did not appreciate the differences between the MPAs proposed at different stages in the process (e.g. FGD DA COM 04 & 13.12.2013), or understand why the MPA had not been set up after the first stage (e.g. I DA COM 01.12.2013, FGD DA COM 04 & 13.12.2013, I DA GOV 16.12.2013). They saw that the name of the proposed MPA changed from one stage of the process to the next, but did not understand the different MPA concepts the names represented. Even community groups with experience of village-level MPAs and involvement in the coastal park establishment process were confused by the twists and turns of the long drawn out process, as the following quotes illustrate.

"We have been talking about the district MPA since 2006. I am sure communities got tired of it, because [the MPA] was always being cut off and replaced by a new one. Maybe this coastal park will end up the same. Before taking root in the communities, it will get cut off again." (FGD DA COM 13.12.2013).

“We have been through this process with the district MPA and the coastal spatial plan. Maybe *DKP Berau* had a specific reason for changing [the name] to coastal park.” (FGD DA COM 13.12.2013).

Participants in the public consultations were selected together by the *DKP Berau*, TNC, village governments, and community groups. However, due to the limited funds available in TNC’s budget (Section 3.2.3.3), the number of participants was limited to around 80 people per consultation event. Since each event covered nine or ten villages (PO DA NGO 23.11.2013), this arrangement meant that a village fishermen’s association might be represented by one person only (I DA COM 10; 11a; 11b.12.2013), and independent fishermen were not invited (I DA COM 10.12.2013). This did not provoke resentment among the communities; as those who left out of the process remained ignorant of what was going on (I DA COM 03.12.2013).

The two rounds of community participation required for MPA establishment (Section 1.7.3) were carried out, but during different stages of the process and, therefore, with reference to two very different proposals. Step 2 was conducted during the coastal spatial planning stage, whereas Step 4 was undertaken during the coastal park stage. Moreover, although the establishment of coastal parks requires public consultation at Step 2 (MOMAF Regulation No.17/2008 Article 11 Clause 3) during the coastal spatial planning stage communities were merely informed. However, this activity was considered a public consultation in order to cut the process short due to the limited funding available (PO DA NGO 23.11.2013, MoM 2013b).

4.4.3. Practices in Pangkep

Communities played a role in providing data about their marine area, proposing potential no-take areas, and confirming the selected no-take areas (Baitoningsih 2009). These roles were integral to COREMAP’s objective of creating for community-based MPAs (PPTK Unhas 2006). All these activities were conducted in a single round of village meetings, and the consensus reached in each meeting was legalised in the form of village regulations (Baitoningsih 2009).

Communities also first learned about the establishment of no-take areas during the village meetings. They were asked to map their marine area and nominated three potential no-take areas (PPTK Unhas 2006). Outputs from this process were no-take areas on reefs in shallow waters that could cause damage to boats and other locations of no economic values for communities, thereby avoiding conflicts with fishermen (Baitoningsih 2009, Glaser *et al.* 2010).

Participants in a village meeting were selected jointly by COREMAP consultants and village government officials on the day of the meeting (Baitoningsih 2009). There was no strict limitation on the number of participants, and the aim was for all stakeholders at village level to be represented. However, the impromptu procedure for issuing invitations meant that most participants were village government officials (Baitoningsih 2009, Glaser *et al.* 2010).

Communities did not play any further role in the development of the district MPA, even though additional core zones were included (I SA GOV 20 & 23.03.2014, COREMAP 2009), which restricted fishermen’s access to some marine areas. Of the two rounds of community participation required in the MPA establishment process, one took place, at Step 2. This step requires socialisation and public consultation activities (MOMAF Regulation No.2/2009 Article 13 Clause 3), and this requirement was fulfilled in the establishment of the no-take areas. Communities were informed of the proposal (socialisation) and provided inputs for the selection of no-take areas (consultation) at the same

event. If the establishment process moves forward, two further rounds of public consultation will be required at the Step 4.

Aspect of the process	Savu Sea	Derawan	Pangkep
1. Resource mapping	Communities were requested to map	No community participation	Communities were requested to map and nominated no-take areas
2. Inputs to definition of zones & permitted activities	In 2 rounds of public consultations	In 1 round of socialisations and 1 round of public consultations	In 1 round of village meetings covering socialisations & public consultations
	Final decision made by the task force	Final decision made by the coastal park establishment team	Final decision made by the COREMAP consultants
3. Legally binding documentation of agreements	Minutes of meetings	Minutes of meetings	Village regulations
4. Socialisation of the proposal(s)	On site	At different stages of MPA establishment process	On site
5. Participants	Decided by village governments, local NGOs, and task force	Decided by village government, community groups, park establishment team	Decided by village government & COREMAP consultants
	50 people per meeting comprising 1-5 villages	80 people per sub-district comprising 9-10 villages	No strict limitation on numbers
	Limited representation due to restricted funds and timing of meetings. <i>Panadahi</i> traditional leader excluded	Limited representation due to restricted funds. Independent fishermen excluded	No-one excluded but representation limited because people were invited at short notice
6. Further participations	Excluded from the revision of zoning plan	Organising public consultations, bridging communities to government	Excluded from the development of district MPA

Table 17. Summary of community participation in the MPA establishment process at the three sites.

4.5. Opinions on whether (or not) Communities had Participated

At all three sites, it proved impossible to comply fully with legal requirements for community participation, especially due to the budgetary constraints. Yet, most of the informants considered that communities had participated through their attendance in public consultations or village meetings. Informants who considered communities had not participated referred to the limited number of direct resource users involved, such as fishermen, as the reason for their opinion. Some informants noted both points in their answers, recognising the large number of people who had taken part in the consultations, while noting the small number of direct resource users involved.

4.5.1. Positive Opinions on Communities Participation

Fifty eight out of 96, i.e. 60% of informants considered communities had participated in the MPA establishment process, and referred to the number of participants and stakeholders represented as their justification. These informants considered it was not possible to involve whole communities, not only due to space and budget constraints, but also because involving too many people to a public forum could lead to an unmanageable crowd. An NGO informant said that a crowded forum may create a 'noise' rather than a 'voice' (I DA NGO 26.11.2013), and prevent the objective of obtaining inputs from communities from being achieved. The presence of representatives of community bodies

such as youth groups, women groups, and religious institutions, was considered sufficient to involve whole communities. Informants further pointed out that these groups were free to assign their own representatives (PO DA NGO 03.12.2013, I SS GOV 28.01.2014). Similar practices had been applied in Pangkep during the establishment of no-take areas. The consultants of COREMAP considered participants involved in the village meetings as sufficiently representative of whole communities (Baitoningsih 2009).

It was assumed that community representatives, and stakeholder representatives in general, would pass on the information from the consultations to the organisation they were affiliated to. However, several informants realised that this information flow mechanism does not really work. Representatives who participated in consultations tend to consider their responsibility was merely to attend, unless they were specifically asked to undertake further assignments (I DA GOV 11.12.2013, I SS GOV 15.02.2014).

However, the interviews revealed that community representatives who participated in the consultations did not always fully understand the topic that was being discussed. For example, several community and village government informants thought that MPA zones did not encroach on fishing grounds (I DA COM 01.12.2013, I DA GOV 01.12.2013), or that the objective of the MPA was to restrict access by outside fishermen (FGD DA COM 13.12.2013, I DA COM 16.12.2013). Others mistakenly identified the core zones (I DA COM 10.12.2013). The quote from a community representative below is an example, demonstrating that he did not understand the objective of establishing an MPA.

“I think communities had participated as I did not hear any complaints... However, deep down inside I am still wondering [what’s next].” (I SS COM 28.01.2014).

Nonetheless, community representatives that had understood the topics of the consultations considered their concerns had been recognised (FGD DA COM 04.12.2013, I SS COM 18.02.2014). As one of the informants puts it in the quote below, consultations are meaningful if the community’s concerns are addressed regardless the number of participants.

“I realise that public consultations did not reach the whole communities. In fact, they only reached the outskirts. But I think [they were] open; when we suggested something, these suggestions appeared in the next draft [of the proposal].” (I SS COM 18.12.2014).

4.5.2. Negative Opinions on Community Participation

Thirty four out of 96 i.e. 35% of informants stated that communities had not participated in the MPA establishment process, referring to the limited stakeholder representation. For example, informants mentioned that the representatives were mainly government officials (I DA GOV 03.12.2013), or elites (I DA GOV 16.12.2013), or that independent fishermen were left out (I DA COM 01.12.2013). These informants considered those who participated could not fully understand the real concerns of direct resource users. The participants might have heard something about the communities’ concerns; however it was unlikely that they would have a thorough knowledge of them (I DA COM 01.12.2013, I DA GOV 03 & 16.12.2013, I SS GOV 12.02.2014).

Several other informants considered the communities were merely informed, which was not really participation (I DA NGO 29.11.2013, I SS ACA 20.02.2014). They mentioned the limited number of consultations as the cause of this poor participation (I DA NGO 29.11.2013). Others considered that

ideally participation should not be limited to consultations, but should also involve communities in the process of planning, implementation, and even evaluation of MPAs (I DA NGO 29.11.2013, I NGO 04; 05; 06.02.2014, I SS GOV 13.02.2014).

4.6. Preferred Community Participation Practices

As almost all of the informants had experience in community participation practices, they could offer suggestions for best practices of community participation. However, with a majority perception that participation has to result in compliance, their suggestions centred on persuading communities to participate. Strategies for persuasion are presented in Table 16. These can be grouped into three categories, focusing on: frequent and effective communication, bottom-up process, and hierarchical information flows.

4.6.1. Frequent and Effective Communication

In this category of answer, frequent communication was considered as the key to make communities willing to participate and in developing positive opinions towards MPAs (FGD 04.12.2013).

Effectiveness was seen essentially in terms of success in convincing communities to comply with MPA regulations. Over the course of a long period of communication (I DA NGO 26&27.11.2013), communities could be convinced by mentioning the benefits of MPAs (e.g. I SS GOV 13.02.2014, I NGO 04.02.2014) presenting the case using simple terminology (e.g. I SS GOV 13.02.2014) and, if possible, in a religious context (e.g. I SS ACA 24.01.2014). Presenting the MPAs as part of a government programmes could provide assurance of the benefits to local communities (I DA GOV 26.11.2013). Informants mentioned that it can help to make use of a variety of platforms, including established fora and traditional events at villages (e.g. I SS NGO 23.01.2014); using media such as posters, banners, or radio (FGD 04.12.2013); or taking community members on exchange visits to successful MPAs in order to inspire them (FGD 04.12.2013).

4.6.2. Bottom-up Process

This category is related to the previous one as both require intensive communication. However, frequent communication can be achieved by merely visiting the communities, whereas a bottom-up process requires the presence of facilitators that live or spend most of the time in the community.

Facilitators are tasked to introduce the MPA concept to communities and to develop the bottom-up community participation process. Facilitators need to be frequently present or live among communities in order to stay updated about their dynamics. They need to adapt their strategy rapidly to new concerns that arise and convince local people that MPAs can offer solutions (I DA NGO 29.01.2013, FGD DA COM 04.12.2013, I NGO 06.02.2014, I SS GOV 13.02.2014, I SS ACA 20.02.2014). At the Savu Sea, the task force recruited district-level NGOs that were frequently present in the villages as facilitators (TNC 2011); whereas on Derawan, TNC hired villagers as facilitators (I DA NGO 29.11.2013). In Pangkep, COREMAP employed 'multi-layered' facilitators working at different levels, from regions to villages (Baitoningsih 2009).

Facilitators are also tasked with passing information from government to communities and vice versa. However, different answers were given regarding the selection of facilitators. At the Savu Sea, informants considered that facilitators with similar origins, ethnicities, or religions to those of the communities where they were working would be conducive to favourable outcomes. The justification given was that such facilitators could relate to the local context in explaining the concept of MPAs.

Task force members adopted a similar approach towards communities (I SS GOV 20 & 24.02.2014, I SS COM 28.01.2013, I SS COM 18.02.2014, I SS NGO 29.01.2013, I SS NGO 19.02.2014, I SS ACA 24.01.2014). For example in West Manggarai District, a task force member, originally from the district, was assigned to approach the communities whose suffered a trauma of harassment from the patrol team of the Komodo National Park (I SS ACA 24.01.2014, I SS GOV 03.03.2014) (Section 1).

On Derawan, different criteria were used to select facilitators. Here TNC's approach was to employ facilitators with the capacity to assimilate into the communities, regardless of origins, or ethnic or religious identity. In support of this approach, informants stated that TNC facilitators who worked effectively at village level came from different origins and ethnicities (I DA NGO 29.11.2013, FGD DA COM 04.12.2013, I DA GOV 16.12.2013). The quote below shows that community members themselves are open to the presence of facilitators from different backgrounds.

"We are open for different people [to be our facilitators]. But of course, we cannot accept a facilitator who gets disgusted with our way of living." (FGD DA COM 04.12.2013).

At Pangkep, in addition to two village facilitators in each village, there were two other facilitator levels in districts and sub-districts, which were occupied by people from different origins and ethnicities. There were no complaints regarding the origin or ethnicity of facilitators; however complaints regarding infrequent communication and absences of regional facilitators were often heard (Baitoningsih 2009).

4.6.3. Hierarchical Information Flows

Informants in this category of answer stressed that bottom-up processes could not be initiated before approaching local leaders. Experience at all three sites showed how approaching leaders at village level can pave the way towards obtaining support from whole communities (I DA GOV 17.12.2013, I NGO 06.02.2014, I SS GOV 19.02.2014, I SA ACA 21.03.2014). The quote from a village government official below confirms the key role of local leaders in the process.

"We tried to understand this [MPA] concept from TNC. We realised this is a good concept, so we decided to proceed with communities." (I DA GOV 17.12.2013).

Therefore, before facilitators start to work at village level, stakeholders mapping is required in order to determine how best to approach local leaders, as a first step towards gaining support from whole communities (e.g. I NGO 06.02.2014). This procedure was also preferred by informants from the communities (e.g. I DA COM 03 & 10.12.2013, FGD DA COM 13.12.2013, I SS COM 18.02.2014), who stated that they would be more open to new ideas after endorsement by village leaders.

Likewise, it is not surprising that local leaders would be more likely to approve MPA proposals after approval by higher-level authorities (e.g. I DA GOV 01.12.2013, I SS GOV 15.02.2014). This however means that the higher the level of the MPA, the longer is the required chain of hierarchical meetings and information flows (Section 3.4.4). The process of establishing a national-level MPA at the Savu Sea had to involve several levels of government, i.e. provincial, district, sub-district, and village; before reaching the communities.

This preference for hierarchical information flows was reflected in the selection of participants for public consultations and village meetings. As described earlier, consultations and meetings were dominated by village government officials, with few fishermen or other direct resource users taking

part. At Derawan, the three public consultations were held in locations where the park establishment team was assured that majority of local leaders were in its favour (PO DA NGO 23.11.2013).

4.7. Level of Participation

Perceptions on the concept and practice of community participation, as described above, contribute to an understanding of the circumstances that influenced the level of participation in the three sites. In this section, each practice is categorised following the spectrum of co-management arrangements suggested by Sen & Nielsen (1996) (Section 1.5.2). At all three sites the level of community participation was 'instructive' and/or 'consultative' (Sen & Nielsen 1996), since all decisions were made by the MPA establishment teams (Table 17). These findings show that there was no difference between the level of participation required by the legislation, i.e. instructive and consultative participation (Section 1.10.1), and what was carried out in practice.

4.7.1. Instructive Practices

Of the six aspects of the process identified in the MPA establishment processes at the three sites (Table 17), Aspects 1, 3, and 6, and Aspect 4 at the Savu Sea and in Pangkep are categorised as 'instructive'. In these cases, the MPA establishment teams requested communities to take part in certain activities and there were no consequences for the MPA establishment teams or the establishment process if communities declined to become involved. The establishment process would continue regardless, even if only a few communities were involved (I NGO 13.01.2014).

In resource mapping, the MPA establishment teams explained the objectives of the MPA establishment and requested the communities' help in achieving them. Outputs from the activity were then recorded in a legalised document in order to support the claim that the MPA establishment process was supported by communities, regardless of whether fishermen's concerns had been represented or not. At the Savu Sea and in Pangkep the communities were informed about the proposal to create an MPA at the same time as they received the request to participate, which gave participants no time to think things through. Finally, communities were only involved in subsequent stages of the MPA establishment process on occasions when the establishment teams requested them to take part. These practices correspond to 'instructive' co-management on Sen & Nielsen's (1996) spectrum, in which government informs communities regarding its programmes and requests communities to comply by taking part in certain activities.

4.7.2. Consultative Practices

Aspects 2, 4 (on Derawan), and 5 are categorised as 'consultative' (Table 17). In discussing the zoning plan and its permitted activities, communities were asked to give opinions on the proposed plan. In Pangkep, communities even had complete freedom to nominate the no-take areas (NTAs), compared with the other two sites where the zones were proposed to them. Nonetheless, the idea of establishing MPAs or NTAs came from government, which make this practice a 'consultative' one.

Several community members on Derawan, who were involved in TNC's outreach programme, had more chance to learn and explore the MPA concept in advance; this enabled them to become more deeply involved in the consultation process than other participants. Furthermore, these individuals played a role in selecting the participants in the public consultations. However, the coastal park establishment team had the final say over all the decisions; it was in charge of the entire process

including the provision of financial support. This arrangement is in corresponds to 'consultative' participation (Sen & Nielsen 1996).

4.8 Discussion

Community participation practices at the three sites were 'instructive' and/or 'consultative', and did not allow communities to take decisions independently. According to Sen & Nielsen (1996), the 'instructive' and 'consultative' arrangements do not always have negative connotations; the appropriate level of participation will depend on, for example, the scale of the issues and budget availability. In this research, perceptions of expected outcomes, the level of the MPA, budget availability for the MPA establishment process, and the degree of support from local governments influenced the level of participation.

4.8.1. Expected Outcomes, Strategies, and Challenges

Based on the informants' answers, community participation was expected to 1) support government programmes, and 2) improve the role of communities in governance. In the context of an MPA, supporting government programmes means that communities were expected by government to approve of the idea of establishing an MPA and comply with the rules that this entailed. This notion is in accordance with MPA legislation, where the role of communities is to provide information and support (Section 1.10.1). The government provides the communities with an opportunity for dialogue with to address their concerns. Although the intention may be good, communities still do not gain control over their resources, considered by many to be the goal of participation (Ribot 1996, World Bank 1996, Borrini-Feyerabend *et al.* 2004a, Govan 2007) (Section 1.5.2). Given the purpose of participation set out in MPA legislation, it is not surprising that the level of participation at the three sites corresponds to types where the government retains most of the control.

Other informants considered that the outcome of participation should be to improve the role of communities in governance, by actively taking part in government programmes, beyond attending meetings. The objective here is to come closer to the highest level of participation (Section 1.5.2), where government delegates decision making process to empowered communities (Sen & Nielsen 1996). However, this kind of objective is never mentioned in the MPA legislation: the role of communities remains to follow the lead of government and they are not encouraged to take the lead themselves.

The lack of clear of legal guidelines may be one factor limiting government-led community participation. The focus was on obtaining signatures of the communities as evidence that they have participated. By contrast, NGOs have less stringent rules on budget allocation that are more conducive to an adaptive approach to community participation. For example at the Savu Sea, when the task force needed to adjust the management and zoning plans, the decision to do so could be made instantly. On Derawan, the availability of funding from TNC made it possible to conduct public consultations about the proposed coastal park, at a time when DKP Berau did not have the necessary budget allocation. In order to successfully establish an MPA, government agencies need to have a comprehensive plan to avoid any delays that may originate from rigid budget allocation. Since the degradation rate of coral reefs in Indonesia is high (Pet-Soede & Erdmann 1998, Cesar *et al.* 2003), any delay in the MPA establishment process would be unfavourable to coral reef conservation. Comprehensive plans should also consider the level of participation, preferably a high level (Pomeroy *et al.* 2004), and set out the process required to achieve it (Borrini-Feyerabend *et al.* 2004a, Wells &

McShane 2004, Carlsson & Berkes 2005, Govan 2007) rather than relying on the number of signatures as evidence that participation has taken place (Carter *et al.* 2010).

Pattern of answers emerged at the Savu Sea were not found on Derawan. This might be because the MPA establishment process at the Savu Sea aimed consistently at establishing a single management regime, i.e. a national park. The procedure for establishing national parks was enshrined in legislation (Section 1.7.2 and 3.4.1); hence the government was able to use to the legislation to frame its activities. On Derawan, the MPA establishment process went through proposals for at least three different management regimes (Section 3.2). Thus, stakeholders at this site were exposed to variety of MPA issues and legislation and this contributed to their perceptions (Pomeroy *et al.* 2001, Jentoft 2005).

The expectation of ‘compliance’ as an outcome of community participation has been reported in the literature (e.g. Pomeroy 2001, Dalton 2005, Smith 2012); hence it was no surprise that many informants from Indonesia shared this view. In order to achieve this outcome, different strategies were applied to persuade communities. NGOs, as stakeholders involved in community development projects (e.g. Fernandez 1987, Pomeroy *et al.* 2001, OED 2002, Hastings 2011), are often in a position to lead community participation activities. However, NGOs may also direct community participation with the aim of obtaining their compliance (Oakley. 1991, Cooke & Kothari 2001). Compromises and trade-offs may be offered as ‘catalysts’ of compliance (McShane *et al.* 2011), even though there is no assurance that they will have this effect. At Savu Sea, altering fishing gear that has been used for generations is not easy as it may also have impacts on social networks (Idrus 2009). Therefore wider issues are raised beyond simply replacing one fishing gear with another. On Derawan, the offer of an alternative livelihoods project to replace destructive fishing practices is also unlikely to achieve its objectives, as the project will most likely be seen as an additional source of income rather than compensation for abandoning existing practices (Sievanen *et al.* 2005, Sheriff *et al.* 2008). If communities participate and compliance is achieved, the need for surveillance of fishing activities by local communities may be reduced (Smith 2012). However, this does not apply to fishermen from outside the area, not involved in the MPA establishment process. In the end, the cost of surveillance activities is likely to remain the same and may even be higher in order to apprehend illegal fishermen from outside the area equipped with state-of-the-art equipment.

In order to achieve the targeted level of participation, capacity building programmes are attached to the MPA establishment process. Yet, the targeted level of participation in Indonesian legislation is ‘consultative’; therefore capacity building programs were directed towards educating communities to enable them to understand government programmes (Arnstein 1969, Govan *et al.* 1998), as occurred at the three study sites. Whereas good capacity building programmes should aim to deepen knowledge and increase confidence in independent decision making (World Bank 1996, Borrini-Feyerabend *et al.* 2004a,b).

4.8.1.1. Expected Outcomes by Communities in Establishing MPAs and Their Challenges

The importance of involving the direct users of marine natural resources, in their management is widely recognised (e.g. Chambers 1983, Borrini-Feyerabend *et al.* 2004b, Pimbert & Pretty 2004, Kareiva 2006, Ferse *et al.* 2010). As direct users, the MPA establishment directly affects communities and any decision that is unfavourable to them may give rise to conflicts (Gustave & Borchers 2007) or simply result in ‘paper parks’ (Kessler 2004, Kareiva 2006). Generally communities welcome the opportunity to manage surrounding marine resources (Smith 2012). However, this opportunity can

be misinterpreted as the chance to gain exclusive access to these resources rather than to manage them for conservation purposes (Wilson *et al.* 2006) as shown in the three research sites.

The various motivations that communities had for supporting the establishment of MPAs at the three research sites can be commonly observed throughout the world - and in no case was conservation the primary objective (Polunin 1984). *Lilifuk* and *Panadahi* had been practiced for generations (Section 1.1.1), supplementing benefits to communities for the use of terrestrial natural resources (Polunin 1984). Exclusive utilisation and protection from outsiders are further motivations for establishing MPAs commonly expressed by communities throughout Asia (Wilson *et al.* 2006). The justifications given are diverse, ranging from securing fish stock for local communities who fish with certain fishing methods (Adhuri 2003, Glaser *et al.* 2010), to protecting buildings from collapse due to the use of explosives for fishing on the nearby reefs (Glaser *et al.* 2010). Community-based ecotourism is a more recent development. However experiences in countries, such as in Nepal (Salafsky & Wollenberg 2000), Namibia (Kiss 2004), and the Philippines (Cisneros-Montemayor *et al.* 2013) suggest that it can provide improved job opportunities for communities around protected areas.

However, in Indonesia at least, it is difficult to achieve the objective of creating exclusive fishing areas by establishing MPAs. Fishing arrangements are administered under a range of legislation (MOMAF Regulation No.2/2011; 5/2012; 18/2013 on Fishing Lanes), none of which considers MPAs as a relevant factor for fishery policy or management decisions (Section 3.4.6). Outsiders are free to fish as long as they have the appropriate permits, and the existence of an MPA could not be used to justify exclusive access. Fishery legislation in Indonesia favours open-access arrangements (Dirhamsyah 2006) that are in accordance with the idea of national unity (Siry 2011). Furthermore, although an MPA proposal may include provision for surveillance in order to ensure compliance, budgetary limitations commonly affect its implementation (Section 3.2.3.4). There is no assurance that establishment of an MPA would increase the level of surveillance activities, hence the exclusivity and protection from unwanted harvesters or destructive fishing practices are likely to be difficult to achieve.

As for community-based ecotourism, there are two legal options. If the MPAs belong to the Aquatic Conservation Areas (*Kawasan Konservasi Perairan*) category, according to the newly enacted ministerial regulation (No.21/2015), communities may enter into equal partnerships with government. Under this scheme, communities may develop self-initiated ecotourism businesses within the MPAs (Article 10). How the implementation of this newly enacted legislation will work out in practice remains to be seen, particularly with regard to ensuring that communities meet the requirements for the partnership. If the MPAs belong to the Coastal and Small Islands Conservation Areas (*Kawasan Konservasi Pesisir dan Pulau-pulau Kecil*) category, communities may be involved under government programs only. Ecotourism initiatives under this MPA category must be designed and led by government. Therefore, this category of conservation area does not provide opportunities for communities to be equal partners with government.

The MPA establishment process requires an abundance of data to justify the selected areas, which only a handful of institutions are capable of providing. The requirements provide opportunities for different institutions to propose MPAs. But in practice only the institutions with considerable resources, such as academics and NGOs, could carry on such a process. The provision of scientific data, such as ecological data, socio-economic data, maps with predefined scale, and a narrative

justification (MOMAF Regulation No.17/2008 & No.2/2009) all require academic competencies that are not commonly found at the community level.

In addition, most communities would be incapable of proposing MPAs as required by the MPA legislation due to the unfamiliarity of the MPA concept. Although the MPA concept departs from the traditional protection of marine areas (Noel & Weigel 2007), and the goals have been adjusted to conserve biodiversity (Dudley 2008) or fishery management (Roberts 2000, Pomeroy *et al.* 2004, Laffoley 2006), their objectives are generally not in-line with the desires of communities. The MPA concept was developed by international agencies, and in practice most MPAs are imposed on coastal communities by higher government agencies (Noel & Weigel 2007). Therefore, communities are unfamiliar both with the concept and, even more so, with the requirements and processes for establishment. It is commonly stated that the design of MPAs should incorporate communities' ecological knowledge (Ban *et al.* 2009, Gerhardinger *et al.* 2009). Even so, based on experiences of 'community-based MPAs' in the Philippines, the process will still be led by the government (Pomeroy 1995).

If communities want to propose MPAs in accordance with the MPA legislation, they have to look for outside supports, for example from NGOs or academics. In Indonesia, this option is possible and in accordance with Village Law (No.6/2014). This option is discussed further in Section 5.2.1.

4.8.1.2. Hierarchical Information Flows as the Preferred Form of Community Participation

Consistent with the expected outcomes, strategies, and limited community capacity to establish MPAs, preferred community participation activities involved frequent communication and hierarchical information flows. Government and other stakeholders in the MPA establishment teams maintained control in order to steer communities towards the expected outcomes (Oakley. 1991, Craig & Porter 1997, Cooke & Kothari 2001, Hajer 2005). For their part, communities had no experience of participatory practices; hence they did not know what to expect. The previous MPA establishment process, under the administration of the Ministry of Forestry, was top-down and without any community participation. Bottom-up processes were introduced in the Reform Era; however representation of communities in bottom-up processes still followed practices established by the previous regime, with government officials playing the biggest role (Firman 2009). In these circumstances, the level of participation in the MPA establishment process was 'instructive' and 'consultative' at all three sites.

In the end, the unavailability of legal guidelines on community participation practices meant that stakeholders self-defined their level of participation. The involvement of communities was also dependant on the decisions of each MPA establishment team. Although community participation activities require a high degree of flexibility (Chambers 1983, Borrini-Feyerabend *et al.* 2004b), MPA legislation should provide the framework for participation, particularly by clearly establishing its overall objective (Govan *et al.* 1998). As discussed earlier (Section 1.5.2), a high level of participation gives empowered communities the right to control their natural resources. This should also be the aim of the MPA establishment process in Indonesia.

4.8.2. Level of MPAs and Budget Availability

The approach towards community participation was different at each MPA, depending on the level of government that proposed it. At the three sites, the MPA establishment teams based at provincial

and district levels decided the approaches. A national-scale MPA such as at the Savu Sea inevitably involved large number of government agencies (Section 3.1.2.1 & Annex 3); hence the task force had to prioritise them over identifying different interests in communities and tended to consider communities as one entity (Beaumont 1998, Armitage 2005). Involvement of a large number of government agencies tends to limit community participation (de Vivero *et al.* 2008), not only by reducing the number of participants but also by allowing those with power to play a dominant role in the process (Ferrol-Schulte *et al.* 2015, Weber de Morais *et al.* 2015). A large number of stakeholders also means that each individual stakeholder plays a smaller role (de Vivero *et al.* 2008), which further diminishes the role of communities (de Vivero *et al.* 2008, Varjopuro *et al.* 2008).

As the number of involved government agencies was large at the Savu Sea and Derawan (Section 3.4.4), teams at both sites tried not to further increase the number of stakeholders, in order to avoid complexity, by limiting the number of communities involved. Such an arrangement could be considered as staged participation (Hajer 2005). At both sites direct resource users were only involved to a limited extent in public consultations, with the aim of obtaining a commitment of compliance from the participants (Smith 2012). Similarly, most participants at Pangkep were not direct resource users, even though the project involved only one government agency (Baitoningsih 2009) and the opportunity existed to involve more community participants. To achieve the objective of compliance, opinions were interpreted as being in accordance with the goals set by the MPA establishment teams, or steered towards them (Craig & Porter 1997, Cooke & Kothari 2001, Varjopuro *et al.* 2008). The settings and location of public consultations were also chosen to favour outcomes in accordance with pre-set goals (Hajer 2005, Varjopuro *et al.* 2008). When despite these efforts, results of the consultation indicated opposition to the proposals, efforts were made to smooth over differences of opinion, including by agreeing to trade-offs (McShane *et al.* 2011) with lawbreakers. If objections to the MPA persisted, this was considered as a negative outcome (Cooke & Kothari 2001).

The MPA legislation sets out the number of socialisations and public consultations that should take place; however, it seems that no stakeholder, especially MOMAF, bothered to examine the extent to which these provisions of the law were complied with. Rather, participation was implemented in accordance with the decisions made by the MPA establishment teams. Legal requirement for community involvement in the MPA establishment process were not fully complied with.

Nevertheless, most informants considered communities had participated in the MPA establishment process due to the number of communities involved in public consultations. They consider that the involvement of larger numbers might result in ineffective discussions. However, inviting communities in public consultations and then merely informing or consulting about the proposed MPA will result in lower levels of participation (Arnstein 1969, Sen & Nielsen 1996, Pimbert & Pretty 2004, Govan 2007), regardless the number of involved participants. Achieving higher level of participation requires considerable investments (Chambers 1983, World Bank 1996, Govan *et al.* 1998, Borrini-Feyerabend *et al.* 2004b, Kessler 2004, Wells & McShane 2004) to set in place bottom-up processes that involve communities right from the start (Govan *et al.* 1998, Roberts 2000, Chuenpagdee *et al.* 2013). In the context of MPA establishment, this will include awareness-raising programmes to introduce and explain the MPA concept, and capacity building programmes in MPA management (World Bank 1996). Time and resources are required for community outreach activities (Chambers 1983, Wells & McShane 2004). Good facilitators are needed (Govan *et al.* 1998, Crawford *et al.* 2006) and so is financial support particularly for reaching communities in remote areas (Borrini-Feyerabend *et al.*

2004b, Dalton 2005). Logically, higher-level MPAs require greater investment in community participation.

The experiences at the three sites show that budget availability played a role in determining which stakeholders shall be prioritised in accordance with the level of MPA. At the Savu Sea and on Derawan, a large number of government agencies could be involved for relatively little expense because their offices were clustered in accessible places. Involving communities was comparatively more expensive as their locations were scattered and sometimes remote (Sen & Nielsen 1996, Dalton 2005). In Pangkep, communities were prioritised in the design of the project (i.e. COREMAP), which included provision of sufficient financial resources (DKP 2006). Nonetheless, with the same amount of budget, staff, and time; prioritising government agencies in participation exercises was less expensive than involving communities.

Particularly at the Savu Sea and on Derawan, where the MPA establishment processes were financed mostly by NGOs, investing in participation of government agencies could be seen as an efficient use of resources. A relatively small investment was required to prevent mismatches among the policies of different states agencies, which was crucial for the continued existence and functioning of the MPA (Pomeroy *et al.* 2001, Varjopuro *et al.* 2008, Chuenpagdee *et al.* 2013). As NGOs rely on funding from donors, evidence of tangible and quick results, such as the endorsement of MPAs, may help to secure funding to sustain their on-going programmes (Craig & Porter 1997, Pimbert & Pretty 2000, Li 2007). At Pangkep, village regulations on the establishment of NTAs were drawn up merely in order to be able to include them in project progress reports (Section 3.3.1.3). Thus, the MPA establishment process at the three sites excluded most of the direct resource users (Pauwelussen 2015) and levels of participation never went beyond 'instructive' and 'consultative'.

4.8.3. Local Government as Power Holders

The MPA establishment process at the three sites was mainly financed by external funding schemes. TNC and COREMAP as the funding providers not only provided money but also possessed knowledge about MPAs. With these resources, TNC and COREMAP were able to steer the MPA establishment process towards their institutional goals. Although Foucauldian discourse analysis considers knowledge as power (Foucault 1987), and money is also a form of power (Baldwin 1971, Cass 1998), in the study sites power per se also contributed to determining community participation practices.

While government agencies expected community participation to result in compliance, for their part communities and village governments felt obligated to comply with government programmes, as they believed that these are developed to provide welfare for society. Such beliefs developed under the previous political regime of government where policies were delivered top-down, lower government levels had to wait for instructions to do their jobs, and communities served as the object of development with limited rights to question the policies (Suryo 2000, Seymour & Turner 2002, Hadiz 2004, Hadiz 2011). The quote from an NGO informant below describes how governments favour a top-down approach.

“[In Indonesian, the word ‘government’] (*pemerintah*) means the one who gives orders. No wonder government employees never fulfil their function as civil servants.” (I NGO 05.02.2014).

Thus, although government structures have become more decentralised in the more democratic Reform Era, the top-down mind-set has not changed (Hadiz 2011). Local governments use their increased powers to mimic the top-down approach of central government at a local level; hence they

become 'local kings' (Firman 2009). Any proposals for development programs, including MPA establishment, have to obtain a 'blessing' from these kings; thus outcomes may well become dependent on the personal opinions of local leaders. This situation is accepted by communities and village governments that opt for hierarchical processes, and by NGOs such as TNC that work closely with local governments to smooth the path towards MPA establishment (Section 3.1.2.4 and 3.2.3.2). Only at Pangkep, approaching local governments was not necessary as top-down decision making was already embedded in the project (Section 3.3.1.1).

This 'local kings' phenomenon can be observed in developing countries across Asia, Africa, and Latin America, as an unintended result of decentralisation policies (Agrawal & Ribot 1999, Hadiz 2004, Larson & Ribot 2004, Wever *et al.* 2012). Decentralisation aims to promote good governance and democracy in developing countries, and has become a requirement for receiving international aid and funding for development programs (Ahmad & Hofman 2000, Larson & Ribot 2004). However, decentralisation also strengthens local elites (Firman 2009, Hadiz 2011, Wever *et al.* 2012). In Indonesia, the fact that decentralisation was introduced suddenly at the start of the Reform Era (Seymour & Turner 2002), might have further contributed to the phenomenon, since the sudden change provided no opportunity for developing an understanding of the democratic decentralisation concept (Hadiz 2004) let alone preparing the strong foundation for its implementation (Wever *et al.* 2012). Indonesia has had to learn about democratic decentralisation concept by practicing it⁴, while ways of thinking are still moulded by experiences under the previous government regime.

In the case of Derawan, empowered community groups have more opportunity to discuss MPA topics as equal partners (Pomeroy *et al.* 2001) with the Berau district government. This shows that local government can play a positive role in empowering communities for marine resources management and achieving a higher level of participation.

4.9. Conclusion of Chapter Four

The unavailability of legal guidelines for community participation, especially regarding its objective, led to community participation practices being improvised at each site. These practices were influenced by the expected result (i.e. compliance), the level of the proposed MPA (district or national), budget availability, and willingness of local government to engage in the process. Overall, government agencies had a preponderant role in the process and influences over outcomes: the level of participation was low.

In order to achieve a higher level of participation, MPA legislation should define a framework for achieving it, for example by emphasising the process of empowerment in order to be able to delegate control over resources to communities.

The next chapter explores the options for community participation practices in the current circumstances.

⁴ Success stories of democratic leadership by regents and mayors have emerged, showing that decentralisation is making a positive contribution towards a more democratic political environment. Although the number of these 'success stories' is still fewer than stories of autocratic leadership by 'local kings', the current president of Indonesia is an example of such success story (Mietzner 2014). It is hoped that the number of democratic leaders will increase and eventually overthrow the power of 'local kings'.

Chapter 5: Options for Community Participation in the MPA Establishment Process

The practices of community participation were shaped by complicated MPA establishment processes and by perceptions rooted in the former New Order regime. Under these circumstances, community participation practices in the MPA establishment process need to develop and mature in order to make them meaningful. This chapter explores possible options for community participation in the MPA establishment process within the existing legal framework based on the experiences from the three research sites. Two main options are available: building on existing top-down processes or initiating a bottom-up process. Both present opportunities and drawbacks, which will also be discussed.

5.1. Options within the Current MPA Legislation

Initiatives to establish MPAs in the three research sites came mainly from NGOs and a science institute that collaborate with government to strengthen conservation efforts in Indonesia. The MPA proposals were communicated to communities and village governments by higher-level government agencies, i.e. the processes were top-down. As discussed in Chapters 3 (Section 3.2.3.4) and 4 (Section 4.2.2.2), legal problems arose in bringing different stakeholders together into one organisation to manage the MPAs, and particularly in bringing together communities and government.

5.1.1. Public-Private Partnership (PPP)

The Public-Private Partnership (PPP) is currently (in mid-2015⁵) the only available institution for involving local communities together with government in the management of MPAs. PPPs are administered under the Regulation of the Ministry of Internal Affairs (No.61/2007) that promotes self-managed institutions. PPPs are allowed generate incomes, while receiving government subsidies and grants for the maintenance of professional staff, who can be employees in the public and/or private sector. Among the three research sites, only the Savu Sea National Park identified development of a PPP as one of its long-term goals (MOMAF Decree No.6/2014). Its 20-year management plan sets out strategies to achieve the PPP, which include the strengthening of institutions involved, MPA management, and socioeconomic development at the community level.

In the context of MPA establishment, regulations pertaining to PPPs serve as enabling legislation for community participation in the management of MPAs (Pomeroy *et al.* 2001). This justifies making the establishment of PPPs goal of MPA management. Since the development of a PPP takes time, a comprehensive strategy is required. This should include capacity building programmes (Jentoft 2005) (Section 4.8.1), to enable communities to participate in the future management of the MPA (Wilson *et al.* 2006, Varjopuro *et al.* 2008), as an equal partner of government, by the time the PPP comes into operation.

⁵ This was written before the enactment of MOMAF Regulation No.21/2015 on Partnership of Management of Aquatic Conservation Areas in June 2015.

It is well known that NGOs are often best placed to develop community capacity building programmes (e.g. Fernandez 1987, Pomeroy *et al.* 2001, OED 2002, Smith 2012). This was the case on Derawan and at the Savu Sea, where TNC ran long-term capacity building programmes. It is notable that communities and other stakeholders were far more involved in the MPA establishment process in these areas than in Pangkep, where NGOs were not closely involved. These contrasting experiences highlight that government, i.e. the MPA management authority, should share responsibilities with NGOs for the development of community capacity building programmes. Such effort sharing can reduce the work burden on government agencies, and possibly also the financial burden, enabling MPA establishment and management goals to be achieved more efficiently. However, NGOs may also be affected by budgetary, time and capability restraints, as was the case on Derawan and at the Savu Sea, where TNC was the only NGO with the necessary capacity building expertise. Thus the capacity of NGOs themselves should be taken into account in developing community capacity building programmes, to ensure that their goals are realistic. Likewise, the performance of NGOs should be evaluated as part of overall MPA management evaluations (Pomeroy *et al.* 2001, Pomeroy *et al.* 2004).

5.1.2. Drawback of the PPP Approach

As described in Chapter 4, the level of community participation in the MPA establishment process at the three research sites ranged from 'instructive' to 'consultative' (Section 4.7). Unless communities are placed on an equal footing with other stakeholders (government agencies, NGOs, and academics) from the beginning of the process during the establishment stage, it is unlikely that they will be able to play an active role in the management of the MPA. Thus their role will remain as an object to be managed rather than a subject that manages the MPA. The role taken by communities in management will depend to a large extent on the purpose and goals of capacity building programmes undertaken in the establishment stage. Not infrequently, the objective of 'capacity building' is to make communities comply with rules drawn up by the agencies leading the MPA establishment process (Craig & Porter 1997, Cooke & Kothari 2001) (Section 4.2.1). 'Participation' is then used to achieve community compliance rather than to empower communities, leading to power sharing with government and other stakeholders (Cooke & Kothari 2001, Borrini-Feyerabend *et al.* 2004a, Jentoft 2005).

Evidence from the MPA establishment process at the three research sites highlighted the unwillingness of government agencies to share authority with other stakeholders, as described by an informant in the quote below.

"When we talk about co-management with government, [we find that the government] doesn't mind sharing responsibilities and benefits. But when it comes to sharing authority, [government] does mind. The power should be in its possession." (I NGO 06.02.2014).

This experience corroborates research on PPPs, e.g. by Rosenau (1999), Miraftab (2004), and Stadler (2015), showing how the implementation of PPPs frequently encounters challenges relating to the equity of rights and power. In practice, it is likely that community involvement in PPPs will be limited to the provision of services. PPPs will be designed only to provide jobs for communities rather than to give them a leading role in MPA management.

5.1.3. A New Opportunity for Partnership

In June 2015, MOMAF enacted a regulation on the Partnership in the Management of Aquatic Conservation Areas. This regulation provides opportunities for different stakeholders, such as NGOs, academics, communities, and businesses, to collaborate with MPA management authorities in MPA management. It provides for responsibility for managing MPAs to be shared amongst several institutions. This can include sharing resources such as budget and personnel.

This innovative proposal appears to provide a framework for community involvement in MPA management that bypasses the complexities inherent in the PPP model.

However, its potential for implementation remains to be seen. An important limitation is that this regulation uses the term 'Aquatic Conservation Area', which is just one category of 'Conservation Area' (Section 1.7, Figure 6). Both the Savu Sea National Park and Pangkep District MPA fall under this category. However, the Derawan Archipelago Coastal Park was designated under the category of 'Coastal and Small Islands Conservation Area', so the new regulation would not help to increase the involvement of communities in MPA management in this area (Section 3.2.3.4). Since the MPA establishment process in Pangkep is still ongoing, this regulation currently only favours stakeholders at the Savu Sea, where it could be used to strengthen the position of the Council for Conservation of Provincial Waters (Section 3.4.2).

5.2. Bottom-up Options

Communities at the three research sites supported the establishment of MPAs based on their own interests that did not coincide with conservation objectives (Section 4.2.2.1). It is difficult for community aspirations to be met within framework of current MPA legislation, due to its inconsistency (Section 3.4.2) and policy mismatches (Section 3.4.3) that in effect bar communities from proposing MPAs. In addition, the complicated MPA establishment process has to be managed by people with a higher education background, such as academics or the staff of NGOs (Section 4.8.1.1). Communities are able to establish local, village-level MPAs. But communities who wish to take the lead in establishing higher-level MPAs in accordance with MPA legislation need outside support. This limits the potential for bottom-up MPA establishment process.

5.2.1. Village-level MPAs

Village-level MPAs are a feasible option for communities as there is no legislation that restrains provincial governments from acknowledging such MPAs. Thus, village-level MPAs can obtain recognition and legal standing without complicated procedures. The revised Coastal Spatial Planning Law states that government shall facilitate the right of traditional and local communities to manage their marine areas (Law No.1/2014 Article 20). Supporting legislation mentions that coastal spatial planning should take account of the fishing grounds and marine areas used by local and traditional communities (MOMAF Regulation No.34/2014 Article 6 Clause 3). Thus, MPAs established by communities can be recognised in law.

The revised Local Autonomy Law also provides justification for the establishment of village-level MPAs, and specifically Article 354 Clause 3c, which states that communities are encouraged to take part in natural resource management. It is true that this law also stipulates that marine resource management is under the administration of provincial governments. However, village-level MPAs can

be incorporated into provincial administration of marine resources by obtaining recognition from the provincial government.

If a village decides to establish an MPA, management of the MPA is not bound by the Government Regulation on Local Government Organisations (No.41/2007) (Section 3.4.3). In the new Village Law (No.6/2014), villages have the opportunity to set up independent village development programmes including for the sustainably management of their natural resources (Article 78), which include marine areas. Furthermore, villages are eligible to receive subsidies from national and regional government budgets (Article 72), up to the value of one billion Rupiahs (more than 66,000 Euros) annually. Using this capital, villages could establish MPAs with their own management system. Also, according to the same law, community groups are considered partners of village governments (Article 94). Thus the opportunity exists, at all three research sites, for community groups to be appointed as MPA management authorities. Village budgets may also be used to address any shortcoming in human resource capacity, as there is a specific budget allocation for capacity building programmes (Article 114). Thus, village-level MPA management authorities could contract NGOs to improve local management capacity.

It is clear that a proposal to allocate village budgets for MPAs would have to compete with other village priorities such as education, health, or transportation infrastructure. However, if marine resources are important for community livelihood, community members may consider that the potential benefits of an MPA outweigh other priorities. In this case, the opportunity to establish a village-level MPA is available. Communities may take the initiative to establish and manage MPAs locally if so inclined. A proposal to establish a village-level MPA (and its management authority) has to be approved by the village head in order to access the village budgets. After obtaining approval, the (proposed or established) MPA management authority may submit a proposed budget for discussion and incorporation into the annual village development plan (*Musyawah Perencanaan Pembangunan/Musrenbang Desa*) (Law No.6/2014).

The *Lilifuk* practice (Section 1.1.1 & 4.2.2.1) provides an example of a village-level MPA that was recognised by a village government. The MPA and its traditional seasonal harvesting management was legalised in a village regulation of Kuenheun village (No.1/2012). Hence, the *Lilifuk* management authority is eligible to access the village budget. Likewise, the no-take areas in Pangkep have been recognised by village governments (Section 3.3.1.3) and their management authorities are also eligible to access the respective village budget⁶.

5.2.2. Further Development

To date village-level MPAs have been established mainly to obtain economic benefits and conservation benefits are merely by-products. In order to achieve ecological objectives there are three options for further development of village-level MPAs.

5.2.2.1. Nested MPAs

Village-level MPAs may be 'nested' into regional or national-level MPAs as at the Savu Sea. The *Lilifuk* area was adopted as a 'traditional sustainable fishery sub-zone' within the national park. Its seasonal harvesting and management systems were also recognised. Thus, the clan that manages the area

⁶ During the field research, village governments on Derawan had not recognised the two village-level MPAs initiated by *Jala* and *Lekma Lamin* community groups. This happened because the community groups had not applied for the approval.

became the local sub-zone management authority of the national park (MOMAF Decree No.6/2014). This scheme could be applied elsewhere. Existing village-level MPAs, or newly developed ones such as the no-take areas and locally emergent rules (Glaser *et al.* 2010) in Pangkep, could be incorporated into provincial or national-level MPAs without altering their management system. The participation of MPA management authorities at the village-level, made up of individuals committed to the conservation of the local marine environment, would strengthen the management of the larger-scale MPA.

Incorporating village-level MPAs into a higher-level and/or larger scale MPA could simplify overall MPA management and reduce management costs (Lausche 2011), as village-level MPAs have autonomous management systems and provide access to additional financial resources. Any inadequacies of village-level conservation objectives (Wilson *et al.* 2006) can be made good by objectives for other zones in the higher-level MPA. Clearly this requires higher-level MPAs to have integrated management policies in order to achieve full range of conservation and local development objectives.

5.2.2.2. MPA Networks

Village-level MPAs could form networks to pursue wider MPA goals (Fernandes *et al.* 2012). This would allow MPA authorities to share experiences and learn from those of other MPAs in the network (IUCN 2008). A network could be set up through a cooperation agreement among village MPA management authorities; as a learning network, without any scientific (i.e. ecological) justification (Bartlett & Manua 2008, IUCN 2008). Exchange visits between MPAs, and sharing success stories could stimulate less developed MPAs to improve their management (Pomeroy *et al.* 2001). MPA authorities from the more advanced MPAs could assist in strategy development by newly established ones.

Naturally, the networks could also be based on scientific criteria, such as connectivity of the MPAs (Tawake 2007, IUCN 2008, McLeod *et al.* 2009, Lowry *et al.* 2009, Fernandes *et al.* 2012) (Section 1.3.3). For example, all three research sites for this study are on the path of the Indonesian Throughflow (ITF), which is important for larval distribution in the region (Tomascik *et al.* 1997), and therefore also for biodiversity conservation (Fernandes *et al.* 2012). Although not all the species are distributed evenly (Fernandes *et al.* 2012), and the percentage of the area that needs to be protected is the subject of on-going debate (IUCN 2008, McLeod *et al.* 2009, Fernandes *et al.* 2012), there is sound scientific evidence to support the establishment of an “ITF network” of MPAs. Improved scientific knowledge and MPA management expertise would provide the basis for incorporation of additional village-level MPAs into the network.

5.2.2.3. Involving NGOs

NGOs working on MPA issues can provide knowledge and support for the MPA establishment (e.g. Walpole & Goodwin 2001, Syarif 2009) as well as capacity building for communities (e.g. Pomeroy *et al.* 2001, Jentoft 2005, Wilson *et al.* 2006, Smith 2012). For example the *Jala* and *Lekma Lamin* community groups on Derawan obtained financial and capacity building supports from TNC for the establishment and management of their village-level MPAs (Section 1.9.3, 4.2.2 & 4.3.3). These supports made the community groups more committed to managing the MPAs. Village governments have the opportunity to employ NGOs, using the capacity building allocation in the village budget, to improve village-level MPAs in accordance with ecological principles and build the capacity of the village management authorities.

5.2.3. Drawbacks of the Bottom-up Approach

In some cases, village-level MPAs do not bother to seek recognition from higher levels of government, since they are functioning well on the local level. However, these MPAs are vulnerable to decisions by higher-level stakeholders that negate their existence. Local government tends to favour hierarchy (Firman 2009, Hadiz 2011); village dynamics may go unnoticed unless they are reported. If there are conflicting interests between communities, or between the village government and provincial government in the same area, the interests of the higher-level authorities are likely to prevail (Pimbert & Pretty 2000, Li 2007, Varjopuro *et al.* 2008).

Even when a village-level MPA has been legalised by higher level government, it is still possible for recognition to be revoked (Story Box 11). Communities or village governments often find themselves in competition with private businesses to convince higher level authorities of the importance of MPAs, relative to alternative (commercial) initiatives in the area. The quote from an NGO informant below emphasises the importance of maintaining frequent communication to ensure the continued existence of village-level MPAs.

“Communities may develop MPAs and patrol systems that perform very well at village level. However, when the provincial or district governments develop [spatial] plans, such areas may be designated for different purposes, such as for ports or mining. Well, we kept hearing such kind of stories, right? Therefore, communities have to communicate well with higher level of government [about their MPAs].” (I NGO 06.02.2014).

Community groups that develop village-level MPAs may have to compromise with competing interests of village heads; as was the case in *Lekma Lamin* community group, where the village head tried to interfere in policy decisions by the group that set up the MPA (Section 4.2.2.2). Since approval of village heads is required to set up a village-level MPA, potentially village heads could use their power to control community groups and compromise their independence (Cooke & Kothari 2001).

Since the start of the Reform era, bottom-up approaches has been promoted in Indonesia, in preference to top-down ones. However, communities still have limited opportunities to be the decision makers in development programs (Li 1999). Their voice is drowned out (Narayan *et al.* 2000) in the tug of war amongst different levels of government that are competing to exercise power (Seymour & Turner 2002, Firman 2009).

5.3. Conclusion of Chapter Five

The main legal options for communities to achieve a higher level of participation in the MPA establishment process are through the development of PPPs and village-level MPAs. Both options present opportunities and drawbacks. In both cases, the danger exists that government authorities and NGOs will use their superior knowledge and power to control community participation for their own purposes. Higher-level government authorities may deny or revoke approval for community-led initiatives to set up village-level MPAs. In order to ensure that communities can benefit from the two options, government agencies and/or NGOs need to implement capacity building programmes to empower communities to take the lead in managing their surrounding natural resources.

Chapter 6: Conclusions

This chapter summarises the findings of the research, answers the research questions, and outlines the significance of this research as a contribution to global discussions on community participation in MPA establishment processes. An outlook closes this chapter as well as the thesis.

6.1. Summary

MPA designs have evolved from the traditional protection of marine fisheries to advanced designs that incorporate strategies to tackle more current and complicated issues such as migratory species and climate change (e.g. McLeod *et al.* 2009, Fernandes *et al.* 2012). Nonetheless, even though they may be designed to tackle global issues, MPAs still need to adjust to local dynamics to sustain their existence (Smith 2012) and avoid becoming ‘paper-parks’ (Kareiva 2006). Thus it is argued that community involvement is a necessary component of all designs for MPAs (e.g. Pomeroy 2001, Kessler 2004, Dalton 2005).

In Indonesia, efforts to involve communities in the design of MPAs emerged along with the shift of political regime in late 90s that marked the transition from a centralised, authoritarian regime to a more democratic, decentralised one (e.g. Suryo 2000, Seymour & Turner 2002). Legislation on MPAs in the Reform era has become more decentralised and democratic, and includes provision for the involvement of communities in the MPA establishment process (Satria & Matsuda 2004, Syarif 2009, Siry 2011).

This research started out by examining the body of legislation that covers community involvement in the MPA establishment in Indonesia, and then examined the extent to which the MPA establishment process has, in practice, become more democratic and decentralised.

Analysis of legislation on MPAs (**Chapter 1**) found that it was scattered in different laws and regulations and contained some inconsistencies. Furthermore, new laws and regulations are being enacted to fill gaps in the legislation, which may lead to further inconsistencies, as these are aimed to address specific problems without looking at the bigger picture.

Current MPA legislation provides opportunities for communities to be informed and consulted in the MPA establishment process. This level of involvement represents an improvement on MPA establishment processes inherited from the previous government regime. However, it falls short of the active participation of local stakeholders that, according to literature, is required in order for MPAs to be successful (e.g. World Bank 1996, Borrini-Feyerabend *et al.* 2004a, Pomeroy *et al.* 2004, Govan 2007).

In practices, communities often play a larger role in MPA establishment (and management) than is envisaged in the legislation. Environmental NGOs have played an important role in facilitating community involvement in the establishment of many MPAs in Indonesia, drawing on their knowledge and experience of work with local communities in other contexts. NGOs have used their ‘community outreach’ programmes as vehicles to involve communities in MPAs (JP Monthly Program 2010 – 2012). Their capacity building programmes provide community members with the skills and knowledge required for participation in the establishment and subsequent management of MPAs

(e.g. Fernandez 1987, OED 2002, Hastings 2011). This is already a great advance on the low-level of participation envisaged in the legislation.

In addition to NGO-led initiatives, in some places in Indonesia, communities themselves have taken the initiative to set up local-level MPAs (JP Monthly Program 2010-2012). These communities can be expected to have their own ideas about how local stakeholders should be involved in establishment and management of MPAs.

Thus three different perspectives on community involvement (of government as the executor of legislation, NGOs, and communities) interact in the MPA establishment process, and this interaction shapes the practices of community participation.

The field research used semi-structure interviews, focus group discussions, and participant observations with stakeholders to capture these different perspectives and their interactions, in order to understand the drivers that shape community participation in the MPA establishment process in Indonesia. The methods and results of the field research are presented in **Chapter 2**.

The research found that different perspectives were not the only drivers that shape community participation. The complex web of legislation emanating from different levels of government also played a role, as discussed in **Chapter 3**. Gaps in MPA legislation were found during the establishment processes. Mismatches between MPA legislation and other national legislation mean that current MPA legislation is only fully operational for the establishment of national-level MPAs. However, the legislation contains no provision for community involvement in the management of national-level MPAs; this exclusion means that there is no incentive for communities to participate in the establishment process.

The enactment of MPA legislation was a process of learning by doing; this was also true for community participation, as discussed in **Chapter 4**. A key finding of the research was that community participation was expected to result in compliance, thus any strategy deemed likely to persuade communities to cooperate was employed. However, communities were unfamiliar with the MPA concept and did not know what to expect. In most cases, they did not receive the guidance they needed in order to give informed approval to the proposals or to voice objections.

MPA establishment processes were led by government and/or NGOs. The degree and form of community participation in the process was dependent on the level of government responsible and/or budget availability. Establishment of higher-level MPAs requires the involvement of larger numbers of stakeholders and, potentially, greater expenditure. MPA establishment teams had to prioritise their use of available funding. Since MPA legislation was continuously being adjusted, MPA establishment teams tended to prioritise work with government agencies, whose support was needed to override or sidestep mismatches among policies that might otherwise threaten the existence of the MPA. Consequently, community participation was usually considered a secondary priority. Moreover, an unforeseen outcome of the decentralisation process at a national level was that the power of local leaders was greatly enhanced. These 'local kings' often have the final say on whether or not proposals in the area under their control may proceed. Therefore, MPA establishment teams have to invest time and effort into getting approvals from these 'kings', thereby pushing community participation further down the list of priorities.

These circumstances represent a challenge to achievement of meaningful participation that is (at least) in accordance with legislation. Two options to enhance community participation in the MPA establishment process are discussed in **Chapter 5**. The first option is to involve communities in the framework of public-private partnerships (PPPs); the second is to do so by establishing village-level MPAs. Both have opportunities and drawbacks; however in both cases communities will still rely heavily on other stakeholders (i.e. government and NGOs) to improve their capacity to participate meaningfully in the process. Commitment from these stakeholders is required to build the capacity of communities to play a leading role, not only in the establishment of MPAs but also in their subsequent management.

6.2. Answers to Research Questions

The findings of this research provided answers to the research questions that were set out at the start. The answers are as follows:

1. How do government and NGOs interpret and implement community participation in the MPA establishment process?
Regarding interpretation, different patterns of answers emerged from the field research. At the Savu Sea government interpreted community participation as a means to support government programmes; whereas NGOs interpreted it as a means to improve power-sharing between government and communities. On Derawan, both these answers were given, but interchangeably by informants from government and NGOs. However, the implementation of community participation was mainly shaped by MPA legislation, which led to communities being merely informed and consulted.
2. How do communities perceive community participation in the MPA establishment process? How do they wish to participate?
Community members who had been involved in NGO outreach programmes identified community participation as a way to increase their involvement in government programmes. Informants from communities that had not been involved in NGO outreach programmes saw participation as a civic duty, in response to orders (or requests) from government agencies. However, all community informants favoured hierarchical procedures, whereby local government or community leaders gave approval for communities to participate.
3. How do the different interpretations among stakeholders (government, NGOs, communities) affect the MPA establishment process?
Community participation in each research site was different as it was shaped by many factors as explained in the next answer. Overall, however, the NGO's interpretation of community participation was an importance influence on the MPA establishment processes. As a result of their capacity building programmes, the establishment processes were strongly rooted among the stakeholders involved.
4. Which other factors shape community participation in the MPA establishment process, and in what way?
Factors that shaped community participation were:
 - a. **Legislation enacted by different levels of government that prevents subsequent community participation in MPA management; this is a disincentive for communities to participate in the establishment process.**

- b. **The level of MPA (i.e. national, regional or local) affected on the number of stakeholders involved, with a diminished role for communities in establishment of higher-level MPAs.**
 - c. **Lack of funding limited the opportunities for participation. With limited funds available, and with the need to overcome potential problems arising from mismatches among different pieces of legislation, MPA establishment teams tended to seek getting approval from government agencies as a higher priority than working with communities.**
 - d. **Local government agencies, as power holders at the local level, not only shaped community participation, but also played a key role in expediting the entire MPA establishment process.**
5. What are the feasible options for improving current community participation practices?
Based on the current legislation, there are two options to achieve a higher level of community participation: public-private partnerships and village-level MPAs; both have advantages and disadvantages. Careful contextual analysis is required to determine which would be the better option in each case, including consideration of the purpose and aims of increasing participation.

6.3. Limitations of This Research

Despite the comprehensive analysis, this research could only consider MPA legislation that was current during the study period. However, adjustments are continually being made to fill gaps in legislation. New laws and regulations were enacted while the study was being carried out, and others can be expected in the near future. Two new pieces of legislation were enacted while I was analysing the results of the research: the Law of The Sea (No.32/2014) and the MOMAF Regulation on Partnership in the Management of Aquatic Conservation Areas (No.21/2015). I was not able to take account of these new pieces of legislation in analysing the results of my research; however, they may well affect future community participation in the MPA establishment process.

6.4. Contribution of This Research

This research contributes towards enriching discussions about community participation in MPAs in developing countries. A key conclusion is that community participation is influenced not only by forms of interaction among communities, government, and NGOs but also by the wider political context and changes in political regimes.

6.5. Outlook

This research can serve as a point of departure for analysis of MPA legislation in other developing countries, for replicate studies of MPA establishment at other sites in Indonesia, and for follow-up studies of factors that shape participation (or lack of it) in the management of MPAs.

References

- Abecasis, R. C., Longnecker, N. Schmidt, L., Clifton, J. 2013. *Marine conservation in remote small island settings: Factors influencing MPA establishment in the Azores*. *Marine Policy* (40): 1 – 9p.
- Abesamis, R., & Russ, G. (2005). *Density-Dependent Spillover from a Marine Reserve: Long-Term Evidence*. *Ecological Applications*, 1798-1812.
- Adhuri, D. 2003. *Does the sea divide or unite Indonesians? Ethnicity and regionalism from a maritime perspective*. Resource Management in Asia-Pacific Working Paper No.48. Australian National University. Canberra: 16p.
- Agardy, M. T. 1994. *Advances in marine conservation: the role of MPAs*. *TREE* (9): 267 – 270p.
- Agardy, T., Bridewater, P., Crosby, M. P., Day, J., Dayton, P. K., Kenchington, R., Laffoley, D., McConney, P., Murray, P. A., Parks, J. E., Peau, L. 2003. *Dangerous targets? Unresolved issues and ideological clashes around MPAs*. *Aquatic Conservation: Marine and Freshwater Ecosystems* (13): 353 – 367pp.
- Agrawal, A. & Gibson, C.C. 1999. *Enchantment and disenchantment: the role of community in natural resource conservation*. *World Development* (27)4: 629 – 649p.
- Agrawal, A. & Ribot, J. 1999. *Accountability in decentralization: a framework with South Asian and West African Cases*. *The Journal of Developing Areas* (33)4: 473 – 502p.
- Ahmad, E. & Hofman, B. 2000. *Indonesia: decentralization – opportunities and risks*. IMF and World Bank Resident Mission. 20p.
- Ahdiat. 2014. *Dinamika pengelolaan kawasan konservasi di wilayah perairan Kabupaten Pangkep*. Scribd. Makassar: v + 47p.
- Alcala, A. C., Russ, G. R., Maypa, A. P., Calumpong, H. P. 2005. *A long-term, spatially replicated experimental test of the effect of marine reserves on local fish yields*. *Canadian Journal Fish Aquaculture Science* (62): 98 – 108pp.
- Anakotta, W., Bessie, D., & Anakotta, A. (2009). *Kajian kelembagaan DPL berbasis masyarakat dengan kearifan lokal di Desa Bolok*. Universitas Kristen Artha Wacana: 69p.
- Ardiwijaya, R. L., Baird, A. H., Kartawijaya, T., Campbell, S. J. 2008. *Changes in reef fish biomass in Karimunjawa National Park: a test of the effectiveness of government gazetted marine parks in Indonesia*. *Proceeding of the 11th International Coral Reef Symposium*. Ft. Lauderdale: 1064 – 1068pp.
- Armitage, D. 2005. *Adaptive capacity and community-based natural resource management*. *Environmental Management* (35)6: 703 – 715pp.
- Arnstein, S. R. 1969. *A ladder of citizen participation*. *Journal of the American Institute of Planners* (35)4: 216 – 224p.
- Badan Pemeriksa Keuangan (BPK). 2013. *Laporan hasil pemeriksaan kinerja atas perlindungan ekosistem terumbu karang tahun 2011 s.d. semester 2012*. BPK. Jakarta: ix + 96p.
- Baitoningsih, W. 2009. *Community participation in designing MPA in Spermonde Archipelago, South Sulawesi, Indonesia*. Master Thesis. University of Bremen. Faculty of Biology & Chemistry. International Studies in Aquatic Tropical Ecology. Bremen: xi + 90p.
- Baldwin, D. A. 1971. *Money and power*. *The Journal of Politics* (33): 578 – 614p.
- Balgos, M.C. 2005. *Integrated coastal management and MPAs in the Philippines: Concurrent development*. *Ocean & Coastal Management* (48): 972 – 995p.
- Ballantine, B. 1997. *Design principles for systems of 'no-take' marine reserves*. Workshop on The Design and Monitoring of Marine Reserves at Fisheries Centre, University of British Columbia. 24p.
- Ban, N. C., Hansen, G. J. A., Jones, M., Vincent, A. C. J. 2009a. *Systematic marine conservation planning in data-poor regions: socioeconomic data is essential*. *Marine Policy* (33): 794–800pp.
- Barnes, R.H. 1986. *Educated fishermen, social consequences of development in an Indonesian whaling community*. *Bulletin de l'Ecole francaise d'Extreme-Orient* 75: 295 – 314p.
- Barnes, R.H. 1996. *Ethnographic notes on a muslim whaling village of Eastern Indonesia*. *Anthropos*

- (91)1:75 - 88p.
- Barsimantov, J. A. 2010. *Vicious and virtuous cycles and the role of external non-government actors in community forestry in Oaxaca and Michoacan, Mexico*. *Human Ecology* (38): 49 – 63p.
- Bartlett, C.Y. & Manua, C. 2008. *Community sea tenure and the establishment of marine reserve networks in the Pacific islands*. Proceedings of the 11th International Coral Reef Symposium. Fort Lauderdale: 1069 – 1073p.
- Baxter, P. & Jack, S. 2008. *Qualitative case study methodology: study design and implementation for novice researchers*. *The Qualitative Report* (13)4: 544 – 559p.
- Beaumont, J. 1998. *Community participation in the establishment and management of MPAs: a review of selected international experiences*. *South African Journal of Marine Science* (18)1: 333 – 340pp.
- Bennett, G., Fry, J., Gonzales, A. M., Zilberman, S. 2005. *Understanding and acceptance of conservation: analyzing perceptions of local communities in the Berau MPA, Indonesia*. Final Capstone report. The George Washington University. Elliot School of International affairs. International Development Studies. Washington DC: 115p.
- Berau statistics. 2012. *Kabupaten Berau Dalam Angka. 2012*. Badan Pusat Statistik Kabupaten Berau. Tanjung Redeb: xxxii+276p.
- Berau statistics. 2014. *Kabupaten Berau Dalam Angka. 2014*. Badan Pusat Statistik Provinsi Kalimantan Timur. Samarinda: xiv+260p.
- Bernard, H. R. 2006. *Research methods in anthropology. Qualitative and quantitative approaches*. 4th edition. Altamira Press. Lanham: xvi + 803p.
- Boomgaard, P. 1999. *Oriental nature, its friends and its enemies: conservation of nature in late-colonial Indonesia 1889-1949*. *Environment & History* (5)3: 257 – 292pp.
- Booth, A. 2010. *Government and welfare in the new republic: Indonesia in the 1950s*. *Itinerario* (34):57 – 76pp.
- Borrini-Feyerabend, G., Pimbert, M., Farvar, M. T., Kothari, A., Renard, Y. 2004a. *Sharing power. Learning by doing in co-management of natural resources throughout the world*. IIED & IUCN/ CEESP/ CMWG, Cenesta. Tehran: xxxvii + 456pp.
- Borrini-Feyerabend, G., Kothari, A., Oviedo, G. 2004b. *Indigenous and local communities and protected areas: towards equity and enhanced conservation*. IUCN. Gland, Switzerland & Cambridge, U.K.: xviii + 111p.
- Botsford, L. W., Kaplan, D. M., Hastings, A. 2003. *Sustainability and yield in marine reserve policy*. American Fisheries Society Symposium. American Fisheries Society: 12pp.
- Braus. 2011. *Tools of engagement: a toolkit for engaging people in conservation*. The National Audubon Society: 209p.
- Brock, A. 2013. *Beyond fishing? The impact of microcredit on alternative livelihoods in South Sulawesi, Indonesia*. Master Project. Duke University. Nicholas School of the Environment. Durham: 44p.
- Bunce, L., Townsley, P., Pomeroy, R., Pollnac, R. 2000. *Socioeconomic manual for coral reef management*. AIMS. Townsville: xii + 251p.
- Carlsson, L. & Berkes, F. 2005. *Co-management: concepts and methodological implications*. *Journal of Environmental Management* (75): 65 – 76p.
- Carter, E., Soemodinoto, A., White, A. 2010. *Guide for improving MPA management effectiveness in Indonesia*. The Nature Conservancy Indonesia Marine Program. Bali: xi + 49p.
- Cass, R. A. 1998. *Money, power, and politics: governance models and campaign finance regulation*. *Supreme Court Economic Review* (6): 1 – 59p.
- Cesar, H., Burke, L., Pet-Soede, L. 2003. *The economics of worldwide coral reef degradation*. Cesar Environmental Economics Consulting. Arnhem: 23p.
- Chambers, R. 1983. *Rural development: putting the last first*. Longman Group. London: vii + 235p.
- Chozin, M. 2008. *Illegal but common: life of blast fishermen in the Spermonde Archipelago, South Sulawesi, Indonesia*. Master Thesis. Faculty of the Centre of International Studies. Ohio University. Athens: 144p.

- Christianen, M. J. A., Herman, P. M. J., Bouma, T. J., Lamers, L. P. M., van Katwijk, M. M., van der Heide, T., Mumby, P. J., Siliman, B. R., Engelhard, S. L., van de Kerk, M., Kiswara, W., van de Koppel, J. 2014. *Habitat collapse due to overgrazing threatens turtle conservation in MPAs*. Proceeding of the Royal Society (281): 7p.
- Christie, P. 2004. *MPAs as biological successes and social failures in Southeast Asia*. American Fisheries Society Symposium (42): 155 – 164p.
- Christie, P. 2005. *Observed and perceived environmental impacts of MPAs in two Southeast Asia sites*. Ocean & Coastal Management (48): 252 - 270pp.
- Christie, P., White, A., Deguit, E. 2002. *Starting point or solution? Community-based MPAs in the Philippines*. Journal of Environmental Management (66): 441 – 454pp.
- Chuenpagdee, R., Pascual-Fernandez, J. J., Szelienszky, E., Alegret, J. L., Fraga, J., Jentoft, S. 2013. *MPAs: re-thinking their inception*. Marine Policy (39): 234 – 240p.
- Cinner, J. 2005. *Socioeconomic factors influencing customary marine tenure in the Indo-Pacific*. Ecology & Society (10)1: 36p.
- Cisneros-Montemayor, A., Barnes-Mauthe, M., Al-Abdulrazzak, D., Navarro-Holm, E., Sumaila, U. R. 2013. *Global economic value of shark ecotourism: implications for conservation*. Oryx (47)3: 481 – 488p.
- Clifton, J. 2003. *Prospects for co-management in Indonesia's MPAs*. Marine Policy (27): 389 – 395p.
- Constitutional Court of the Republic of Indonesia. 2011. *Decision No. 3/PUU-VIII/2010 concerning judicial review of Law No.27/2007 regarding the management of coastal areas and small islands*. Jakarta, 16.06.2011
- Cooke, B. & Kothari, U. (eds.). 2001. *Participation: the new tyranny*. Zed Books. London: xiv + 207p.
- COREMAP & DKP. 2006. *Daerah Perlindungan Laut berbasis masyarakat*. DKP. Jakarta: xi +57p.
- COREMAP. 2009. *Fasilitasi pembentukan kawasan konservasi laut daerah*. COREMAP II Kabupaten Pangkep & Pascal 358. Pangkep: x + 138p.
- COREMAP. 2010. *Status data base terumbu karang Sulawesi Selatan*. COREMAP Phase II & CV Wahana Bahari: ix + 112p.
- Craig, D. & Porter, D. 1997. *Framing participation: development projects, professionals, and organisations*. Development in Practice (7)3: 229 – 236p.
- Crawford, B., Kasmidi, M., Korompis, F., Pollnac, R. B. 2006. *Factors influencing progress in establishing community-based MPAs in Indonesia*. Coastal Management (34)1: 39 – 64p.
- Cribb, R. 1988. *The politics of environmental protection in Indonesia*. The Centre of Southeast Asia Studies, Monash University. Clayton: 36pp.
- Dalton, T. M. 2005. *Beyond biogeography: a framework for involving the public in planning of U.S. MPAs*. Conservation Biology: 1392 – 1401p.
- Day, J., Dudley, N., Hockings, M., Holmes, G., Laffoley, D., Stolton, S., Wells, S. 2012. *Guidelines for applying the IUCN Protected Area Management Categories to MPAs*. IUCN. Gland: 36p.
- Denzin, N. K. & Lincoln, Y. S. 2005. *The SAGE handbook of qualitative research*. SAGE Publications Inc. Thousand Oaks: xv + 766p.
- Denzin, N. K. 2012. *Triangulation 2.0*. Journal of Mixed Methods Research (6)2: 80 – 88p.
- Departemen Kelautan dan Perikanan (DKP). 2006. *Pedoman umum pengelolaan berbasis masyarakat Coral Reef Rehabilitation and Management Program (COREMAP)*. Departemen Kelautan dan Perikanan Direktorat Jenderal Kelautan, Pesisir, dan Pulau-pulau Kecil. Jakarta: ix + 190p.
- Deswandi, R. 2012. *Understanding institutional dynamics: the emergence, persistence, and change of institutions in fisheries in Spermonde Archipelago, South Sulawesi, Indonesia*. Doctoral Thesis. Univeristy of Bremen. Faculty of Social Science. Department of Geography. Bremen: xiv+181p.
- DeVantier, L., Alcala, A., Wilkinson, C. 2004. *The Sulu-Sulawesi Sea: environmental and socioeconomic status, future prognosis and ameliorative policy options*. A Journal of the Human Environment (33)1: 88 – 97p.
- de Vivo, J. L. S., Mateos, J. C. R., Corral, D. F. D. 2008. *The paradox of public participation in fisheries governance. The rising numbers of actors and the devolution process*. Marine Policy (32): 319 – 325p.

- Dinas Kelautan dan Perikanan Berau. 2014a. *Rencana Zonasi Wilayah Pesisir dan Pulau-pulau Kecil Kabupaten Berau. Buku I: Fakta dan Analisa*. DKP Berau. Tanjung Redeb: v+P3p.
- Dinas Kelautan dan Perikanan Berau. 2014b. *Rencana Zonasi Wilayah Pesisir dan Pulau-pulau Kecil Kabupaten Berau. Buku II: Rencana Zonasi Wilayah Pesisir dan Pulau-pulau Kecil*. DKP Berau. Tanjung Redeb: vi+P3p.
- Dirhamsyah, D. 2006. *Indonesian legislative framework for coastal resources management: a critical review and recommendation*. *Ocean & Coastal Management* (49): 68 – 92p.
- Dudley, N. (ed.). 2008. *Guidelines for applying protected area management categories*. IUCN. Gland: x + 86p.
- du Toit, J. T., Walker, B. H., Campbell, B. M. 2004. *Conserving tropical nature: current challenges for ecologists*. *TRENDS in Ecology & Evolution* (19): 12 – 17pp.
- Elliot, G., Mitchell, B., Witshire, B., Manan, A., Wismer, S. 2001. *Community participation in MPA management: Wakatobi national park, Sulawesi, Indonesia*. *Coastal Management* (29): 295 – 316p.
- Erb, M. 2012. *The dissonance of conservation: environmentalities and the environmentalisms of the poor in eastern Indonesia*. *The Raffles Bulletin of Zoology* (25): 11 – 23pp.
- Eshliki, S. A. & Kaboudi, M. 2012. *Community perception of tourism impacts and their participation in tourism planning: a case study of Ramsar, Iran*. *Procedia – Social & Behavioral Sciences* (36): 333 – 341p.
- Evans, S. M., Gill, M. E., Retraubun, A. S. W., Abrahamz, J., Dangeubun, J. 1997. *Traditional management practices and the conservation of the gastropod (*Trochus nilitocus*) and fish stocks in the Maluku Province (eastern Indonesia)*. *Fisheries Research* (31): 83 - 91pp.
- Fakultas Perikanan dan Ilmu Kelautan. 2009. *Studi rencana zonasi pesisir dan pulau-pulau kecil Kabupaten Berau Propinsi Kalimantan Timur*. FPIK IPB, Joint Program WWF-TNC, Pemerintah Daerah Kabupaten Berau. Bogor: xii + 137p.
- Fernandes, L., Green, A., Tanzer, J., White, A., Alino, P. M., Jompa, J., Lokani, P., Soemodinoto, A., Knight, M., Pomeroy, B., Possingham, H., Pressey, B. 2012. *Biophysical principles for designing resilient networks of MPAs to integrate fisheries, biodiversity and climate change objectives in the Coral Triangle*. Report prepared by TNC for the Coral Triangle Support Partnership. USAID ASIA: 152pp.
- Fernandez, A. P. 1987. *NGOs in South Asia: people's participation and partnership*. *World Development* (15): 39 – 49p.
- Ferrol-Schulte, D., Gorris, P., Baitoningsih, W., Adhuri, D. S., Ferse, S. C. A. 2015. *Coastal livelihood vulnerability to marine resource degradation: a review of the Indonesian national coastal and marine policy framework*. *Marine Policy* (52): 163 – 171p.
- Ferse, S. C. A., Costa, M. M., Mañez, K. S., Adhuri, D., Glaser, M. 2010. *Allies, not aliens: increasing the role of local communities in MPA implementation*. *Environmental Conservation* (37)1: 23 – 34p.
- Ferse, S. C. A., Knittweis, L., Krause, G., Maddusila, A., Glaser, M. 2012. *Livelihoods of ornamental coral fishermen in South Sulawesi/Indonesia: implications for management*. *Coastal Management* (40)5: 525 – 555p.
- Ferse, S. C. A., Glaser, M., Neil, M., Schwerdtner Manez, K. 2014. *To cope or to sustain? Eroding long-term sustainability in an Indonesian coral reef fishery*. *Regional Environmental Change* (14): 2053 – 2065p.
- Firman, T. 2009. *Decentralisation reform and local-government proliferation in Indonesia: Towards a fragmentation of regional development*. *Review of Urban and Development Studies* (21)2-3: 143 – 157p.
- Fiske, S. J. 1992. *Sociocultural aspects of establishing MPAs*. *Ocean & Coastal Management* (18): 25 – 46p.
- Foale, S. & Manele, B. 2004. *Social and political barriers to the use of MPAs for conservation and fishery management in Melanesia*. *Asia Pacific Viewpoint* (45)3: 373 – 386p.
- Food and Agriculture Organization. 2011. *Fisheries management. 4. MPAs and fisheries*. FAO Technical Guidelines for Responsible Fisheries. No. 4 Suppl. 4. Rome: xviii + 198pp.

- Foucault, M. 1987. *The ethic of care for the self as a practice of freedom*. An interview translated by J. D. Gauthier. In: Bernauer, J. & Rasmussen, D. (eds.). 1987. *The final Foucault*. MIT Press. Cambridge: ix + 175p.
- Fox, H.E., Mascia, M.B., Basurto, X., Costa, A., Glew, L., Heinemann, D., Karrer, L.B., Lester, S.E., Lombana, A.V., Pomeroy, R.S., Recchia, C.A., Roberts, C.M., Sanchirico, J.N., Pet-Soede, L., White, A.T. 2012. *Re-examining the science of MPAs: linking knowledge to action*. *Conservation Letters* (5): 1 – 10p.
- Fraser, C.S. & Restrepo-Estrada, S. 1998. *Communicating for development: Human change for survival*. I.B. Tauris. London: 256p.
- Friese, S. 2013. *ATLAS.ti 7 user manual*. ATLAS.ti Scientific Software Development GmbH. Berlin: 469p.
- Fritzen, S. A. 2007. *Can the design of community-driven development reduce the risk of elite capture? Evidence from Indonesia*. *World Development* (35)8: 1359 – 1375pp.
- Gantt, W. 2006. *Establishing an MPA in an era of autonomy: Lessons from the Berau regency, East Kalimantan, Indonesia*. The Nature Conservancy – Coral Triangle Centre. Denpasar: v + 24p.
- Gehardinger, L. C., Godoy, E. A. S., Jones, P. J. S. 2009. *Local ecological knowledge and the management of marine protected areas in Brazil*. *Ocean & Coastal Management*(52):154-165p.
- Glaser, M., Baitoningsih, W., Ferse, S. C. A., Neil, M., Deswandi, R. 2010. *Whose sustainability? Top-down participation and emergent rules in marine protected area management in Indonesia*. *Marine Policy* (34): 1215 – 1225p.
- Glew, L., Mascia, M. B., Pakiding, F. 2012. *Solving the mystery of MPA performance: monitoring social impacts*. Field Manual Version 1.0. WWF & Universitas Negeri Papua. Washington DC & Manokwari: 356p.
- Gordon, A.L., Giulivi, C.F., Ilahude, A.G. 2003. *Deep topographic barriers within the Indonesian seas*. *Deep-Sea Research II* (50): 2205 – 2228p.
- Govan, H., Inglis, A., Pretty, J., Harrison, M., Wightman, A. 1998. *Best practice in community participation for National Parks*. Scottish Natural Heritage. Edinburgh: 75pp.
- Govan, H. 2007. *People and participation: approaches for the tropical scientist*. In: Wolff (ed.). 2009. *Tropical waters and their living resources: their ecology, assessment, and management*. University of Bremen. Bremen: 22p.
- Govan, H., Aalbersberg, W., Tawake, A., Parks, J. 2008. *Locally-managed marine areas: a guide for practitioners*. The Locally-Managed Marine Area Network: 64p.
- Gustave, R. & Borchers, H. 2007. *Conservation and conflict in Komodo National Park*. In: Sodhi, N. S., Acciaioli, G., Erb, M., Tan, A. K-J. (eds.). 2007. *Biodiversity and human livelihoods in protected areas. Case studies from the Malay Archipelago*. Cambridge University Press: 187 - 202p.
- Hadiz, V.R. 2004. *Decentralisation and democracy in Indonesia. A critique of neo-institutionalist perspectives*. *Development and Change* (35)4: 697 – 718p.
- Hadiz, V.R. 2011. *Localising power in post-authoritarian Indonesia*. ISEAS. Singapore: x + 247p.
- Hajer, M.A. 2005. *Setting the stage. A dramaturgy of policy deliberation*. *Administration & Society* (36)6: 624 – 647p.
- Harkes, I. 2000. *An institutional analysis of sasi laut, a fisheries management system in Indonesia*. *Proceedings of the International Workshop on Fisheries Co-management*: 9pp.
- Hastings, J.G. 2011. *International environmental NGOs and conservation science and policy: a case from Brazil*. *Ocean and Coastal Management* (39)3: 317 – 335p.
- Hickey, S. & Mohan, G. (eds.). 2004. *Participation: from tyranny to transformation?* Zed Books. London: xi + 292p.
- Hoeksema, B. W. 1990. *Systematics and ecology of mushroom corals (Scleractinia: Fungiidae)*. Doctoral Thesis. University of Leiden. Faculty of Mathematics and Science. Leiden: 471p.
- Hofman, B., Kaiser, K., Schulze, G.G. 2009. *Corruption and decentralization*. In: Holtzappel, C.J.G. & Ramstedt, M. (eds.). 2009. *Decentralization and regional autonomy in Indonesia: implementation and challenges*. ISEAS. Singapore: xxviii + 411p.
- Idrus, R. M. 2009. *Hard habits to break. Investigating coastal resource utilisations and management systems in Sulawesi, Indonesia*. Doctoral Thesis. University of Canterbury. Department of

- Geography. Christchurch: xv + 239p.
- Indonesia statistics. 2015. *Statistik Indonesia. 2015*. Badan Pusat Statistik. Jakarta: xxxviii+670p.
- IOC UNESCO, IMO, FAO, UNDP. 2011. *A blueprint for ocean and coastal sustainability*. IOC UNESCO. Paris: 42pp
- Ismuranty, C., Mardiasuti, A., Steffen, J.H. 2004. *Merintis konservasi pulau Kakaban*. Yayasan Kehati. Jakarta: 96p.
- IUCN. 1988. *17th session of the general assembly of IUCN and 17th technical meeting*. Proceedings. San Jose: 322p.
- IUCN World Commission on Protected Areas. 2008. *Establishing MPA networks – making it happen*. IUCN WCPA, NOAA & TNC. Washington DC: x + 118pp.
- Jentoft, S. 2005. *Fisheries co-management as empowerment*. Marine Policy (29): 1 – 7p.
- Jepson, P. & Whittaker, R. J. 2002. *Histories of protected areas: internalization of conservationist values and their adoption in the Netherlands Indies (Indonesia)*. Environment & History (8)2: 129 – 172pp.
- Joint Program TNC – WWF Berau Monthly Reports from January 2010 – June 2012.
- Kahn, B. 2002. *Establishment of a protected marine mammal fisheries area in Indonesia's national and EEZ waters*. Discussion paper prepared for the Government of the Republic of Indonesia at the request of the The Ministry of Marine Affairs and Fishery. Apex Environmental. 56p.
- Kahn, B. 2003. *Solor-Alor visual and acoustic Cetacean surveys*. Interim Report April – May 2003 Survey Period. The Nature Conservancy. 27p.
- Kahn, B. 2005. *Indonesia oceanic Cetacean programme activity report: April – June 2005*. TNC. 31p.
- Kaiser, M. J. 2005. *Are marine protected areas a red herring or fisheries panacea?* Canadian Journal Fishery Aquatic Science (62): 1194 – 1199pp.
- Kannathasan, S., Antonyrajan, A., Srikrishnaraj, K. A., Karonaratne, S. H. P. P., Karunaweera, N. D., Surendran, S. N. 2008. *Studies on prevalence of anepheline species and community perception of malaria in Jaffna district, Sri Lanka*. J Vector Borne Dis (45): 231 – 239p.
- Kapitan, F.J., Liklikwatil, M., Angwarmasse, I., Ninef, J., Ruhi, J., Helmi, M., Rianto, B.A., Ladha, M.G., Syofyanto, H., Fajariyanto, Y., Iswandono, E., Subijanto, J., Amin, I., Darmawan, A. 2010. *Rencana pengelolaan 20 tahun Taman Nasional Perairan Laut Sawu (2011 – 2030)*. Badan Kawasan Konservasi Perairan Nasional Kupang. Kupang: 130p.
- Kareiva, P. 2006. *Conservation biology: beyond MPAs*. Current Biology (16)14: 533 – 535pp.
- Kelleher, G. & Kenchington, R. 1992. *Guidelines for establishing MPAs*. IUCN. Gland: vii + 79p.
- Kelleher, G. 1999. *Guidelines for MPAs*. IUCN. Gland, Switzerland and Cambridge, UK: xxiv + 107p.
- Kessler, B. L. 2004. *Stakeholder participation: a synthesis of current literature*. National MPA Centre and NOAA Coastal Services Centre. Silver Spring: 26p.
- Keulartz, J. & Zwart, H. A. E. 2004. *Boundaries, barriers, and bridges philosophical fieldwork in Derawan*. Wageningen University & University of Nijmegen. Wageningen: 37p.
- KIARA. 2013. *UU pengelolaan wilayah pesisir dan pulau-pulau kecil: tetap mengkapling, mengkomersialisasi dan mengkriminalisasi nelayan*. Kabar Bahari. Juli-Agustus: 29 – 35p.
- Kiss, A. 2004. *Is community-based ecotourism a good use of biodiversity conservation funds?* TRENDS in Ecology and Evolution (19)5: 232 – 237p.
- Kitzinger, J. 1995. *Introducing focus groups*. Qualitative Research (311): 299 – 302p.
- Kompas. 2009. *Masyarakat Lamalera tolak konservasi paus*. Indonesian newspaper. 23.03.2009
- Kompas. 2009. *Laut Sawu ditetapkan menjadi taman nasional perairan*. Indonesian newspaper. 13.05.2009
- Kompas. 2013. *Kiara desak pemerintah hentikan COREMAP*. Indonesian newspaper. 02.05.2013
- Kusuma-Atmadja, M. & Purwaka, T. H. 1996. *Legal and institutional aspects of coastal zone management in Indonesia*. Marine Policy (20)1: 63 – 86pp.
- Kusumawati, R. & Visser, L. 2014. *Collaboration or contention? Decentralised marine governance in Indonesia*. Anthropological Forum (24)1: 21 – 46p.
- Laffoley, D.d'A. (ed.). 2006. *The WCPA – Marine Plan of Action. Working together to secure a global, representative system of lasting networks of MPAs*. Consultation Version. IUCN WCPA. Gland:

26p.

- Lampe, M. 2012. *Bugis-Makassar seamanship and reproduction of maritime cultural values in Indonesia*. *Humaniora* (24): 121 – 132p.
- Larson, A. M. & Ribot, J. C. 2004. *Democratic decentralisation through a natural resource lens: an introduction*. *European Journal of Development Research* (16)1: 1 – 25p.
- Lausche, B. 2011. *Guidelines for protected area legislation*. IUCN. Gland: xxvi + 370p.
- Li, T. 1999. *Compromising power: development, culture, and rule in Indonesia*. *Cultural Anthropology* (14)3: 295 – 322p.
- Li, T. 2007. *The will to improve. Governmentality, development, and the practice of politics*. Duke University Press. Durham: xi + 367p.
- Linder, S. H. 1999. *Coming to terms with the public-private partnership: a grammar of multiple meanings*. *American Behavioural Scientist* (43): 35 – 51p.
- Lowry, G. K., White, A., Christie, P. 2009. *Scaling up to networks of MPAs in the Philippines: Biophysical, legal, institutional, and social considerations*. *Ocean & Coastal Management* (37)3-4: 274 – 290p.
- Manuputty, A. E. W., Suyarso, Hukom, F. D., Siringoringo, R. M., Salatalohi, A., Budiyanto, A., Haryanto, R., Picasaw, J., Yahmanto, Djuwariah. 2006. *Studi baseline ekologi kabupaten Pangkajene Kepulauan*. COREMAP – LIPI. Jakarta: 43p.
- Manuputty, A. E. W. (ed.). 2012. *Ekosistem pesisir perairan Pangkajene Kepulauan, propinsi Sulawesi Selatan*. CRITC – Pusat Penelitian Oseanografi LIPI. Jakarta: ix + 150p
- Masumoto, Y., Kagimoto, T., Yoshida, M., Fukuda, M., Hirose, N., Yamagata, T. 2001. *Intraseasonal eddies in the Sulawesi Sea simulated in an ocean general circulation model*. *Geophysical Research Letters* (28)8: 1631 – 1634p.
- Maxwell, J.A. 2004. *Using qualitative methods for causal explanation*. *Field Methods* (16)3:243-264p.
- McConney, P. & Pena, M. 2012. *Capacity for (co) management of MPAs in the Caribbean*. *Coastal Management* (40): 268 – 278p.
- McLeod, E., Salm, R., Green, A., Almany, J. 2009. *Designing MPA networks to address the impacts of climate change*. *Frontiers in Ecology and the Environment* (7): 9p.
- McShane, T. O., Hirsch, P. D., Trung, T. C., Songorwa, A. N., Kinzig, A., Monteferri, B., Mutekanga, D., Thang, H. V., Dammert, J. L., Pulgar-Vidal, M., Welch-Devine, M., Brosius, J. P., Coppolillo, P., O'Connor, S. 2011. *Hard choices: making trade-offs between biodiversity conservation and human well-being*. *Biological Conservation*(144): 966 – 972p.
- Milla, S., Rinduwati, R., Fajariyanto, F. 2013. *Dokumen rencana pengelolaan 20 tahun Taman Nasional Perairan Laut Sawu (2013 – 2032)*. Balai Kawasan Konservasi Perairan Nasional Kupang. Kupang: viii+314p.
- Mietzner, M. 2014. *How Jokowi won and democracy survived*. *Journal of Democracy* (25)4:111-125p.
- Minutes of Meeting. 2013a. 01.05.2013.
- Minutes of Meeting. 2013b. 04.07.2013.
- Minutes of Meeting. 2013c. 22 – 23.07.2013.
- Minutes of Meeting. 2013d. 27.08.2013.
- Minutes of Meeting. 2013e. 29.08.2013.
- Minutes of Meeting. 2013f. 31.08.2013.
- Minutes of Meeting. 2013g. 12.11.2013.
- Minutes of Meeting. 2013h. 25.11.2013.
- Miraftab, M. 2004. *Public-private partnerships: the Trojan horse of neoliberal development?* *Journal of Planning Education and Research* (24): 89 – 101p.
- Morgan, D.L. 1996. *Focus groups*. *Annual Review of Sociology* (2): 129 – 152p.
- Morgan, L. 2001. *Community participation in health: perpetual allure, persistent challenge*. *Health Policy and Planning* (16)3: 221 – 230p.
- Mosse, D. 1994. *Authority, gender and knowledge: theoretical reflections on the practice of participatory rural appraisal*. *Development & Change* (25): 497 – 526p.
- Mous, P. J. & M. Gorrez. 2001. *Stakeholder involvement in the site conservation planning process for*

- Komodo National Park. Workplan and budget.* The Nature Conservancy. Denpasar: 20p.
- Mustika, P.L.K. 2009. *Marine mammals at the Savu Sea (Indonesia): indigenous knowledge, threat analysis and management options.* Master Thesis. James Cook University. School of Tropical Environment Studies and Geography. Townsville: xix+231p.
- Nanlohy, A.C. 2013. *Evaluasi alat tangkap ikan pelagis yang ramah lingkungan di perairan Maluku dengan menggunakan prinsip Code of Conduct for Responsible Fisheries.* Jurnal Ilmu Hewani Tropika (2)1: 11p.
- Narayan, D., Chambers, R., Shah, M. K., Petesch, P. 2000. *Crying out for change.* Oxford University Press. Oxford: xviii + 314p.
- National Geographic Indonesia. 2011. *Kemilau emas hijau Berau.* Pemerintah Kabupaten Berau & Berau Coal. Cikarang: 112p.
- National Research Council. 2001. *Marine Protected Areas. Tools for sustaining ocean ecosystems.* National Research Council (NRC), Committee on the Evaluation, Design, and Monitoring of Marine Reserves and Protected Areas in the United States. National Academy Press. Washington DC: 272pp.
- Neil, M. 2008. *Budaya manajemen sumberdaya alam laut: tinjauan ekonomi politik pada nelayan Barrang Lompo, Barrang Caddi, dan Kodingareng.* Master Thesis. Program Studi Antropologi. Program Pasca Sarjana Universitas Hasanuddin. Makassar: xi + 109p.
- Newman, C. M. & LeDrew, E. 2005. *Towards community and scientific based information integration in marine resource management in Indonesia: Bunaken national park case study.* Environments Journal (33)1: 5 – 24p.
- Ningsih, N.S., Rakhmaputeri, N., Harto, A.B. 2013. *Upwelling variability along the southern coast of Bali and in Nusa Tenggara Waters.* Ocean Science Journal (48)1: 49 – 57p.
- National Oceanic and Atmospheric Administration (NOAA). 2007. *Introduction to stakeholder participation.* NOAA Coastal Services Centre. Charleston: 20p.
- Noel, J. & Weigel, J. 2007. *MPAs: from conservation to sustainable development.* Int. J. Sustainable Development (1)3: 223 – 250p.
- Novaczek, I., Harkes, I.H.T., Sopacua, J., Tatuhey, M.D.D. 2011. *An institutional analysis of Sasi Laut in Maluku, Indonesia.* ICLARM-The World Fish Centre: xii + 327p.
- NTT Statistics. 2014. *Nusa Tenggara Timur dalam angka 2014.* Badan Pusat Statistik NTT. Kupang: viii+479p.
- Nurdin, N. & Grydehoj, A. 2015. *Informal governance through patron-client relationships and destructive fishing in Spermonde Archipelago, Indonesia.* Journal of Marine and Island Cultures (3): 54 – 59p.
- Nurliah. 2012. *Performa, efektivitas pengelolaan, dan keberlanjutan daerah perlindungan laut serta faktor-faktor yang mempengaruhinya.* Doctoral Thesis. Universitas Hasanuddin. Program Studi Ilmu Pertanian. Makassar: xx + 203p.
- Oakley, P. 1991. *Projects with people: The practice of participation in rural development.* ILO. Geneva: xv + 285p.
- Operations Evaluation Department (OED). 2002. *Non-governmental organizations and civil society engagement in World Bank supported projects: lessons from OED evaluations.* Lessons and Practices No.18. 8p.
- Ozhan, E. 2000. *An NGO role in enhancing integrated coastal management in the Mediterranean and the Black Sea: the MEDCOAST experience.* Ocean and Coastal Management (43): 389 – 407p.
- Pangkep statistics. 2013. *Kabupaten Pangkep dalam angka.* 2013. Badan Pusat Statistik Kabupaten Pangkep. Pangkajene: xxxiii + 198p.
- Pangkep statistics. 2014. *Kabupaten Pangkep dalam angka.* 2014. Badan Pusat Statistik Kabupaten Pangkep. Pangkajene: xxxvi + 222p.
- Patlis, J. M. 2005. *The role of law and legal institutions in determining the sustainability of integrated coastal management projects in Indonesia.* Ocean and Coastal Management (48): 450-467p.
- Pauwelussen, A. 2010. *Fishing nets and family ties. An exploration of social resilience in an Indonesian coastal frontier area.* Master thesis. Wageningen University. Department of Social Sciences.

- Chair Group Rural Development Sociology. Wageningen: vi+124p.
- Pauwelussen, A. P. 2015. *The moves of a Bajau middlewoman: understanding the disparity between trade networks and marine conservation*. Anthropological Forum: 21p.
- Perecman, E & Curran, S.R. 2006. *A handbook for social science field research. Essays and bibliographic sources on research design and methods*. SAGE Publication Inc. Thousand Oaks: xxvi + 254p.
- Peshkin, A. 2001. *Angles of vision: enhancing perception in qualitative research*. Qualitative Inquiry (7)2: 238 – 253p.
- Pet-Soede, L. & Erdmann, M. 1998. *Blast fishing in Southwest Sulawesi, Indonesia*. Naga, the ICLARM Quarterly. April – June 1998: 9p.
- Phelan, M. & Parkman, S. 1995. *How to do it: Work with an interpreter*. British Medical Journal (311)555: 8p.
- Pimbert, M. P. & Pretty, J. N. 2000. *Parks, people, and professionals: putting 'participation' into protected-area management*. In: Ghimire, K. B. & Pimbert, M. P. (eds.). 2000. *Social change and conservation*. Earthscan. Oxon: 297 – 330p.
- Poelinggomang, E. L. 2002. *Makassar abad XIX*. Kepustakaan Populer Gramedia. Jakarta: xv + 349p.
- Pollnac, R.B. & Crawford, B.R. 2000. *Discovering factors that influence the success of community-based MPAs in the Visayas, Philippines*. PCAMRD Book Series No.33. University of Rhode Island and Council for Aquatic and Marine Research and Development. Laguna: 30p.
- Pollnac, R.B. & Pomeroy, R.S. 2005. *Factors influencing the sustainability of integrated coastal management projects in the Philippines and Indonesia*. Ocean & Coastal Management (48): 233 – 251p.
- Polunin, N.V.C. 1984. *Do traditional marine reserves conserve? A view of Indonesian and New Guinean Evidence*. SENRI Ethnological Studies (17): 267 – 283p.
- Pomeroy, R. S. 1995. *Community-based and co-management institutions for sustainable coastal fisheries management in Southeast Asia*. Ocean & Coastal Management (27)3: 143 – 162p.
- Pomeroy, R. S. 2001. *Devolution and fisheries co-management*. In: Meinzen-Dick, R., Knox, A., & Di Gregorio, M. (eds.). 2001. *Collective action, property rights, and devolution of natural resource management: Exchange of knowledge and implications for policy*. Feldaafing: 108 – 145p.
- Pomeroy, R. S., Katton, B. M., Harkes, I. 2001. *Conditioning affecting the success of fisheries co-management: lessons from Asia*. Marine Policy (25): 197 – 208p.
- Pomeroy, R. S., Parks, J. E., Watson, L. M. 2004. *How is your MPA doing? A guidebook for natural and social indicators for evaluating MPA management effectiveness*. IUCN. Gland: xvi + 218p.
- Pomeroy, R. S. & Pido, M. D. 1995. *Initiatives towards fisheries co-management in the Philippines*. Marine Policy (19)3: 213 – 226pp.
- Pomeroy, R. S. & Rivera-Guieb, R. 2005. *Fishery co-management: a practical handbook*. International Development Research Centre. Ottawa: xvii + 264pp.
- Potemra, J.T., Sprintall, J., Hautala, S.L., Pandoe, W. 2003. *Observed estimates of convergence in the Savu Sea, Indonesia*. Journal of Geophysical Research (108)C1: 11p.
- Pusat Penelitian Terumbu Karang Universitas Hasanuddin (PPTK Unhas). 2006. *Rencana pengelolaan terumbu karang. Kecamatan Liukang Tupabbiring, Kabupaten Pangkep*. COREMAP Phase II Pangkep & PPTK Unhas. Makassar: vi + 563p.
- Ribot, J. C. 1996. *Participation without representation: chiefs, councils and forestry law in the West African Sahel*. Cultural Survival Quarterly. Fall 1996: 9p.
- Rife, A. N., Erisman, B., Sanchez, A., Aburto-Oropeza, O. 2013. *When good intentions are not enough... Insight on networks of „paper park“ MPAs*. Conservation Letters (6): 200 – 212p.
- Roberts, C. 2000. *Selecting Marine Reserve Locations: Optimality Versus Opportunism*. Marine Science, 581-592.
- Rosen, F. & Olsson, P. 2012. *Institutional entrepreneurs, global networks, and the emergence of international institutions for ecosystem-based management: the Coral Triangle Initiative*. Marine Policy 38: 195 – 204p.
- Rosenau, P. V. 1999. *Introduction: the strengths and weaknesses of public-private policy partnerships*.

- American Behavioural Scientist (43): 10 – 34p.
- Ruchimat, T., Basuki, R., Suraji. 2012. *Kawasan konservasi perairan, pesisir dan pulau-pulau kecil di Indonesia: paradigm, perkembangan dan pengelolaannya*. Direktorat Konservasi Kawasan dan Jenis Ikan. Ditjend KP3K. KKP. Jakarta: xii + 105p.
- Ruddle, K. & Satria, A. 2010. *Managing coastal and inland waters. Pre-existing Aquatic Management Systems in Southeast Asia*. Springer. Dordrecht: 173p.
- Rudolph, P., Smeenk, C., Leatherwood, S. 1997. *Preliminary checklist of Cetacea in the Indonesian Archipelago and adjacent waters*. Zool. Verh. Leiden 312: 48p.
- Russ, G.R. & Alcala, A.C. 1996. *Do marine reserves export adult fish biomass? Evidence from Apo Island, central Philippines*. Marine Ecology Progress Series (132): 1- 9p.
- Sabu Raijua Statistics. 2014. *Kabupaten Sabu Raijua dalam angka*. BPS Kabupaten Sabu Raijua: 26p.
- Salafsky, N. & Wollenberg, E. 2000. *Linking livelihoods and conservation: a conceptual framework and scale for accessing the integration of human needs and biodiversity*. World Development (28)8: 1421 – 1438p.
- Sanchirico, J. N., Cochran, K. A., Emerson, P. M. 2002. *Marine protected areas: economic and social implications*. Discussion paper. Resources for the Future. Washington DC: 27pp.
- Satria, A. & Matsuda, Y. 2004. *Decentralization of fisheries management in Indonesia*. Marine Policy (28): 437 - 450pp.
- Schwerdtner Mañez, K & Ferse, S.C.A. 2010. *The history of Makassar trepang fishing and trade*. PLoS ONE (5)6: 8p.
- Schwerdtner Mañez, K & Husain Paragay, S. 2013. *First evidence of targeted moray eel fishing in the Spermonde Archipelago, South Sulawesi, Indonesia*. Traffic Bulletin (25)1: 4 – 7p.
- Seale, C. 1999. *Quality in qualitative research*. Qualitative Inquiry (5)4: 465 – 478p.
- Sen, S. & Nielsen, J. R. 1996. *Fisheries co-management: a comparative analysis*. Marine Policy (20)5: 405 – 418p.
- Seymour, R. & Turner, S. 2002. *Otonomi daerah: Indonesia's decentralisation experiment*. New Zealand Journal of Asian Studies (4)2: 33 – 51p.
- Sheriff, N., Little, D. C., Tantikamton, K. 2008. *Aquaculture and the poor – is the culture of high-value fish a viable livelihood option for the poor?* Marine Policy (32): 1094 – 1102p.
- Sievanen, L., Crawford, B., Pollnac, R., Lowe, C. 2005. *Weeding through assumptions of livelihood approaches in ICM: seaweed farming in the Philippines and Indonesia*. Ocean and Coastal Management (48): 297 – 313p.
- Silverman, D. 2011. *Interpreting qualitative data*. SAGE Publications Ltd. London: xv + 500p.
- Singleton, S. 2009. *Native people and planning for marine protected areas: How “stakeholder” processes fail to address conflicts in complex, real-world environments*. Ocean & Coastal Management (37)5: 421 – 440p.
- Singleton, S. & Taylor, M. 1992. *Common property, collective action and community*. Journal of Theoretical Politics (4)3: 309 – 324pp.
- Siry, H. Y. 2009. *Making decentralised coastal zone management work in Indonesia: Case studies of Kabupaten Konawe and Kabupaten Pangkep*. Doctoral thesis. Australian National University. Canberra: xxvi+367p.
- Siry, H. Y. 2011. *In search of appropriate approaches to coastal zone management in Indonesia*. Ocean & Coastal Management (54): 469 – 477p.
- Smith, S. L. 2012. *Toward inclusive co-management: factors influencing stakeholder participation*. Coastal Management (40)3: 327 – 337p.
- Spergel, B & Moye, M. 2004. *Financing marine conservation. A menu of options*. WWF Centre for Conservation Finance. Washington: 68p.
- Stadtler, L. 2015. *Designing public-private partnerships for development*. Social Issues in Management Dissertation Forum (54)3: 406 – 421p.
- Suryo, D. 2000. *Political transformation in Indonesia*. Korean Association of Southeast Asian Studies (9): 165 – 186p.
- Suyarso & Budiyanto, A. 2010. *Monitoring terumbu karang Pangkadjene Kepulauan, Liukkang*

- Tuppabiring*. COREMAP II – LIPI. Jakarta: xi + 56p.
- Syarif, L. M. 2009. *Promotion and management of marine fisheries in Indonesia*. In: Winter, G. (ed.). 2009. *Towards sustainable fisheries law. A comparative analysis*. IUCN. Gland: xiv + 340p.
- Tamti, H. & Indar, Y. N. 2012. *Perception of local communities and management strategy of community-based MPA in the Spermonde Archipelago (Case study: Mattiro Baji Village, Pangkep Regency)*. *Journal of Indonesia Coral Reefs* (1)3: 225 – 234p.
- Tashakkori, A & Teddlie, C. 1998. *Mixed methodology: combining qualitative and quantitative approaches*. SAGE Publications. California: xi + 185p.
- Tawake, A. 2007. *Scaling-up networks of locally managed marine areas (LMMAs) to island wide ecosystem management while decentralizing the effort of Fiji LMMA network and its implementation from national to provincial levels*. A draft version. University of the South Pacific, Fiji: 13p.
- Taylor, J. 2011. *The ultimate insider: negotiating the ethics of friendship when doing insider research*. *Qualitative Research* (11)1: 3 – 22p.
- The Nature Conservancy. 2009. *Peta Pencadangan Taman Nasional Laut Sawu*. Kupang: 1p.
- The Nature Conservancy. 2011. *Identifikasi Mitra Lokal*. Laporan TNC Savu Sea. Kupang: 61p.
- The Nature Conservancy. 2014. *Peta Taman Pesisir Kepulauan Derawan*. Kupang: 2p.
- The World Bank. 1996. *The World Bank participation sourcebook*. The World Bank. Washington DC: xvi + 259pp.
- Thorburn, C.C. 2000. *Changing customary marine resource management practice and institutions: the case of Sasi Lola in the Kei Islands, Indonesia*. *World Development* (28)8: 1461 – 1479p.
- Tomascik, T., Mah, A. J., Nontji, A., Moosa, M. K. 1997. *The ecology of the Indonesian seas. Part One*. Periplus Editions. Singapore: xiv + 642p.
- UNICEF. 1990. *Innocenti global seminar. Participatory Development 21-29 May 1990 Summary Report*. Florence: 62p.
- United Nations Convention on the Law of the Sea. 1982. Montego Bay: 208p.
- Varjopuro, R., Gray, T., Hatchard, J., Rauschmayer, F., Wittmer, H. 2008. *Introduction: interaction between environment and fisheries – the role of stakeholder participation*. *Marine Policy* (32): 147 – 157p.
- Walpole, M. J. & Goodwin, H. J. 2001. *Local attitudes towards conservation and tourism around Komodo National Park, Indonesia*. *Environmental Conservation* (28)2: 160 – 166pp.
- Weber de Moraes, G., Schlüter, A., Verweij, M. 2015. *Can institutional change theories contribute to the understanding of marine protected areas?* *Global Environmental Change* (31): 154 – 162p.
- Weeks, R., Russ, G.R., Alcala, A.C., White, A.T. 2010. *Effectiveness of MPAs in the Philippines for Biodiversity Conservation*. *Conservation Biology* (24)2: 531 - 540p.
- Weitzman, E.A. & Miles, M.B. 1995. *Choosing software for qualitative data analysis: an overview*. *Cultural Anthropology Methods* (7)2: 1 – 6p.
- Wells, M. P. & McShane, T. O. 2004. *Integrating protected area management with local needs and aspirations*. *A Journal of the Human Environment* (33)8: 513 – 519p.
- Wever, L., Glaser, M., Gorris, P., Ferrol-Schulte, D. 2012. *Decentralization and participation in integrated coastal management: policy lessons from Brazil and Indonesia*. *Ocean and Coastal Management* (66): 63 – 72p.
- White, A. T., Christie, P., D'Agnes, H., Lowry, K., Milne, N. 2005. *Designing ICM projects for sustainability: lessons from the Philippines and Indonesia*. *Ocean and Coastal Management* (48): 271 – 296p.
- Whitmarsh, L. 2008. *Are flood victims more concerned about climate change than other people? The role of direct experience in risk perception and behavioural response*. *Journal of Risk Research* (11)3: 351 – 374p.
- Wiadnya, D. G. R., Syafaat, R., Susilo, E., Setyohadi, D., Arifin, Z., Wiryawan, B. 2011. *Recent development of MPAs in Indonesia: policies and governance*. *Journal of Applied Environmental and Biological Sciences* (1)12: 608 – 613pp.
- Wilson, D. C., Ahmed, M., Siar, S. V., Kanagaratnam, U. 2006. *Cross-scale linkages and adaptive*

- management: Fisheries co-management in Asia*. Marine Policy (30): 523 – 533p.
- Wilson, C. & Linkie, M. 2012. *The Panglima Laot of Aceh: a case study in large-scale community-based marine management after the 2004 Indian Ocean Tsunami*. Oryx (46): 495 – 500p.
- Wolandoni Statistics. 2014. *Kecamatan Wolandoni Dalam Angka. 2014*. Badan Pusat Statistik Kabupaten Lembata. Lewoleba: xix+58p.
- Wood, L. 2007. *MPA Global: A Database of the World's MPAs*. www.mpaglobal.org
- World Bank. 2012. *Implementation completion and results reports on a loan in the amount of US\$ 30 million and a credit in the amount of SDR 15.7 million and a global environmental facility grant in the amount of US\$ 7.5 million to the Republic of Indonesia for the COREMAP (Phase II)*. 86p.
- World Bank. 2014. *Project appraisal document on a proposed loan ... for the coral reef rehabilitation and management program – coral triangle initiative project*. World Bank. Jakarta: viii + 58p.
- Wiryan, B., Khazali, M., Knight, M. (eds.). 2005. *Menuju Kawasan Konservasi Laut Berau, Kalimantan Timur*. Program Bersama Kelautan Berau TNC-WWF-Mitra Pesisir/ CRMP II USAID. Jakarta: xvii+128p.
- www.bmkg.co.id Indonesian office for Meteorology, Climatology, and Geophysics.
- www.coremap.or.id Coral Reef Rehabilitation and Management Program.
- www.dephut.go.id Ministry of Environment and Forestry.
- www.downtoearth-indonesia.org/story/controversy-over-fatal-shootings-komodo-national-park
- www.fao.org/fishery/geartype/304/en
- www.fishbase.org FishBase: A global information system on fish.
- www.ioseaturtles.org Indian Ocean - Southeast Asian Marine Turtle Memorandum of Understanding.
- www.kkp.go.id Ministry of Marine Affairs and Fisheries.

Annex 1

List of Questions

Themes	Informant groups							
	Government Agencies		Communities		NGOs		Academics	
I. MPA establishment legislation	1	Are you familiar with the MPA establishment process legislation? Please explain!	1	Are you familiar with the MPA establishment process legislation? Please explain!	1	Are you familiar with the MPA establishment process legislation? Please explain!	1	Are you familiar with the MPA establishment process legislation? Please explain!
	2	Do you know the steps of MPA establishment process? Please explain!	2	Do you know the steps of MPA establishment process? Please explain!	2	Do you know the steps of MPA establishment process? Please explain!		
II. Perception of community participation	1	Do you know about community participation topic in the MPA establishment process legislation? Do you know what the topic means and where it occurs?	1	In your opinion, what is the meaning of 'community participation'?	1	Do you know about community participation topic in the MPA establishment process legislation? Do you know what the topic means and where it occurs?	1	Do you know about community participation topic in the MPA establishment process legislation? Please explain!
	2	In your opinion, does the legislation address the community participation issue adequately? Please give reasons!	2	Could you give any example of community participation initiative?	2	In your opinion, does the legislation address the community participation issue adequately? Please give reasons!	2	In your opinion, does the legislation address the community participation issue adequately? Please give reasons!
	3	In your opinion, what is the meaning of 'community participation' and why it is important?	3	How do you think community participation in the MPA establishment process should start?	3	In your opinion, what is the meaning of 'community participation' and why it is important?	3	In your opinion, what is the meaning of 'community participation' and why it is important?
	4	Could you give any example of community participation initiative?	4	Do you know about community participation topic in the MPA establishment process legislation? Do you know what the topic means and where it occurs?	4	Could you give any example of community participation initiative?	4	Could you give any example of community participation initiative?
	5	How do you think community participation in the MPA establishment process should start?	5	In your opinion, have the legislation sustained the community participation topic properly? Please explain!	5	How do you think community participation in the MPA establishment process should start?	5	How do you think community participation in the MPA establishment process should start?
III. Implementation of community participation activities	1	Which stakeholder do you think is responsible for encouraging communities to participate in the MPA establishment process? Please explain!	1	How do you (or your community group) get involved in the MPA establishment process? Do you know if there is an MPA establishment task force? Please explain!	1	Which stakeholder do you think is responsible for encouraging communities to participate in the MPA establishment process? Please explain!	1	In your opinion, do you think community participation is necessary in the MPA establishment process? Please explain!
	2	In reality, is there any stakeholder that encourages community participation in the MPA establishment process? Please explain!	2	Which stakeholder do you think is responsible for encouraging communities to participate in the MPA establishment process? Please explain!	2	In reality, is there any stakeholder that encourages community participation in the MPA establishment process? Please explain!	2	Which stakeholder do you think is responsible for encouraging communities to participate in the MPA establishment process? Please explain!
	3	In your opinion, what role should your institution play in community	3	What kind of involvement that you (or your community group) have in the	3	In your opinion, what role should your institution play in community	3	In reality, is there any stakeholder that encourages community participation in

Annex 1

List of Questions

		Informant groups								
Themes		Government Agencies		Communities		NGOs		Academics		
		participation issues? Please give example!		process so far? How do you think about it? Is there any change of the type of involvement? If yes, what cause it or what moment that trigger the cause? Are you satisfied with it and why? Is there anything that should be improved? Are there any other stakeholders that should be involved?		participation issues? Why your organization should play such role? Please explain!		the MPA establishment process? Do you have any specific case to support your answer? Please explain!		
	4	In your opinion, have communities participated in the MPA establishment process? Are you satisfied with the participation or do you think it could be improved? Please explain!		4	Is there any resentment from members of community or other community group regarding the process? What cause it? Do you (or does your community group) play a role in resolving it? Why and how? If not, who resolve it, how and why?		4	In your opinion, have communities participated in the MPA establishment process? Are you satisfied with the participation or do you think it could be improved? Please explain!		
								5	Are you familiar with MPA establishment process in Savu Sea, Berau, or Pangkep? Do you know about community participation initiatives in these areas and who encouraged such initiatives? Please explain!	
								6	Do you know whether communities in those three areas have participated in the process? Please explain!	
IV. MPA establishment process	1	In your opinion, who was the initiator of the MPA establishment here? What do you think about establishing an MPA here? Do you agree with the initiative? Why?		1	In your opinion, who was the initiator of the MPA establishment here? Do you (or does your community group) have a good relationship with the initiator? Please explain!		1	In your opinion, who was the initiator of the MPA establishment here? What do you think about establishing an MPA here? Do you agree with the initiative? Why?		
	2	Do you know the goals of the MPA and are they achievable?		2	What do you think about the MPA establishment process in here? Is it in-line with your (or your community group's) concern? Please elaborate your answer! (Explore whether the MPA limits the activities of communities, completely		2	Do you know the goals of the MPA and are they achievable?		
							1	Based on your observation, who do you think is the active initiator of the MPA establishment process in Indonesia? Do you consider it as an ideal situation or do you think it should be improved? Please explain!		
							2	What do you think about the MPA establishment process in Indonesia so far? Do you think the legislation are sufficient or do you think there should be an improvement? Please explain!		

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List of Questions

		Informant groups				
Themes		Government Agencies	Communities	NGOs	Academics	
			irrelevant with their needs, communities are sceptic about it, or it may help their wellbeing).			
	3	What role do you or your institution play in the process?	3	Are there any concerns from you (or your community group) that have not been acknowledged by the MPA establishment task force? What and why? Please explain!	3	What role do you or your institution play in the process? In your opinion, can your role be replaced by other stakeholder? Please explain!
	4	What do you think about the MPA establishment process so far? Is there anything that should be improved?	4	What do you think the biggest contribution that you (or your community group) have made in the process? Please explain!	4	What do you think about the MPA establishment process so far? Is there anything that should be improved?
	5	Have you ever involved in trainings related to the MPA establishment process? Please name them and explain your involvement (as an organizer, trainer, or participant)!	5	Who do you think gain the most advantage in the MPA establishment in this area? Who do you think sacrifice the most? Please explain!	5	Have you ever involved in trainings related to the MPA establishment process? Please name them and explain your involvement (as an organizer, trainer, or participant)!
	6	In general, what have you learned from the process? Could the new knowledge improve the capacity of you or your institution?	6	Have you (or your community group) ever involved in trainings related to the MPA establishment process? Please name them and explain your involvement (as an organizer, trainer, or participant)!	6	In general, what have you learned from the process? Could the new knowledge improve the capacity of you or your institution?
			7	In general, what have you learned from the process? Could the new knowledge improve the capacity of you or your community group?		

Annex 2

List of Codes

Themes	Codes Developed in Research Sites					
	Savu Sea		Derawan		Spermonde/Pangkep	
I. MPA establishment legislation	1	MPA legislation: Do not know	1	MPA legislation		
	2	MPA legislation: Know	2	MPA legislation: Do not know		
	3	MPA legislation: Wrong	3	MPA legislation: Know		
			4	MPA legislation: Wrong		
II. Perception of community participation	1	Participation in the legislation: Accommodated	1	Participation in the legislation: Accommodated	1	Participation in the legislation: Accommodated
	2	Participation in the legislation: Not accommodated	2	Participation in the legislation: Not accommodated	2	Perception: Definition
	3	Participation in the legislation: Past	3	Participation in the legislation: Past	3	Perception: Importance
	4	Perception: Definition	4	Perception: Definition		
	5	Perception: Example	5	Perception: Example		
	6	Perception: How to start	6	Perception: How to start		
	7	Perception: Importance	7	Perception: Importance		
III. Implementation of community participation activities	1	Community involvement: Has involved	1	Community involvement: Has involved	1	Community involvement: Hasn't involved
	2	Community involvement: Hasn't involved	2	Community involvement: Hasn't involved	2	Community involvement: Room for improvement
	3	Community involvement: Room for improvement	3	Community involvement: Room for improvement	3	Involved stakeholders: In real
	4	Community involvement: Who should be involved	4	Community involvement: Who should be involved	4	Involved stakeholders: Role to play
	5	Involved stakeholders: According to legislation	5	Involved stakeholders: According to legislation		
	6	Involved stakeholders: In real	6	Involved stakeholders: In real		
	7	Involved stakeholders: Role to play	7	Involved stakeholders: Role to play		
	8	Involvement activities: As reward	8	Involvement activities		
	9	Involvement activities: Cetacean monitoring	9	Involvement activities: As reward		
	10	Involvement activities: In management	10	Involvement activities: DPL establishment		
	11	Involvement activities: In public consultation	11	Involvement activities: In management		
	12	Involvement activities: Surveillance	12	Involvement activities: In public consultation		
	13	Involvement activities: Traditional use zone	13	Involvement activities: Surveillance		
	14	Strategy of socialization: Bottom up	14	Strategy of socialization: Approaching local leaders		
	15	Strategy of socialization: Communication frequency	15	Strategy of socialization: Bottom up		
	16	Strategy of socialization: Convincing community to comply	16	Strategy of socialization: Communication frequency		
	17	Strategy of socialization: Having facilitator/people with similar origin	17	Strategy of socialization: Convincing community to comply		

Annex 2

List of Codes

Themes	Codes Developed in Research Sites					
	Savu Sea		Derawan		Spermonde/Pangkep	
	18	Strategy of socialization: Hierarchical meeting/info flow	18	Strategy of socialization: Covering TNC's role		
	19	Strategy of socialization: Mentioning the benefit	19	Strategy of socialization: Cross-visit to other area		
	20	Strategy of socialization: Using available fora/events	20	Strategy of socialization: Having facilitator		
	21	Strategy of socialization: Using religious context	21	Strategy of socialization: Hierarchical meeting/info flow		
	22	Strategy of socialization: Using simple terminology	22	Strategy of socialization: Invitees & location		
	23	Strategy of socialization: Who's invited & location	23	Strategy of socialization: Opinion making		
	24	TNC role: Facilitation	24	Strategy of socialization: Using available fora/events		
	25	TNC role: Funding	25	Strategy of socialization: Using media		
	26	TNC role: Intervention of idea	26	Strategy of socialization: Using simple terminology		
	27	TNC role: Threats	27	TNC role: Facilitation		
	28	Trade offs	28	TNC role: Funding		
			29	TNC role: Intervention of idea		
		30	TNC role: Threats			
		31	Trade offs			
IV. MPA establishment process	1	Achievement: Room for improvement	1	Achievement: Room for improvement	1	Achievement: Room for improvement
	2	Achievement: So far	2	Achievement: So far	2	Achievement: So far
	3	Background of establishment	3	Capacity building: Learning	3	Challenges: At community level
	4	Capacity building: Learning	4	Capacity building: Training	4	Challenges: At government level
	5	Capacity building: Training	5	Challenges: At community level	5	Establishment process: Current status
	6	Challenges: At community level	6	Challenges: At government level	6	Establishment process: Future plans
	7	Challenges: At government level	7	Challenges: Current perception	7	Establishment process: Goals
	8	Challenges: Current perception	8	Establishment process: Initiator	8	Establishment process: Involved stakeholders: National level
	9	Establishment process: Initiator	9	Establishment process: Involved stakeholders: District level	9	Establishment process: Linked legislation
	10	Establishment process: Involved stakeholders: District level	10	Establishment process: Involved stakeholders: National level	10	Establishment process: Reason to agree
	11	Establishment process: Involved stakeholders:	11	Establishment process: Involved stakeholders:	11	Establishment process: The process

Annex 2

List of Codes

Themes	Codes Developed in Research Sites			
	Savu Sea		Derawan	
	National level		Subdistrict level	
12	Establishment process: Involved stakeholders: Provincial level	12	Establishment process: Involved stakeholders: Village level	
13	Establishment process: Involved stakeholders: Subdistrict level	13	Establishment process: Linked legislation	
14	Establishment process: Involved stakeholders: Village level	14	Establishment process: Meetings: District level	
15	Establishment process: Linked legislation	15	Establishment process: Meetings: National level	
16	Establishment process: Meetings: District level	16	Establishment process: Meetings: Subdistrict level	
17	Establishment process: Meetings: National level	17	Establishment process: Meetings: Village level	
18	Establishment process: Meetings: Provincial level	18	Establishment process: Reason to agree	
19	Establishment process: Meetings: Subdistrict level	19	Establishment process: Reason to disagree	
20	Establishment process: Meetings: Village level	20	Establishment process: Requirements for future success	
21	Establishment process: Reason to agree	21	Establishment process: The process	
22	Establishment process: Reason to disagree	22	Goals: Achievable	
23	Establishment process: Requirements for future success	23	Goals: TPKD (MPA) goals	
24	Establishment process: The process	24	Goals: Unachievable	
25	Goals: Achievable	25	MPA: KKLD (old MPA)	
26	Goals: TNPLS (national park) goals	26	MPA: Transition period	
27	Goals: Unachievable			

Annex 3

Stakeholders of the Savu Sea National Park

No	Organisation level	Stakeholders	Years active	Interest in the National Park (NP)	Standpoint to the National Park (NP)			Remark
					Supporting	Against	Neutral	
1	International	WWF	2005 - 2009	Initial promoter, targeting the Solar area	✓			Still working in the province, targeting different areas.
2		TNC	2007 - present	Establishment & management of the NP	✓			Leading the process, providing financial & technical supports, and capacity building program.
3		OICSA ⁷	2009	Working in coastal area			✓	Decided to disinvolve due to different working focus.
4	National	BKKPN ⁸	2008 - present	NP management authority	✓			Providing financial support.
5		BKSDA ⁹	2005 - present	Collaboration for managing the NP	✓			Providing financial support to the Council (chapter 3.1.2.3).
6		Navy	2009 - present	Law enforcer for international marine & fisheries cases	✓			
7		Water Police	2006 - present	Law enforcer for local marine & fisheries cases	✓			
8		Fishermen association	2009 - present	Fishery related activities	✓			The organization is based on membership.
9	Provincial	Provincial government main office	2005 - present	Local authority at the NP site	✓			Providing legal instruments including budget.
10		Marine affairs & fishery (DKP)	2005 - present	Local authority for marine affairs & fisheries	✓			
11		Planning agency	2005 - present	Local authority for province's development program	✓			
12		Tourism agency	2005 - present	Tourism program within the NP	✓			
13		Environment agency	2009 - present	Local authority for environment issues	✓			

⁷ OICSA = Organization for Industrial, Spiritual & Cultural Advancement.

⁸ BKKPN = Balai Kawasan Konservasi Perairan Nasional is a regional office of the MOMAF that administers aquatic conservation areas.

⁹ BKSDA = Balai Konservasi Sumber Daya Alam is a regional office of the Ministry of Forestry that administers natural resource conservation issues.

Annex 3

Stakeholders of the Savu Sea National Park

No	Organisation level	Stakeholders	Years active	Interest in the National Park (NP)	Standpoint to the National Park (NP)			Remark
					Supporting	Against	Neutral	
14		Spatial planning agency	2009 - present	Local authority for spatial planning	✓			
15		Transportation agency	2009 - present	Local authority for sea lane	✓			
16		Energy and mineral resources agency	2009 - present	Local authority for power plants and mining in marine area	✓			
17		Cendana State-University	2005 - present	Education and research related activities	✓			Providing fisheries data & capacity building program
18		Artha Wacana Christian University	2009 - present	Education and research related activities	✓			
19		Muhammadiyah University	2009 - present	Education and research related activities	✓			Providing social-economy data
20		Agriculture State-Polytechnic	2011 - present	Education and research related activities	✓			Recruited by the task force
21		Nusa Nipa University	2011 - present	Education and research related activities	✓			Recruited by the task force
22		Tribuana University	2011 - present	Education and research related activities	✓			Recruited by the task force
23		Teacher Training and Marine Science Institute	2011 - present	Education and research related activities	✓			Recruited by the task force
24		Iehari NGO	2009 - present	Working in coastal area	✓			
25	Municipality	Fishery vocational high-school	2005 - 2013	Education and research related activities	✓			The involved person moved to different institution; his current involvement is personal.

Annex 3

Stakeholders of the Savu Sea National Park

No	Organisation level	Stakeholders	Years active	Interest in the National Park (NP)	Standpoint to the National Park (NP)			Remark
					Supporting	Against	Neutral	
26	District	10 District government agencies	2010 - present	Local authority at the NP site	✓			Including district agencies of DKP, planning, tourism, etc. similar to those that involved in the provincial level.
27		11 NGOs	2010 - present	Working with coastal community	✓			Recruited by the task force. One NGO was replaced in 2014 due to the termination of its program in the park area.
28	Sub-district	47 sub-district governments	2011 - present	Local authority at the NP site	✓			
29	Village	195 village governments	2011 - present	Local authority at the NP site	✓			
30		195 village communities	2011 - present	Having livelihood at the NP site	✓			
31		Lamalera village community	2009	Whaling, particularly in Solar area		✓		Solar area was omitted from the proposed NP.

Annex 4

Stakeholders of Berau MPA

No	Organisation level	Stakeholders	Years active	Interest in Berau MPA	Standpoint to Berau MPA			Remark
					Supporting	Against	Neutral	
1	International	WWF	2000 - present	Conservation of sea turtles and working on groupers aquaculture.	✓			Members of Joint Program until the marine spatial planning regime.
2		TNC	2000 - present	Establishment & management of MPA	✓			<ul style="list-style-type: none"> Members of Joint Program until the marine spatial planning regime. It continues working in the coastal park regime.
3		Turtle Foundation	2000 - present	Conservation of sea turtles.			✓	
4		The United States Agency for International Development (USAID)	2003 - 2005	Establishment of MPA.	✓			<ul style="list-style-type: none"> Through a project named Coral Reef Management Program (CRMP). Members of Joint Program during the district MPA regime. Its project in Berau has ended.
5	National	Kehati NGO	1998 - 2005	Policies of conservation & sustainable use of marine species	✓			<ul style="list-style-type: none"> Established Kakaban Island MPA in 2004 under a Berau Regent Act. Members of Joint Program during the district MPA regime. Its project in Berau has ended.
6		BKSDA	1985 - present	Management of the existing two protected areas.			✓	Management authority of Sangalaki Island marine tourism park & Semama Island wilderness area.
7	Provincial	Mulawarman University	2012 - present	Establishment & management of MPA.	✓			Contracted by TNC.
8	District	District government main office	1998 - present	Local authority at site.	✓			
9		Marine affairs & fishery (DKP Berau)	2002 - present	Local authority for marine affairs & fisheries.	✓			
10		Planning agency	2002 - present	Local authority for district's development program.	✓			

Annex 4

Stakeholders of Berau MPA

No	Organisation level	Stakeholders	Years active	Interest in Berau MPA	Standpoint to Berau MPA			Remark
					Supporting	Against	Neutral	
11		Spatial planning agency	2002 - present	Local authority for spatial planning.	✓			
12		Tourism agency	2002 - present	Tourism program within the MPA.	✓			
13		Forestry agency	2002 - present	Local authority for terrestrial issues including coastal area.	✓			
14		Environment agency	2011 - present	Local authority for environment issues.	✓			
15		Public works agency	2011 - present	Local authority for marine infrastructure installment.	✓			
16		Transportation agency	2011 - present	Local authority for sea lane.	✓			
17		<i>Sangalaki</i> Dive Lodge	2002 - present	Ecotourism.	✓			Its business permit came from the Ministry of Forestry and ended in 2009.
18		Bestari NGO	1998 - present	Ecotourism.			✓	<ul style="list-style-type: none"> • Members of Joint Program during the district MPA regime. • Currently work in Maratua Island.
19		Kalbu NGO	1998 - 2005	Conservation & culture.	✓			<ul style="list-style-type: none"> • Members of Joint Program during the district MPA regime. • Disbanded due to inadequate funding.
20		<i>Yayasan Penyu Berau</i> (YPB) NGO	2006 - present	Conservation of sea turtles.	✓			Previously under the Turtle Foundation, it became separate NGO.
21		Mining companies	1980s – present	Sea lane users.		✓		This standpoint was for the district MPA.
22		Logging companies	1980s – present	Sea lane users.		✓		This standpoint was for the district MPA.

Annex 4

Stakeholders of Berau MPA

No	Organisation level	Stakeholders	Years active	Interest in Berau MPA	Standpoint to Berau MPA			Remark
					Supporting	Against	Neutral	
23	Sub-district	Seven sub-district government	2011 - present	Local authority at site.	✓			
24	Village	Derawan village government	2002 - present	Local authority at site.	✓			Its village head was against sea-turtle conservation.
25		Derawan village community	2002 - present	Having livelihood at the MPA site	✓			
26		Four village governments in Maratua Island	2002 - present	Local authority at site.	✓			Supporting the coastal park after negotiating the boundary of the core zone.
27		Four village communities in Maratua Island	2002 - present	Having livelihood at the MPA site	✓			Same as above.
28		24 village governments ¹⁰	2005 - present	Local authority at site.	✓			
29		24 village communities	2005 - present	Having livelihood at the MPA site	✓			

¹⁰ Only villages within the Derawan Archipelago were involved from the early stage, as the archipelago is the centre of marine attractions in Berau.

Annex 5

Stakeholders of Pangkep District MPA

No	Organisation level	Stakeholders	Years active	Interest in Pangkep district MPA	Standpoint to Pangkep MPA			Remark
					Supporting	Against	N/A	
1	International	Oxfam	2010 - present	Coastal livelihood issues			✓	The project ends in 2015.
2	National	COREMAP project	2006 - 2010	MPA establishment	✓			<ul style="list-style-type: none"> Leading the process, provide financial & technical supports, and capacity building program. Next phase of the project starts in 2015.
3		Individual consultants	2006	MPA establishment	✓			Hired by COREMAP.
4		BKSDA	1996 - present	Management of an existing protected area.	✓			Management authority of Kapoposang Island marine tourism park.
5	Provincial	Hasanuddin University	2006 - 2010	MPA establishment	✓			Involvement including the development of early MPA design and providing technical support of no-take areas management.
6	District	District government main office	2009 - present	Local authority at site.	✓			
7		Marine affairs & fishery (DKP Pangkep)	2006 - present	Local authority for marine affairs & fisheries.	✓			
8		Planning agency	---	Local authority for district's development program.			✓	Excluded in the MPA establishment process.
9		Spatial planning agency	---	Local authority for spatial planning.			✓	Excluded in the MPA establishment process.
10		Tourism agency	---	Local authority for marine tourism.			✓	Excluded in the MPA establishment process.
11		Environment agency	---	Local authority for environment issues.			✓	Excluded in the MPA establishment process.
12		Public works agency	---	Local authority for marine infrastructure instalment.			✓	Excluded in the MPA establishment process.
13		Transportation agency	---	Local authority for sea lane.			✓	Excluded in the MPA establishment process.
14		Energy and mineral resources agency	---	Local authority for power plants and mining in marine area.			✓	<ul style="list-style-type: none"> Excluded in the MPA establishment process.

Annex 5

Stakeholders of Pangkep District MPA

No	Organisation level	Stakeholders	Years active	Interest in Pangkep district MPA	Standpoint to Pangkep MPA			Remark
					Supporting	Against	N/A	
15		Pascal NGO	2009	Working on coastal and small islands issues.	✓			Contracted by COREMAP to develop a design of Pangkep district MPA.
16	Sub-district	Two sub-district governments	---	Local authority at site.	✓			<ul style="list-style-type: none"> It was one sub-district during the COREMAP project. Excluded in the MPA establishment process.
17	Hamlet	Two hamlet governments	2006 - 2010	Local authority at site.	✓			
18		Two hamlet communities	2006 - 2010	Having livelihood at the MPA site	✓			
19	Village	14 village governments	2006 - 2010	Local authority at site.	✓			
20		14 village communities	2006 - 2010	Having livelihood at the MPA site	✓			

Annex 6

List of Legislation in this Study

Hierarchy	No.	English	Indonesian	Issuing Date
Law	5/1990	Conservation on Natural Resources and Ecosystems	<i>Konservasi Sumber Daya Alam Hayati Dan Ekosistemnya</i>	10.08.1990
	22/1999	Local Government	<i>Pemerintahan Daerah</i>	07.05.1999
	31/2004	Fisheries	<i>Perikanan</i>	06.10.2004
	32/2004	Local Government	<i>Pemerintahan Daerah</i>	15.10.2004
	27/2007	the Management of Coastal Zones and Small Islands	<i>Pengelolaan Wilayah Pesisir dan Pulau-pulau Kecil</i>	17.07.2007
	1/2014	the Changes to the Law No.27/2007 on Management of Coastal Zones and Small Islands	<i>Perubahan atas UU NO.27/2007 tentang Pengelolaan Wilayah Pesisir dan Pulau-pulau Kecil</i>	15.01.2014
	6/2014	Villages	<i>Desa</i>	15.01.2014
	23/2014	Local Government	<i>Pemerintahan Daerah</i>	02.10.2014
	32/2014	Marine	<i>Kelautan</i>	17.10.2014
Government Regulation	37/2002	Rights and Obligations of Foreign Ships and Aircraft on Exercising the Right to Cross Indonesian Archipelagic Waters	<i>Hak dan Kewajiban Kapal dan Pesawat Udara Asing Dalam Melaksanakan Hak Lintas Alur Laut Kepulauan melalui Alur Laut Kepulauan yang Ditetapkan</i>	28.06.2002
	41/2007	Local Government Organisations	<i>Organisasi Perangkat Daerah</i>	23.07.2007
	60/2007	Fishery Resource Conservation	<i>Konservasi Sumber Daya Ikan</i>	16.11.2007
Ministerial Regulation	19/2007	Organisation and Working Procedures of Regional Office on Aquatic Conservation Areas	<i>Organisasi dan Tata Kerja Balai Kawasan Konservasi Perairan Nasional</i>	15.11.2007
	61/2007	Technical Guidelines of Financial Administration for Local Business Agency	<i>Pedoman Teknis Pengelolaan Keuangan Badan Layanan Umum Daerah</i>	07.11.2007
	16/2008	Management Planning of Coastal Zones and Small Islands	<i>Perencanaan Pengelolaan Wilayah Pesisir dan Pulau-pulau Kecil</i>	17.09.2008
	17/2008	Conservation Areas within Coastal Zones and Small Islands	<i>Kawasan Konservasi di Wilayah Pesisir dan Pulau-pulau Kecil</i>	17.09.2008
	2/2009	Procedures for Establishing Aquatic Conservation Areas	<i>Tata Cara Penetapan Kawasan Konservasi Perairan</i>	12.02.2009
	30/2010	Zoning and Management Plans of Aquatic Conservation Areas	<i>Rencana Pengelolaan dan Zonasi Kawasan Konservasi Perairan</i>	30.12.2010
	2/2011	Fishing Lane and Placement of Fishing Gears and Their Supporting Equipment in the Indonesian Waters	<i>Jalur Penangkapan Ikan dan Penempatan Alat Penangkapan Ikan dan Alat Bantu Penangkapan Ikan di Wilayah Pengelolaan Perikanan Negara Republik Indonesia</i>	31.01.2011
	5/2012	the Changes to the Regulation No.2/2011	<i>Perubahan Pertama atas PER.2/MEN/2011</i>	09.02.2012

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List of Legislation in this Study

Hierarchy	No.	English	Indonesian	Issuing Date
	18/2013	Changes to the Regulation No.5/2012	<i>Perubahan Kedua atas PER.5/MEN/2012</i>	05.07.2013
	34/2014	Participation and Empowerment of Communities in the Management of Coastal Zones and Small Islands	<i>Peran Serta Dan Pemberdayaan Masyarakat Dalam Pengelolaan Wilayah Pesisir Dan Pulau-pulau Kecil</i>	17.09.2014
	21/2015	Aquatic Conservation Areas Management Partnership	<i>Kemitraan Pengelolaan Kawasan Konservasi Perairan</i>	19.06.2015
Ministerial Decree	38/2009	Designation of the Savu Sea National Park in East Nusa Tenggara	<i>Pencadangan Kawasan Konservasi Perairan Nasional Laut Sawu dan Sekitarnya di Provinsi Nusa Tenggara Timur</i>	08.05.2009
	5/2014	the Savu Sea National Park in East Nusa Tenggara	<i>Kawasan Konservasi Perairan Nasional Laut Sawu dan Sekitarnya di Provinsi Nusa Tenggara Timur</i>	27.01.2014
	6/2014	the Management and Zoning Plans of the Savu Sea National Park in East Nusa Tenggara 2014 - 2034	<i>Rencana Pengelolaan dan Zonasi Taman Nasional Perairan Laut Sawu dan Sekitarnya di Provinsi Nusa Tenggara Timur Tahun 2014 - 2034</i>	27.01.2014
Governor Decree	180/2009	Establishment of Assessment Team of Feasibility, Endorsement, and Management Planning of the Savu Sea Aquatic Conservation Area in East Nusa Tenggara Province	<i>Pembentukan Tim Pengkajian, Penetapan dan Perancangan Pengelolaan Kawasan Konservasi Perairan (KKP) Laut Sawu di Provinsi Nusa Tenggara Timur</i>	23.06.2009
	74/2013	Marine Aquatic Council in East Nusa Tenggara Province	<i>Dewan Konservasi Perairan Provinsi Nusa Tenggara Timur</i>	15.03.2013
District Regulation	No. 8/2014	Zoning Plan of Coastal Areas and Small Islands of Berau District	<i>Rencana Zonasi Wilayah Pesisir dan Pulau-pulau Kecil Kabupaten Berau</i>	28.08.2014
Regent Regulation	18/2012	Ujungnegoro-Roban Coastal Park in Batang District	<i>Kawasan Taman Pesisir Ujungnegoro-Roban Dan Sekitarnya Di Kabupaten Batang</i>	30.04.2012
Regent Decree	70/2004	Endorsement of Kakaban Island as District MPA	<i>Penetapan Pulau Kakaban sebagai Kawasan Konservasi Laut Daerah</i>	08.04.2004
	31/2005	Designation of Berau MPA	<i>Pencadangan Kawasan Konservasi Laut Daerah Kabupaten Berau</i>	27.12.2005
	207/2011	Establishment of Task Force for Coastal and Small Islands Spatial Planning in Berau District	<i>Pembentukan Kelompok Kerja Rencana Zonasi Wilayah Pesisir Dan Pulau-Pulau Kecil Kabupaten Berau</i>	19.04.2011
	290/2013	Labuan Cermin Protected Area and Nature Tourism	<i>Kawasan Lindung Dan Wisata Alam Labuan Cermin</i>	03.05.2013
	516/2013	Designation of Derawan Archipelago Coastal Park as a Category of Coastal and Small Islands Conservation Area	<i>Pencadangan Kawasan Konservasi Pesisir Dan Pulau-Pulau Kecil Sebagai Taman Pesisir Kepulauan Derawan Kabupaten Berau</i>	02.09.2013
	109/2009	Endorsement of Pangkep district MPA	<i>Penetapan Kawasan Konservasi Laut Daerah Kabupaten Pangkep</i>	05.01.2009
	32/2010	Management of Pangkep district MPA	<i>Pengelolaan Kawasan Konservasi Laut Daerah Kabupaten Pangkep</i>	08.05.2012

Annex 6

List of Legislation in this Study

Hierarchy	No.	English	Indonesian	Issuing Date
District Government Agency Decree	523/2013	Establishment of the Drafting Team of the Derawan Archipelago Coastal Park Management Plan	<i>Pembentukan Tim Penyusun Draf Rencana Pengelolaan Taman Pesisir Kepulauan Derawan Kabupaten Berau</i>	27.09.2013
Village Regulation	1/2012	Protection on Marine Resources in Lilifuk Area	<i>Perlindungan sumber Daya Laut di Wilayah Lilifuk</i>	02.01.2012

Declaration by the Author

Herewith I declare that:

1. This thesis consists of my original works without any unauthorised helps.
2. This thesis only uses materials that are previously published or written by another person where due reference was stated.
3. This thesis provides clearly marked quotations and references in its texts.

Bremen, 17.11.2015

Wasistini Baitoningsih