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Marine protected areas in Norway: A study of local participation in the establishment of Jomfruland National Park

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Marine protected areas in Norway: A study of local participation in the establishment of Jomfruland National Park

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Declaration

I, Truls Bakke, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Signature.....

Date.....

*Let me get it right. What if we got it wrong?
What if we weakened ourselves getting strong?
What if the message carried in the wind was saying something?*

*From butterfly wings to the hurricane
It's the small things that make great change
In the question towards the end of the leases
no longer the origin but the end of species*

*Let me get it right. What if we got it wrong?
What if the message carried in the wind was saying something?*

Lemn Sissay

I Foreword and acknowledgements

This thesis marks the end of my master's degree in international environmental studies. It has not been an easy journey, and social science is more complex, political, vague and difficult than I imagined. Still, I am done. I want to thank my advisors professor Pål Vedeld and Erling Krogh for their patience, friendliness and guidance. Morten Johansen, the county governor in Telemark for inviting me to participatory meetings and workshops. Viggo Nicolaysen for inviting me to his home and giving me valuable information about the local community in Jomfruland. Torstein Kiil and the local community on Stråholmen and Jomfruland for their information and friendliness. Jomfruland and Stråholmen are two unique ecological and cultural landscapes and I will forever be grateful for the experiences people gave me. I hope you will adapt to the challenges ahead and thrive for yet another thousand years.

II Abstract

Bound by the International Convention on Biological Diversity (1992), Norway aims to protect 10 percent of its coastal areas. This ambition imply establishing protected areas in densely populated regions along the coastline. In accordance with a more participatory management model defined by the New Biodiversity Act (2009), Norway seeks to include local stakeholders into protected area management. This is a new practice and it is important to study how the state is able to include local perspectives and interests into the conservation processes. This thesis looks at how actors and structures interact and influence the emergence of Jomfruland National Park by qualitatively observing participatory arrangements and interviewing participants from start-up to the creation of the draft plan. This thesis aims at explaining how the organisational structure leads towards a partial participatory arrangement and management regime. It builds on an integral theoretical framework and consider both resources, individual worldviews, collective discourses, rights and capabilities of actors as well as rules or regulations.

Local, regional and national actors proved to have different preferences regarding the meaning and concept of a national park. They initiated and mobilised separate political processes in order to shape the national park. The organisational structure of the process gave rights and responsibilities to different actors with different preferences. In doing so, the organisational structure influenced the outcome. In accordance with the New Biodiversity Act, the municipality received the responsibility to establish Jomfruland National Park. The local community on Jomfruland and Stråholmen proved to be well organised and able to mobilise a significant political force against decisions that they opposed. These tendencies led the process towards a less restrictive national park regime than those previously postulated by the Environmental Authority.

The findings show that, in spite of confrontations, the local participants, the municipality and the county governor agreed on both prescripts and management guidelines. However, their notion of a national park proved less restrictive to that of the Environmental Authority. In February 2015, the Environmental Authority refused to accept the draft plan. The local community allied with the municipality and went against the conservation initiative.

While the establishment process managed to include local stakeholders, it failed to give them power to shape decisions. The national park was a central initiative, not a local one. This created tension from the very beginning. In this way, participation became more as a means to an end, rather than an end in itself. This thesis argues that the process could have reduced tension by including local stakeholders from the beginning and by collaborating towards common goals in respond to common challenges.

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IV List of abbreviations

- Directorate for Environmental Management (DN)
- Ministry of Climate and Environment (MoE)
- United Nations Environment Programme (UNEP)
- Tenth meeting of the Conference Of the Parties (COP10)
- International Convention of Biodiversity (CBD)
- Ministry of Food and Agriculture (MoA)
- Interdisciplinary Problem Solving Workshops (IPS)

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1 Introduction

1.1 The problem of declining biodiversity

The biological diversity on planet earth is declining. According to Kearns (2010), we have not seen such a decline in Earth's biodiversity since the last mass extinction 65 million years ago (Rockström, 2009; World Wide Fund for Nature, 2014). A large portion of the world's nations has agreed to save Earth's biodiversity through the International Convention of Biodiversity (CBD). This convention was signed by 167 nations during the Earth Summit in Johannesburg in 1992 (United Nations, 1992). During their tenth meeting of the conference of the parties in 2010 (COP10), United Nations introduced the Aichi Biodiversity Targets. These targets defined 20 goals that the member states had to meet by 2020. One of these goals implied protecting 27 percent of the Earth's surface by establishing a network of protected areas with high biological and ecological value (17 percent of earth's terrestrial areas and 10 percent of earth's marine areas). By establishing such areas, the United Nations hope to increase our planet's capability to maintain and reproduce its biodiversity, and thus avoid mass extinction (UNEP, 2010a, 2010b). Together with some of the world's leading environmental organisations, the convention defined what we should protect, why and how. They developed formal procedures and criteria for establishment and management. These definitions and procedures are clearly defined by the International Union for Conservation of Nature and Natural Resources (IUCN, 2008). For example, in their report, they state that the main goal of establishing protected areas is to "*protect natural biodiversity along with its underlying ecological structure and support environmental processes, and to promote education and recreation*" (p 3). They also state that these areas "*must prevent, or eliminate where necessary, any exploitation or management practice that will be harmful to the objectives of designation*" (p 10).

Norway signed the convention in 1992 and agreed to fulfil the Aichi targets in 2010. The nation decided to protect most of its areas by establishing national parks¹. Today, over 75 percent of all protected areas in Norway and 20 percent of all marine protected areas are National Parks. Bound by the CPD's 1992 notion of protected areas, the purpose of such parks were to "*to protect larger and relatively untouched, natural areas that include distinctive or representative ecosystems or landscapes*" (Lovdata, 2009) (my translation). The idea of a national park therefore imply predefined sets of goals, narratives and regulations regarding the relationship between humans and nature.

¹ Since the establishment of Yellowstone National Park in 1872 in the USA, the number of protected areas worldwide has increased to 100 000 per 2005, covering 12% of earth terrestrial surface (Mose, 2007; National Park Service, 1992).

1.2 Norway and marine protected areas

1.2.1 Introduction to marine protected areas in Norway

Norway currently protects approximately 16.9 percent of its terrestrial areas, but only 2.6 percent of its marine areas. These 2.6% includes approximately 3700 km² spread across 1065 protected areas along the coast. The nation therefore still has a long way to go in terms of marine conservation. In order to meet the Aichi targets for marine conservation by 2020, Norway must establish marine protected areas covering 10 800 km².

Establishing protected areas along the Norwegian coast is a challenge. The majority of people in Norway live in local communities nearby the sea, and most of these people possess a vast array of properties, user rights and interests in these areas. Establishing fair collective arrangements regarding access and use is therefore costly and highly problematic, and requires legitimate solutions. In addition, all municipalities in Norway are relatively autonomous. They are representative democracies and is legally responsible for local area planning through the Planning and Building Act. Policy measures reflects sectorial interests on the one hand and the public majority and their opinions on the other. These sectorial interests and political opinions do not necessary support environmental conservation. Finally, political authorities in coastal areas often remain unaware of, or tend to approve of individual small-scale environmental changes without considering the collective ecological effects. This tendency lead to what Stokke (2012) called piece-by-piece development, meaning that a high number of people make, what seems to be, insignificant pressure on the ecosystems. This tendency collectively represents a major disturbance on the ecosystems.

1.3 The challenge of environmental governance

Establishing and managing protected areas is a political issue of environmental governance and is therefore highly contested. Generally, the debate divides among local, national and international political actors with incommensurable discourses, rationalities and narratives regarding the relationship between nature and society (Bäckstrand, 2010; Bäckstrand & Lövbrand, 2006). These actors tend to disagree on topics related to governance, the levels of restrictions and the degree of local sovereignty (Heiberg, 1999). Managing protected areas is therefore a question of power divided between those who manage (local communities) and those who define management (international organisations, scientific communities and national states).

Managing protected areas is also a question of historical trends. As stated by Vedeld (2002), protected areas has changed dramatically from an authoritarian regime during the 1950ties towards a new communitarian regime in the twentieth century. Both internationally and in Norway, the

authoritarian regime often neglected local opinions and took away their lands without much compensation. The regime postulated an idea of nature as separated from humans. Conservation efforts aimed at protecting untouched nature for its recreational potentials.

This authoritarian regime began to change during the 1980ties. Because of multiple trend shifts in society, a more participatory management approach began to emerge both internationally and in Norway. This approach aimed at combining economic growth and capitalism with local environmental conservation in order to establish legitimate and sustainable management solutions. Norway began initiating sustainable development and decentralising environmental management during the late 1990ties (MoE, 1996-97).

In spite of its good intentions, this new approach built upon sets of faulty assumptions about social change and human behaviour. Local communities were complex entities with unique social relations, cultures and traditions that often proved incompatible with localised environmental conservation. Some local communities went against the conservation initiatives and some proved incapable of combining economic growth with environmental conservation. In some places, rights, decision-making and economic benefits fell into the hands of the most powerful. This eventually forced many local communities into losing assets and increased conflicts.

Today, a new communitarian approach is emerging. This new approach to protected area management emphasise participation as collaboration and communication between different stakeholders as a mean to develop legitimate solutions. It gives local communities increased responsibility and power to manage protected areas and freedom to create their own institutions based on local knowledge and worldviews (Vedeld, 2002).

1.4 Introducing the communitarian approach in Norway

Historically, Norway represents a special case when it comes to establishing protected areas. When environmental conservation hit the political agenda during the 1960ties, the political authority could act rapidly and establish a range of larger protected areas without local resistance. Norway could do this because it possessed huge state owned areas in little populated mountainous regions inland and because the public was secured free access to protected areas for recreational purposes through the Outdoor Recreations Act 1957 (Lovdata, 2009).

Norway chose to protect many of its large state-owned areas as national parks through a centralised regime. The purpose of national parks was to “*to protect larger and relatively untouched, natural*

areas that include distinctive or representative ecosystems or landscapes (my translation)” (Lovdata, 2009). In 1962, Norway established its first national park in the mountainous regions of Rondane (Haukeland, 2011, p. 11). Protecting its coastal areas was not an option because these areas did not fulfil the criteria of “untouched nature” and because the majority of the Norwegian people lived nearby the sea and had economic interests and legal rights in coastal resources.

This centralised model worked relatively well for establishing and managing protected areas in uninhabited mountainous areas with a fragmented and minor population. However, the few people that had interests in these areas experienced an authoritarian regime that ruthlessly neglected their local interests and knowledge. The state both initiated and defined the establishing process based on predefined sets of narratives and discourses regarding nature and governance. The Directorate for Environmental Management (DN) eventually began to establish national parks in more populated and privately owned regions such as the Hardangervidda (1982). Naturally, people in local communities began mobilising in opposition to conservation initiatives. The DN and its restrictive approach on environmental conservation met massive resistance from the local communities. A battle gradually intensified between the state and local stakeholders over rights, returns and responsibilities. Hardangervidda National Park became the first park with more privately owned land than state land (52 percent).

Witnessing an increase in the fragmentation of natural wild areas, together with an increase in public opposition towards protected areas, the Norwegian government decided to reframe its approach to protected areas management in order to gain public support for environmental conservation. In relation to Agenda 21, the Ministry of Climate and Environment (MoE) decided in 1996 to decentralise the protected area regime, thereby including local stakeholders into the processes. Immediately, conservation became a political issue locally. People began organising into different and oppositional political networks with different interests and narratives regarding environmental management. The battle intensified and separated local communities into factions bound to different networks (Falleth, Hovik, & Sandström, 2008; Velvin, Krogh, & Vedeld, 2010).

When stakeholders began organising and participating in the management processes, incommensurable interests and ideas became more explicit. The DN postulated an ideal nature as untouched by human influence and an idea of human beings as fundamental destructive to the environment, regardless of their actual activity. The DN therefore favoured restrictions and conservation. Rural minorities and communities operated with a different view on nature. As argued by Vedeld, Krogh, & Vatn (2003), the typical farmer built their worldview on local and traditional

knowledge and a local *sense of place*. To the farmer, the idea of conserving nature through restrictive means remained irrational. They favoured sustainable use and highlighted their right to use the land.

The DN somehow neglected local worldviews, and the directorate developed a tendency to doubt local communities' ability to develop sustainable management regimes (Kaltenborn, Riese, & Hundeide, 1999). As a compromise between landowners and the DN, the state allowed more use within the park area. However, more use did not mean free use, and local stakeholders felt that their voices remained silenced. This resulted in a wide array of conflicts regarding vague permissions and rights and a mistrust towards the environmental authorities (Reitan, 2004, pp. 442-443).

Norway began experimenting with ideas related to the communitarian approach in 2001. The government initiated a number of new protected areas with different organisational structures. In 2008, the DN published an evaluation. This evaluation stated that "*local authorities largely fulfil the formal terms and duties pertaining to a management authority*" (p 8-10). Local communities therefore proved capable of establishing and managing their own protected areas in accordance with national criteria. However, the local communities had trouble with organisation, participation and communication. First, local authorities did not fully recognise their roles and responsibilities. They ignored direct violations or approved of applications that went against the conservation and its purpose. Secondly, they proved unable to include important stakeholders into management processes and unable to solve conflicts regarding the protected area. Because of this, they failed to increase public support for conservation initiatives. Third, they struggled with inter-communal collaboration, as they often seemed unable to establish and agree upon binding regulations and management solutions (DN, 2008).

In spite of these challenges, the MoE introduced a new management model in 2009 (Lovdata, 2009). As recommended in DN's evaluation, the model built upon several preconditions. One of these precondition stated that the model had to include local stakeholders into the management processes. Local authorities should establish local arenas for local participation and knowledge sharing. However, in practice, instead of giving local authorities complete autonomy, the initiative divided the management responsibility between local politicians and the state. Local politicians now became officially and politically responsible for the establishing and approving of protected areas. The DN, through the county governor, remained in the background responsible for organising and leading the actual establishment process. Once established, the DN would employ qualified environmental managers. These managers would be responsible for managing and monitoring the protected area in

collaboration with the local community. While the plan and building law directs the management process, the law on biodiversity should remain in authority (Fauchald and Gulbrandsen, 2012, p. 2007)

1.5 Participation and social change

While the Norwegian model highlights participation and knowledge sharing as a precondition for success, it remains vague in explaining what participation and knowledge sharing actually means in practice (Lundberg et. al 2013). This vagueness regarding participation is a common feature in both international scientific literature and policy papers on environmental governance. Participation is therefore more an ideological and political concept than an empirical one.

Arnstein (1969) and Pretty (1995) argue that participation is a question of power. People can participate without actually having any right to influence decision-making. Historically, states and governments have used this paradox to justify state authority (Ibid, 1995). As illustrated by Skjeggedal (2007a), this is also a tendency in Norwegian environmental management. The DN postulate participation as means to an end, rather than an end in itself, and thereby using participation as an excuse to legitimise environmental conservation.

Pretty (1995) himself argue that fair participation facilitate empowerment, mutual understanding, knowledge sharing and legitimised decision-making. Cooke and Kothari (2001) and Cleaver (1999, 2012) oppose this idealised notion of participation and argue that there is little evidence of participation actually improving the lives of local people. More than often, participation only reinforce the power of the interest of the most powerful at the expense of the less powerful. Through a critical analysis, Cleaver (2012) dismantle the orthodox theory of participation. The theory of participation fail because it does not recognise the complexity and the dynamics in people and communities. Literature on local participation tend to disregard both how social relations, power, tradition, information and resources distribution affect participatory arrangements.

Some scholars, like Ostrom (1990) suggest that fair participation and sustainable management regimes require fundamental set of participatory arrangements. In other words, participation will not work unless there are sets of collective rules that enable the less powerful to influence decision-making. While Cleaver (2012) do not oppose Ostrom's (1990) requirements for participatory arrangements, she emphasise that institutions and rules are relative to culture. Participation is more complex than we often think, and require "*a comprehensive analysis of the non-project nature of people's lives, the complex livelihood interlinkages*" (Cleaver, 1999, p 597)

A core challenge in establishing protected areas then, is to analyse and ensure that local communities possess the necessary political, cultural and institutional mechanisms and resources to initiate and take part in participatory processes as means to develop sustainable management regimes. The question of participation in managing protected areas is therefore a question of both actors, structures and the *social process* of establishing management regimes. There are a number of different approaches to draw on in terms of organising such processes, such as eco- planning, trans-boundary management, ecosystem management and adaptive regional management and adaptive governance (Clark, Picard, & Hohl, 2015). Each approach lead towards different management solutions as they include different organisational structures and cultures that presumes different degrees of social participation and organisational aims.

1.6 Main problem, focus and justification of thesis

Local management of protected areas in Norway is a new phenomenon. Many academic institutions in Norway currently involve in research projects aimed at analysing various aspects of participation in the new protected area regime (Lundberg et al, 2013). Some of these projects look at the complexity and unpredictability of local communities in order to assess how different socio-ecological attributes affect the way these local communities respond to social change. In this thesis, I want to contribute to these projects and address the challenges of participation in establishing protected areas by studying how local and central actors and structure interact during the emergence of a marine protected area in Southern Norway, Jomfruland National Park (See picture 1). I will analyse the process from start-up to the draft plan, which is as far as it has come. My main research question then becomes: *How do different actors and structures shape the emergence of Jomfruland National Park?*

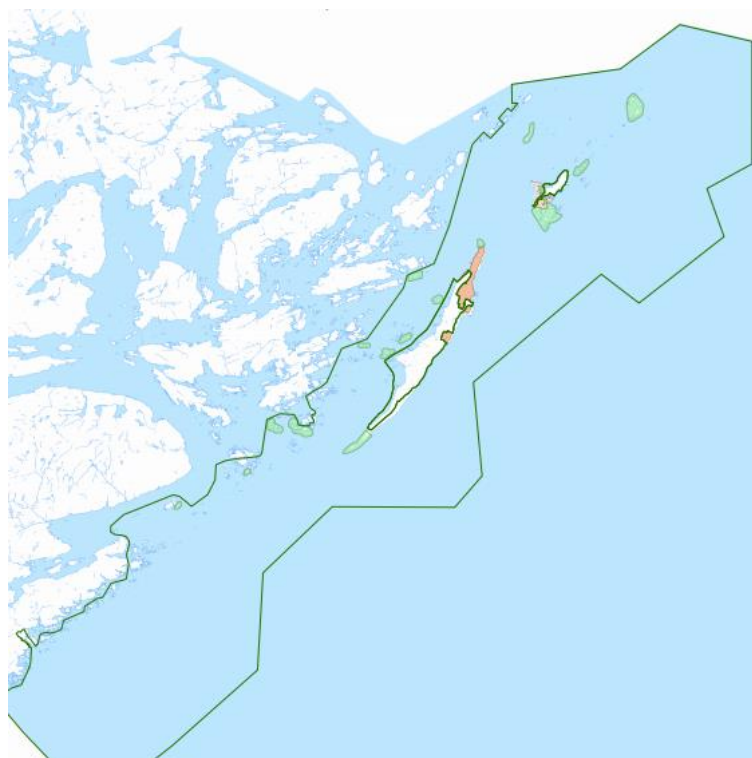
Jomfruland represents a unique and interesting case in terms of national park establishment for several reasons. Firstly, in accordance with the New Biodiversity Act (2009), the environmental authorities have given the local communities the right to participate in the formulation of the draft plan. Secondly, Jomfruland, in collaboration with Raet national park, is the second maritime national park established in accordance with the new management model. There is little literature on how the new management model involve coastal communities in national park establishment processes. Thirdly, the local community on Jomfruland and Stråholmen have a long tradition of environmental management and are politically well organised compared to other local communities in Norway. In order to influence the establishment process, they have been able to mobilise a considerable political force relative to their population size. Fourthly, there are a vast array of relatively well-organised

actors with different interests involved in the process such as island residents, cottage owners, tourists, botanists, fishers, politicians and state representatives. In addition, some of these actors act on behalf of external organisations with unique narratives regarding environmental governance. There are both different sectors, different governmental departments as well as international regimes involved in the planning process.

Picture 1: Overview of Stråholmen and Jomfruland (Thorsen, 2015)



Picture 2: Overview of Jomfruland National Park (Telemark County Governor, 2015)



	Not part of the national park
	Protected landscape area
	Zone A – special areas with rules aimed at specific ecological patches such as meadows, forest gardens and grazing patches.
	Zone B – Bird conservation area

1.7 Objectives and research question

We can understand the establishment of Jomfruland National Park as a process of social change from idea to organisation of the planning process, to the creation of the draft plan towards the outcome. Throughout this process, actors with different interests and capabilities interact in participatory arrangements in order to influence the outcome. However, these participatory arrangements is not neutral. Some actors receive more power than others do. The planning process in Jomfruland is organised in accordance with the New Biodiversity Act, giving the local community right to participate in forming the draft plan. The questions is however, what kind of participation is this? Moreover, how do this organisation influence the outcome, or in this case, the draft plan?

In order to understand participation as a social process we can draw on Vedeld (1999) structure-process model and Vatn's (2011) resource regime model. This framework focus on the relationships between variables in social change. Analysing participation as social change within this model presumes four separated stages involving four types of variables. We can classify the variables into structures, actors, interests and discourses and justify such a classification ontologically by assuming the existence of objective, subjective, intersubjective and interobjective phenomena (Wilber, 2007).

The first stage in this model is to understand the resource system and the environmental governance regime. The environmental governance regime refer to structures, actors, interests and discourses within Jomfruland and Stråholmen that shape social priorities and influence action. By analysing the environmental governance regime, we can explain what effects the national park will have on Jomfruland and Stråholmen and thereby identify actors that have interests in participating in the national park establishment. The second stage is to analyse how the planning process is organised and how it include/exclude stakeholders and distribute rights and responsibilities among these stakeholders through time. The third stage involves analysing how the participants interact during the planning process. The fourth stage is to analyse the outcome, in this case, the draft-plan.

1.7.1 Goal 1 Identify relevant actor-structures

The establishment of a national park in Jomfruland and Stråholmen involves singular actors/organisations with rights and preferences, plural structures that determine how these actors/organisations behave, as well as various environmental resources of value. The national park

initiative imply reorganising the environmental governance structure. Prior to analysing the establishment process, we must identify those actors and resources with rights and interests relevant for the national park initiative as well as the environmental governance structure.

The first phase of this analysis is to identify relevant (objective) actors within Jomfruland and Stråholmen. Actors can be individuals or organisations as long as they possess a sense of opinion or direction/trajectory. The second phase is to identify the (interobjective) structures that determine how these actors behave. These structures include both the type environmental resources embedded in the landscape and the way these resources are organised, as well as legal rules, rights and organisational procedures that determine how actors behave. The third phase is to identify the (intersubjective) discourses as shared signs of meaning that partly determine if and to what extent actors will mobilise and participate in the establishment processes. Discourses are inter-subjective in the sense that they emerge out of a relationship between the actor's ego and the external world. The fourth phase is to identify (subjective) discourses as worldviews by analysing how actors understand and conceptualise underlying ideas relevant for the establishment process. Different people perceive the world subjectively and may draw upon different ideas and types of knowledge to justify their interests. Such perceptions leads towards different management solutions. For goal one, I present the following research questions:

1. Who are relevant actors that possess rights and responsibilities relevant for the conservation initiative?
2. How do different rules that affect how these participants behave?
3. What are their interests regarding the conservation initiative?
4. What are their discourses regarding the conservation initiative?

1.7.2 Goal 2: Analyse the organisational structure

The establishment processes are pre-organised in terms of rights and responsibilities. Its organisational structure will exclude and/or include actors and determine who and how participants can influence decisions. This organisational structure is in a systemic sense, an actor with a purpose and a direction. I will analyse the organisational structure. I present the following research questions:

1. Who are allowed to participate in the establishment processes at different stages?
2. How do the organisational structure distribute rights and responsibilities among the participants?
3. How do the organisational structure influence the trajectory?

4. How did the local community on Jomfruland and Stråholmen manage to mobilise to such an extent?

1.7.3 Goal 3: Analyse the processes

After analysing the actors and structure as well as the organisational structure, I will focus on the action situation and the dynamics of the establishment process and analyse how variables mobilise and interact to shape decisions. I will do this by first identifying and analysing disagreements, then discussing how the participants mobilise and interact in order to resolve these disagreements. For goal three, I present the following questions:

1. What conflicts emerged during the establishment process?
2. How did the participants decide on a resolution?
3. Are the participants happy about the process and the solutions?
4. What incommensurable variables caused these conflicts?

1.7.4 Goal 4: Analyse the outcome in terms of participation

The fourth stage is to focus on the outcome in terms participation. I will evaluate to what extent different participants have been able to influence decision-making. I will build on (Pretty, 1995), Cleaver (2012) and Vedeld (2014a) and their theories on participation. I will also evaluate whether the processes are forms of co-management based on Carlsson and Berkes (2005) and Ostrom (1990). I present the following questions:

1. What form of participation is this?
2. Can this process be called co-management?
3. Does the process fulfil Ostrom's (1990) design principles?

1.8 Thesis structure

Chapter 2 explain the theory behind each objective. This includes ontological and epistemological premises and relevant literature review on environmental management. Chapter 3 is context specific and explains both the process of national parks establishment in Norway and a short history of Jomfruland and Stråholmen. Chapter 4 explain the methodology. Chapter 5 summarise the results and discuss the findings. Chapter 6 concludes.

2 Literature, theory and conceptual framework

2.1 Introduction: Ontological and epistemological premises

I believe that defining the ontological assumptions and (my) the narrator's perspective is important. There are many ways to understand any given phenomena and the researcher's perspectives, values, behaviours and capabilities shape the research outcome more than we often expect. We are, even we like it or not, biased towards a particular ontological, epistemological or political frame. To clarify my point of view, I assume that we can understand causality through four different lenses. I will try to define these lenses and use them to develop an overall and integral approach to study the conservation process of Jomfruland national park.

The ontological framework is founded upon Wilber (2007), and the notion that there exist four different ways of perceiving any phenomena. A singular, a plural, an objective and a subjective perspective. To understand a given social phenomenon such as the emergence of Jomfruland national park, we must consider all four perspectives. A singular perspective implies paying attention to the relevant *actors*. The plural perspective implies looking at the *structures* or relationships between these actors, the objective perspective implies paying attention to the objective aspects of reality, while the subjective perspective implies paying attention to the subjective interpretations of reality (Esbjörn-Hagens, 2009; O'Brien & Hochachka, 2010).

From this framework, Jomfruland and Stråholmen becomes more than just a visual landscape. The landscapes include actors with capabilities and rights such as animals, people, organisations and interests groups (singular objective) that act on behalf of their subjective interpretation of reality (singular subjective). Actors communicate and share a collective set of narratives and discourses that shape their interests and values (plural subjective). They act and organise themselves accordingly in relation to resource attributes, infrastructure, properties, legal rights and responsibilities (plural objective) (Table 1).

Table 1: An Integral Framework

Jomfruland and Stråholmen	<i>Subjective (internal variables)</i>	<i>Objective (external variables)</i>
<i>Singular (actors)</i>	Individual worldviews	People and organisations
<i>Plural (structures)</i>	Discourses and interests	Rules and rights

Krogh; Vatn, Gundersen, & Vedeld, (1998) use the concept of *life modes* to combine what they refer to as “*the material and the ideational or mental dimension*” (Vedeld 2002a, p 6). In their view,

actor's subjective experiences can only be understood *in relation* to the objective landscape in which this experiences takes place Subjective phenomena (as feeling, thoughts and experiences) connects to objective phenomena through action. Through his/her life mode, the actor create a sense of self and internalise sets of mental representations and values. These mental representation and values “*constitute the foundation for human behaviour and adaptation*” (Ibid, 2002, p 5). As based on Luckmann and Berger (1966, 1991), *life modes* becomes social phenomena because they emerge during the interaction with other people. People learn values and appropriate behaviour by observing and interacting with other people. They, as a group, form a collective set of shared meaning and discourses that shape their perception of reality, as well as sets of objectivized or institutionalised rules that influence their choice of action.

2.2 Epistemological frame: Living landscapes as complex adaptive systems

Much of the epistemological basis for this paper builds on system's theory. Systems theory provides us with mental tools to understand non-linear causality. By looking at Wilber's (2007) ontology as systems, we get a holistic framework that integrate subjective experiences, collective discourses, individual capabilities and social institutions into one biopsychosocial model (Illustration 1).

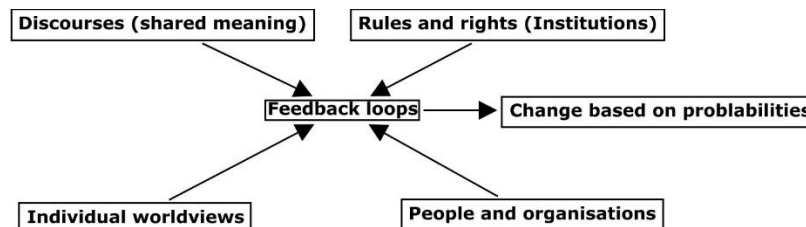


Illustration 1: Interacting factors in a non-linear social system

Berkes and Folkes (1998) use the term socio-ecological systems to integrate ecological and social attributes of such a landscape. In their view, the divide between human and natural systems is a cognitive illusion. An integral system implies a system in which both objective and subjective phenomena interlink. Humans, animals and plants, their experiences and their culture, their behaviour and their interactions interknit in a network of subjectivities defined by information and objectivities defined by matter and energy. It nests both in a larger system at higher scales and it includes holons at lower scales. A holon is part-whole systemic unit. A collection of systemic nodes or subsystems where information and/or energy/matter connects, integrate and becomes more than the sum of its parts (Ostrom, 2009; Wilber, 2007).

Such holarchic systems can be understood as complex adaptive systems and possess certain fundamental properties. One, they are complex because they have a vast number of (unknown)

internal variables spread across different spatial scales. Two, they are self-organising because all these internal variables interact with each other through feedback mechanisms. And, three, they are adaptive because they respond to changes in external variables by building increasingly more complex structures (Folke, 2011; Levin, 1998). Four, they have a set of various leverage points, points or nodes in which change are probable to feedback across the entire system and generating systemic changes (Meadows & Wright, 2008). Five, such systems organise in a direction towards multiple equilibria, basins of attractions. The attractor is a future possible and probable state (Holling, 1973).

Self-organisation in this sense, and in its most general form, is a systemic process where order arises from a set of local interactions between individual agents within a more disordered system. While the causality of change is a difficult one, one might argue that change starts because of random disturbances with positive feedback mechanisms within sub-systems at lower scales. Higher structures such as institutions and cultural discourses function as stabilising forces by initiating negative feedbacks (Gunderson, 2001). The system's ability to cope with these fluctuations depends its resilience, meaning the "*capacity of a system to absorb disturbance and reorganize while undergoing change so as to still retain essentially the same function, structure, identity, and feedbacks*" (Gunderson, & Holling, 2009; Holling, 1973; Levin, 1998; Walker, et al, 2004).

Jomfruland and Stråholmen are constantly self-organising towards a future systemic state where information and matter organise in specific patterns. As complex adaptive systems, they struggle to sustain their functions, identities, structures and feedbacks. Actors, representing external higher structures at regional, national or international levels intervene with the self-organisation of the system and initiate change /disturbances within Jomfruland and Stråholmen. Internal actors within Jomfruland and Stråholmen such as people, organisations, organisms and local biomes respond to these changes by either resisting change altogether, transforming their functions, identity, structures or feedbacks in order to mitigate the disturbance or by removing them and reorganise into a different system.

Jomfruland and Stråholmen have coped with a wide range of environmental, political and institutional disturbances for hundreds of years and somehow maintained many of its key features and traditions. However, climate change, new forms of knowledge, policies, and globalization as well as population pressure represents new and unfamiliar challenges. The people of Jomfruland and Stråholmen can try to resist these new challenges by continue as before, mitigate disturbances by improving the way they technically manage their landscape or by reorganise their resource regime

and develop new form of environmental governance. Establishing national parks on Jomfruland and Stråholmen is therefore a social process where actors with rights and capabilities, structures with rules, discourses with shared meaning and worldviews interact, participate and self-organise in order to establish a new environmental governance regime. From a systems perspective, we can say that the configuration of the socio-ecological system change from one state towards another. Drawing on (Vedeld, 1999, 2002), the establishment of a national park can be seen as a process of changing the configuration of a system (Jomfruland) from a structure a (pre-establishment state) to a structure b (post-establishment state) (Illustration 2).

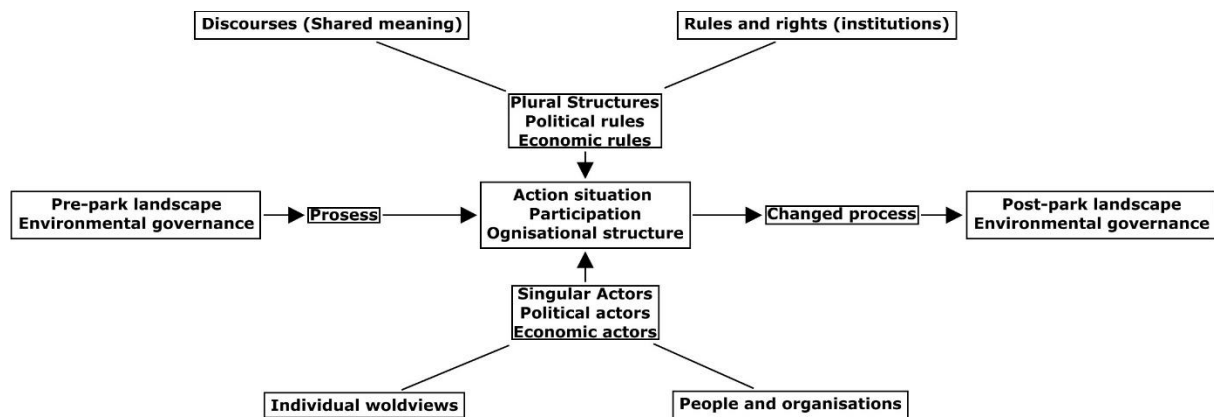


Illustration 2: Interacting forces in non-linear social change

2.3 Singular objective: The actors

During the establishment of Jomfruland national park, actors as people and organisations will use different form of capabilities and political/economic rights to shape decision-making. A. Etzioni (1966) argued that actors have different forms of capabilities to initiate social change based on how other people might respond. He distinguishes between coercive, remunerative and normative forms of power. Coercive power refer to the extent some people can force other people to obey against their will. Remunerative power refer to how capable some people are at persuade other people through rewards. Normative power refer to how capable some people are at manipulating or communicating with other people to cognitively to agree with them.

In social theory, there are four common ways to initiate social change depended on how people respond. An actor can initiate social change by influencing what people think is possible to do, what they want do, what they think is appropriate to do or what they think is profitable to do. In policy science, these strategies for initiating change is often understood as administrative/organisational, legal, economic and pedagogic policy instruments. Administrative or organisational instruments imply reorganising and alter bureaucratic processes, power, resources, authority, rights and duties.

This will influence policy goals and the choice of other policy instruments, as well as interests, values and norms of the involved actors. Legal instruments implies changing laws understood as defined and sanctioned rights and duties. Such instruments imply changing the laws that regulate society and determines the property rights/privileges and interaction rules. Law defines which interests to protect in situations of conflict as well as appropriate action accompanied by penalties if not followed. Economic instruments imply changing the value of goods and services through taxes, subsidies, tradable quotas and permits, user charges, deposit and refund systems. It builds on a logic that changes in price will change the priorities of actors and thus change the quality of the resources or services. Pedagogic instruments imply changing knowledge and values, often through education and/or normative persuasion. This can be done either by giving actors more information actively, thereby changing their perception of an issue or reduce the cost of acquiring information by making it more available.

2.4 Singular subjective: The worldviews

While actors have different capabilities and rights to initiate change during the establishment of Jomfruland national park, their choice of action also depend on their subjective interpretation of reality or discourse. In action situations, some actors see and understand change different than others do. Firstly, Giddens (1984) argued that people experience different forms of consciousness. He distinguishes between what he calls practical, reflexive and discursive consciousness. Practical consciousness means being sensory aware through ones actions. Reflexive consciousness means being reflective aware of ones actions in relation to the external objects and the social world. Discursive consciousness means being aware through the expression of words. These types of consciousness differ from one another in the sense that they reflect different forms of judgment. Secondly, Etzioni (1975) argued that people possess calculative, strategic and moral judgment². Those with a calculative mind will pay attention to the logic in the arguments and will evaluate costs and benefits based on objective facts. In an action arena, the calculative people will strive towards the most rational alternative regardless of their own emotional preferences. Those with a strategic mind are success oriented and follow their own personal interests. Those with a normative mind will pay attention to moral and ethical aspirations and evaluate costs and benefits based on what they think is morally right or appropriate (Habermas, 1984). Thirdly, literature such as Berkes (1999) and Molander (1992) distinguishes between two types of knowledge based on two types of truth validity. The first type of knowledge is often associated with traditional societies who value knowledge by its practical value. Traditional knowledge is concrete and tacit and accumulates as sets of working

² In philosophy, the true, the good and the beauty.

practices. It is often non-verbal in the sense that ideas reflect a type of action. The second type is associated with scientific communities which value knowledge by its truthfulness. Scientific knowledge are generally abstract and emerge through experiments and logical reasoning. This type of knowledge is verbal in the sense that ideas and premises reflect a symbolic sign. Fourth, how people respond to change in action situations also depend on personal interests and what they think is morally right. These attributes depends on whom they consider part of their ethical community. Some people are egocentric, meaning that they always judge information based on how it effects themselves. Some people are sociocentric, meaning that they judge information based on how it effects their family, neighbours, ethnical group etc. Some people are biocentric, meaning that they judge information based on how it effects all lifeforms (Leopold, 1950). Members of an ethical community will hold intrinsic value. An object or idea has intrinsic value when the person consider the object as valuable in itself. Non-members only hold extrinsic or instrumental value. An object has extrinsic value when a person or group consider the object as valuable for him/herself or themselves.

2.5 Plural objective: The environmental governance regime

When actors with different preferences participate in the establishment of Jomfruland national park, they act in accordance with recognised sets of collective arrangements and rules. These rules are structures with their own capabilities, rationalities, discourses and rules. Different structures give rights and benefits to different actors and different actors will therefore react differently to change. We can understand such structures as environmental governance regimes.

Based on Vatn (2011), the environmental governance regime refer to key processes that shape human priorities related to issues of environmental protection. The regime consists of, resources with attributes, infrastructure and technology, actors and structures as well as arenas for interaction. It includes two core structures: property rights/privileges and interaction rules. These structures are interobjective because people can draw on them as objective phenomena to justify their actions. Property rights concerns ownership/access to, and use of a resource as well as responsibilities. Property rights are either private (one owner), common (many owners), public (owned by all) or open access (owned by no one). Interaction rules concerns rules that governs how people can change the property rights. Either interaction rules builds on market mechanisms (privately based), command mechanisms (state/public based), reciprocal mechanisms (community based) or open (no distribution rules). Actors can therefore have either economic right to access the resources or political rights to change access.

Interaction rules exist at four levels. At the constitutional level are the rules that determine what other people can decide on. The constitutional rules affect participatory arrangements and action situations (collective-choice arrangements). At the collective-choice level are the rules of governance that determine how other people can make decisions. The collective-choice rules affect operational situations. The operational rules determine how people technically operate and manage their environment Ostrom (1990) (Illustration 3).

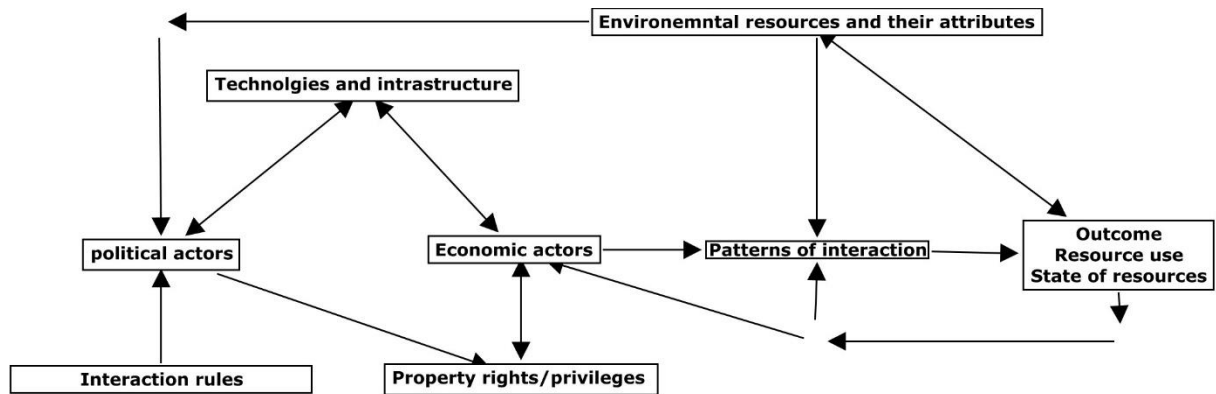


Illustration 3: Analysis of an environmental governance regime (Vatn, 2011)

2.5.1 Different problems and different regimes

The problem of conventional environmental governance regimes is that they allow the over-exploitation of natural resources that erodes key ecological processes thereby reducing the resilience of the system. Hardin (1968) called this tendency, the *tragedy of the commons*. This is a scenario where organisms, acting rationally based on their self-interest, systematically degrade the natural environment. While the tragedy of the commons is a natural and probable trajectory/attractor in all living systems, it is not inevitable. There are ways to avoid the tragedy.

There are different, competing and incommensurable forms of environmental governance regimes operating in the world today that postulate different solutions to the tragedy of the commons. They lead towards different system trajectories, postulate different forms of rationality and interests, and mobilise oppositional networks of people. Through various political and advisory networks, these regimes can influence the self-organisation of local communities such as Jomfruland and Stråholmen. Firstly, there are administrative rational forms of governance. These forms of governance imply a hierarchical system based on control and command. It is a restrictive system where an administrative body of scientific experts, policy makers and civil servants restrict and illegalise unsustainable behaviour. Secondly, there are economic rational forms of governance favouring free market incentives to reduce environmental degradation. The regime implies a hierarchical system and adjust systemic parameters through taxes, price mechanisms and subsidies as

means to incentivise people to act sustainably. Thirdly, there are deliberate forms of governance postulating that sustainable development is possible only with fair decision-making and participatory arrangements. Through learning and mutual understanding, people self-organise sustainable governance regimes fit to local environmental conditions (Bäckstrand, 2010; Bäckstrand & Lövbrand, 2006)

2.5.2 *What is a sustainable environmental regime?*

Ostrom (1990) provides some ideas of why conventional environmental governance structures fail to hinder the tragedy of the commons. Firstly, conventional environmental structures proves unable to regulate the use of so-called common pool resources. These are non-excludable and subtractable resources such as water, air, fish stocks. Non-excludable because it is difficult to prevent people from accessing these resources. Subtractable because one person's use reduce its availability to others. Secondly, such conventional environmental structures proves unable to regulate such resources because they hinder the development of common-pool resource regimes. Such regimes require eight fundamental collective arrangements (Table 2).

Table 2: Principles for sustainable common pool management (Ostrom, 1990)

Societies must have clear boundaries between rights and properties
There must be congruence between rules and local conditions
Those who are affected by rules can participate in changing them
There are mechanisms for monitoring users and resources
They can sanction violations
They have conflict resolution mechanisms
They have local autonomy and can build their own institutions
Decisions are taken as local as possible

Ostrom (1990) also argue that living landscapes, such as Jomfruland and Stråholmen have natural tendency to evolve such common-property regimes when the regime can self-organise without external interferences. She favour what she calls a polycentric or multi-layered governance structure. Polycentrism means giving each sub-system/holons the freedom to self-organise their own resource regime and distribute rights and responsibilities among themselves. However, this is controversial in practice because higher structure and external stakeholders such as multinational enterprises, non-governmental organisations, scientific communities, national agencies, and regional authorities have self-interests, identities, degrees of ownership and rights in local environments.

2.6 Plural subjective: The discourses

There are also inter-subjective structures working. Different actors (individuals or organisations) involved in the planning process of Jomfruland national park follow different forms of shared signs of meaning (cultural discourses). These collective discourses influence how individuals perceive costs and benefits and therefore how they behave in response to social change. Cultural discourses affects how communities or organisations organise power, rights and responsibilities among its members in order to cope with different kinds of risks or uncertainties. For example, as argued by Hofstede and Bond (1984), cultural discourses can influence how people distribute authority among themselves, how people see themselves as groups contra individuals, how people try to cope with uncertainty by implementing and formalising rules, what people desire and struggle to archive, how people perceive time and how people control their desires.

2.7 Social interaction: The action arena and organisational structure

While the actors, rules, worldviews and discourses explains how the national park might self-organise, it does not explain why and how actors respond to the national park initiative. Participation and self-organisation also depend on the way the planning process is organised. Ostrom (1990) argue that participatory arrangements are action situations understood as holons, connections in space and time where actors as participants interact in order to initiate changes in the environmental governance structure. In term of establishing Jomfruland National Park, action arenas are situations where actors come together to influence the process.

Action arenas are not neutral situations. They distribute rights and responsibilities among the participants', thereby giving some people with a particular worldview and interest more power than others. Crawford and Ostrom (1995) argue that action situations involve five types of rules. The first type of rules determine whom a particular behaviour, responsibility or right should apply (Attributes). The second type determine how he/she should behave (Deontics). The third type determine the goal of the behaviour (Aim). The fourth type determines when the behaviour is appropriate (Conditions). The fifth type determine the consequences of not behaving as according to the rule (Or else). These rules distribute rights and capabilities among the participants. The action arenas therefore possess what Jacobides (2007) call an organisational structure. This structure mean the way resources, rules, roles and labour divides among participants in a given social process. The organisational structure «*determine the elements of the environment that get attended to, and as such mediate the interaction of an organization and its environment (Ibid p 2)*». We can therefore understand an organisational structure as an actor with a purpose and a direction.

Participating in an action arena therefore does not necessarily mean power to influence decisions. Arnstein (1969) argues from a social science perspective, that participation can be classified into different levels. On the one hand, you have passive participation as manipulation whereas the participants do not have any means to influence decision-making. At the other hand, you have participation as self-mobilisation where participants can act independently from external structures (Also see Evans, 2012; Pretty, 1995). Giddens (1984) argue that individual actions and choices are bound to parameters or structures of constraints. Participation in action arenas therefore fundamentally depends on how capable different participants are to generate change compared to how resistant structures are to change. Without considering the type of change itself, a person's capability to initiate change depends on his/her choice of action. A structure's ability to resist change depends on its ability to mobilise resources and information to stop the change.

2.8 Tension and release: Conflict and conflict resolution

During the process of establishing a national park such as Jomfruland, several disagreements might emerge between the participants. In environmental management in general and in the process of establishing national parks these disagreements tend to surround the access to different types of resources (Ostrom 1990), and emerge as a result of incommensurable or incompatible knowledge systems, interests, regulations or roles (Vedeld, 1999). These disagreements can evolve into conflicts when «*actions by one or both sides do, in fact, produce thwarting of others* (Rahim, 2011, pp 18) ». While disagreements is a fundamental and necessary part of any social process, conflicts tend to be destructive. In this paper, a conflict in an action arena will emerge when disagreements escalate towards a systemic threshold. The system change and becomes stuck between two incommensurable forces. This systemic situation lower the systems probability to reach its destination, as in this case, establishing the national park. A systemic threshold is a condition between collapse on the one side and transformation on the other side (Ibid, 2011 pp. 18-25).

When establishing a national park, it is essential that the participants manage to resolve conflicts. It is essential for long term planning and essential for cooperation (Ostrom, 1990). Galtung (2000) argue conflicts can have five outcomes. One, the actors do not solve the conflict and decide to postpone the conflict. Two, both actors agree to a solution by compromise. Three, actor a wins. Four, actor b wins. Five, both actors agree on a common solution by consensus and both gain more than they lose. Outcome five is generally the preferred outcome. Habermas (1984) argue that the best way to get there is through communicative rationality. Communicative rationality is the combined logic of both calculative, strategic and moral judgment (Also see Mose, 2007). In an action arena, the participants must agree on the factual, the ethical premises and the potential costs and benefits in order to reach

the optimal solution. If they disagree on any of these claims, then consensus is impossible and incompatibilities are inevitable. The aim of conflict resolution is therefore to integrate the strategic, moral and calculative goals in one overarching goal, thereby transcend in the conflicting issue.

2.9 Participation and legitimization and protected area management

2.9.1 The idea of good participation

From this perspective, participation becomes means to resolve conflicts by reaching consensus through communication. This ideas support Pretty's (1995) notion of good participation as ideal systems of learning. In his view, ideal systems of learning focus on one, the cumulative learning of all the participants. Two, aims at integrating participators with diverse backgrounds. Three, seeks diversity in perspectives. Four, is flexible and context specific. Five, seeks changes that the participants see as improvements. Six, empathies dialogue to legitimise and initiate sustainable action. Based on Pretty (1995), Vedeld (2002) devised what he called successful principles for participatory arrangements. These principles gives an idea of how one might organise actors with rights and responsibilities in participatory arrangements in order to reach legitimate and sustainable management solutions (Table 3).

Table 3: Successful principles for participatory arrangements (Vedeld (2002))

Successful participation principles	Description
Conscious policy for enhanced local capacities	<i>Local public staff and local people should be trained in all aspects of planning, implementation and evaluation</i>
Participation must be part of a comprehensive implementation strategy	<i>All parts of local intervention process must be participatory from the goal formulation process, to identification of measures and instruments, to decision-making on organisational structure, arena, meetings grounds and resource use, to the participatory monitoring and evaluation process</i>
The leaders of the participation process ought to have local anchoring	<i>Leaders and external participants must be legitimate and must preferable be recruited locally and or have or at least quickly be taught or achieve competence and proficiency in local values, norms and experience based knowledge</i>
Message must be made compatible with local life modes	<i>The message and the participation must be firmly embedded in local life modes, in basic values and social norms and institutions and take local level experience based knowledge as a point of departure. The message should be shaped in ways (language, content, models, symbols and metaphors) conducive for local people's way to understand and approach problems and also be given at an appropriate time of the year relative to ordinary work tasks.</i>
Local heterogeneity should be considered a rule, not an exception.	<i>Successful participation presupposes due consideration of heterogeneity in socio-economic,</i>

	<i>agro-ecological and social status and roles. Who to contact, whom to contact first, whom not to contact. Where to meet- find arenas conducive for co-operation. Oral, not written, practical not theoretical.</i>
Methods for collective learning	<i>Successful approaches assume that there are defined systems for cumulative learning by different actors, taking into account context specific experiences. This includes systems for participatory monitoring/ evaluation</i>
Public bodies must improve their competence on local participation	<i>Public bodies must go through training on understanding and approaching local communities</i>

This does not mean that these principles are universal. As highlighted by Vedeld (2002) and Barrow and Murphree, 2001, policy makers ought to adjust participatory arrangements to the management problem and management goals in question as well as the attributes of the resources, society and culture at hand. For example, they distinguished between three forms of management with different participatory solutions based on the sustainability of the already existing resource regime and the vulnerability of the ecological resources (Table 4).

Table 4: Approaches and characteristics of local community conservation based on Vedeld (2002)

	Protected area outreach	Collaborative management	Community conservation
<i>Objectives</i>	Conservation; ecosystems, biodiversity and species	Conservation with some rural livelihood approach	Sustainable rural livelihood
<i>Biodiversity resource</i>	Vulnerable	Reasonably robust	Robust
<i>Ownership/tenure status</i>	State owned land and resources (national parks, forest and game reserves)	State land with Collaborative management of certain resources with the community. Complex tenure and ownership arrangements	Local resource users own land- either de facto or de jure. State - some control of last resort
<i>Management characteristics</i>	State determines all decisions about resource management	Agreement between state and user groups about management of some resources that are state owned. Management arrangements - critical.	Conservation as an element of land use. An emphasis on developing the rural economy.
<i>Policy instrument package</i>	Participation as means	Participation partly means, partly goal	Participation as goal

<i>Focus in East and Southern Africa</i>	Common in East Africa, some in Southern Africa.	East Africa, some in Southern Africa	Predominant in Southern Africa, increase in East Africa
<i>Actors</i>	Researchers	Farmers	Tourism/rural dev. initiative

2.9.3 Critiques of participation

The issue with Pretty's notion is that participation becomes means to an end. This is problematic because it leads to an elusive divide between good and bad participation. While he sees participation as systems of learning, he neglects the idea that participation are also systems of power. As illustrated by Cleaver (1999), the orthodox science of participation builds on a normative ideology, and a range of simplified and biased ideas regarding the ontology of the individual rationality, the individual identity, the institutions and the local community.

One, policy makers and social scientists often see participation as empowering and therefore *good*, regardless of the empirical evidences. Attending participatory meetings does not necessarily empower individuals; doing so can also bind people to new restrictive sets of rules and restrictions. Two, scientists often understand individual judgment as rational. From this perspective, people decide to participate. However, as shown by Cleaver (1990) herself, people are not rational and can decide to participate, or not, based on their unique social and cultural preferences. Three, the science of participation narrate people as individuals with their own rational judgment. With this perspective, they understand and evaluate participatory arrangements based on how many people that participate, without knowing what these people represents. As illustrated by Krogh (1995) and Abram (2005), the *individual* is a concept bound to the place and community in which he/she lives. The word is often more deceptive, than true. Four, the science of participation often prefer the formalisation of institutions based on a western model of governance. Policy makers often falsely translate local habits and cultural traditions into a formal, political and rational language. From this view, social institutions and organisations becomes rational and includes a defined set of presumed functions. For example, people working on participation often think that institutions like representative democracy, organisational committees, formal conflict resolutions mechanisms and community workshops works for all societies, regardless of the cultural preferences. Five, the science of participation involves skewed and biased ideas of the *community*. Scientists often perceive local collective arrangements too simplistically and as irrelevant for good governance. They often postulate an administrative governance regime with clear boundaries between rights and responsibilities. As the word *individual*, the word *community* is an elusive idea that makes one dichotomise between the insiders and the outsiders. Cleaver (2012) use the word bricolage to explain how institutions, rights and boundaries

can gradually emerge and manifest in unique and unpredictable ways based on the historical environmental, cultural and institutional preferences of the local landscape.

Good participation, based on Pretty's (1995) systems of learning and Arnstein's (1969) ladder, ought to enable full-self mobilization. Full-self mobilization is an action arena where the participants can take initiatives based solely on their own individual preferences, not based on higher structures and institutions. However, as illustrated by Cleaver (1999, 2012), self-mobilisation is impossible. There will always be complex social structures interfering participatory arrangements.

2.9.4 The alternative way of thinking participation: Co-management

While self-mobilization is practically impossible, literature suggest that one can increase *the probability* of reaching consensus and legitimate solutions by organising action arenas as co-management regimes. While co-management have many definitions, one can understand it as a social process where people, representing different structures and interests come together and coordinate their actions in relation to specific resources and local landscapes. This means allocating resources, risks, tasks, rights and responsibilities to those who are most fit to handle them based on local cultural preferences (Ostrom, 1990). Those who initiate participatory arrangements must therefore be open to alternative governance solutions outside their predefined notion of what good governance is.

While this is similar to Pretty's (1995) notion of systems of learning, co-management does not see participation as means to increase collective learning. Rather, co-management see participation as a way of identifying relevant problems in order to find locally suited solutions. Problem solving in this sense is a process of trial-and-error where participants together continuously try to find solutions to upcoming challenges and disagreements relevant for the community. It builds on the notion that decision-making and problems solving are different processes. Participation in decision-making implies choices between alternatives, while participation in problems solving implies generating these alternatives. In this way, "*co-management is a vehicle that is constantly constructed and rebuilt*" (Carlsson & Berkes, 2005, p. 70).

This idea builds on systems theory and the notion of positive and negative feedback mechanisms as leverage points. A positive feedback mechanism is an event that escalate change while a negative feedback mechanism is an event that mitigate change. As illustrated by Cleaver (2012) the feedbacks imbeds in local cultural, social and environmental conditions. It is therefore almost impossible to predict if introducing predefined notions of participatory arrangements in a local community will improve the lives of the people, or make them worse. Evolution through bricolage imply that social

arrangements, cultures and structures rests on centuries of solutions to historical challenges and risks. In this way, both cultural preferences and social institutions exist because they represent solutions to historical collective management problems. If met by challenges similar to past challenges, the community remembers specific solutions. Co-management therefore does not focus on problems that the local community know how to solve. It rather focuses on identifying new challenges to upcoming problems that require new solutions. The community can then introduce new sets of management schemes and implement them into their cultural and institutional structure.

Rutherford, et al, (2009) gives an example of what co-management mean. They studied the conservation of grizzly bear conservation in Banff National Park, Canada. Here, they drew on policy science and organised the process based on what they called interdisciplinary problem solving workshops (IPS). They organised the planning process in order to find the best solutions to conservation (Table 5). As in their own words, *“our job is as a group of thoughtful community members to see whether we can discover what a common interest bear management policy would look like”* (Ibid, p 184). The project leaders gave the participants the opportunity to identify options and solution based on their own preferences. For example during one workshop, stakeholders organised into small groups and each sub-group tackled the problem of managing human-bear conflict. The important aspect of this framework is that the goals, problems and solutions emerge in response to a legitimate management challenge. The group as a whole is responsible for designing the best possible solution.

Table 5: Co-management as collaborative problem-solving (Rutherford et al., 2009)

IPS	Goals	What is happening?	Why?	Future?	Does a problem exist?	Alternatives and solutions
Social process	?	?	?	?	?	?
Decision process	?	?	?	?	?	?
Grizzly bear habitat	?	?	?	?	?	?

In the case of Jomfruland national park, co-management would imply an open and flexible organisational structure aimed at continuously generating solutions to upcoming problems that the local community does not know how to solve. It requires the participants to focus on the problems at hand and solve them one by one through dialogue and collaboration.

2.10 Literature on protected areas in Norway: Actors, worldviews, rules and discourses

Reitan (2004) suggests that issues of environmental conservation in Norway is both a local, national and international topic. Political and economic individuals representing both local interest groups,

national departments and international organisations struggle to define their rights and views on environmental conservation. These actors possess different forms of knowledge and discourses that influence their perspectives and interests. They have different capabilities and rights that influence their power to influence decision-making (MoE, 2013, p. 330; Rydin, 2006; Vedeld, 1999). At all levels, these actors tend to divide in according to four incommensurable ideas about governance and management that divide between centre versus periphery and divides into local autonomy versus central authority. The ideas of governance involves the relationship between local communities and the state. The ideas about management involves the relationship between humans and nature. How people should understand and value nature and its ecological services (Heiberg, 1999). These conflicts occur both between individual persons at the local level, between departments at national level and between international organisations at the international level (Bäckstrand & Lövbrand, 2006; Falleth, Hovik, & Sandström, 2008).

Firstly, different actors follow different discourses, agendas and priorities that often leads to conflicting interest over policies and regulations. For example, at the department level, the MoE is responsible for conserving the Norwegian environment and uphold international environmental obligations while the food and agricultural department (MoA) is responsible for sustaining the national production of food by initiating sustainable development. They belong management cultures that postulate different views on both nature and societies, sustainable management and governance (Vedeld, 2014b). Their responsibilities are bound to international conventions (structures) that influence their rights and capabilities. In term of environmental conservation, the MoA and its focus on sustainable use are bound to European Landscape Convention. The DN and its focus on environmental conservation are bound to treaties like CBD and Ramsar convention. These departments therefore have their own politics on protected areas and support different environmental governance regimes (Otterlei & Sande, 2010)

In addition, As explained by Hovik (2000), political actors representing the rural communities and municipalities are generally interested in local management challenges often related to pollution, waste, natural resources cultivation and recreation. Central political authorities one the other hand focus upon international obligations, conventions and politics on sustainable environmental management. Local political agencies tend to favour the majority's interests, often neglecting that of minorities. These interests do not necessarily line with the interests of the environmental authorities and the purpose of protected areas. Incommensurable interests and values may often lead to conflicts and social tension. These conflicts can escalate and lead to vague and unfinished management

solutions and mistrust between different local groups (Falleth, & Sandström, 2008; Fauchald & Gulbrandsen, 2012; Hovik, 2008).

Secondly, different actors possess different forms of knowledge. Actors working for various departments and other state institutions tend to be highly educated people belonging to different scientific disciplines and therefore define arguments and priorities based on different types of scientific knowledge (Otterlei & Sande, 2010, p. 430)³. This type of knowledge differs from that of the farmers. As pointed out by Krogh, Gundersen, & Vedeld, (1998), their stories about nature build upon knowledge associated with action. Such knowledge imbeds within the local landscape itself. The farmer lives their lives in their surrounding landscape that eventually becomes part of their identities. As a result, they tend to value independence, proprietorship, individual management responsibility and sustainable production. The state employee or public servant on the other hand works in state institutions and departments with a predefined management culture. Their identities do not relate to the local landscape and so their value preferences differ significantly. Vedeld (2002) argues that people working in the agricultural department understand and identify themselves more with farmers. People working for the environmental department on the other hand, do not. They are educated in natural science and ecology and often come from an urban setting.

Skjeggedal (2007) argues that there are contradictions between local and national management regimes. These regimes operate with different “*stories*” (cultural discourses) about what nature is, what it ought to be, and how it should be managed. The central environmental authorities tend to operate with a structural perspective on nature. They see nature as apart from human development and used mainly for recreation and education. Their arguments build on natural science and international environmental goals. The rural local communities on the other hand are organised in local political organisations and user groups that perceive nature as their livelihood and as a resource. This is a functional perspective because it focuses upon the meaning and value of different ecosystem services rather than the overall conditions of the ecosystem (Falleth et al, 2008). These regimes draw on different structures to exercise power. The environmental authorities justify conservation, their premises and their way of organising establishment processes based on the New Biodiversity Act and international environmental conventions. The local politicians however, represent the local community and justify their premises and organisational structure on the plan and building act. These two legal papers are forms of environmental governance structures that adhere to

³ Among local environmental managers are the majority (25 percent) educated as environmental managers at the Norwegian University of life science (NMBU) (Otterlei & Sande, 2010, p. 430).

incommensurable discourses with different definition of environmental management. They differ in the way they divide rights and responsibilities, formulate definitions and provide guidelines.

Falleth et al. (2008) writes that both the environmental authorities and local political actors tend to neglect various local user groups and minorities, and often implement management solutions without local consent. One of the reasons for this lies in the local democracy. Conservation has different consequences for different groups and the decisions depends more on the number of supports than the strength in the arguments. The majority will therefore always decide. In their study, the political representatives of the municipalities listened to the majority while neglected minorities. In a feature article, Skjeggedal (2013) argued that that the new management model is not local at all, rather is exists only as a compromise between the environmental authorities and local political control. The environmental authorities' acts on behalf of rigid definitions and premises as stated in the New Biodiversity Act. The authorities, not the local communities, make the actual decisions regarding the management plan and the organisational structure (Skjeggedal, 2007b). Local communities has, as also argued by Roald (2012, p. 69) few opportunities to influence the purpose and premises of the protected area. The new management model is in this was a national model that prescript both the management plan and the organisational structure. Hovik, Sandström, & Zachrisson (2010, p. 174) states in their study on management regimes in Norway and Sweden that the environmental authorities use local participation more as means to establish national park, rather than a goal in itself. The state does not actually decentralise power and responsibility to local communities, but rather use participation to legitimise the establishment of protected areas.

Skjeggedal (2007b, p. 11) highlighted four aspects of Norwegian conservation processes where participation does not mean influence. One, the outcome is more often than not identical to the first draft. This may suggest that local communities either agree with the first draft or have little power to intervene. Two, Borders and rights are often predefined before local stakeholders are invited to participate. Three important stakeholder are often urged to participate, but seldom invited to meetings and excursions. Four, local actors are often invited to collect information regarding the establishment of the protected areas, but seldom receives feedback on this information, nor how this information is processed (p11).

2.10.1 Different networks and separated processes: Local versus national

In their study of the establishment of Trillemarka National Park, Velvin et al. (2010) show how the establishment process involved two separated planning processes including two different political networks. The environmental authorities initiated the first process based on the planning regulations

in the New Biodiversity Act. Here, people from scientific communities or environmental organisations dominated. These actors built their arguments on scientific knowledge on ecological sustainability and environmental conservation. When the local representatives, forestry and agricultural organisations saw that they had little influence over decision-making, they initiated a separate process based the planning regulations in the plan and building act. This process was dominated by people interested in sustainable use and development. They built their argument on socio-cultural and economic consequences of establishing the National park. These separate planning processes stood in opposition to each other and made the establishment difficult. A consensus was not possible before the Environmental Minister of Norway interfered and argued that local representatives should participate in forming the management plan and the regulations. He initiated dialogue between the environmental authority and the local representatives.

In their discussion, Velvin et al. (2010) suggests that the environmental network worked towards a restrictive management solution with a comprehensive need for governmental control and supervision. This network proposed such a restrictive regime because they did not get local support early in the process. The local community opposed the first process and initiated their own. In the alternative processes, different local user groups organised themselves and was able to equal the process dominated by environmental groups and clarify their demands regarding the management solution. When the Environmental Minister of Norway initiated a dialogue, it was therefore two equals against each other. Velvin et al. argues that the solution was successful and included both local perspectives, traditions and knowledge.

Trillemarka National Park is told as a success story in Norwegian environmental conservation. Trillemarka fulfilled the criteria for national parks while also allowing local stakeholder to participate and influence the management solution. However, the story changed after the national park opened. Guttulsrød (2012) show that different local groups became marginalised after the national park was established. One of the reasons for this might be that the local organisation including the different user groups and local politicians dissolved after the process ended.

As shown by Rydin (2006, p. 199), different key actors participate in different network for different reasons. Key local stakeholders might have left these networks after the establishing process finished. As a result, the environmental network eventually gained the upper hand, increasing their power to shape the management in their view. A similar process happened in Blåfjella – Skjækerfjella national park. Here, the functional group (including most of the local representatives) which developed the draft plan dissolved after the establishment finished. In this way, the local

participants lost their power to influence decisions when the participatory process was ended (Falleth et al., 2008).

2.10.2 The importance of local anchoring

Vedeld et al. (2003) illustrate the importance of respecting local worldviews and knowledge and involving local stakeholders when establishing management regimes that puts restrictions on access to resources, as when establishing national parks. They analysed an attempt to reduce nitrogen release from agriculture in Rogaland county 1987-1989. In contrast to the establishment of protected areas, which is led by the DN through the county governor, the planning process was initiated and led by an experienced person from the regional agricultural agency. He was known within the agricultural community and knew the farmers interests and culture. By organising the planning process in relation to local traditions and knowledge and what Vedeld et al. (2003) calls Good agronomy (*sundt bondevett*), he managed to avoid conflicts and persuade the farmers to agree on reducing the nitrogen spill from 13.2 percent to 2 percent. The local farmers saw the project as initiated by one of their own, a person who understood their values and interests.

In their analysis, Vedeld et al. (2003) argues that planning process aimed at putting restrictions on people's rights ought to be adjusted to local and cultural conditions. They justify this argument by saying that people respond differently to policies based on interpretation of reality and relation to the landscape. Both the policies in itself, how policymakers implement them and how they present them matter. The planning procedures should therefore not be too rigid. As stated by Skjeggedal (2007b, p. 11), planning and management must be seen in a dynamic perspective where “*goals and strategies continuously adjust when preconditions and priorities change (my translation)*”.

Harvold and Hovik (2006) refer to an alternative establishment process often called green partnership and self-management. Green partnership imply that the environmental authorities interact directly with local stakeholders and develop unique agreements with each stakeholder. Self-management implies management solutions where the local stakeholders' voluntary puts restriction on their own access to resources in order to protect the environment.

They studied the establishment of Svanøy Archipelago Park. As in Trillemarka, local opposition met the conservation effort and local stakeholders established a separate planning process. Together with the local agricultural director Per Harald Grue, the landowners suggested developing their own management plan as an alternative to the DN's conservation plan. This alternative process should be led by the agricultural department of the county governor and the project leader for cultural

landscapes or STILK (tilskuddsordning til spesielle tiltak i landbrukets kulturlandskap), while financed by the MoA, the DN and the County Governor in Sogn and Fjordane. Through the county governor, the DN was responsible for organising different interests groups into a reference groups. The DN therefore gained a passive and rather advisory role.

By identifying the conflicting topics and by collaborating with the local stakeholders and the environmental authorities, the project leaders manage to develop unique and legitimate management solutions. These solutions required a dynamic view on policies and planning processes. Both the municipality and the Environmental and Agricultural authorities of the protected area had to agree on alternative and unconventional management solutions. The municipality had to change its statutes; the MoE had to accept self-management and pay compensations, while the MoA and STILK had to finance different developmental projects within the area.

2.11 Linking problem statement/objectives and research question to theory

The findings above suggest that protected area management in Norway involves various actors that belong to different social networks and organisations. These networks, whom possess incommensurable understandings of nature and governance, emphasise different aspects of ecosystem services and favour different forms of environmental governance regimes. There is also a gap between international and science based narratives on the one hand, and local experience based narratives on the other hand. This is also the case in Jomfruland. Different actors with different rights, knowledge, values and capabilities participate in the establishment of Jomfruland national park and struggle to define the future of the environmental governance regime.

There is a mistrust and tension between local and national authorities in Norway. It seems that the environmental authority and its representatives somehow represses local discourses and values, even if participation is a widely used term in establishing protected areas in Norway. The practical meaning of participation remains diffuse and unrecognised. Seen from Pretty's (1995) ladder of participation, it may seem that in most cases, the organisational structures during protected area management does not provide local communities with sufficient power to influence the important decisions. Naturally, this increases social tension between local communities and national environmental authorities and increases the probability of conflicts during the establishment process.

While this repression may be legitimised by looking at how political forces at the local level tend to favour use before conservation, one could question its success. Ostrom (1990) provides a list of institutional criteria for successful environmental management. From her perspective, repression can

lead to the destruction of well-functioning locally based institutions and cultures. A process in which again might reduce the socio-ecological resilience and increase social tension and mistrust between important stakeholders. As stated by Vedeld (2002), social change takes time. Rules, knowledge and values emerge and change gradually. From Cleavers (2012) point of view, institutions and culture are, even if we like it or not, based on pre-existing structures. By looking at the findings above, one might ask if not establishment processes in Norway and in Jomfruland tend to ignore these local structures and thereby destroy local institutions, knowledge systems and values regardless of their actual function. Seen from international literature on environmental governance, this is highly problematic.

3 Context

3.1 The formal process of establishing protected areas in Norway

The MoE is the highest political authority when it environmental management and protected area management in Norway. The DN is the MoE's advisory and executive agent. Originally, the Norwegian government established MoE as a centralised and sector neutral authority for environmental management. The department operate today alongside six other departments and focus on climate change mitigation, nature management and pollution. It is responsible for upholding international regulations such as the Ramsar convention (1971), United Nations Convention on the Law of the Sea (1982) and Convention on Biological Diversity (1992) etc. The directorate has limited authority over local environmental management because the 430 municipalities in Norway remains relatively autonomous compared to other countries in Europe. The county governors represents the six departments at the regional level and works as the glue between the central authority and the local municipalities. Together with the local politicians and the county counsel, the county governor initiate regional planning processes. The county governor is responsible for implementing, coordinating and initiating the establishment process of protected areas within and between municipalities. At the local level, the management responsibility divides among various actors representing different stakeholders belonging to political parties, private stakeholders, public services and local groups.

In accordance with the New Biodiversity Act, the establishment process formally begins when local politicians sends an application to the DN. The DN then initiate an official planning process through the county governor. The county governor then draws on guidelines for establishing protected areas as proclaimed by the DN in the new law on biodiversity. This guideline differs from the conventional planning processes in the way the MCE are directly involved in the process from start-up to outcome.

As written in the nature diversity act (§41, §42, 43), the process of establishing protected areas ought to:

“Allow best possible cooperation between the local community, landowners, right holders, and interest groups...The planning process shall clarify to the best extent, the different values involved and the purposes and consequences of establishing protected areas, as well as mapping the user groups involved with the following rights, borders and responsibilities” (Lovdata, 2009) (my translation).

The county governor initiate the planning process and is responsible for informing and including the relevant stakeholders. Together with local stakeholders, the county governor form a draft plan including prescript regulations and management guidelines. The draft plan highlights the procedures for managing the protected areas, the local ecosystem services, the need for - and purpose for protection, the different user groups and their interests as well as the prescript regulations (DN, 2013a; DN, 2013b).

As stated by the DN (2013a), the planning process divides into four stages (see table 1). During the first stage, referred to as the project stage, the DN sets the premises, purposes and the procedures for the establishment of the protected areas. These agencies therefore position themselves and initiate the process based on predefined understanding of what environmental protection ought to be and how local community should establish the protected areas.

In the next stage, the county governor start developing the draft plan and suggestions for the political hearing. He also makes a list over who he/she thinks should participate in the planning process, and invites the relevant stakeholders into the process. He invites the most important stakeholders into various functional groups with different purposes with different levels of participation

The third stage, called the process stage, the county governor, together with local politicians, sends the draft plan and the suggestions over to the DN for central hearing. The directorate then evaluate the draft plan before they send it back to the county governor with comments and suggestions. The county governor then rewrite the draft plan together with local politicians and sends it back to the DN. If the DN approve, they send the final management plan to the King for final approval (See Table 6).

Table 6: The four stages of establishing protected areas in Norway (Based on DN, 2013c; MoE, 2004, p. 348; Skjeggedal, 2007b)

<i>Participators</i>	<i>Stage</i>	<i>Occurrences</i>
The central authority. Few or no local participants.	Project stage	The DN defines the purpose and criteria for national parks. The County governor initiate the process based on the official guidelines by DN (2013a).
Open to all. Everybody can comment about the establishment of the protected area.	Starting stage	The county governor initiate the process locally by negotiating with representatives from municipalities and counties
		The county governor inform the local community and the relevant stakeholders about the process.
		The county governor develop a draft plan together with functional groups.
Members of the advisory groups must participate in local hearing. However, this local hearing is in theory open to all.	Process stage	The DN receives the draft plan and evaluate it before they send it back to the county governor for rewriting.
		The County Governor rewrites the draft plan based on local hearing.
Only people involved in the various departments in the government.		The MoE receives the new plan and presents it to other departments for final evaluation.
The King	Approval	The DN prepares the plan for the Kings approval.

3.2 Local context: Jomfruland and Stråholmen

As written by Finstad (1991) and Asplan Viak (2014), Jomfruland and Stråholmen are two small island in Kragerø, Telemark County. These islands is part of Raet, an underwater moraine along the southern coast of Norway. It is shallow and goes terrestrial outside Kragerø. The coastal geology of Raet provides perfect conditions for marine and terrestrial life to flourish. People have worked on these islands for thousands of years. By gradually tending the soils through the centuries, the people of Jomfruland and Stråholmen developed a unique cultural landscape with rich biological diversity. The landscapes has changed several times in accordance with fluctuations in environmental conditions, ownership, population demands and resource production. Forests, animals, people and farms have sometimes disappeared because of disease or droughts and appeared later in a different condition. These fluctuations have forced species and humans to adapt to each other. The result is a diverse and fragmented landscape with small vulnerable ecological patches, each patch with its own species combination, symbolic meaning and value. In this way, the entire landscape is constantly

changing in accordance with how different species, including humans respond to disturbances (See picture 3).

Picture 3: Stråholmen in 1953 and in 2013 (Kiil, 2013)



The people of Jomfruland and Stråholmen have a long tradition of solving problems related to environmental changes, population fluctuations, property rights, and responsibilities. They had to help one another in difficult times and found collective and creative solutions to problems. They have especially experienced challenges related to water management. There is little natural water on the island, and drought represented a major threat to livestock production and irrigation. Because of this, they had to redistribute water among themselves. They had to cooperate to solve problems. This gave them an intricate social relation bound by reciprocity and redistribution. Collective arrangements began to connect directly to the landscape's ecological and cultural services. Complex social rules, responsibilities and rights were associated with different aspects of the landscape depended on its ecological services and symbolic value.

Through the millennia, the islanders developed a rich cultural and historical heritage. Stories about events centuries ago became myths and myths became legends. Different parts of the landscape gradually got unique economic, aesthetic and cultural value. In spite of its size, there are stories, symbols and traditions related to every tree, boulder, house, fence, meadow and skerry. The natural world therefore became an important part of the islanders' way of life and life world. Their traditions and knowledge built upon centuries of management and cooperation. Their actions often imbedded in the structure of the landscape.

An increasing number of visitors spread these stories to the mainland and gave the Islands a regional and national identity. Seafarers and mainlanders could see the lighthouse shining from miles away. Built in 1838, it stands today as a regional beacon and a symbol of Jomfruland. People from far and away gradually became aware of the Islands unique geographical, cultural and biological quality. People with completely different background and interests therefore began to visit the islands, from artists, to artisans, farmers, tourists, fishers, botanists, seafarers, military men during war and politicians. More visitors came with the introduction of the steam ferry during the 18th century.

Some visitors began to form a deep relationship to the islanders and to the landscape. Many therefore wanted to buy pieces of land. In 1804, Lars Sorensen owned the entire Jomfruland. When he died, he divided the Island in five, giving each son and daughter a piece of farmland. They again gradually sold away parts of their inheritance to people they knew or divided it among their relatives when they got old. In the second part of the 19th century, there were over 100 cottages spread around the islands. Today, there are over 170.

People with an interest in the islands, who did not own land, saw the privatization with scepticism. Some saw the increasing privatisations as a threat to the unique landscape. Politicians representing the local community began to buy of land to secure common access. In Stråholmen 1961, the residents signed an agreement directly with the county governor on access and use. They agreed to give the commons free access to the eastern parts of Stråholmen in exchange for financial compensation, and on the condition that they could use the rest of the island as they always had (Telemark County Governor, 1961). In the case of Jomfruland, the local politicians stopped giving private permits to cottages altogether during the 1970ties. In 1978, state proclaimed that the landscape on Jomfruland had national biological value. The central environmental bought Øytangen farm, one of five main properties on Jomfruland. The environmental authority also wanted to conserve parts of the rare privately owned broadleaf forests on the eastern parts of Jomfruland. In

spite of the landowners' objections, the environmental authority established the first the protected area (Lovdata, 1978).

With public access came an increase in civil use and tourism. Some of the islanders saw the new day tourists as a threat to traditional way of life, while others saw an opportunity for income. Jomfruland got its first café in 1951 and the first grocery in 1956. Landowners began to rent out their properties to summer guests and some began to work as guides. One farmer stopped farming altogether in 1973 and made his field into a camping area.

A new range of conflicts emerged between day tourists and islanders regarding access and use. Some tourists behaved inappropriately and had interests and expectations incompatible to those of the islanders. Lack of sanitary facilities and waste management also led to a conflict between the islanders and the municipality. Increasing restrictions around the conservation effort led to conflicts between the islanders and the environmental authority. Naturally, in the questions of tourism, common access and conservation, the cottage owners allied with the islanders. Together, they represented a considerable political force.

With common property came a need for public administration. The municipality decide to establish an advisory committee on the island to manage state properties. This committee had five members, representing different organisations. Kragerø municipality, the Islanders, Telemark county governor representing the state, Telemark County Authority representing the region and Telemark hospital. The islanders could now take part of decision making on a regional level. Through this committee, the people of Jomfruland and Stråholmen got a relatively strong political voice, compared to actual population living on the islands.

Their political power depended on how the islanders organised politically. Between 1950 and 1980, the islanders established two significant political bodies on each island. The residents organised in Jomfruland and Stråholmen Velforening. The cottage owners organise into Jomfruland and Stråholmen Hytteeierforening. These organisations now had a say in every day decision-making. Their governance built on reciprocity, mutual aid and common work. The residents met every week and the cottage owners during the summer season. Here they discussed individual and collective problems, internal conflicts and financial issues. They also often used the political bodies for social gatherings, festivals and ceremonies, increasing social relationship and collaboration. Through their political organisation, the people of Jomfruland and Stråholmen acted together against external organisations such as the environmental authority and the municipality. They often responded in

unity against official initiatives that aimed at increasing public access, such as in 1966, when regional authorities wanted to make the islands a tourist hub for the entire eastern part of Norway. They have fought together for their rights to use and manage their landscape and for access to modern facilities such as water, electricity, and transportation.

3.2.1 Early conservation efforts

There are today 19 minor conservation areas within the proclaimed national park border (Ørvik, 2013). Only some of these exist on the Islands. The first form of national conservation happened on Jomfruland in 1978. The Environmental authority saw the broadleaf forests in the northern parts of the island as of national value. They suggested conserving the area in accordance with IUCN's category five protected landscape. While this is the least strict form of conservation, the landowner opposed the suggestion, arguing that the forests were a direct result of sustainable use. While the landowner agreed to the purpose of conserving the areas, they felt overrun by the environmental authority. He had, as his father before him, tended the broadleaf trees as an investment for the future. He warned the environmental authorities that the restrictions put upon them would ruin the unique forests. They went to court, but lost. The state gave the landowner no compensations for his loss. The second form of conservation emerged in 1980. Partly because of Hofsten & Veve's (1982) study on bird population on Jomfruland and Stråholmen, the Environmental authority also decided to conserve the southern part of Jomfruland and small parts of Stråholmen in 1980. The areas consisted mostly of rock and stone formations with relative little use value. They decided to establish the strictest form of environmental conservation in accordance with IUCN's Category 1, strict nature reserve (Lovdata, 1980). The third form came in the 1990s. In 1990, the environmental authority recognised the value of the cultural landscape on Stråholmen and therefore decided to protect the island in line with IUCN's category five, protected landscape (Lovdata, 1990).

3.2.2 Conserving Jomfruland and Stråholmen as Cultural Landscapes

In 2000, the Norwegian government signed the European Landscape Convention. While the CBD sought to protect ecological processes, this convention sought to promote the protection, management and planning of European landscapes. They saw humans as an intricate part of natural processes and argued that old cultural landscapes can be valuable biologically, aesthetically and historically. In 2004, the MoA in collaboration with DN initiated a process aimed at conserving valuable cultural landscapes in Norway. Bound by the European Landscape Convention, the MoA presented a new national plan for conserving cultural landscapes of national value. They suggested protecting 20 areas of cultural and biological value, one in each county. Each county through the agricultural department became responsible of picking one area based on voluntary agreement with

potential landowners. Telemark County picked Jomfruland and Stråholmen. The local community voluntarily agreed to protect their cultural landscape through sustainable use. They established in 2009 their own administrative and political organisation responsible for creating a management plan (Jomfruland and Stråholmen Cultural Landscape Committee, 2010). In this way, the MoA justified the conservation of traditional use on Jomfruland and Stråholmen.

3.2.3 Conserving Jomfruland and Stråholmen as National Park

While the DA initiated the conservation of Jomfruland and Stråholmen as cultural landscapes in accordance with the European Landscape Convention, the national park initiative results from a completely different process. Bound by the newly signed CBD, the Norwegian government released in 1992 a major whitepaper on environmental conservation. This paper included a new national plan for environmental conservation and initiated over 40 new protected areas (MoE 1991-92). In 1995, an expert committee on marine conservation highlighted the importance of marine conservation and prioritized 18 maritime areas with high ecological value. This report started a political debate that lasted for years. The Norwegian Storting impatiently released a whitepaper requesting the government to finalise a marine conservation plan (MoE, 1998-99). The government began to work and in 2001, they decided to develop a comprehensive network of protected areas along the entire Norwegian coastline (MoE, 2001-2002, p. 74). The government also decided to establish yet another committee in order to map out this network and identify key marine areas for conservation. This committee built on the previous findings by Brattegard and Holthe (1995) and released their report in 2004. The report suggested the protection of 49 new marine areas of high ecological value. These 49 areas represented together approximately 8 percent of the total marine areal in Norway (MoE, 2004). Among those areas were Hvaler archipelago in Østfold County and Transect Tromøya, an underwater moraine (Raet) located along the southern coastline.

In 2001, Østfold County formally initiated the establishment of Ytre Hvaler National Park in collaboration with Kosterhavet National Park in Sweden. As the first of its kind, the establishment process took eight years and became a blueprint for establishing national marine national parks in Norway. This process involved several local and national actors organised in two different participatory groups. In the first group, the political authorities, together with representatives from national agencies had the responsibility to establish a draft plan before sending this it to the MoE for completion. In the second group, the local civil society, represented by different interest groups, had the responsibility to express their opinions and in this way influence the draft plan (Østfold County Governor, 2004).

Ytre Hvaler National Park opened in 2009, a year that represents a trend shift in Norwegian environmental management. Besides opening the first marine national park, the government released the New Biodiversity Act and the new local management model. The then Minister of the Environment, Erik Solheim, invited 131 municipalities in Norway to initiate and establish their own protected area in accordance with the new Biodiversity Act and the new management model (Solheim, 2009). Many municipalities responded, and in September 2009, the DN could initiate 17 new protected areas.

Among those were Vestfold and Aust-Agder County. Vestfold initiated Færder National Park in 2012. While the establishment process remained similar to that of Ytre Hvaler National Park, Færder organised the process differently. Here the local politicians decided to transfer the creation of the draft plan to a third group with key representatives from the local community together with a representative from the DN. In this way, the civil society could directly participate and influence the management plan before the politicians handed it over to the MoE for completion.

Aust-Agder County initiated project Transect Skagerrak (former Transect Tromøya) and Raet National Park (MoE, 2009). This area was larger than that of Færder and included several municipalities. Conserving it would require inter-communal collaboration. The political authorities in four municipalities, together with the county governor of Aust-Agder, began planning the conservation process.

The underwater moraine stretches for miles towards the east, through Jomfruland, outside Kragerø in Telemark County. This was also an area with high ecological and cultural value several damaged by population pressure, over-fishing and tourism. Because the political authorities in Telemark had similar aims to Aust-Agder, they decided to take part in project Raet national park by establishing its own national park on Jomfruland in collaboration with Aust-Agder County.

4: Methodology

4.1 Introduction

As stated in Berg and Lune (2012) “*Methods impose certain perspectives on reality*”. This thesis is a qualitative study. While the quantitative methods assess the quantities of- and relationships between phenomena in order to test, predict, generalize theory, the qualitative methods assess qualities in order to explain, explore, and build theory. The qualitative method therefore require in-depth analysis

and relevance, not representatively⁴. While the quantitative approach strive towards objective truths, the qualitative therefore includes subjective interpretations. It builds on the notion that organisms construct a subjective reality and behave in accordance with this construction. The qualitative method is about understanding and exploring a phenomenon by interpretation.

The process of establishing Jomfruland national park, all socio-ecological process, is chaotic and complex. Studying such a process involves a vast array of unknown variables and feedback loops. I am here to explore and identify possible variables as actors and structures, not determine their value. I have instead categorised different actors and structures in Jomfruland and discussed how these variables can influence the establish process. The study method is therefore qualitative (Larsen, 2007).

4.2 Qualitative data collection: Triangulation

I will collect information in three ways and synchronise this information by triangulation (Larsen, 2007). These ways are participatory observation, text analysis and interview. We can use triangulation to validate data by verifying information and compare results from different types of sources. The challenge with triangulation is to make sure the data corresponds to the same variables. Using Denzin (2006) definition, this paper involves three types of triangulation. Firstly, it involves data triangulation, which means that data is gathered from sources in space, in time and from persons. Secondly, it involves theory triangulation, which means interpretation of data through different theoretical perspectives. Thirdly, it involves methodological triangulation, which means using more than one method to gather data. The limits of triangulation relates to verification as it makes the study difficult to recreate. Triangulation also represents challenges relate to bias and validity. The researches risks validating his/her own presumptions about reality. It require the researcher to develop a clear theoretical framework that includes the ontological and epistemological assumptions within all relevant methods used.

4.3 Observation

The national parks is still in its creation. Observing how, when and where the participations interact will provide valuable data. I will attend and observe meetings, workshops, public hearing and excursions. It is important to recognise that all types of observation is participatory because the observer always influence the observed. The researches is never passive, but plays an important role in the process. By participating, I will influence the establishment of the National Park. While it is

⁴ The word *qualitative* builds on *quality*, which originated from Latin *quails* ‘meaning of what kind, of such kind’. *Quails* later evolved into the middle-English word, *qualify* meaning ‘to describe (something) in a particular way’ (Oxford Dictionary, 2015).

difficult, if not impossible to tell how I as a researcher affect decisions, it is important to pay attention to how I interact with the environment.

4.4 Text analysis

Throughout the establishment processes the participation produce a wide range of texts and documents. People involved in the process communicate using texts and email as much as dialogue. Both processes are relatively transparent and the county governor publish both official reports and meeting summaries online. These texts holds valuable information about the establishment process. The challenges with text analysis is that it is secondary data. As a secondary data, the information is blurred by subjective interpretations. In doing text analysis, it is therefore crucial to pay attention to how these interpretations have affected the raw information. The most common way to analyse how subjective interpretations shape the text is by undertaking a discourse analysis. In discourse analysis, the researcher identify sentences or words within the text that bias the information. By identifying such linguistic signs, we gain an impression how the writer perceive and understand a given phenomenon.

4.5 Interviews

The interview is a widely used strategy for collecting data in both qualitative and quantitative science (Bryman, 2012). The dialogue interview in an open form of interview aimed at gathering depth information on how people perceive and interpret a given phenomenon. The open dialogue is often informal without a predefined structure (Larsen, 2007). This gives me flexibility and enables me to adjust both the topic and the direction in order to get sensitive information regarding their view on the planning process. The reasons for choosing dialog interview as opposed to a structure interview are twofold. Firstly, because the study involves informants with completely different backgrounds and life modes (See Vedeld et al, 2003). Local inhabitants might be sceptical to a formalised interview. I believe that how informants perceive me as a researcher influence the way these informants interpret and answer questions. I therefore prefer to start the conversation without any predefined notions of how the dialogue should develop. Secondly, because this study require potentially sensitive information regarding informant's identity and values as well as their opinion on other people involved in the establishment process

4.6 Limitations, challenges and ethical considerations

This study involves three major limitations. The first limitation relates to the theoretical and methodological scope of the paper. Recognising the complexity of social change while including four different perspectives and different methods to collect data represent a huge challenge. The integral

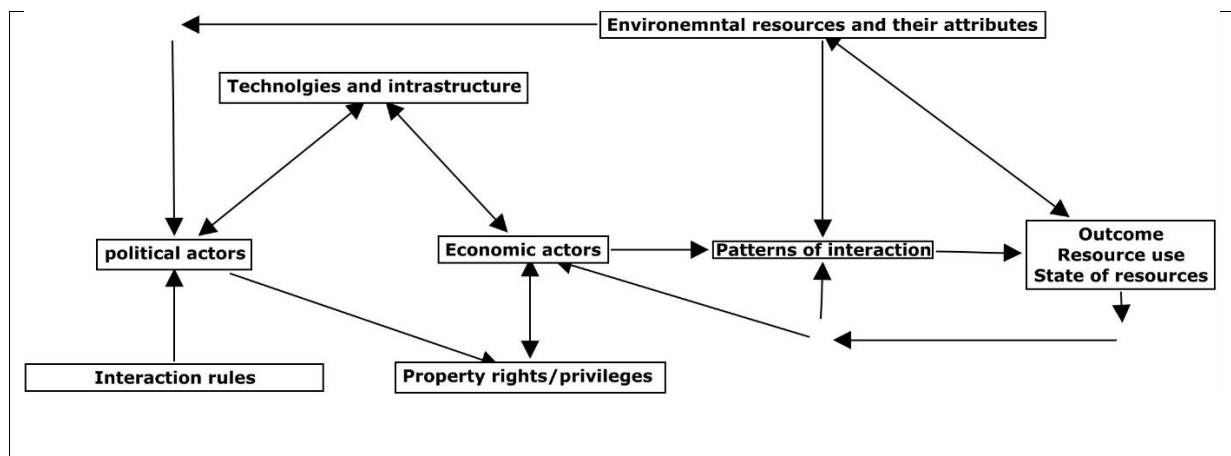
approach is on a rather epistemologically abstract level, meaning that there is, a dangerous distance between data, theory and reality. All perspectives and methods builds on a set of unproved assumptions about reality and causality. Science is not objective and all scientists bias around their own interpretation of their own reality (See Kuhn, 1962, 1970).

The second limitation relates to time. Jomfruland national park will be established in 2016. This mean that I will not be able to witness the outcome. Instead, I will focus upon the formation of the draft plan. By doing this I risk missing out important data. Certain aspects of the establishment process might remain hidden and emerge after I am done with my study.

The third limitation related to ethics. Researchers that study social relationships risks the integrity of his/her informants. They must therefore consequences from ethical standards. Jomfruland is a small community with social intricate relationship. By asking questions about people's values and preferences, their relationship to each other and towards the state, I shone light on some controversial and hidden aspects within the local community. Because of the intricate relationship on Jomfruland and Stråholmen, I decided to avoid naming my informants in order to keep their anonymity and exclude controversial information that might cause tension within the local community.

4.7: Methodological framework

By using Vatn's (2011) framework for analysing environmental governance regimes, we can connect each objective to defined factors. The first step is to identify the relevant actors and structures including the resources and the infrastructure that are of relevance to the national park Initiative. The second step is to analyse how rights and responsibilities divides among the actors involved in the process. The thirds step is to analyse the action arena and the patterns of interaction. The fourth step is to analyse and discuss the outcome (Illustration 4).



Goal 1 Identify relevant actor-structures	Goal 2: Analyse the organisational structure	Goal 3: Analyse the process	Goal 4: Analyse the outcome in terms of participation
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Illustration 4: Objectives and regime model

5 Results and discussion

5.1: Introduction to the process

The County Governor in Telemark started the process back in 2012 in collaboration with the county governor in Aust-Agder. Together, they introduced the national park for the relevant municipalities. The local politicians in Kragerø supported the National Park initiative and then sent an application to MoE asking for approval. The DN approved this in January 2013 on the precondition that the majority in Kragerø supported the national park initiative and that the process would allow broad local participation.

The municipalities, the county majors and the county governors formed a control group and began to discuss the planning procedures and the organisational structure. They planned for four months and formally initiated the establishment of Jomfruland National Park in January 2013 in accordance with official guidelines for establishing protected areas in Norway. The county governor proposed a formal project plan lasting 3 years from start-up in June 2013, to final approval in June 2016 (Table 7). The first thing they had to do was to create a draft plan that included suggestions for the prescripts and the management guidelines to the DN for evaluation. When finished, the draft would define both the priorities and the management procedures and provide guidance for the future national park board.

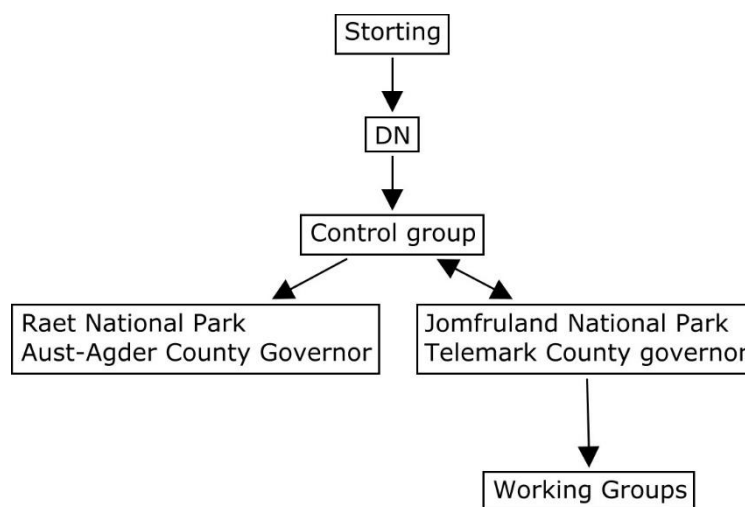
from the beginning by referring to IUCN's protected criteria for protected areas. They argued that Jomfruland did not fulfil national park requirements of untouched nature. One of the leaders within the local community, who knew about the DN's definition of a national park argued in favour of a less restrictive regime based on IUCN's (2008) Category V: Protected landscape/seascape.

The political authority in Kragerø and Telemark County did not want such a protected area. They had already agreed to create a national park in collaboration with Aust-Agder County. In order to persuade the local communities on Jomfruland and Stråholmen, the control group decided to guarantee that the national park should not hinder traditional use on sea or land, nor hinder ordinary maintenance on buildings. In the first reference group meeting, the county governor referred to the New Biodiversity Act and said, "*A national park does not hinder human interferences as long as it is necessary for the conservation effort (13.05.2013) (Reference Group 2013)*"

5.1.2 Disagreements about the organisational structure

During the first regional group meeting 19th of April, the county governor proposed for the municipality and the county an organisational model similar to the planning process of Ytre Hvaler National Park. One control group consisting of regional bureaucrats, politicians and the county governor from Aust-Agder and Telemark County and one advisory working group with representatives from all relevant stakeholders. All municipality majors agreed to this organisational structure (Illustration 5).

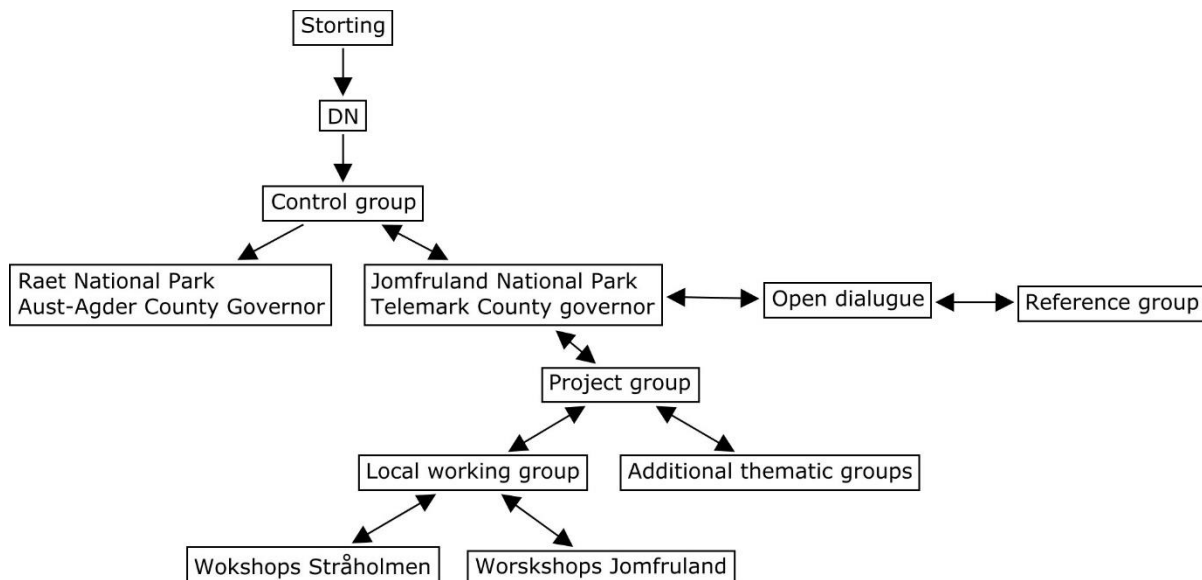
Illustration 5: First organisational structure by the county governor 13.02.2013



However, the political leaders in Jomfruland and Stråholmen opposed this organisational structure. The local community acted in unity and soon proposed an alternative organisational structure similar to that of Færder National Park. They wanted more power to intervene and demanded to be part of

the control group as well as the project group. They also wanted to include and coordinate local planning processes into the official structure (Illustration 6).

Illustration 6: Alternative organisational structure by the local community 08.04.2013

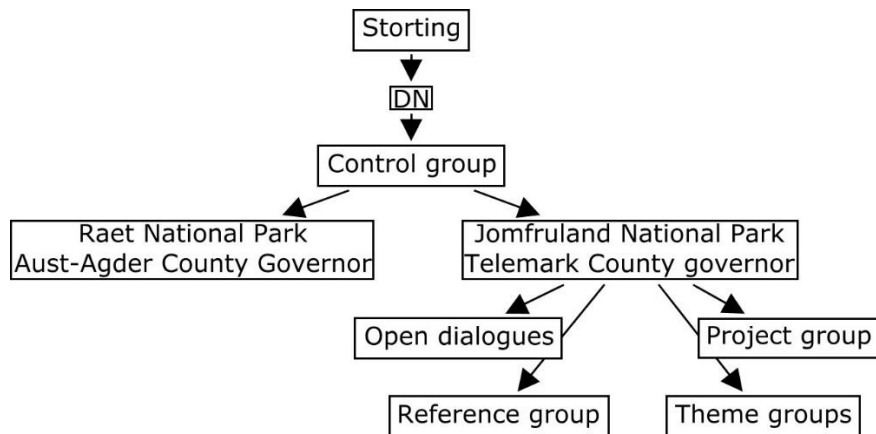


In May, the county governor and municipality agreed to reorganise the process in accordance with Færder National Park thereby giving the local community the opportunity to influence the creation of the draft plan. However, they did not want any local representatives in the control group. They justified this argument by saying that the national park initiative was an intercommunal and neutral process including both representatives from Aust-Agder and Telemark County and because including local stakeholders into the control group would be unfair to other interests groups. Nor did they want to include local planning processes into the official structure (Telemark County Governor 2013c).

The local community strongly opposed for being excluded from the control group and invited people to join their cause. One of the local leaders wrote an article in the local newspaper with the name: *An invitation to conflict about Jomfruland National Park*. He/she argued that the environmental authority should not compare the political organisation on Jomfruland and Stråholmen with other local interests groups. The political authority and the MoE, he/she said, underestimate the importance of local participation. By excluding the local community from the control group, they increase tension between local and central authorities and between actors. While the article led to a tense discussion between local leaders and the county governor, the solution regarding the control group became final. In an email dialogue, the County Governor wrote, “*Based on our trip to Vestfold, and the first control group meeting, the organisation of the control group is final.*”

The final solution was one advisory project group consisting of representatives from key stakeholders such as anglers, farmers, municipality, tourism and environmental conservation organisations. Four advisory thematic groups consisting of various stakeholders holding similar interests. One advisory reference group consisting of all other stakeholders concerned with the establishment of Jomfruland national park, including the local community organisations (Illustration 7).

Illustration 7: Final organisational structure 24.05.2013



The county governor formally began the planning process and introduced Jomfruland National Park to the public in June 2013. The start-up process lasted until the end of 2013. First, the county governor initiated a public hearing in order to gather local opinions regarding the national park. In September 2013, the county governor had received 69 written statements. Secondly, the project group held its first meeting and began working on the draft plan. They also began discussing different responsibilities regarding the National Park process (Table 8). Thirdly, the county governor began planning the initial assessments.

Table 8: Possible distribution of responsibilities in the establishment process (Telemark County Governor, 2013a)

Responsibilities	County governor	Control group	Municipality	County	Private property owners	Cultural landscape scheme	Others
Responsible for establishing the national park centre			x	x	x		
Choosing local representatives in the National park board	x		x				
Creating a grazing plan						x	
Giving permissions to infrastructure and economic developmental initiatives			x				
Develop a plan for tourism outside the summer season			x	x			x (1)
Private maintenance and development of the			x				x (2)

lighthouse area on Jomfruland							
Develop a management plan for the tower pier - lighthouse area on Jomfruland			x	x	x	X	x (3)
Develop a plan for canalising people on Jomfruland and Stråholmen	x	x	x		x	x	x (3) (6)
Establish a plan for marketing and informing the public about Jomfruland	x	x	x		x		x (6)
Develop a plan for canalising people outside the national park border			x	x	x		x (3)
Creating signs for canalising people on Jomfruland and Stråholmen	x	x	x		x	x	x (3)
Giving permissions to development outside national park border	x	x	x		x		
Creating a stone fence around the local residents house on Jomfruland			x		x		
Including the area south of the tower pier into the cultural landscape scheme	x	x	x	x		x	
Improving landscape regulations within the cultural landscape area					x	x	
Moving and changing the camping area on Jomfruland			x		x		
Clean-up of Hagane Gård, Jomfruland			x		x		
Guidelines for maintaining the aesthetic landscape outside the national park border	x		x				
Upgrading infrastructure for disabled persons on public property			x				x (2)
Upgrading the roads for disabled persons within the national park	x	x	x	x			x (4)
Improving waste management			x		x		
Garbage facilities on the ferries			x				x (5)
Public toilets outside the national border			x		x		
Yearly environmental clean-up of twigs, seaweed, garbage, stones			x		x		x (3)
Beach clean-up outside the national park			x		x		x (6)
Deciding on the number of ferry quays on Jomfruland			x	x			x (5)
Upgrading the tower pier			x	x			x (5)
Deciding who should have passage priority on the ferries			x	x			x (5)
Developing restrictions on motorised vehicles on Jomfruland					x		x (3)
Rental of carts for transportation on Jomfruland							x (5)
Public road management on Jomfruland					x		
Financial support for road management			x				
Expanding the Tower pier for small boat mooring			x				x (2)
More mooring opportunities at Aasvik pier			x		x		
Cheap mooring facilities in Kragerø city for cottage owners and island residents			x				
Cheap parking facilities in Kragerø city for cottage owners and island residents			x				
Restrictions on properties – two floor cottages with swimming pools, hedges and gardens			x				
Tighten the bureaucratic procedures for			x				

building permissions							
(1) Tourist office (Visit Kragerø) (2) The Norwegian Coastal Administration (3) Jomfruland and Stråholmen committees and associations (4) The Norwegian Federation of Organizations of Disabled People (5) Kragerø Ferry Company (Fjordbåtselskap IKS) Stråholmen residential committee							

5.1.3 Disagreements regarding the boundaries

Gradually throughout the process, the local community became increasingly wary of what they saw as a restrictive agenda. They felt that the DN repeatedly ignored its own guarantees by continuously suggesting new restrictions on local access and rights. In May 2014, the local community organisations sent an open letter to the municipality arguing:

“The current draft plan have widened the National Park boundaries and now includes a range of private properties on Jomfruland. As a breach of promise, this creates frustration among the local residents. We think that the national park boundaries should follow the boundaries that already exists on the islands... We also ask the municipality the following questions: What are the municipality’s vision regarding the national park? What is its purpose? How will the municipality assist management? What will the National park imply of economic consequences?” (Jomfruland Residential Committee; Jomfruland Cottage Owners Committee, 2014)

The municipality responded arguing:

“We (the state, county and municipality) want to conserve Jomfruland because of its vulnerable and valuable ecosystem and because we want to simplify and combine the already 19 protected areas, with their own prescripts and guidelines, into one protected area with one set of regulations, the state will provide financial support...The national park will increase regional attractiveness.”(Kragerø municipality, 2014)

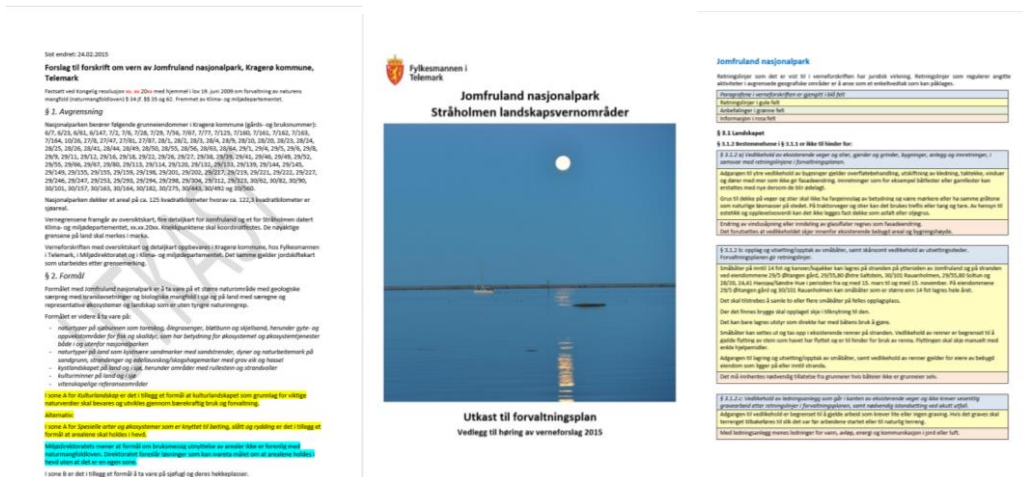
In late 2014, the local community on Stråholmen responded in unity and gave the county governor and the control group an ultimatum. The local community on Stråholmen disagreed to the zoning of the park boundaries. The DN wanted to include the eastern parts of Stråholmen into the national park regime. They justified this argument by arguing that eastern parts included habitats and species of ecological value. The leader of the cultural landscape scheme on Stråholmen responded by saying that the species existed all over the island, and that the habitats was a direct result of traditional grazing and agricultural management. He also highlighted that the eastern part of Stråholmen were common property (divided among 25 different owners) arranged for public access, camping and

recreation (Kiil, 2014). When the DN disagreed, the local community on Stråholmen refused to support the national park initiative. Soon after, the local community on Jomfruland allied with Stråholmen. Jomfruland did this by referring to conflict between a cottage owner and a farmer and the MoE regarding the southern edges of Jomfruland. The DN wanted to include their properties into the national park, but they refused. The ultimatum led to a heated debate between the county governor and the local communities. Eventually the county governor gave way and excluded both the eastern part of Stråholmen and Southern edges of Jomfruland from the national park by defining them as IUCN category five protected landscape.

5.1.4 Disagreements regarding legal regulations in the prescript (Source)

In December 2014, after 13 meetings, the project group finished with what they saw as a satisfactory draft plan. The County Governor handed it over to the DN in January 2015. Now more sceptical to the DN’s agenda, the local community guided by the expertise of the local leaders put a significant effort to secure their rights to properties and traditional use by legally binding them to law in the prescripts. Together with the county governor, they created an over 100 page long legal documents defining a number of rights and boundaries. They justified their effort by arguing that rules by law give more predictability and stability than rules in management guidelines. They also put several suggestions for a preamble that would prioritise sustainable development/use and thereby secure local interests (Picture 5).

Picture 5: Excerpt from the Prescripts, plan and management guidelines



After an evaluation, the DN handed the draft plan back to the County Governor February 2015. They made several changes in the document arguing that it contained aspects and legal regulations that did not fit their criteria for a national park. They moved a number of regulations within the prescripts to the management guidelines, thereby removing them from law. They said that it made no difference if

the regulations were put in the guidelines or in the legal document. They also referred to other national parks processes and said that defining rights by law often led to rigid and inflexible management regimes (Picture 6).

Picture 6: Excerpt from the prescripts before and after the DN's evaluation

<p>1.2 Bestemmelse nr 1.1 er ikke til hinder for:</p> <ul style="list-style-type: none"> - vedligehold av bygninger, anlegg og innretninger. For bygninger gjelder det overflatebehandling og utskifting av kledding, vinduer, dører med mer som ikke gir fasettsending eller bruskending. - indre vedlikehold og indre ombygging av bygninger som ikke gir bruskending. - vedlikehold av ferdemarker, lytter og annen navigasjonsanlegg i regi av kystverket - bruk og vedlikehold av eksisterende fortovsplaner for båt på land og i sjø ved egen brgga eller egen landfast forsyningsstasjon - opplag og utsetting/oppstak av småbåter på etablerte steder, samt såkalt vedlikehold av vann. - vedlikehold av eksisterende bilveg på Jomfruland, traktorveger og i sone A og landskapsvernområdene. Forvaltningsplanen gir retningslinjer. - vedlikehold av eksisterende ledningsanlegg for vann, avløp, energi og kommunikasjon i jord eller luft som går i kanten av eksisterende vegger og som ikke krever vesentlig gravearbeid. - nødvendig utandsetting av eksisterende ledningsanlegg for vann, avløp, energi og kommunikasjon ved skutt utfall. - såkalt uttak av vann fra strandbasseng på eiendommen 28/20, 24/41 Havvik/Søndre Høy. Forvaltningsplanen gir retningslinjer. - vedlikehold av skilt, tinn og lignende. - bygging av nye, mindre konstruksjoner og installasjoner, oppsetting av nye skilt og informasjonspunkter, samt merking av vann for å legge til rette for friluftsliv etter forvaltningsplanen. - beiting i sone A og landskapsvernområdene på Strøholmen - vedlikehold av gjerder og grinder for beitedyr og oppsetting av midlertidige gjerder som strømgjerder og mer varige gjerder som nettinggjerder for beitedyr på landbruksleandommer, regi av eier av landbruksleandom eller - slått av arealer i sone A og landskapsvernområdene på Strøholmen etter forvaltningsplanen - fullføring med jordarbeiding av arealer angitt i forvaltningsplanen i landskapsvernområdene på Strøholmen. - vedlikehold av eksisterende dreneringsanlegg (betemerk og slåtteenger) i sone A og landskapsvernområdene på Strøholmen - rydding, tynning og hogst i regi av forvaltningsmyndigheten i sone A og landskapsvernområdene på Strøholmen etter forvaltningsplanen - hogst av ved i regi av grunneier etter forvaltningsplanen - oppstak av tang og tare til gjødsel i jordbruket på Jomfruland og Strøholmen på steder og med metoder og begrensning i mengde som kan tas ut som er angitt i forvaltningsplanen - uttak av drivved og grus i sone A til byggebred på Jomfruland fra steder angitt i forvaltningsplanen - oppstak av drivved og landdrevet skjøtsel i sone A - oppstak av utfall i forbindelse med strandrydding - uttak av utfall til gravstener i sone A til bruk på kirkegården på Jomfruland 	<p>1.2 Bestemmelse nr 1.1 er ikke til hinder for:</p> <ul style="list-style-type: none"> - Vedlikehold av eksisterende vegger og dører, gjerder og grinder, bygninger, anlegg og innretninger, i samsvar med retningsplanen i forvaltningsplanen. - Opplag og utsetting/oppstak av småbåter på etablerte steder, samt såkalt vedlikehold av utsettingssteder. Forvaltningsplanen gir retningslinjer. - Vedlikehold av retningsplaner som går i kanten av eksisterende vegger og ikke krever vesentlig gravearbeid etter retningsplanen i forvaltningsplanen, samt nødvendig utandsetting ved skutt utfall. - Såkalt uttak av vann fra strandbasseng på eiendommen 28/20, 24/41 Havvik/Søndre Høy etter retningsplanen i forvaltningsplanen. - Oppsetting av midlertidige gjerder til beitedyr i landbruket. Forvaltningsplanen gir retningslinjer om gjerde type.
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The local community strongly opposed this and argued that binding rights to guidelines would imply an unpredictable regime in favour of a restrictive agenda. While the local community disproved of this, they agreed to go along with the national park process on one condition. That the county governor organised an additional local hearing in autumn 2015 where the local community could discuss and clarify the prescripts and the guidelines (Krogh, 2015).

5.1.5 Disagreements regarding the preamble

The DN also argued that the project group could not include sustainable use in the preamble based on international national park criteria. By referring to the New Biodiversity Act, they stated that a national park preamble should only include goals of conserving landscape and environmental values as well as minor statements on outdoor recreation. However, they also highlighted that they shared the local community's view on the importance of landscape tending and grazing. They argued that the conflict regarding the preamble were just an ideological one. In their view, it made no difference whether the preamble included sustainable use or not. They said:

“In accordance with the New Biodiversity Act, a national park preamble cannot include aspects such as sustainable development, grazing and agricultural management. However, this has nothing to do with DN's views on sustainable development. We agree on the importance of local landscape tending,

grazing and collaborative management. This is about the very meaning and definition of a national park.” (27.02.2015)

While the DN saw the conflict as caused by different ideologies regarding environmental management, the local community did not see it this way. In their view, a preamble defined the very purpose of the national park. This purpose would influence how the national park board prioritise in the future. Without *sustainable use* in the preamble, future national park managers might become unwilling to make grants and permissions that allow use and farming. The national park will then gradually become more and more restrictive. By the argument of the leader of the cultural landscape scheme, the local community responded by demanding a juridical evaluation at the department level. They could not agree to a national park mission statement that aimed at conserving the environment while not sustainable management (E. Krogh, 2015). As stated by one of the local leaders during a conversation, asking for a juridical evaluation would have not been an option unless the current government at the national level were a conservative coalition known to favour private property and economic development. He stated:

“While I do not support the current central government politically, I hope that their political stance can make them change the New Biodiversity Act and redo the definition of national parks to allow use in the preamble (Based on personal dialogue)”.

They sent a letter to the political leaders in Kragerø. The political authority in Kragerø municipality belonged to a conservative coalition including two political representatives from the island communities. Jomfruland and Stråholmen then managed to get the political majority on their side against the DN. In the final control group meeting, Kragerø municipality went against the DN and the county governor on both the preamble and the prescripts. The municipality voted in unity for one, that they still support the national park initiative. Two, that the county governor must initiate an additional hearing round in autumn 2015. Three that the preamble includes: *«In zone A for cultural landscape, the purpose should be to conserve ecological values through sustainable use and management in accordance with the national park goal.»* Four, if this sentence cannot be included, the MoE should undertake a juridical evaluation and the process be set on hold. They also introduced a hypothetical what if question. They deliberately asked the DN how the people on Jomfruland and Stråholmen, as a local community, could respond to unpredictable environmental disturbances such as forest fires if they felt restricted by national park regulations. The DN clearly saw this question as an irrelevant distraction saying that the national park regime would not hinder the local community in rebuilding their homes and the landscape qualities (Telemark, 2015).

In May 2015, the county governor initiated central, regional and local hearing. He sent an invitation to the public in Kragerø asking them to consider two alternatives. Either the national park will include, as now, separate spatial zones on Jomfruland or Stråholmen with their own set of prescripts, preamble and guidelines. Alternatively, the same areas will be imbedded in the national park and follow the national park regulations. Through this alternative, activities such as farming and grazing will not be geographically defined such as in alternative A (Ibid, 2015).

Both local, regional and central actors will evaluate the draft plan and consider the alternatives mentioned above throughout the summer. The rest of the thesis will assess how the DN, the municipality and the local community interacted during the period January 2013- May 2015. First, I will analyse and discuss the actors and structures relevant for the process. Then I will look at how the process is organised. Then I will identify key conflicts during the process and discuss how the participants. Finally, I will discuss the outcome and aspects of participation.

5.2 Identify relevant actors and structures

The project group consists of local, regional and national actors. By attending the planning process, these actors influence how Jomfruland and Stråholmen self-organise. They represents organisations of people with different relationships and forms of access and rights to different resources within the landscapes. The National Park initiative imply changes in their property privileges and their access rights to various resources.

5.2.1 Resources with opportunities (*Plural objective*)

The actors participating in the establishment process possess rights, responsibilities opportunities to different resources within the landscape. These ecological structures have attributes that may influence actors' choices and may therefore lead towards different landscape trajectories and environmental governance regimes. Analysing these resources tells us something about the coordination challenges that are of relevance to the national park. First, there are common-pool resources of great ecological value within Jomfruland and Stråholmen of both regional and national concerns. As already illustrated in the contextual chapter, Jomfruland and Stråholmen defines as cultural landscapes. Many of the valuable common-pool resources are a direct result of local human management and are today utterly dependent on animal grazing and human clearance for survival. This includes the coastal heathlands on the surrounding islands, the coastal meadows, fields and forests on Jomfruland and Stråholmen. Without human tending, these ecosystems will eventually change into a less valuable configuration and wipe out many the 120 vulnerable species that thrive

within them. These cultural landscape qualities influence the regime structure and sets different premises for the national park initiative. The national park cannot restrict use while also damage the environment. In this way, the park will be depended on those who lives on the islands and it therefore need to sustain their livelihoods.

Beside the ecological landscape in itself, there are natural resources such as soils, seaweed, fish and birds, timber and builders that the people on Jomfruland gather to sustain their livelihoods and to maintain the ecosystem. The farmers and residents need the soils and the vegetation for feeding animals and growing crops, seaweed for fertilization in accordance with their tradition, and birds and fish for food consumption and species population control. They also need to extract timber for building materials, firewood and for clearing areas for crop production and ecological maintenance.

In accordance with standard economic theory, these natural resources are rival in nature. They are rival in nature because they exist within limited areas in a limited amount on two small islands. The soils provide few crops and can only support a small number of animals. The farmers may have to import hay or send their animals to the mainland during hard times. They are also rival in nature because one person's consumption reduces the supply available to others. People can easily free ride and consume these resources without paying compensation to other users for their lost opportunity. Because it is difficult to monitor consumption of these resources, it is also difficult to develop and sustain them. In this way, these resources tend to require more complex social structures and forms of regulation than other types of resources.

Second, there are public goods, infrastructure that are non-rivalrous but also non-excludable. The islanders have access to - and depend on public transportation between the islands, telephone lines, post distribution, water and electricity from the mainland. There are also locally managed resources such as roads, waste facilities, public houses and meeting places, a church and graveyards on the islands. The municipality are partly responsible for managing these resources. These resources therefore represents an expenditure for them. The local people on now depend on these infrastructural resources for sustaining their livelihoods.

Third, there are private resources of private value that are rival in nature such as services, motorised vehicles, houses, private properties and herds. They are rival in nature because one person's consumption prevents that of another person's and they are passive excludable because the owner can easily prevent other people from using it. The local residents and cottage owners primarily have

access to - and control these resources⁵. The value of these resources primary depends on the market value, and the value of different private resources has changed dramatically the last decades and forced many people to new forms of occupation and income. The increasing number of cottages since the 1950ties on Jomfruland and Stråholmen have risen the value of privately owned land and the value of private property services such as carpeting and gardening. In addition, the increasing number of day visitors and tourists have increased risen the value of camping facilities and apartments and the value of services such as guidance and tours. Comparably, the value of traditional cattle, sheep and goats has decreased or remained stable. This tendency have forced many local famers and residents to consider alternative forms of income. For example, one farmer transformed his farm into a camping area, arguing that it provided more income than traditional farming. Many are utterly dependent on extra financial support through the cultural landscape scheme.

5.2.2 *The actors with rights (Singular objective)*

Different actors have different forms of rights to these resources. These rights represents different opportunities and therefore g different incentives. First, there are the actors that have economic access to private, public and common-pool resources. Those that have private access to private resources and properties consists mainly of island residents, farmers and cottage owners. There are also people that have special private privileges to access and use common-pool resources that consists mostly of farmers, hunters and anglers. Their private access gives them economic opportunities and therefore economic incentives to control these resources. Regulations that restricts their access imply for them losing economic opportunities and possible income. Those that have public access to state properties and public resources consists mainly of tourists, researchers, bird watchers and day visitors that visit the islands during the summer/spring season. As they do not have private access, restrictive regulations does not mean losing economic opportunities. They risk losing their opportunity to visit and enjoy the landscapes.

Secondly, there are political actors at the local level who possess political rights and capabilities to regulate access to these resources. The political actors on Jomfruland and Stråholmen consist of representative from seven different organisations: Jomfruland and Stråholmen Cottage Owners Committee, Jomfruland and Stråholmen Residential Committee, Jomfruland and Stråholmen Cultural Landscape Committee and Jomfruland Agricultural Association. Together, these individuals represents the local community and their private properties in cases of regional and national concern,

⁵ There are today for example four farms on Jomfruland with approximately 80 cattle, 30 horses and 50 sheep. Because of the limited size of the soils and crops, they collaborate, share technologies and their fields with each other.

such as the national park initiative. Their worldview and interests interknit in a web of social relations and organise into a complex political structure where different individuals gain leadership and high political positions. Together, they communicate among themselves and participate in most of the local workshops and community meetings. They have a say in almost all community issues. They all possess knowledge on the local landscape as well as having political contacts within political and administrative institutions and non-governmental organisations. Some also possess knowledge on formalised planning procedures, as well as protected area management in Norway in general.

Then there are the regional political actor representing both Kragerø municipality and Telemark County, their institutions and their political parties. The political authority in Kragerø today belongs to a conservative coalition. These organisations do not have clear representatives such as on Jomfruland and Stråholmen because political positions and interaction rights are bound to predefined bureaucratic and political tasks and responsibilities. Here, individuals have little power to influence matters outside their areas of jurisdiction. They represents regional interests, public resource management and public opinions based on both national priorities and majority votes. Jomfruland and Stråholmen represents for them a source of income and expenditure. Income, because the islands attract visitors provide economic growth within the region. Expenditure, because they require communal services related to public resources.

There is also national political actors belonging to different departments and sectorial networks working through the county governor office. They are mostly concerned with state property and common-pool resources of national value in accordance with national and international agendas and conventions. For them, Jomfruland and Stråholmen represent an opportunity to fulfil these agendas. In Jomfruland, there are primarily two relevant actors. That is the DN, bound to the MoE and the MoA. The DN are responsible for environmental conservation in Norway and for maintaining and monitoring all protected areas, including those on Jomfruland and Stråholmen. DN at the county governor office in the establishment process. They are the project leader of the national park initiative. The MoA is responsible for agricultural production in Norway and for giving financial support to Norwegian farmers so they can maintain their food production. The MoA gives consultations and financial support to the local community on Jomfruland and Stråholmen through the cultural landscape scheme. As they do not participate in the establishment process, the MoA is more indirectly involved in the national park initiative.

5.2.3 *The regimes with rules (Plural objective)*

While individual rights influences actor's choices and opportunities towards various recourses, social rules and collective arrangements also do. The local community on Jomfruland and Stråholmen have their own regime for resource management. The rules within this regime are mostly bound to personal relations, trust, informal rules, tradition and history. Firstly, people initiative collective management schemes through voluntary engagement and community collaboration (See picture 7). For example, each summer the local cultural landscape committee arrange management events where residents and visitors can voluntary join to tend the landscape (Ruskenaksjonen).

Picture 7: Voluntary management on Stråholmen (Kiil, 2014)



Secondly, while there are clear boundaries between private properties, which often include stone or wooden fences (See picture 8), people share their private access rights through normative judgment, reciprocal exchange and social favours. People with private properties give neighbours and other residents' permission to use and access various private resources and thereby form intricate bonds and reciprocal obligations. For example by offering maintenance on properties in exchange for access, sharing crop fields for grazing, timber or areas for seaweed extraction.

Picture 8: Traditional fences marking boundaries on Jomfruland ("Miljøstatus Telemark, 2015)



The local community and their regime receives financial and regulative support from the MoA through the national cultural landscape scheme (between 600 000 and 1 000 000 NOK). This legitimises and strengthens the local management. By becoming cultural landscape regime, the local community have objectivised informal rules, community obligations and collective action into a formal and more legitimate governance system that give the local people clear ownership to cultural landscape management. They focus on combining local use and conservation.

However, while there is collaboration and reciprocal exchange, there are also conflicts regarding such rights. Local people seldom speak about these conflicts and for an outsider, Jomfruland and Stråholmen seems harmonious. Neighbours struggle over interest, boundaries, properties and access. When they fail to agree through verbal communication, they can initiate a considerable effort to hinder other's access. The fence mentality clearly illustrate this. When people disagree, they can establish new boundaries by building new structures such as wooden fences, pillars of stones that separates properties and limit access. There are also examples of people tearing down parts of other's fences in order to get access. As in most democratic governance systems, the majority tend to override minorities and individuals with properties and access rights of common interests. Local political leaders, representing the majority, sometimes try to solve local conflicts through informal negotiation and persuasion.

The local governance regime differ significantly from the formalised regime established by the municipality and the state. This regime is bound to constitutional law, formalised procedures, guidelines and regulations. Representatives with interaction rights are tightly bound to higher structures. Planning processes involve sets of collective choice arrangements that distribute rights and responsibilities to different participants in accordance with recognised procedures.

Environmental management imply applications, evaluations and assessments. Bureaucrats give individuals permissions to initiate management schemes by referring to national legislations and

official plans. The municipality is supposed to be sector neutral but it follows the national planning and buildings act which purpose is sustainable regional development. In addition, they possess limited financial resources and constantly need to make priorities. Its political actors receive their positions through democratic elections. In this way, the public majority in Kragerø therefore decides sector priorities. The DN and the MoA are not sector neutral. They follow their own priorities, but are bound to international conventions and guidelines on environmental management. They represents the central state and is responsible for governing regional politics and for fulfilling national priorities.

5.2.4 *The actor's worldviews (Singular subjective)*

In addition to differences in rights and rules, these local, regional and national actors focus on different resources within the landscape. Firstly, the local community, particularly framed by the cultural landscape committee, see Jomfruland and Stråholmen as of local value. They see themselves and human intervention as part of the landscape and its natural dynamics. Their identity linger within the local landscape as every ecological patch, builder, tree, farm and individual includes sets of meaningful signs and historical symbols that they can relate. For example, one of the local residents guided me through the landscape on Jomfruland. We stopped by the pond and he told me that Theodor Kittelsen (once a famous Norwegian painter), used this pond as inspiration for his famous painting, *The Nech* (1904). The pond is part of the local identity and represents a symbol of both cultural, historical and ecological value.

Krogh (1995) also highlighted this and argued that people relate to their landscape by interacting with their environment. As a result, behaviour such as management schemes is not caused by calculative rationality and scientific knowledge, but rather a direct result of the local historical socio-ecological conditions and personal relations towards the landscape. They can act on behalf of their relationship between individuals and the landscape and considers the normative and strategic aspects of management. Secondly, they see ecological change in relation to human tending and management. The locals on Jomfruland and Stråholmen are well aware of how the community have shaped the landscape through the centuries. When explaining local ecological change, they tend to focus on historical events, community response and management schemes. For example, when talking about environmental disturbances, such as droughts, forests diseases or bird migration, locals seemed more interested in what they did to cope with the disturbance than the reasons why the disturbance took place in the first place. During an excursion, one of the farmers explained the landscape. He did told stories about the 1970, when large parts of the forests on Jomfruland were damage by the European

spruce bark beetle. Rather than speculating why it happened, he explained how and why they responded by planning new trees.

The DN follow national and international criteria for national parks that lead them to see Jomfruland and Stråholmen within a specific frame. Firstly, they have a national focus and understand Jomfruland and Stråholmen as part of a global ecosystem. They evaluate its national and international value. Secondly, implementing a national park include an assumption that the ecosystem is under threat from human interferences, an assumption that makes them see the local community on Jomfruland and Stråholmen as incapable of taking care of the ecological values within the landscape. Thirdly, a national park is a regime aimed at conserving the natural dynamics of the ecosystem, not sustainable development. With this aim follows a perspective that separate nature from human intervention. The DN's focus is therefore more on natural dynamics and environmental disturbances, rather than how people should cope with these disturbances. Fourthly, a national park is a spatially defined area. With this idea follows a structural perspective on nature that leads them to consider where boundaries should go based on the current level of human interferences and the current values of the ecosystem within a designated area. Fifthly, the DN cannot relate to Jomfruland and Stråholmen based on personal experience. Rather, they understand the landscape through data, surveys, assessments and scientific knowledge. They therefore possess more of a calculative rationality rather than a normative one.

5.2.5 The actor's interests (Plural subjective)

Different actors within the environmental governance regime holds different aspirations and interests regarding management. The local community on Jomfruland and Stråholmen aspire local autonomy and independence from national regulations and restrictions. They are proud of the way the community have managed the environment through history and they want to remain responsible for future environmental management. They feel that they are capable of maintaining the ecological and cultural value within the landscape through sustainable harvesting and community collaboration. Because they see the ecological values within Jomfruland and Stråholmen resulting from traditional harvesting and cultivation, they tend to appreciate and value primary production, farming, harvesting skills and ecological knowledge. Those with such skills and competence receive social status and political positions. Those with such skills achieve the authority to initiate management schemes through voluntary work. They therefore generally see national restrictions that interfere with their management schemes as unnecessary.

The local community, together with other island residents in Kragerø see the municipality as unreliable and the state as restrictive. This mistrust have emerged because of historical tensions between the islanders, the municipality and the DN. While the islanders had pay taxes to the state, the municipality proved reluctant in providing financial support to develop infrastructure on and between the islands. The Islanders therefore felt that the municipality took more than they gave. Regarding the state, the island residents perceive the state as an external force that constantly try to restrict their access. First, by establishing a range of protected areas around and within Jomfruland and Stråholmen, and second by creating national legal regulations that hinder their access to resources, such as the law that restricts people from building closer than 100 meters from the seashore. One of the state representative said:

Within the local community, there are a significant difference the between some farmers and the cottage owners regarding public access. Most farmers see public access as a potential source of income, while most cottage owners and residents see public access as a disturbance. Some famers have economic interests in tourism as they earn good income by offering goods and services such as local agricultural products, camping and apartments. During the start-up meeting, one said, *“I feel that it is important to lay the foundation for tourism, renting and apartments on my farm (Based on the meeting summary).”* The cottage owners and residents do not see tourism as a potential income. They rather tend see them as a potential disturbance. For example, also during the start-up meeting, the Jomfruland residential committee highlighted the need to reduce tourism, not increase it.

The municipality and the county see the national park as an opportunity for regional growth and status in addition to environmental conservation. They acknowledge that the national park will increase the number of tourists to Jomfruland and Stråholmen. I should note that tourism represents the largest source of regional income and Jomfruland is one of the most popular attractions. The municipality and its economy is utterly dependent on summer tourism and tourism is a central theme and a priority in Kragerø regional plan (Kragerø municipality, 2015).

At the national level, the environmental authority and the agricultural authority follow different discourses. The DN is concerned with the disappearance of Red Listed species and its aim is to conserve the environment and hinder ecological degradation by restricting access and rights to use. By restricting human access to pristine environments, they can acquire total control over the natural dynamics. The MoA have a different aim again that builds on a different discourse. They are responsible for food production and cultural landscapes. They value measures that increase food

production and sustainable cultural landscape management as financial support and voluntary conservation.

5.2.6 Connecting rights, rules, worldviews and interests to the regime system

Combining all rights, rules, worldviews and interests, we see clear differences between the local, regional and national actors and regimes. The local environmental governance regime put together, the resources, infrastructure, rights, rules, interests and worldviews is an integrated system that sustains itself through community collaboration, landscape relations, local autonomy, social cohesion and financial support. Actors with private rights and private access have personal economic incentives imbedded in the regime. The regional system, including formalised procedures and regional planning structures sustains itself through majority voting, bureaucratic administration, formalised procedures, and financial tax support. For them Jomfruland and Stråholmen represent an opportunity for regional income. Political actors therefore have economic incentives in enabling open access to Jomfruland and Stråholmen. The DN, as part of the national environmental sector including national priorities based on international conventions and regulations is a system aimed at conserving ecological values within Norway. It sees Jomfruland and Stråholmen as means to fulfil national environmental priorities (Table 8)

Table 9: Actors and structures relevant for the national park initiative (Based on observations and personal evaluation)

	With: Group's Privileges and rights	Bound to: Rules and opportunities	With: Worldviews and perspectives	With: Values and interests
L O C A L	Jomfruland and Stråholmen committees and associations <i>Is active through local political organisations and the cultural landscape scheme</i>			
	With rights: Economic rights, Private properties political rights With responsibilities: Responsibilities regarding local environmental Management	Bound to: informal regulations justified in reciprocal obligations, tradition and inherited management duties through the cultural landscape scheme	Landscape narrative: <i>Jomfruland and Stråholmen are part of their selves and their ethical community</i> Judgment narrative: <i>Consider the normative and strategic aspects of management initiatives</i> State narrative: <i>local autonomy and independent life modes</i> Nature narrative: <i>humans shape nature, including Jomfruland and Stråholmen.</i>	Focus opportunities: <i>Secure their private properties and access rights</i> <i>Manage and protect the cultural landscape in order to sustain income, recreational potential, livelihoods, and landscape qualities, as well as to tend social relationships within the local community</i> Focus threats: <i>Losing income Losing their rights and ownership Future emigration Landscape degradation</i>

		Human narrative: <i>human action imbeds in landscape qualities. Tacit knowledge</i>	Focus governance: <i>Local autonomy Community collaboration Adaptive management</i>
Fisheries and hunting organisations. <i>Is active in Jomfruland and Stråholmen through resource extraction</i>			
With rights: Special rights to use common-pool resources With responsibilities: Responsibilities regarding resource extraction and population control	Bound to: <i>Sectorial regulations and management schemes regarding quotas and resources extraction.</i>	Landscape narrative: <i>Jomfruland and Stråholmen includes species of economic and ecological value</i>	Focus opportunities: <i>Secure their special access rights to common-pool resources Manage specie population through hunting and fishing Maintain traditional fishing and hunting Focus threats: <i>Reduced access to hunting and fishing as well as the disappearance of harvesting methods. Focus governance: <i>Population control and quota</i></i></i>
Regional environmental organisations <i>Is active in Jomfruland and Stråholmen by visiting, by providing management workshops and consultation as well as assessments</i>			
R E G I O N A L With rights: <i>Public access to public properties</i> With responsibilities: <i>Responsible for increasing environmental awareness and influencing political action</i>	Bound to: <i>Norwegian law as well as rules within each organisation</i>	Landscape narrative: <i>Jomfruland and Stråholmen as a source of ecological values with recreational potential</i>	Focus potential: <i>Secure public access and rights for providing recreational and pedagogic experiences. Conserve cultural and/or ecological landscape in accordance with their specific agenda Focus threats: <i>Nature degrades because of human interferences Losing access to public properties</i></i>
Public, tourism organisations and day visitors <i>Is active in Jomfruland and Stråholmen by visiting the islands</i>			
With rights: <i>Public access to public properties</i> With responsibilities: <i>Create an attractive environment for tourist and visitors</i>	Bound to: <i>National regulations and norms on public access and behaviour</i>	Landscape narratives: <i>Jomfruland and Stråholmen as a source of recreation and economic income</i>	Focus potential: <i>Secure public access and rights for providing recreational experiences. Generate regional income</i>

			<p>Focus threats: <i>Losing access to public properties</i></p> <p>Focus governance: <i>Open access Restrictions on use Community collaboration</i></p>
<p>Local politicians representing the municipality <i>Is active in Jomfruland and Stråholmen by acquiring political support</i></p>			
<p>With rights: <i>Political rights to public access</i></p> <p>With responsibilities: <i>Responsible for local development based on public opinion</i></p>	<p>Bound to: <i>formalised planning procedures and norms and regulations within a conservative political coalition</i></p>	<p>Landscape narratives: <i>Jomfruland and Stråholmen as of regional and political value.</i></p>	<p>Focus potential: <i>Fulfil the majority's interests, maintain regional development, secure public access</i></p>
<p>Regional state bureaucrats <i>Is active in Jomfruland and Stråholmen by providing state services, financial support, permissions and by acquiring taxes</i></p>			
<p>With rights: Political rights and public access</p> <p>With responsibilities: <i>Responsible for regional area management and finance and waste management</i></p>	<p>Bound to: <i>formalised planning procedures and means of budgeting in accordance with their area of concern</i></p>	<p>Landscape narrative: <i>Jomfruland and Stråholmen as part of Kragerø municipality and a source of expenditure</i></p>	<p>Focus potential: <i>Budgeting by maximizing regional income and minimise regional expenses</i></p>
<p>The Ministry of the Environment at the county governor office <i>Is active in Jomfruland and Stråholmen through nature reserves and the national park initiative.</i></p>			
<p>With rights: <i>Political rights at national level and public access</i></p> <p>With responsibilities: <i>Responsible for conserving the ecological services in Norway.</i></p>	<p>Bound to: <i>formalised planning procedures, the New Biodiversity Act, national and international conventions on environmental protection</i></p>	<p>Landscape narrative: <i>Jomfruland and Stråholmen are an ecological valuable part of nature</i> Not part of ethical community Instrumental value</p> <p>Judgment narrative: <i>Calculative and Strategic judgment Scientific knowledge</i></p> <p>State narrative <i>Centralised control and dependent life mode</i></p> <p>Nature narrative: <i>Nature including Jomfruland and Stråholmen as separated from humans</i></p>	<p>Focus potential: <i>Conserve environmental resources and ecological values</i></p> <p>Focus threats: <i>Nature degrades because of human interferences</i></p> <p>Focus governance: <i>Protect natural areas and ecological functions from human interference</i></p>

		Human narrative: Individualism, human action, individual choice	
The Ministry of Agriculture and Food <i>Is active in Jomfruland and Stråholmen through cultural landscape conservation and cultural landscape.</i>			
With rights: Political rights at national level and public access With responsibilities: Responsible for ecological productivity and for maintaining food production and conserving traditional use in Norway.	Bound to: Formalised planning procedures, agricultural law and international conventions such as the European landscape convention.	Landscape narrative: <i>Jomfruland and Stråholmen includes a valuable management tradition</i> Judgment narrative Scientific knowledge Dependent life modes Calculative/strategic judgment Nature narrative: <i>See nature, including Jomfruland and Stråholmen, as shaped by humans.</i> Human narrative: <i>Human action imbeds in landscape qualities.</i>	Focus potential: conserve food production, cultural landscapes and traditional use Focus threats: <i>People lose management expertise and stop farming</i> Focus governance: <i>Initiate sustainable development by providing financial support, consultation and through voluntary conservation</i>

5.3 Goal 2: Analysis of the organisational structure

The final organisational structure gives the municipality the responsibility to establish the national park. The local community, organised in the project group, are advisory to the municipality. The DN is responsible for approving the National Park in accordance with national criteria (Table 9).

Table 10: Final organisational structure (Telemark County Governor, 2013b)

Complete Organisational planning structure	<i>Participants</i>	<i>Rights and responsibilities</i>
<i>The King</i>	The King	Power of attorney
<i>The Storting</i>	Office of the Prime Minister Ministry of Labour and Social Affairs Ministry of Children, Equality and Social Inclusion Ministry of Finance Ministry of Defence Ministry of Health and Care Services Ministry of Justice and Public Security Ministry of Climate and Environment (project leader) Ministry of Local Government and Modernisation Ministry of Culture Ministry of Education and Research Ministry of Agriculture and Food Ministry of Trade, Industry and Fisheries Ministry of Petroleum and Energy Ministry of Transport and Communications Ministry of Foreign Affairs	Responsible for approving/disproving the management plan
<i>The Control group</i>	Major of Grimstad Major of Arendal Major of Kragerø	Responsible for approving/disproving the raft management plan and

	Major of Tvedestrand County major of Telemark County major of Aust-Agder County governor Telemark (Project leader) County governor Aust-Agder The Norwegian Directorate of Fishing (region south)	sending it to the Storting for central hearing
<i>The Project group</i>	County governor Telemark (Project leader) Kragerø Municipality Cultural landscape Committee Jomfruland Cultural landscape Committee Stråholmen Cottage owner's Committee Jomfruland Cottage owner's Committee Stråholmen Residential Committee Jomfruland Residential Committee Stråholmen Agricultural committee Jomfruland WWF Kragerø (Environmental org.) Visit Kragerø (Tourism) The Norwegian Directorate of Fishing (region south) Anglers committee Skåtøy/Kragerø	Responsible for creating the draft management plan and assess local regulations.
<i>The Reference group</i>	County governor Telemark (Project leader) Various actors with an interest in the establishment process	Responsible for giving advice to the Control group and Kragerø Municipality
<i>The Thematic 1: Fishery</i>	Anglers committee Skåtøy/Kragerø Anglers committee Langesundsford Coastal committee Kragerø Norwegian hunting and fishing association Telemark Norwegian fishery association (region south)	Advisory for impact assessment
<i>The Thematic 2: Agriculture</i>	Agricultural committee Jomfruland Residential Committee Jomfruland WWF Kragerø (Environmental org.) Tourism association Kragerø History association Kragerø and Skåtøy Botanical association Kragerø Coastal committee Kragerø Ornithological association Kragerø Telemark county (Cultural history)	Advisory for impact assessment
<i>The Thematic 3: Nature/Culture/Recreation</i>	Residential Committee Jomfruland/Stråholmen Cottage owner's Committee Jomfruland/Stråholmen	Advisory for impact assessment
<i>The Thematic 4: Tourism</i>	Visit Kragerø The Norwegian Trade Association Telemark	Advisory for impact assessment
<i>The Thematic 5: properties and cottages</i>	Cottage owner's Committee Jomfruland/Stråholmen Residential Committee Jomfruland/Stråholmen Residential Committee Skåtøy Residential Committee Levangsheia	Advisory for impact assessment
<i>The Local planning structure</i>	Cultural landscape Committee Jomfruland Cultural landscape Committee Stråholmen Cottage owner's Committee Jomfruland Cottage owner's Committee Stråholmen Residential Committee Jomfruland Residential Committee Stråholmen Agricultural committee Jomfruland	Separated process: Not part of the official organisational structure

5.3.1 Different actors with different trajectories

The planning process and its organisational structure give different rights and opportunities to different actors who postulate different environmental governance regimes. The local community,

the regional and the central authority follow sets of rights, rules, worldviews and interests that leads towards different trajectories. The local actors possess private rights and properties on Jomfruland and Stråholmen and value independence and self-management. They see the landscape as part of their history and shaped through generations. In this way, their identities and personalities attach to the landscapes. They organise themselves and initiate collaborative management schemes through deliberate democracy based on strong leadership and community consensus. Their regime leads towards what Barrow and Murphree (2001) call community conservation where conservation is a central element of land use and local development. Participation becomes a goal in itself.

The municipality and the county, organised in the control group, see Jomfruland and Stråholmen as part of their region. As an external actor located in Kragerø city, they postulate a regime based on local-regional collaboration and agreements between the local community and the municipality similar to that of collaborative management. A regime where the municipality set priorities and agendas based on official planning documents and majority votes and make direct agreements with the local community regarding access rights and management schemes. Participation becomes partly means and partly goals.

The state and the DN at the department level see Jomfruland and Stråholmen as means to fulfil national priorities on environmental conservation. From this perspective, participation becomes means to fulfil these goals. Their job is to make sure the conservation regime fits the international criteria for national park management. Their interests, responsibilities and rights leads towards a protected area regime where the state constantly monitors the ecological conditions and change priorities based scientific knowledge, formalised procedures and administrative rationality (Table 10).

Table 11: Different actors postulating different regime trajectories

Actor	Objective	Trajectory
<i>Local community</i>	Sustainable rural livelihood	Community conservation Local autonomy
<i>Regional authority (Municipality)</i>	Conservation with some rural livelihood approach	Collaborative management Local – regional arrangements
<i>National authority (DN)</i>	Conserving ecosystems	Protected area outreach Centralised control

5.5.1 How do the organisational structure influence the trajectory and thus the outcome?

The organizational structure distribute power unevenly among actors. Their actions are bound to worldviews, interests, rights and rules that postulate different trajectories in terms of environmental governance. The municipality, whom is responsible for starting the conservation effort, are bound to regional democratic governance structures and planning processes. They postulate an administrative regime but put emphasis on regional development and growth. In this way, the organisational structure influence the establishment process and determines its trajectory.

From the beginning, the municipality put emphasis on the positive potentials a national park represents in terms of regional growth, intercommunal relationships, political support, regional status and development. For example, during the first control group meeting, the major of Kragerø uttered:

“A national park is of great importance for our relationship to Europe. A national park will also provide status to our regional and municipality. It will also simplify the current conservation regulation and maybe provide our region with more means to cope with oil spillages.” (13.02.2013).

Their rationality, focus and interests led them to neglect restrictive aspects. Because they focused on the potentials, and not the restrictions, they easily got public and local support. This was evident in the control group meeting, where the DN continuously reminded local politicians on the restrictive aspects of a national park by referring to the New Biodiversity Act. In this way, the political authority led the public and the local community on Jomfruland and Stråholmen to support a skewed idea of a national park. Sceptical to both the municipality and the DN, the local community on Jomfruland and Stråholmen decided to support the skewed idea of a national park on the guarantee that the national park would not restrict their access or traditional use. Together with the County Governor, the local community then created a draft plan that did not fit DN's criteria of a national park.

The differences between the DN's notion of a national park and the municipality's became evident in January 2015, when the DN evaluated the draft plan. The political authority in Kragerø then had to make a choice. They could listen to the DN and thereby confess to the public that they had neglected the restrictive aspects of the national park, or they could go against the DN and support the local community. As proved in the final control group meeting, they decide to go against the DN. The political authority wanted a national park, but did not want to go against Jomfruland and Stråholmen.

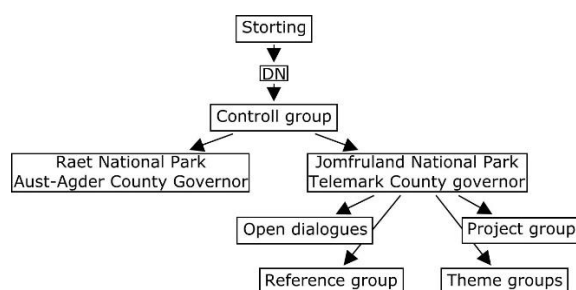
Therefore, as the formal planning procedures in accordance with the New Biodiversity Act imply an organisational structure that gives the municipality the responsibility to establish protected areas, the formal planning procedures also postulate a less restrictive notion of a national park. Hovik (2008) also shows this in her study of Setesdal Vesthei–Ryfylkeheiane protected landscape and Blåfjella–Skjækerfjella national park. Here, the municipality considered local access and property rights over environmental conservation and therefore postulated a less restrictive conservation regime than the DN do.

5.3.2 Local community mobilisation

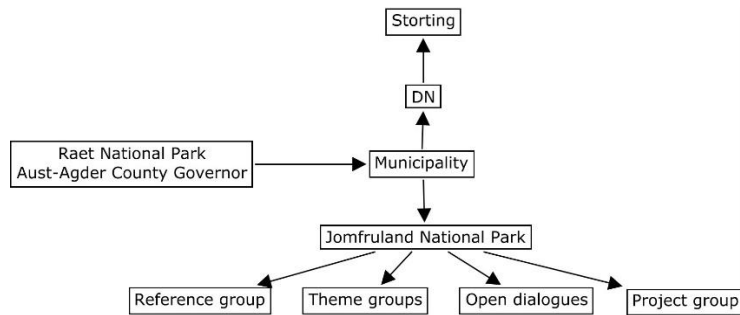
As in the establishment of Trillemarka national park studied by Velvin et al (2010), various actors in the establishment of Jomfruland National Park mobilised and interacted within three separate processes and mobilised different political networks in order to influence the establishment outcome. Within these networks, actors legitimised and developed their own agendas and demands regarding the national park initiative in accordance with different political structures. The local community on Jomfruland and Stråholmen were able to mobilise to a broad extent because they were organised politically long before the county governor presented the national park initiative. Especially through the cultural landscape scheme, the local community had developed their own legitimate collective management agendas. Through this scheme, they gave key individuals the power and authority to represent their cause of environmental management (Illustration 8).

Illustration 8: Three different processes with different organisational structures

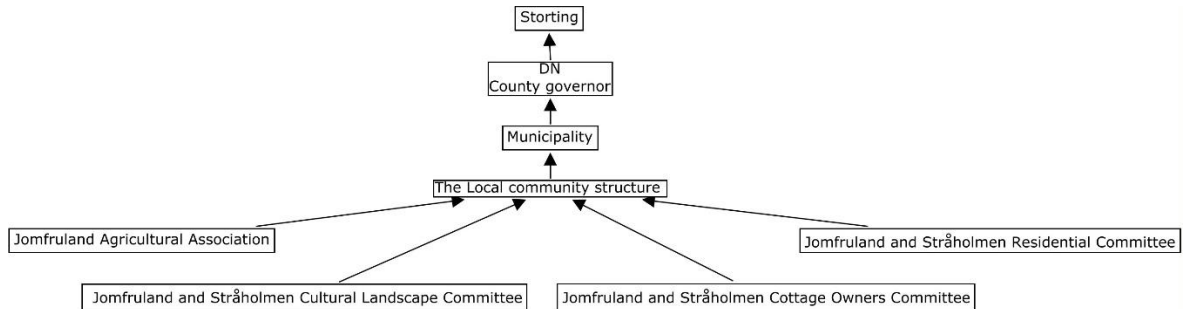
Formal organisational structure initiated by the county governor postulating central control through participatory arrangements



Regional organisational structure initiated by the municipality postulating regional control through local – regional arrangements



Local organisational structure initiated by the local community postulating local autonomy



→ Indicate the causality of feedbacks/direction of influence through means of participation

From a systems perspective, the national park initiative can be seen as a signal that started a chain reaction of events within the local community system. Each event triggering positive feedback mechanisms. Firstly, the initiative reached a handful of individuals within the local community through the cultural landscape committee already 18th of January 2013. These individuals had capabilities, knowledge and social status that enabled them to respond to the national park initiative in a matter of days. Secondly, the local community were already well organised and had a functional arena for political decision-making. They were therefore able to unite and agree upon a common strategy. As stated by one of the leaders in an email:

“Our strategy was to maximise our influence by being included into the control group as well as the project group. If the DN went against our opinion, we would influence local politicians in Kragerø against the DN.”

Thirdly, the local community immediately saw the national park initiative as an external threat to their rights and properties. The local community were sceptical of environmental conservation because they had bad experiences with conservation efforts in the past.

5.4 Goal 3: Analysis of the processes

The local community generally seemed happy with the process and the draft plan they were able to create together with the county governor. The local community were happy with the County

Governor as the project leader and applauded his/her patients and for providing transparency. The county governor listened to local initiatives, even if those initiatives seemed unimportant and costly. For example, at the second meeting in the reference group, he/she asked if the few participants wanted another meeting. Only a handful people responded. While the county governor clearly saw little use of organising another meeting, he/she did so on behalf of a couple of individuals of relatively little relevance for the national park. The personality and capability of the county governor thus seems to be of vital importance.

While there has been a number of disagreements throughout the process, the participants manage to agree on legitimate solutions in most of them. However, there were some key cases where the participants did not find legitimate solutions. These conflicts clearly illustrate the differences between followers of traditional use versus conservation and local versus central governance. During the process, there were five central conflicts. The first conflict was about the need for a national park. The local community questioned the need for such a comprehensive form of conservation. The DN manage solve this conflict and get their support by guaranteeing their right to traditional use and private properties. The second conflict emerged simultaneously as the first one. The local community demanded more power to intervene. They manage to resolve this conflict through compromise. The local community could participate in the project group, but not the control group. The third conflict emerge gradually regarding the boundaries of the national park. Here, the local community responded in unity and manage to persuade the county governor to exclude several areas. The fourth and fifth conflict emerged simultaneously after the DN had evaluated the draft plan. Fourth, the DN moved a number of prescripts over to the guidelines. After a number of meetings without any legitimate solutions, the participants decided to postpone the conflict until autumn 2015. Fifth, the DN refereed to the New Biodiversity Act and refused to take sustainable use into the preamble. The participants did not manage to come any agreement, so they postponed the conflict by requiring a central juridical evaluation at the department level (Table 11).

Table 12: Five key conflicts in the establishment process

Time	Topic
January – May 2013	Case 1: The need for a national park:
The local community opposed the need for a national park	Resolved by compromise: Ministry of the environment guaranteed local rights
February- April 2013	Case 2: The organisation of the planning process

The local community opposed the organisational structure suggested by the DN	Resolved by compromise: The local community could participate in the project group, but not the control group
January -November 2014	Case 3: Park boundaries
The local community opposed the park boundaries suggested by the DN	Resolved: Large parts of Jomfruland and Stråholmen were removed from the park
January – March 2015	Case 4: Legality of regulations
The local community opposed DN's changes to the draft plan	Postponed/unsolved: The local community demanded an additional local hearing round
January – March 2015	Case 5: The preamble of the national park
The local community opposed DN's refusal to include sustainable use into the preamble	Postponed/unsolved: The local community did not support a preamble that did not consider sustainable use.

Regarding Case 1 and 2, these conflicts emerged almost instantly when the process began. While these conflicts surrounded specific issues regarding the need for a park and the organisational structure, they also came as a reaction towards a central initiative. The fact that it was the DN and the municipality who started the national park process without local consent led to tension from the very beginning.

Regarding Case 3: Park boundaries the local community in unity presented an ultimatum for the county governor. The local community on Jomfruland allied with Stråholmen. They did this by referring to conflict between a cottage owner and a farmer and the MoE regarding the southern edges of Jomfruland. The MoE wanted to include their property into the national park, but they refused. In this way, the community on Jomfruland made it seem like they had their own reasons for opposing the ever-increasing restrictive regime. However, the real reason was two folded. One the on hand, it was normative reasoning. The two islands had a long tradition of reciprocity and collaboration. The people on Jomfruland had good relations to the people of Stråholmen, and supporting each other mutually seemed obvious. On the other hand, it was strategic reasoning. Both communities recognised the benefits of staying together against a common cause. Staying separated would make them weaker against the MoE and the regional politicians. While the ultimatum led to a heated debate between the county governor and the local communities, the county governor gave way and excluded both the eastern part of Stråholmen and Southern edges of Jomfruland from the national

park by defining them as IUCN category five protected landscape. From Galtung (2000) notion of conflict resolution, the participants came to a solution based on compromise. The local community agreed to continue their support to the national park, while the DN had to exclude valuable areas from the national park. Their solution was published in the local newspaper April 2015 (Thorsen, 2015).

Regarding case 4: Legality of regulations. This conflict emerged because of mistrust between the local community and the DN and because of the organisational structure regarding the members of the national park board. The national park board will be responsible for managing the conservation areas. The county governor did not guarantee the local community on Jomfruland and Stråholmen a place within the national park board. The municipality is responsible for choosing the local representatives. The local community clearly opposed this and demanded a place within the board. Without a guarantee, they did not know if they could influence the national park management after opening.

Compared to literature on protected areas in Norway, their unease seems justified. As argued by (Lundberg & Hovik, 2014) national park boards in Norway do not interact with local communities on a regular basis. She found that, while 80 percent of the national park boards generally valued local engagement, only 24 percent actually discussed matters with local committees. Her findings illustrate the reason for this conflict. The local community did not know who or which interests the national park board would prioritise.

Regarding case 5, disagreements regarding the preamble. The county governor argued that the conflict regarding the preamble was only an ideological one. An alternative way of thinking about the preamble is that, as an ideology, it reflects what (Meadows & Wright, 2008) calls the goal of the system. In their view, ideologies or paradigms are the second most important leverage point. If you change ideology, you are very likely to change the attractor of the environmental governance regime. From this view, the preamble reflects the very goal of Jomfruland National Park. From this perspective, the conflict regarding the preamble is more than just an ideological one. It is conflict about how the national park will evolve into the future.

5.5 Goal 4: Analysis of the outcome in terms of participation

After two years of planning and 14 meetings, the county governor and the project group delivered the draft plan to the DN. The outcome was a comprehensive document with clearly defined prescripts, preamble and guidelines fit to local conditions. However, the problem was that the document

postulated a regime that did fit DN's notion of a national park. The prescripts proved both too comprehensive and narrow, the preamble missed the very purpose of the national park. The DN reduced the number of prescripts from approximately 48 to 15 and suggested moving them to the management guidelines. Why did the DN do this? Moreover, why did the project group create a draft-plan unfit to national park criteria? In order to answer this, we need to look at how the organisational structure influence the outcome.

5.5.2 What form of participation is this?

There are clear similarities in terms of participation between the establishment of Jomfruland national park and the establishment of Blåfjella – Skjækerfjella national park and Lierne national park as shown by (Skjeggedal, 2007b). Firstly, the national park initiative and its regulations was not a local initiative, but a regional one. It was DN's representatives, the two county governors in Aust-Agder and Telemark, who took the initiative back in 2012. They first agreed among themselves, and then they travelled to Ytre Hvaler National Park and Færder National Park on an excursion. They persuaded the local politicians in Kragerø and asked the DN for permission to create a national park. As similar to Hovik, Sandström, & Zachrisson (2010), the process provided an opportunity for powerful political stakeholders to initiate the national park based on majority interests. The local stakeholders had little to say in this decision. The local community on Jomfruland and Stråholmen remained unaware of this until May 2012 when a former employee of DN published an article in a local newspaper. He stated that the county governors of Telemark and Aust-Agder was collaborating on a regional national park stretching across five municipalities and two counties. He stated that project transect Skagerrak now included two national parks. Raet National park located in Aust-Agder County and Jomfruland National Park located in Telemark County (Fremo, 2012). In this way, tension arises from the very beginning as the local community felt that the national park was not their decision.

As shown by (Vedeld et al., 2003), it is important that the local community see projects as initiated by one of their own. While the experienced county governor in Telemark put a significant effort to establish a good relationship toward the local community and clearly had knowledge and connections to Jomfruland and Stråholmen, he/she did not represent them. As a county governor, he/she represented the state and the DN, an institution that the local community obviously did not trust because of historical reasons.

Secondly, while Jomfruland National park represents a significant improvement compared to past conservation processes in Norway in term of participation, some local key stakeholders on Jomfruland and Stråholmen with property rights felt excluded from participatory excursions and meetings. Some important cottage owners with key properties did not receive any invitation and remained unaware of the national park process for several months after the planning process begun. This was the case during the third conflict regarding the park boundaries of the southern edges of Jomfruland. One can speculate on the reasons why he/she did not receive an invitation⁶.

Thirdly, the local communities had little real influence over the final draft plan. Throughout 2014, the local community leaders and the county governor were able to reach legitimate decisions regarding both the organisational structure, the park boundaries and rights and responsibilities. The local community refused to collaborate when the DN, bound by national park criteria and the New Biodiversity Act, did not accept the draft plan.

The last point clearly illustrates the paradox of participation. The local community believed they had more participatory power than they actually did. Based on Pretty's (1995) ladder of participation, one might say that the process began as functional participation but ended up as more like participation as consultation. Drawing on the principles of successful participation by Vedeld (2002), the establishment process partly fulfilled only some of the criteria. Regarding conscious policy for enhanced local capacities and competence on local participation, both the project leader (the county governor) and the local community leaders had knowledge and competence with many aspects of formal planning procedures, implementation and evaluation. The county governor proved to be an experienced public project leader, able to understand and communicate with the local people. The members of the project group seemed very happy with the way he organised and led the meetings.

It seems that the establishment of Jomfruland does not fulfil criteria two; participation must be part of a comprehensive implementation strategy. Some, but not all process stages were participatory. However, the process in Kragerø gave the local community much more power to influence decision-making compared to other formalised conservation process in Norway such as Raet National Park and Ytre Hvaler National Park.

Regarding criteria three, local anchoring, the county governor had competence on - and connections to the local community leaders. However, as the project leader he/she clearly represented the state.

⁶ It might be because the county governor made a mistake and forgot to inform him/her, or it can be because the county governor knew that the cottage owner would cause trouble for the national park process from the very beginning.

Those that participated in the project group in forming the draft plan clearly represented the local community on Jomfruland and Stråholmen. Because the participants represented the local community and possessed competence on formal planning processes, they could easily communicate information with the local community on Jomfruland and Stråholmen in accordance with local worldviews and values. During project group meetings, the local representatives often highlighted the need to make the draft plan and the guidelines simple and understandable. They also highlighted the need to distinguish between legal regulations in the prescripts and management guidelines. In their view, the national park plan had to include clearly defined legal rules in order to avoid uncertainty and unpredictability. By including local representatives into the project group, the county governor could formulate the draft plan in a more understandable way than without the local expertise. However, the local representatives often complained that the draft plan proved too complex and vague for local people to understand.

Regarding local heterogeneity, the establishment process managed to include most of the relevant actors. As stated in the start-up paper, this was a precondition for the national park initiative. The county governor used a lot of effort to include as many voices as possible. He/she benefited from the fact that Jomfruland and Stråholmen were politically well organised.

Regarding methods for collective learning, the process included thirteen external assessments regarding both various ecological services and landscape use. While done in accordance with the scientific method, these reports also considered how different people use and relate to the landscapes. Another important aspect is that of transparency and community information. The county governor did as in Færder, Ytre Hvaler and Raet National Park and put an extra effort to inform the public by documenting the entire process on the web.

5.5.3 The establishment process and co-management

Co-management implies a focus on problem solving. The participants in such an action arena first agree on a challenge and then try to figure out the alternative solutions. The establishment of Jomfruland National Park involves several aspects of co-management but does not fulfil its criteria and differed from that of Rutherford's (2009) notion of IPS. The establishment of Jomfruland national park involved public hearings and discussions and included all relevant stakeholders into the process the organisational structure did not allow participants to identify legitimate challenges nor solutions. Rather, the municipality and the DN defined the problems and the alternatives based on their preferences. The municipality acted based on the public majority and saw

economic/environmental potentials in a national park. The DN acted based international conventions and requirements and saw the national park as a way of fulfilling these conventions.

During start-up, the local community did not see the need for a national park. For them, the problems was not environmental management, but rather too many tourists, lack of finance and lack of waste management. These practical and solvable problems did not need a national park regime. As stated by the Kragerø municipality (2014) these issues are part of the municipality's ordinary regional plan separate from the national park initiative. During the first local hearing, 10 out of 67 local responds deliberately focused upon practical problems of renovation and waste management during the summer season.

The administrative body of the municipality seemed reluctant to assess these matters. It took approximately two years before the municipality and the local community began to form a solution regarding renovation. They agreed to establish a number of additional under-ground garbage containers on Jomfruland (Based on project group meeting 21.11.2014).

5.5.4 The establishment and design principles for sustainable design

Does it lead to a sustainable trajectory? Ostrom (1990) argued that sustainable management regimes require fundamental collective arrangements. One can analyse the local society on Jomfruland and Stråholmen as well as the establishment process and evaluate if the process improve these criteria. Regarding criteria one, *societies must have clear boundaries between rights and properties*, the local community on Jomfruland and Stråholmen had clear boundaries between private, public and common properties prior to the national park initiative. Because of the small community size, most residents and cottage owners knew these boundaries. In response to the growing number of visitors, as well as animal distribution on the islands, private owners had set up fences around their property. The local communities had also clearly defined access rights. While the fences market private property from public property, the local community had collective and informal arrangements for common-pool resource sharing. For example in terms of grazing rights and seaweed extraction.

Their collective rules enabled the local community manage and sustain the environment of Jomfruland and Stråholmen and respond to various disturbances based on collective action and collaboration. These rules had emerged through centuries of agriculture, environmental conservation and reciprocal relationships. However, their regime seemed unfit to manage the disturbances posed by the increasing number of visitors as well as the privatization and fragmentation of properties.

During the establishment process, a range of local rights came into discussion. The local representatives saw these rules as important and struggled to implement them into the prescripts. They were uncertain of their right to be included into the national board after opening. While the county governor clearly opposed the need for such a comprehensive prescript paper, the local community saw it as necessary. For them, these rights and boundaries secured possible collective solutions to problems of farming, landscape tending and common-pool resource extraction.

The project group developed a plan dividing responsibilities among actors active in Jomfruland and Stråholmen. According to the New Biodiversity Act, the municipality has most responsibility. While this plan clearly fulfils parts of Ostrom's principle, it remains vague in explaining the role of the environmental authorities. It does not mention that the DN is responsible for monitoring these initiatives based on national park criteria. Another consideration is that the plan was only suggestions, and were not absolute (Table 8). It remains to see how different actors receive different responsibilities.

This brings us over to the second criteria; *there must be congruence between rules and local conditions*. The local conditions, the rules and the environmental governance regime on Jomfruland and Stråholmen are a direct result of centuries of use and management. During the process, several local actors complained that the national park regulations seemed unfit to the local conditions. First, the local community highlighted that the ecosystem emerged through centuries of management and they had to continue to manage the environment in order to sustain the ecosystem. Secondly, they highlighted that the need to adapt to changing circumstances. The question of invasive species, particularly Greylag goose illustrates this. Thirdly, they argued that the national park regulations are too formal and does not support their informal management regime. For example, the farmers must use seaweed for agricultural fertilization in accordance with their tradition because the conservation regime forbids synthetic fertilisers. On Jomfruland, the best area to pick seaweed lies within a farmer's property. All the farmers on Jomfruland have traditionally picked seaweed from this property based on informal reciprocal exchange. However, during the establishment process, they put this informal regulation into the prescripts, binding seaweed extraction to law. Binding the agreement to law represents a potential problem for the farmer who owns the property, because he/she will be unable to control access in the future. In addition binding the agreement to law removes the reciprocal aspects of the agreement. A farmer will not need to build a social relationship towards the owner in order to get access to seaweed. He/she can just refer to the national park regulations.

Regarding the third and eighth criteria, *those who are affected by rules can participate in changing them and decisions are taken as local as possible*. As already argued, the local community had *some* ability to influence the national park regulations, but they also tried to bind as many local rules as possible to law because they feared losing their ability to influence the national park regulations after it opened. In the light of their struggle to bind rules to law, this argument might seem paradoxical. The DN clearly warned putting too many regulations into the prescripts because it is almost impossible to change these regulations after approval. The guidelines are less fixed and changing them require less effort. By binding rules to law, the local community would actually lose their ability to change them.

Regarding mechanisms for monitoring users and resources, the local community already have such mechanisms for environmental management in their cultural landscape regime. The leaders of the cultural landscape committee possessed a significant amount of local ecological knowledge, both scientific and traditional. Understandably, they want to be part of the national park board in order to monitor users and resources. However as already stated, the municipality is responsible for choosing the local representative in the local national park board. It is still unclear if the municipality will include members of the local community in the national park board.

6 Conclusion

Establishing protected areas in populated regions with private properties require flexible planning processes. Jomfruland national park clearly illustrate this. The local stakeholders on Jomfruland and Stråholmen proved well organized and had clear preferences regarding the national park. Neither the environmental authority, nor the municipality could ignore their demands.

6.1 Actors and structures

Jomfruland and Stråholmen are cultural landscapes and require use to sustain its ecological values. The local community depends on both common-pool resources, public infrastructure and economic income to sustain their livelihood, to hold animals for grazing and for initiating collaborative management schemes. Throughout the process, incommensurable worldviews, interests, rights and rules became explicit. The DN operated with a strategic and a restrictive notion of a national park in accordance with international criteria and national priorities. The municipality saw the national park as a strategic opportunity for regional status and growth and managed to neglect the restrictive aspects of the national park criteria. Based on prior experiences with environmental conservation and regional support, the local community proved sceptical to the national park from the very beginning.

They had both economic rights to valuable resources within the area and saw Jomfruland and Stråholmen as part of their selves and their social identity.

The local environmental governance regime put together, the resources, infrastructure, rights, rules, interests and worldviews is an integrated system that sustains itself through community collaboration, local autonomy, social cohesion and financial support. A national park unfit to these attributes might include sets of rules that can ruin both the ecological, economic and cultural values within the landscape.

6.2 The organisational structure

While both the DN and the municipality recognised the importance of establishing the new national park regime based on local demands, the process and its organisational structure led to the undermining of local interests. The organisational structure gave the local community an advisory role in creating the draft plan for regional evaluation. The DN kept the power of attorney and the final say in decision-making. The local community had limited means of influencing the DN, as they were advisory to the municipality. This structure led to three separate processes, one formal initiated by the DN, one partly formal initiated by the municipality and one informal initiated by the local community. Shaped by the preferences of the actors in charge, these processes led towards different regimes. The formal process led towards a restrictive and centralised regime in accordance with national park criteria. The regional process led towards a less restrictive regime based on local-regional arrangements and the local process led towards local autonomy and community management.

Guided by the expertise of the local leaders, the local community on Jomfruland and Stråholmen managed to mobilise and shape the establishment process. They rapidly acted and devised a strategy to influence the municipality. One, they would act in unity to maximise their influence on the county governor during the project group meetings and two, use their political network to influence the municipality against the DN in cases where the DN refused to accept their demands. In this way, the local environmental regime, its actors and structures proved remarkable resistant and resilient to change. The local community were well organised politically and they knew very well how to cope with political threats from the mainland.

6.3 The process

This strategy proved highly efficient. Together with the experienced and flexible County Governor, the project group managed to agree on a draft plan that considered both the local interests, regional

and national interests. In accordance with Habermas's (1984) theory of communicative rationality, the participants manage to agree on both the normative, strategic and calculative aspects of the national park regime. However, their demands proved not to fit national park criteria. When the DN refused to accept their draft plan and the preamble, they mobilised to influence the municipality. Through a combination of political networks and persistence, they managed to get the municipality in their side against the DN.

Based on Mose (2007) and Habermas (1984), it seems like the DN and the local community failed to agree on the normative aspects of the national park. Bound to the national park criteria, the DN understood Jomfruland and Stråholmen through sets of narratives postulating human-nature separation and centralised control. The local community saw Jomfruland and Stråholmen as part of their identity and postulated sustainable use and local autonomy. These normative ideas proved incommensurable.

While the county governor argued that the conflict regarding the preamble were ideological and irrelevant for the operation of the national park, the local community saw the preamble as the very foundation of the regime. From a system perspective, their argument seems justified. The preamble reflects the very goal of the environmental governance regime, and thus is of great importance considering its future trajectory.

While the environmental authority and the municipality gave the local community many opportunities to shape the decision-making processes, they were bound to sets of narratives regarding nature and governance. The DN followed national park criteria. From this perspective, the very idea of a national park postulate a restrictive and centralised environmental planning process. Bound by regional agendas and political responsibilities, the municipality wanted a national park but guaranteed local rights to properties and management. A conflict was inevitable.

6.4 The outcome in terms of participation

Considering the outcome in terms of participation, I must highlight that the establishment process represents a new and more participatory approach to protected area management in Norway. This is however necessary, considering the attributes of the local resource regime. The county governor initiated a transparent, open and dialogue based process that included local interests and perspectives. The participants themselves seemed happy with the way the County Governor organised the process. Local political leaders involved in the process had local anchoring and had both traditional knowledge on local conditions as well as competence on formal planning procedures.

However, while the process included the local community into decision-making, they received limited power to influence decisions. The DN and the municipality did not invite local stakeholders to discuss alternative forms of conservation. They refused many local demands regarding the national park regulations and the preamble, often without considering the reasons behind these demands. In this way, the process of Jomfruland National Park looks more like participation as means, rather than participation as goals.

Compared to literature on co-management, the establishment process lacked participatory mechanisms that enabled collaborative problem solving. The authority introduced the national park as the only alternative solution to the problem of environmental degradation in and around Jomfruland and Stråholmen. The local community rejected this and saw the problem as related to too many tourists and lack of public infrastructure such as waste and renovation facilities, not bad management. This illustrates how the first stages of the process failed to consider alternative solutions.

Speculatively, the municipality could have reduced public access through a number of policy instruments such as changing ferry schedules thereby reducing the number of tourists or by reducing marketing etc. They could also have solved the waste problems by either providing financial support to the local community or picked up waste more regularly. All being significantly cheaper than establishing a national park. Alternatively, if the municipality lacked funds, the DN could have initiated green partnership and self-management as explained in Harvold and Hovik's (2006) study of the establishment of Svanøy Archipelago Park.

Seen from Ostrom (1990) design principles, the establishment process, in its current stage, do not guarantee a sustainable trajectory. The reason for this is that the national park regime, as postulated by the DN and the municipality, do not provide the local community with the necessarily means required for sustainable environmental governance regimes. While the national park certainly lead towards more financial resources, mechanisms for monitoring, means of sanctioning and conflict resolution mechanisms, it does not lead towards congruence between rules and local conditions nor local autonomy and self-organisation. It remains to say though if the participants will manage to solve these issues.

6.5 What can Jomfruland teach us?

Considering recommendations for future establishment processes. I will recommend the project leader to initiate the establishment process before deciding upon a solution. Co-management is to include relevant stakeholders from the very beginning, identify common challenges, and then agree to common solutions based on normative, strategic and calculative consensus.

While Jomfruland National Park is a great example of how political actors decide both the challenges and the solutions without local consent. I must praise both the county governor and the local community leaders for their effort. In the project group, their experience and capabilities proved crucial for the formation of the draft plan. Through dialogue, they were able to overcome a range of challenges regarding the national park. Their experience and competence shall not be underestimated.

6.6 Recommendations for future studies

Social change is complex. While this thesis shine light on incommensurable variables and the dynamics of participatory processes, it fails to consider how these variables initiated positive feedback mechanisms within the social arena. From a systems perspective, both the action arena and the organisational structure are holons, complex systems that one cannot understand by looking at their parts. Change in social arenas escalate or mitigate based on how people understand each other. I recommend future studies to identify positive and negative social feedback mechanisms within establishment processes. By studying this, one can better understand the causality of social change and the evolution of environmental governance regimes. For example, while it is obvious that differences in world views, rights, rules and interests leads to disagreements and conflicts in social processes, it is less obvious how different actors react based on their understanding of other's world views, rights, rules and interests. If we can create a causal model that predicts how sets of worldviews, interests, rights and rules react when met by incommensurable ones, we can better understand how policy makers should arrange both the planning procedures and the organisational structure.

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