



Norwegian University
of Life Sciences

Master's Thesis 2020 30 ECTS

Noragric
Pål Vedeld

Who are Thrown to the wolves? Conflicting discourses on wolf conservation in Norway

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Master of Science
International Environmental Studies

Who are Thrown to the wolves?

Conflicting discourses on wolf conservation in Norway



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Master Thesis 2020

International Environmental Studies

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December 2020

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Declaration

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

Date.....15/12-2020.....

Signature...Johanne Aalen Kjerstad.....

Acknowledgements

This semester has truly been a roller-coaster of ups and downs. Thankfully, there has been more ups than downs, and I can largely attribute this to the wonderful people who have helped me through this hectic and strange semester. Thus, some thanks are warranted.

First and foremost, my sincere gratitude goes to my supervisor, Pål Vedeld, who has guided me throughout the research-and writing process. Thank you for your advice, your formidable feedback, and for keeping my spirits up this semester.

The deepest thanks also go out to my friends and family, for their support and love.

I also want to give a special thanks to all the ones who have read through this thesis, commented on it, and provided me with useful and constructive feedback along the way – I truly could not do without you.

Lastly, I want to give the deepest thanks to my wonderful partner who has been supportive, curious, critical, and caring throughout the writing process. I am also fully aware that I have by far exceeded my “wolf-talk-quotas” these past few months, and I want to give my sincere apologies to everyone who’ve had to endure it.

Abstract

Wolf reestablishment in Norway has been subject of controversy and the conflicts stemming from it are polarised, hostile, and obscure. This thesis explores the governance of wolves in Norway, alongside the conflicts which have emerged from it, with the aim of uncovering conflict drivers as a means to enhance conflict resolution. The research aims for such through a three folded approach, investigating: the (regional) governance system; its outcomes; and the discourses which unfolds in this respective system. The Environmental Governance System Framework (EGS) outlined by Vatn (2015) is used to outline the governance system and its outcomes, whereas theories on input-and output legitimacy are applied as means to examine the legitimacy of the outcomes, particularly emphasising participation and distributive justice. Lastly, cleavage theory and different discourses are applied as tools to uncover and understand the different perspectives and interests which have emerged in the conflicts. To disclose potential conflict drivers, semi-structured qualitative interviews were carried out among relevant stakeholders in three carnivore management regions in Norway, and the findings were diverse. Findings show that the legal framework is ambiguous, and the governance system is subject to constant shifting of authority among actors. Consequently, the regional carnivore management policy is largely centralised in practice, and the lack of participation impedes legitimacy. Furthermore, the current governance system is seemingly unable to account for the costs and consequences which manifest, and conflicts and aversion arise in the wake of this. Consequently, conflicts appear particularly tense in the “wolf zone” where the majority of the wolves reside. Lastly, two dominant discourses appear to influence perceptions and attitudes, and these two discourses provide diverging rationales to different facets of the governance system. The only thing these appear to have in common, is a critical approach to the governance system, and a demand for change. Conflict resolution, does however, appear to be beyond reason until common institutions are facilitated and a sounder policy which accounts for its “losers” is implemented.

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Translations and Abbreviations

English	Norwegian	Abbreviation
Norwegian Nature Inspectorate	Statens Naturoppsyn	SNO
Norwegian Environment Agency	Miljødirektoratet	NEA
Ministry of Agriculture and Food	Landbruks- og Matdepartementet	MAF
Ministry of Climate and Environment	Klima-og Miljødepartementet	MCE
Office of the Auditor General	Riksrevisjonen	OAG
Carnivore Management Committee	Rovdyrnemnd	CMC
County Governor's Office	Fylkesmannen	CGO
Norwegian Society for the Conservation of Nature	Naturvernforbundet	NVF
World Wildlife Fund	Verdens Naturfond	WWF
Rurals for Carnivores	Bygdefolk for Rovdyr	BFR
Carnivores Voice	Rovviltets Røst	RR
The Carnivore Association	Foreningen våre Rovdyr	FVR
The Norwegian Association for the Protection of Nature	Miljøvernforbundet	NMF
Norwegian Farmers and Smallholders Union	Norsk bonde-og Småbrukarlag	NBS
Carnivore Management Regions	Rovviltregioner	CMR
Prioritised Carnivore Zone	Prioritert rovdyrsoner	PCZ
Prioritised Grazing Zone	Prioritert beitesone	PGZ
Non-Governmental Organisation	Interesseorganisasjon	NGO
Conflict resolving funds	(Midler til) Konfliktdependende tiltak	CRFs
Norwegian Centre for Research Data	Norsk senter for forskningsdata	NSD



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Chapter 1: Introduction

1.1 Introduction

Predator management is a conflictual issue in Norway. Not only is the management of wild animals a challenging task, but the socio-economic consequences of large carnivores are often diverse among the various stakeholders involved (Hansen et al, 2019). In areas where carnivores roam, such consequences include losses in game populations, fear among people, and not least, losses in livestock and pets (Hansen et al, 2019). These issues have resulted in a tense debate concerning the trade-offs between conservation of carnivores and socio-economic interests. The wolf is one of the species that has received particular attention. Thus, the wolf has become a symbol of modern conservation, and its status is of high importance in many countries, including Norway. Not only is the wolf endangered in Norway, but the species is also subject to protection under both national and international conventions (Council of Europe, 2020). Norwegian authorities are therefore obliged to ensure sustainable wolf management, in spite of possible socio-economic consequences. However, these legal obligations are not carved in stone, and different interests are to be weighed in the management schemes (Norwegian Ministry of Climate and Environment, 2020b). Conflicts have followingly emerged from the questions concerning *where* wolves should roam, *how* they should be managed, and not least, *how to compensate losses* stemming from their presence.

Various actors differ in their opinions on these questions, and the conflicts are fuelled by polarised narratives on either side of the debate (Krange et al., 2017). On the one hand, wolf advocates stress the importance of a sustainable wolf population and argue that current population targets are too low to ensure sustainable genetic diversity. On the other hand, the conservation “opponents” – farmers, hunters, and other rural dwellers, argue that losses in game, livestock, and pets are severe (Strand et al., 2018). These divergent attitudes are not confined to stakeholders, but are also present in the civil society, scientific communities, academia, and in political arenas (Opdahl, 2017).

This nationwide interest in wolf management have made carnivore policies an important part of electoral matters in Norway (Norwegian Farmers and Smallholders Union, 2020). Nevertheless, it has by unanimous vote been agreed upon that large carnivores should be part of the Norwegian fauna (Norwegian Ministry of Climate and Environment, 2020b). Followingly, a management scheme and a national wolf policy has been implemented, with the main strategy being to separate carnivores and livestock into different zones. This approach is referred to as “zoning” an across the country there are geographic zones where either carnivores or grazing livestock is prioritised (Hansen et al, 2019). The zoning strategy was an attempt of confining the conflict to a smaller area – yet it remains very much present – both within, and outside of the wolf zone (Office of the Auditor General of Norway, 2019).

1.2 The Carnivore Policy

The zoning approach has thus far been unable to solve the conflicts. Nevertheless, the approach aims to account for different interests, and the policy has a *two-folded target* which emphasises both wolf conservation, and socio-economic interests. Two targets are outlined – *ensuring a sustainable wolf population* whilst still ensuring *viable opportunity for agricultural activities* (Norwegian Ministry of Climate and Environment, 2020b). The idea behind this principle is simple – if carnivores and livestock are separated, the different objectives – conservation and agriculture – can be prioritised in different areas, and both targets can be achieved. This approach outlines two types of zones – prioritised carnivore zones (PCZs), and prioritised grazing zones (PGZs) (Norwegian Ministry of Climate and Environment, 2004).

One must however differentiate between the *prioritized carnivore zones* (PCZ) and the *carnivore management regions* (CMR). The CMRs are the nationally determined areas in which a *regional carnivore committee* (CMC) is set to govern the carnivore population. The

PCZs are established by these committees within each respective CMR (Norwegian Ministry of Climate and Environment, 2020b). There are eight CMRs in Norway, with CMCs in each region, which are in charge of management alongside the County Governors Office (Norwegian Ministry of Climate and Environment, 2020b). The “wolf zone” is located in the south-eastern part of Norway and encloses two such regions – regions four and five. Within this area wolves are subject to extra protection (Fig. 1).

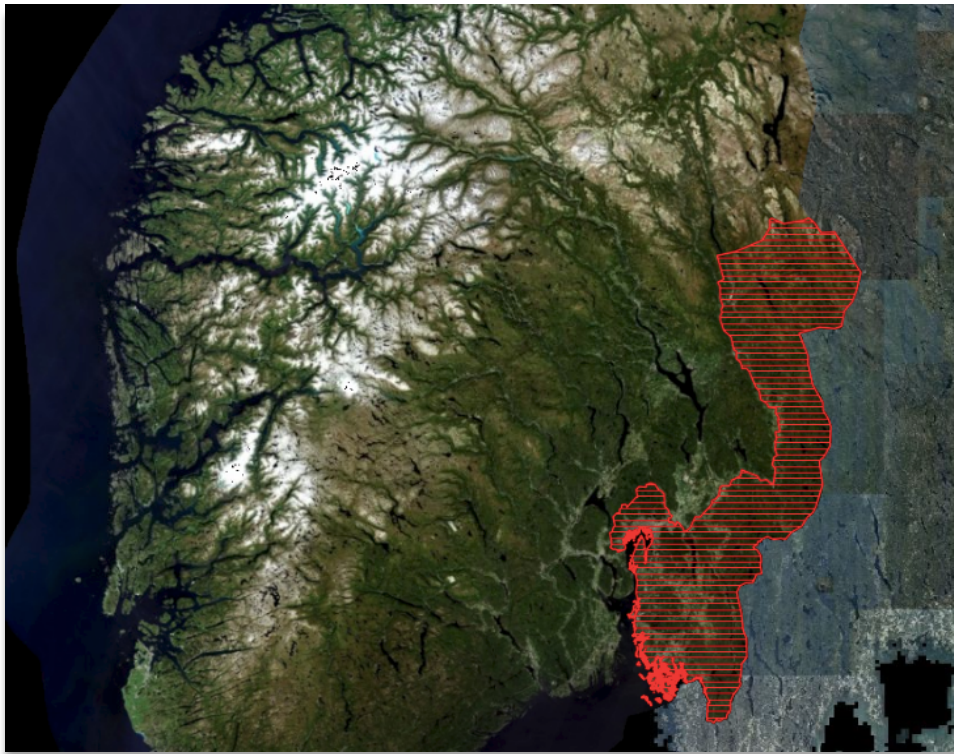


Figure 1: The wolf zone. Map retrieved from Rovbase (2020).

The “extra protection” of wolves is, however, conflictual. These conflicts relate to the costs and consequences stemming from wolf conservation and are diverse for various actors involved. Though, the largest costs seem to accrue among livestock holders, and particularly sheep farmers. Within the wolf zone, sheep farming has for the past few decades undergone a transformation where farmers now refrain from pastoral herding, or renounce from livestock holding all together (Hansen et al, 2019). The consequences are both economic and intangible, and as a result, the presence of wolves has arguably become a threat to not only livestock, but also to farmers’ identity, their sense of security, and their livelihoods (Vedeld, Krogh, and Vatn, 2003).

1.2 Problem Statement

In light of the current carnivore conflicts, some questions arise – is the current governance system unable to resolve the conflict? are some interests favoured? which interests drive the polarisation in the conflicts? This research will attempt at investigating these issues, with the following problem statement as a foundation:

This thesis will investigate the governance of wolves, with the main aim being to uncover important drivers in the conflict. The thesis has a three-folded approach and will investigate three main themes; i) *the governance system of wolf management*; ii) *the outcomes it generates*; and iii) *how different discourses play out in the governance of wolves*. The research will emphasise the distribution of costs and benefits and evaluate these outcomes through the lens of the different actors, with particular emphasis on issues related to legitimacy.

1.2.1. Research Objectives

In order to approach this overall research aim, three main objectives are outlined, and they are accompanied by specific research questions. These objectives are created as a means to provide structure and direction to the research, and they are as follows:

Objective one: Investigate the Governance System of wolves in Norway.

- a. According to the EGS-framework, how is governance of wolves in Norway arranged?
- b. According to the EGS-framework, which institutions and actors influence governance of wolves in Norway?
- c. How are different interests taken care of in the current policies?
- d. Which, if any, elements of the governance system are particularly conflictual?

Objective two: Investigate governance outcomes and discuss these in line with theories on legitimacy.

- e. Using the different criteria of input legitimacy, with particular emphasis on participation, can the carnivore policy be described as legitimate?

- f. Using criteria of output legitimacy, with particular emphasis on distributional issues, can the carnivore policy be described as legitimate?

Objective three: Research different discourses on conservation and assess how these may play out in governance of wolves, and in the conflict.

- g. Using cleavage theory, which interests in the governance system appear to conflict?
- h. How can different discourses on conservation be used to understand the wolf conflict in Norway?
- i. Which elements are important in finding ways to deescalate the level of conflict with regards to wolf management in Norway?

In order to investigate these issues through an objective lens, the research adopts techniques often used in political ecology. This implies that concerns of ecology and nature are combined with concerns of the broadly defined political economy (Blakie & Brookfield, 1987). The three components; *the governance system*; *the outcomes*, and *the discourses*, are all deemed vital in this research approach. First, *the governance system* is important in understanding the policy targets, the actors and institutions which created it, as well as how policy measures and instruments function (Vatn, 2015). Second, the *policy outcomes* are essential for understanding the results and consequences of the policy – both the resource outcomes and the distributional aspects. Lastly, *discourses and cleavages* are an essential part of understanding why different interests are seemingly incompatible. As different discourses and cleavages are well established in the wolf conflict, these different apprehensions must be investigated in order to understand the full depth of the conflict.

Thus, the research will aim to uncover different perceptions on conservation, how different actors perceive the policy and its targets, and how these different interpretations have implications for justice and legitimacy among relevant actors. This allows the research to investigate not only how legal rules are enforced, but also how social institutions and values play a role in the governance system.

1.3 Conceptual Framework

Several of the concepts outlined above, such as *justice* and *legitimacy*, are highly subjective. In order to use these concepts as assessment tools in this research, one requires an objective frame to understand them by. Thus, a conceptual framework for each research objective has been outlined. With regards to objective one, the Environmental Governance System Framework (EGS) outlined by Vatn (2015) serves as the main analysis tool. This is utilised as a means to categorise and outline different elements of the governance system, and it is also used as a tool to uncover conflictual elements. Objective two concerns the *outcomes of the governance system*, and therefore, theories for objective two will build on the EGS-Framework. Here, a framework for *input-and output legitimacy* will be used as a means for analysis, and it is used to discuss the outcomes of the governance system.

Objective three on the other hand, is more intricate. This objective seeks to investigate different *discourses* in the governance system of wolves, and research how these may influence the governance. Two specific discourses will be used as a foundation for the discussion – the conservation discourse and the sustainable use-discourse. These two will provide a frame for understanding *how* different interests conflict, *why* they conflict, and *on which matters* these discourses may be incompatible. In addition to this, these two discourses will be discussed in line with *cleavage* theory, which provides a larger context for understanding these differences. This approach allows for a discussion on whether different socio-economic differences may also be a driver for differences in the discourses.

In order to answer all of these questions, one will necessarily require information, and not least, insight on the governance system, and how it is perceived. Thus, one must naturally collect data – both from literature, but not least, from primary sources with knowledge on governance of wolves in Norway.

1.4 Methods and Analysis

In order to research this, qualitative interviews were conducted among different actors in the governance system. Three carnivore management regions are particularly interesting – regions three, four and five. Two criteria were employed to select these sites; i) presence of wolves; and ii) level of conflict.

With regards to criterion i) presence of wolves, both regions four and five have population targets for wolves (Norwegian Ministry of Climate and Environment, 2016). Region four (Oslo, Akershus and Østfold) encloses the southern part of the wolf zone, whereas region five (Hedmark) encloses the north and eastern parts of the wolf zone. Region three, on the other hand, consists of an adjoining area without population targets for wolves. Nevertheless, as wolves are striding animals, this region is also facing challenges relating to wolf conservation (County Governor Innlandet, 2020). Furthermore, as the presence of wolves is known as a conflict driver (Strand et al., 2016), this was also interlinked with the second criterion ii) level of conflict. This will be elaborated on in chapter four.

Relevant stakeholders from all three regions were interviewed. Such stakeholders include carnivore management committee members, county governor officials, and members of interest organisations. These actors arguably inherit valuable information on the policy, and they may inherit different perspectives. Comparing and contrasting interviews will hopefully provide an understanding of the policy and its conflict, and how different actors perceive legal rules, and policy target. As different actors influence the governance system, this is relevant in understanding how different conflicts may arise, and how different actors perceive these conflicts.

The interviews will be reviewed using a hybrid of thematic and discourse analysis. The thematic analysis is used to code and map out different elements of the governance system, whereas the discourse analysis is used to uncover any underlying assumptions the actors might have (Bryman, 2012). As the research is not attempting to attribute certain attitudes to the respondents, the discursive element is simply used as a means to understand where certain attitudes may come from and discuss perceptions in relation to the “trend”. This may be helpful in uncovering elements that are crucial in resolving the ongoing conflict, and hence also elements that are important in improving governance of carnivores.

1.5 Structure

This thesis will be divided into six respective chapters. Each chapter serves a different purpose, and together, these different chapters aim to outline the history of the policy, theories which may be applied to understand it, and not least, a discussion of the current problems that have

arisen from this policy. This first chapter is the overall introduction, whereas chapter two presents the background.

Chapter two will therefore outline the background and rationale for the current wolf policy. It describes concerns relating to biodiversity loss, before it discusses wolves and their relevance for these concerns. The chapter will also describe the history of carnivores in Norway and describe how the approaches have changed up until the current policy.

Chapter three, on the other hand, will outline the conceptual framework applied throughout this research. It will explain the theories in accordance with each objective and describe how each theory is applied. The main theories selected are the *EGS-framework approach* for objective one, theories on *input-and output legitimacy* for objective two, and theories on *discourses* and *cleavages* for objective three, respectively. These theories will be used in the discussion of results stemming from the interviews described in chapter four.

Where the third chapter outlines the theories applied throughout the thesis, chapter four describes the methods used to collect the data. The three objectives have different data requirements, and therefore, the chapter will outline how data was collected for each objective. The findings stemming from this data collection will be presented in chapter five.

Chapter five does indeed outline the findings and discussion of the results. This chapter will bridge the theories from chapter three with the findings and discuss them accordingly. This chapter will stay true to the research's main aim, and therefore, the overall target is uncovering and discussing conflict drivers. The chapter is divided in several parts, where the first part outlines the governance system in its entirety, and the second part discusses the governance system, and relevant findings, in accordance with theories outlined for each respective objective.

Finally, chapter six will outline the research's conclusion. This chapter will bring back the objectives and research questions from chapter one and reflect upon these in accordance with the results. Lastly, some final remarks on how the policy and the governance system may evolve in the future will be presented.



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Chapter 2: Background

Global Biodiversity Challenges and Rationales for Conserving Carnivores

This chapter will present the background for conservation of wolves in Norway. It will do so by outlining rationales and methods of conservation, before it draws parallels from these topics towards conservation of wolves in Norway today. The first section **(2.1)** will encompass the background of global biodiversity losses and emphasise how interests and concerns for this issue have developed over the past century. Thus, providing the rationale for why wolf conservation became and remains an important issue on the Norwegian conservation agenda. The second section **(2.2)** will follow up on this theme and outline different conservation approaches.

The third section **(2.3)** will encompass conservation of wolves in Norway. This part will outline conservation of wolves throughout history, starting with the extinction policies during the 1800s, going all the way up to the current policy – the carnivore agreement. The fourth section **(2.4)** will continue this theme and explain how the wolf policy has changed since its origin in 2004. This part will also outline the policy targets and the means for achieving these targets. This section is relevant for understanding the Norwegian governance system and its outcomes (objectives 1 and 2), which will be presented later on. The very last sections **(2.5 and 2.6)** will

give an outline of the conflict which as appeared following this governance system and present an outline of different attitudes to this policy. These parts therefore aim to outline why a conflict has appeared, and which interests drive it. Followingly, these sections are relevant for the later discussion on *discourses* and *cleavages*.

2.1 Global Biodiversity Challenges

Biodiversity losses have over the past few decades gained a strong position on the global environmental agenda. The focus on biodiversity is reflected in global policies, initiatives, and treaties, and also in the public eye. An example of this, is how biodiversity is integrated into the commonly known UN Sustainable Development Goals (SDG), and more precisely goal number 15 “*protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss*” (SDG Knowledge Platform, n.d.). Hence, the public and political concern revolve around the losses of habitats, areas, biomes, especially losses of specific species. In Norway, one may say that this concern is reflected in the protection of the wolf, and that the wolf has become a symbol of biodiversity conservation. Nevertheless, before wolf conservation is outlined (Section 2.3) the following sections will present and outline the rationales and aims of modern conservation, starting with an outline of the history of global biodiversity challenges.

2.1.1 Biodiversity loss in a historical context

Although biodiversity is gaining an increasing amount of interest on the global agenda, the notion of biodiversity loss is not something historically unique. In fact, there have been five mass extinctions events in Earth’s history (Delsett et al., 2020). In order to be referred to as a “mass extinction”, 75% of the biodiversity must go extinct within a relatively short time span, and the five extinctions include: the Ordovician-Silurian extinction event; the late Devonian extinction; Permian-Triassic extinction; the Triassic-Jurassic extinction: and, the Cretaceous-Paleogene extinction (Delsett et al., 2020).

In addition to these five known extinction events, the notion of a sixth extinction event is gaining more support and attention in scientific communities (Barnosky et al., 2011). Many researchers argue that the rapid decline in species earth has witnessed over the past 50 years is sign of a sixth extinction is upon us (Barnosky et al., 2011). Indeed, ecosystems worldwide has

undergone a transformation over the past centuries, and an increasing number of species are becoming either threatened, vulnerable or completely extinct (Norwegian Ministry of Climate and Environment, 2019). A 2020 report published by The World Wildlife Fund (WWF), argues that there has been as much as 68% decline in population sizes of mammals, birds, amphibians, reptiles and fish between 1970 and 2016. There are many reasons for this decline including habitat losses, invasive species, overexploitation, and climate changes to name a few (WWF, 2020a).

These causes do, however, have a common denominator – human actions (Steffen et al., 2015). Although the current decline in species does not yet qualify to be a “mass extinction” the trend is alarming. Barnosky et al. (2011). note that

“losing species now in the ‘critically endangered’ category would propel the world to a state of mass extinction that has previously been seen only five times in about 540 million years. Additional losses of species in the ‘endangered’ and ‘vulnerable’ categories could accomplish the sixth mass extinction in just a few centuries.”

The severity of this issue is, however, not confined to the sentimental loss of species. It is rather a concern with implications for human life (Andersson & McPhearson, 2018). Biodiversity is crucial for ecosystem-functioning, and as human life depend upon productive resources, biodiversity loss is vital for the survival of mankind. Cardinale et al. (2012) state that *“biodiversity loss reduces the efficiency by which ecological communities capture biologically essential resources, produce biomass, decompose and recycle biologically essential nutrients”*, and that *“biodiversity increases the stability of ecosystem functions through time”*. Furthermore, Cardinale et al. (2012) note that changes in ecosystems accelerates as biodiversity loss increases, meaning, biodiversity losses are self-enhancing, and once it reaches a certain level, it may spiral out of human control. Possible consequences include a disruption of biochemical cycles of water and nutrients (Cardinale et al., 2012). Human life is dependent on these processes, and hence, consequences of biodiversity loss may be large enough to rival the impacts of many other global drivers of environmental change, such as climate change (Cardinale et al., 2012).

Given the scientific consensus on the importance of protecting biodiversity (Barnosky et al., 2011; Cardinale et al., 2012), there is arguably an urgent need for global action. Several

international and national conventions have been ratified with the aim of protecting wildlife and biodiversity (Cardinale et al., 2012). Among these conventions we find the *Convention on Biological Diversity* (CBD) which was agreed upon during the 1992 United Nations World Summit in Rio De Janeiro (Myhre & Olerud, 2019), the 1973 *Convention on Ethical Trade in Endangered species of wild fauna and flora* (“CITES”, 2009), and last but not least, the *Convention on the Conservation of European Wildlife and Natural Habitats* – the Bern Convention (Council of Europe, 2020). Although these conventions have different legal applications, they share the same aim – protecting diversity and wildlife from the increasing pressure applied by mankind.

2.2. Conservation

International conventions and policies which aim to protect biodiversity has raised incentives to implement various *conservation schemes*. Conservation is defined by the Cambridge dictionary (n.d.) as “*the protection of plants, animals, [and] natural areas [...], especially from the damaging effects of human activity*”. Thus, conservation is a method implemented as a means to protect “the wild” from human interference. There are several different methods of conservation, and modern approaches to preserving the wild include the establishment of national parks, protected areas, and the red listing of species. Over the past few years, there has been a steady increase in protected areas worldwide (United Nations Environment Programme, 2018), and as of 2020, 15% of the terrestrial coverage is considered (United Nations Environment Programme, 2020).

The increasing focus and implementation of various conservation approaches is arguably driven by public action. However, the policies and the public concern for conservation is not something new, nor modern at all – environmental concerns have actually been in the public’s eye several times throughout history (O’Riordan, 1971). When these concerns have been particularly prominent, these trends are sometimes referred to as “conservation movements” (O’Riordan, 1971). Three such movements have seemingly occurred in western countries over the past centuries. The first movement lasted from approximately 1890-1920, the second from 1933-1943, and the last one started in the 1970s, and is still an ongoing trend today (O’Riordan, 1971).

The first movement emerged in the wake of the industrial revolution, when it was becoming increasingly obvious that natural resources were not unlimited (O’Riordan, 1971). Historical

evidence on this emerging notion of conservation encompasses the establishment of the Yellowstone national park in 1872, which is one of the oldest national parks in the world (Lundberg & Frislid, 2020). The second movement occurred in the 1930s, and was largely a result of new knowledge, and new perspectives on how natural processes interfered with human activities (O'Riordan, 1971). During these years, it had become prominent that degraded environments resulted in less productive natural resources (O'Riordan, 1971). Moreover, there was an increasing emphasis on natural processes *as a means to increase productivity* was encouraged, and thus, conservation was arguably seen as a means to an end (O'Riordan, 1971). Despite this “result oriented” approach to environmentalism, specific conservation outcomes can be traced back to this movement. This will be outlined in section 2.3 concerning carnivore conservation in Norway. The third and last movement began in the 1970s (O'Riordan, 1971), and is arguably still a prominent trend today. The current movement similes its two predecessors as it is largely based upon the wish to conserve a continuously degrading environment (O'Riordan, 1971).

Although the motivations and rationales for each “conservation movement” varied, one notion has remained throughout time – conservation as something to protect “the wild” from human interference (Arts et al., 2016). The notion of “wilderness” can thus be understood as the result of conservation – nature in the absence of humans (Arts et al., 2016). Most approaches emphasise how to protect the wilderness; however, some approaches focus on how to restore it. In the developed world where wilderness is becoming scarcer, conservation approaches are becoming increasingly concerned with how one can return perceivably degraded areas into its “wilderness state” (Soulé & Noss, 1998). One of these approaches is *rewilding*.

2.2.1 Rewilding

Rewilding is a conservation approach which emphasises how one can restore a degraded environment through the use of carnivores (Soulé & Noss, 1998). Cambridge dictionary defines it as “*the process of protecting an environment and returning it to its natural state, for example by bringing back wild animals [...]*”. The approach originated in the 1990s (Soulé & Noss, 1998), and is a successor to other conservation approaches such as the “natural ecosystem management approach” that originated in the 1960s (Fitzgerald, 2015). Both approaches emphasise how nature itself should be the main regulator of ecosystems, rather than human

interference (Fitzgerald, 2015). What divides the two is the emphasis on carnivores, which is fundamental in rewilding (Soulé & Noss, 1998).

The rewilding approach to conservation identifies three core elements; 1) large, protected, reserves; 2) connectivity; and 3) core species. These are often referred to as the three C's; cores, corridors, and carnivores (Arts et al, 2016; Soulé & Noss, 1998). Carnivores are seen as *keystone species*, and thus, have rewilding enthusiasts become the main advocates for wolf conservation, or even wolf reintroduction in areas where they previously roamed (Arts et al, 2016). According to rewilding theory, these key species “*enrich ecosystem function in unique and significant ways [...] their elimination from an ecosystem often triggers cascades of direct and indirect changes more than a single trophic level, leading eventually to losses of habitats and extirpation of other species in the food web*” (Soulé & Noss, 1998, p. 22).

Followingly, this emphasis on large carnivores is based on three arguments. First, that resilience and diversity in ecosystems are maintained by top-down interactions, thus, requiring a top predator (Soulé & Noss, 1998). The foundation to this argument relates to how absence of carnivores have proven to cause a surge in ungulate populations, resulting in overgrazing and increased pressure on ecosystems (Fitzgerald, 2015). Second, large carnivores require large roaming areas, hence, justifying the size of the area that is to be “rewilded”. And third, core areas are not large enough to support connectivity in systems – meaning, different habitats are connected, and animals can utilise these different habitats. Large carnivores will followingly justify larger areas and increase connectivity in the system as a whole (Soulé & Noss, 1998).

Although these arguments are contested in the scientific community, carnivores are undoubtedly important elements in the ecosystem. Given the global biodiversity challenges, there are reasons to argue that they should remain a part of any fauna in which they naturally occur (Soulé & Noss, 1998). Therefore, rationales stemming from the rewilding approach have become fundamental arguments to reintroduce carnivores in areas where they have gone extinct. Some examples of such reintroduction include the reintroduction of wolves into Yellowstone park in 1995 (Fitzgerald, 2015), and the brown bear in the Pyrenees (Palazón, 2017). Furthermore, the rewilding approach is arguably also a fundamental part of why carnivores have gained the importance that they are attributed today, and why so many countries aim to maintain thriving carnivore populations. The notion of rewilding is certainly important

in understanding why the advocacy for wolves and other carnivores in Norwegian ecosystems has materialised, and why it remains today.

2.3 Conservation of wolves in Norway

One can draw several parallels between the rewilding approach and conservation of wolves in Norway. In Norway, wolves were near extinction during the 1930s, and did not rebound until the 1990s (Norwegian Carnivore Visitors Centre, n.d.). Although there were never any formal “reintroduction schemes”, the protection of the species was inevitably what eventually led to the surge in the population. This rebound is, however, the mere root of the wolf conflict – as the growing wolf population poses a threat to socio-economic activities in local communities. In order to understand how the remaining sections of this chapter will entail the history of wolf-conservation in Norway and explain how and why conservation of wolves have become such a prominent concern in Norwegian politics and in the public’s eye.

2.3.1 History of Carnivores in Norway

Historically, five large carnivores have been known to transpire in Norway; brown bear (*Ursus arctos*), wolverine (*Gulo gulo*), lynx (*Lynx lynx*), golden eagle (*Aquila chrysaetos*), and the grey wolf (*Canis lupus*) (Norwegian Ministry of Climate and Environment, 2020b). All of these carnivores are present in the fauna today, yet their populations are far less numerous than before. This is largely a result of governmental decisions during the 1800s, where carnivores were seen as a threat to socio-economic development (Richardsen, 2012).

During the 1800s there was a rapid increase in population growth in Norway, and before the end of the century, the population had nearly doubled (Richardsen, 2012). Followingly, demand for, and production of food increased at a similar rate (Richardsen, 2012). At the time, Norway was a rural agricultural society, and during the 1800s and early 1900s, agricultural activities expanded to accommodate the needs of the growing population. The amount of grazing livestock increased with approximately one million animals during the first few decades of the 1800s, and in order to prevent overexploitation of the land, an increasing fraction of the outfield became host to the expanding livestock herds (Richardsen, 2012).

However, the outfield was also host to other animals, including carnivores. The carnivore populations were numerous during the 1800 (Richardson, 2012), and when livestock began grazing in the outfield, these carnivores became a threat to agricultural development (Richardson, 2012). Predation and losses in livestock caused opposition and dismay among rural dwellers, and carnivores became popular prey for hunting activities. Records have shown that between the years of 1841-1843, at least 50 bears, 50 lynx, and 150 wolves were culled (Richardson, 2012).

In 1845, the parliament passed a bill [Lov om udryddelse af Rovdyr og om Fredning af andet Vildt], which proposed to eradicate carnivores from the Norwegian fauna, with the aim of protecting hunting and farming interests (Richardson, 2012). In order to achieve the eradication targets, a bounty equalling three silver coins – speciedaler, were put on brown bears, wolverines, lynx, and wolves (Norwegian Carnivore Visitors Centre, n.d.). In modern terms, this would amount to approximately 1000 NOK or 110 USD per individual. By the end of the century, predation incidents were drastically reduced, and wolves were near eradicated on a national basis (Norwegian Carnivore Visitors Centre, n.d.). Years would pass before people began to express concern about this trend.

Indeed, changes in attitudes towards carnivores were gradual processes (Norwegian Carnivore Visitors Centre, n.d.). The first records of a conservation-oriented approach in Norway date back to 1932, when felling of bears and cubs in their was prohibited (Norwegian Carnivore Visitors Centre, n.d.). During the same period, conservation had regained a position in the public's eye, and one can argue that this trend can be seen as part of the second conservation movement in Norway, as outlined in section 2.2. Nevertheless, years would pass before the carnivores were listed as endangered in Norway. In the 1960s and 70s, modern conservation approaches experienced a revival (O'Riordan, 1971), and these approaches were likely drivers for the policy changes seen in the second half of the 1900s, including the establishment of global biodiversity conventions (Myhre and Olerud, 2019; Council of Europe, 2020).

In Norway, the wolf was listed as a *temporarily protected species* in 1971 (Environment Agency, 2020), and received its official status as a protected species in 1973, alongside the brown bear (Besøksenter Rovdyr, n.d.). Since then, biodiversity conservation has become increasingly relevant on the global agenda. As noted in section 2.1.1 international biodiversity

agreements such as the Bern Convention (1979) and the CBD (1992) have been established and ratified. The Norwegian state also implemented the Nature Diversity Act in 2009, which committed the Norwegian state to “*protect and conserve biological, geological and landscape diversity and ecological processes through conservation and sustainable use [...]*.” (Norwegian Ministry of Climate and Environment, 2009). These laws and agreements have had profound effects on the different carnivore populations (Environment Agency, 2020), and the different species remain protected by the same laws still today.

2.3.2 Wolf population today

The wolf population re-established itself after the eradication policies were lifted (Environment Agency, 2020), much due to the wolfs’ status as endangered (Norwegian Carnivore Visitors Centre, n.d.). Today, the Norwegian wolf population is made up of approximately 100 individuals, whereof 47-50 wolves live in border territories in between Norway and Sweden (Rovdata, 2020a). In comparison, as noted in section 2.3.1 150 wolves were culled between the years of 1841-1843 alone (Richardsen, 2012). However, due to strict population control, and not least, lack of genetic diversity, the population is unlikely to grow back into its former size.

The lack of genetic diversity in today’s wolf population is a direct result of the eradication policies (Rovdata, 2020a). As wolves were nearly eradicated, the Norwegian wolf population today all descend from three “founding fathers” (Rovdata, 2020). These three wolves were striders of Finnish-Russian origin and given the low number of potential breeding partners these wolves had, most fully Norwegian wolves today have a similar family ancestry, which results in very little genetic diversity (Rovdata, 2020). The lack of genetic diversity has implications for breeding, and as a result, the survival of the population as a whole (Kardos et al., 2018).

In addition to the lack of genetic diversity, there is one other element which restrains growth in the wolf population – the wolf policies themselves. The current policies have established a *population target*, which gives instructions how many litters should be allowed within PCZs each year (Rovdata, 2020). Current policies have instructed this number to be 4-6 litters, and excess litters are usually taken out through licensed culling (Rovdata, 2020). Given the recorded size of the wolf population throughout history, one may perceive this population target to be very low. However, the target is set in order to ensure that the population is sustainable, whilst still ensuring *viable opportunity for agricultural activities* (Norwegian Ministry of Climate and

Environment, 2020b). Thus, current policies can be understood as a compromise between eradication of carnivores, and the pre-eradication policies where agricultural development was impossible due to high carnivore pressure. Section 2.4 concerning the policy will outline this compromise in its entirety.

2.4 The Norwegian wolf policy

As noted in chapter one, the Norwegian wolf policy has a two-folded approach which emphasises both wolf conservation, and socio-economic interests (Norwegian Ministry of Climate and Environment, 2020b). The main aim of this two-folded approach is to sustain agricultural activities and food production, whilst still achieving conservation targets (Norwegian Ministry of Climate and Environment, 2004). The current policies are based on the 2011 carnivore agreement [Rovviltforliket]. This agreement is founded in a parliamentary decision made over proposal 163 S (2010-2011), which required management of carnivores to be in line with biodiversity endorsements in the Norwegian constitution, the Nature Diversity Act [Naturmangfoldsloven], and the Bern Convention (The Norwegian Parliament, 2011). The 2011 agreement was built on a previous parliamentary decision on carnivore management, namely The White Paper number 15 (2003-2004) better known as the 2004 carnivore agreement [Rovviltforliket] (Norwegian Ministry of Climate and Environment, 2004). This agreement was the first to outline the two-folded target, and the zonation schemes which remain the main management strategy today (Norwegian Ministry of Climate and Environment, 2020b).

2.4.1 The zoning approach

Geographic zoning is the main strategy of the current wolf management scheme (Norwegian Ministry of Climate and Environment, 2004). The objective of this strategy is to separate carnivores from livestock in space and time, and followingly reduce the level of conflict between different actors and interests (Norwegian Ministry of Climate and Environment, 2004). The idea behind the zoning scheme is simple; if carnivores and livestock are separated, the different objectives can be prioritised in different areas, and both targets can be achieved. Furthermore, the zoning approach aims to restrain the spatial distribution of wolf related conflicts (Norwegian Ministry of Climate and Environment, 2020b). This approach outlines two types of zones – prioritised carnivore zones (PCZs), and prioritised grazing zones (PGZs) (Norwegian Ministry of Climate and Environment, 2004).

The management of carnivores within these zones, and the establishment of PGZs (Fig. 2) and PCZs are carried out by the County Governor Office (CGO) and a regional *carnivore management committee* (CMC) who cooperatively govern a respective *carnivore management region* (CMR). There are eight such regions in Norway (Fig. 3).

Map of PCZs

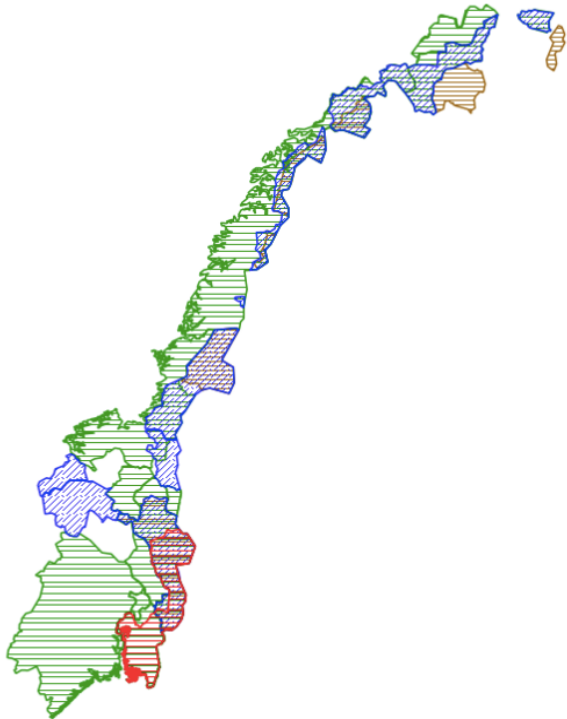


Figure 2: Prioritised Carnivore Zones (PCZs) in Norway. The red area represents the «wolf zone». Map retrieved from the Norwegian Environment Agency (2020a)

Map of CMRs



Figure 3: The eight carnivore management regions (CMRs) in Norway. The wolf zone encloses regions 4 and parts of region 5. Map retrieved from the Norwegian Ministry of Climate and Environment (2016).

2.4.2. Regional management and population targets

The CMCs that govern these eight CMRs are made up of regional politicians, and the representatives are nominated by the county council, and then elected by either the parliament, or the Sámi parliament (Norwegian Ministry of Climate and Environment, 2020b). These committees serve as neutral governmental bodies, and thus, they are bound by ministerial laws and regulations (Norwegian Ministry of Climate and Environment, 2020b). Within each respective region, the CMCs are in charge of achieving *the nationally determined population*

targets for each carnivore species relevant for that specific region. Preferably, these targets shall be met within the PCZs (Norwegian Ministry of Climate and Environment, 2020b).

The targets determine the amount of breeding pairs and annual litters for each carnivore species. As noted, this target is instructed to be four to six annual litters within the wolf zone (Norwegian Ministry of Climate and Environment, 2020b). However, parts of the wolf population roam in the bordering territories between Norway and Sweden, and these individuals are not considered to be part of the “Norwegian pack”. These wolves are consequently accounted for by a factor of 0.5 in population measures (Norwegian Ministry of Climate and Environment, 2020b). With regards to the population target, three litters and three breeding pairs of wolves must be fully Norwegian in order to meet the population target (Norwegian Ministry of Climate and Environment, 2020b)

The population targets are neither defined as a minimum, nor a maximum number of wolves (Office of the Auditor General of Norway, 2019). The aim is to keep carnivore populations as *close to the population targets as possible*. The reason behind this is the two folded approach, which also aims to protect local interests (Norwegian Ministry of Climate and Environment, 2020b). One might argue that an ever-increasing carnivore population will increase the predation threat to livestock, and as a result be counterproductive towards the formal policy targets of maintaining agricultural interests. As a countermeasure, annual hunting licenses are issued for each of the carnivore species, including the wolf, as a mean to control the populations (Norwegian Ministry of Climate and Environment, 2020b).

2.4.3. Population management and control

There are two main tools of population control of wolves, whereof both will be described in this section. These means are *licensed culling*, and *conditional culling* respectively (Norwegian Ministry of Climate and Environment, 2020b) Licensed culling is the main tool of population control, and the main target of this approach is to prevent wolves from establishing territories outside of the PCZ (Norwegian Ministry of Climate and Environment, 2016ba). If population targets are met, the authority of establishing and delegating licenses lies with the CMCs. In this case, the County Governor’s office outlines a suggestion as to how many wolves can be culled based on the current population numbers. Their suggestion is then delivered to the CMCs, which then holds the authority to raise or lower the number of culling licenses. However, if the

number of wolves in one CMC is below the agreed population targets, the authority of issuing licenses is transferred to the Norwegian Environment Agency (Norwegian Ministry of Climate and Environment, 2016ba). This conditional authority is legally defined in the carnivore act [rovviltforskriften] § 8 and § 10 (Norwegian Ministry of Climate and Environment, 2016b a). Regardless of who the authority lies with, interest organisations and external actors are allowed to file complaints regarding the decisions. If they choose to do so, these appeals go directly to the Ministry of Climate and Environment.

In addition to the licensed culling, there is one other mean of population control – conditional damage culling [Skadefelling]. There are separate quotas for conditional culling, however, as the name implies these are conditional, and only delegated when there is a valid basis for culling, beside that of regular population control. One example which allows for such extraordinary culling, is in the wake of a predation incident, where the damage is proven to be caused by a wolf (Norwegian Ministry of Climate and Environment, 2020b).

Both conditional culling and licensed culling must, however, be done in accordance with national and international legal stipulations (Norwegian Ministry of Climate and Environment, 2020b). The agreement which largely governs this procedure in Norway is the Diversity Act (Norwegian Ministry of Climate and Environment, 2020b), and two articles are particularly relevant. Firstly, §18 letter b) which allows for removal of a wolf if it is to “*prevent damage to crops, livestock, domesticated reindeer, forest, fish, water or other property*”; and second, §18 letter c) which allows for removal of a wolf if it is to “*safeguard general health and safety interests or other public interests of substantial importance*” (Norwegian Ministry of Climate and Environment, 2009). Nevertheless, the overarching frame of the Bern Convention (Council of Europe, 2020), must still be considered, and therefore, three *other* conditions must be met before licensed culling is allowed; i) national population targets must be met; ii) there must be a valid reason to why culling is necessary, and iii) it must not be detrimental to the survival of the population (Council of Europe, 2020).

2.4.4. Policy Changes

The strict legal basis for culling wolves has been a driver for conflict, and followingly also been a driver for policy changes. Three policy changes (White Paper 21. (2015-2016), Prop. L 63 (2016-2017), and Prop. 67 L (2019-2020) have come about since the formalisation of the

carnivore agreement in 2011. All the policy changes have arguably reduced the level of protection for wolves within the wolf zone, mainly through a modification of the three conditions that was outlined in section 2.4.3 namely; i) national population targets; ii) valid reason for culling, and iii) how culling must not be detrimental to the survival of the population (Council of Europe, 2020).

The first policy change was formalised in White Paper 21. (2015-2016) and concerned a change in the population target, and the expanse of the wolf zone. The 2011 population target was set at 5-8 family groups, whereas the new target was set at 4-6 (Norwegian Ministry of Climate and Environment, 2016a). This target remains the same today. With regards to the PCZ or the “wolf zone”, White Paper 21 suggested a change in its expanse, based on information on wolf roaming and breeding patters (Norwegian Ministry of Climate and Environment, 2016a). The wolf zone was expanded towards the north (Fig. 4) whereas two areas towards the western part of the zone were removed (Fig. 5) (Norwegian Ministry of Climate and Environment, 2016a).

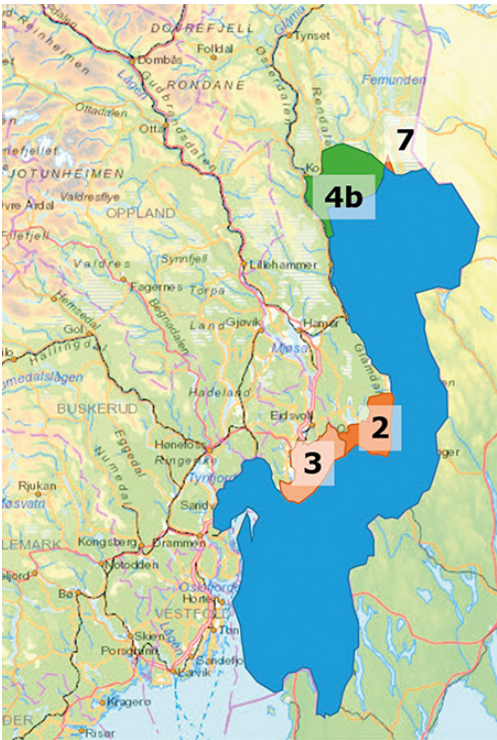


Figure 4: The wolf zone after policy changes in White Paper 21. (2015-2016). Areas 2 and 3 were removed, and area 4b was added. Map retrieved from the Ministry of Climate and Environment (2016).



Figure 5: The Wolf zone before policy changes. Map retrieved from the Ministry of Climate and Environment (2016).

The second policy change followed only a year after the formalisation of White paper 21. (2015-2016). This change followed Prop. L 63 (2016-2017) which suggested a change in the Nature Diversity Act (Norwegian Ministry of Climate and Environment, 2017). Previous stipulations in the Nature Diversity Act (Norwegian Ministry of Climate and Environment, 2009) and the Bern convention (Council of Europe, 2020), would not allow for licenced culling *within the PCZs*. However, the 2017 policy change lifted this prohibition, though under two conditions; i) that population targets were met; and ii) it would not be detrimental to the survival of the population (Norwegian Ministry of Climate and Environment, 2017). These changes came alongside a change in the Nature Diversity Act §18 letter b), which entailed that culling would be now allowed, “*if it was for the benefit of other cultural, economic, and recreational interests*” (Norwegian Ministry of Climate and Environment, 2017).

The new provision did however entail several conditions. First, that during culling, each wolf had to be selected cautiously, to ensure that genetically important individuals remain. Second, that the extent of the culling must be restricted by size, space or time. And third and last, the extent of culling must be relatively small, and be based on evaluations of the population’s size, expanse, and health (Norwegian Ministry of Climate and Environment, 2017). As a result, only a few wolves can be culled within the PCZ annually, and culling in the PCZ is restricted to one month (1st Jan to 15th Feb), which is considered non-critical for wolf breeding patterns (Norwegian Ministry of Climate and Environment, 2017).

The third policy change, Prop. 67 L (2019-2020), entailed a change in the Nature Diversity Act (The Norwegian Parliament, 2020b). This change entailed that when decision on annual hunting licenses *the population target should be weighted in the decision making process* (The Norwegian Parliament, 2020b).

This last policy change has proven conflictual. As we shall return to later in this thesis (chapter five) some perceive this change to be “free-pass” for culling when the population targets are met. Others perceive it as a “increased weighing of the population targets” but that the remaining requirements outlined in section 2.4.3 must still be fulfilled. This newfound disagreement intensifies the already existing conflicts relating to uneven distribution of costs and consequences within the wolf zone. In order to better understand this, the next section will outline the conflict in short, alongside the variations in attitudes towards wolves.

2.5. Conflicts and Conflicting Attitudes on Wolves

There are consequences of having a wolf population. As noted in chapter one, these consequences are diverse, and they entail everything from deescalating game populations (Strand et al., 2016), to dogs being killed (Odden et al., 2018). The most severe consequence is arguably the impact wolves have on livestock farming, and particularly sheep (Hansen et al., 2019; Strand et al., 2018). Within the wolf zone, a large fraction of sheep farmers has been forced to “change operations” and now refrain from pastoral herding and using the outfield for grazing (Hansen et al., 2019; Strand et al., 2018). This does not only entail an economic loss; it also entails a loss of rights, and the farmers are forced out of a livelihood which is tightly linked to their identity (Vedeld, 2002).

These consequences are among the reasons why the wolf conflict has become so intensely polarised. These costs tend to accumulate in local communities within PCZs, and these communities suffer the economic costs of predation, lose incomes related to hunting, and not least, suffer from the emotional strain of having carnivores in their close proximity (Krange et al., 2017). Followingly, people who live in the wolf zone are more negative towards the wolf than the rest of the country, and a conflict has arisen between those who favour and those who oppose the wolf.

Nevertheless, the conflict is not confined to the wolf zone. Across the country there are divergent attitudes towards the wolf, and negative attitudes are not confined to people in the wolf zone. On a national basis approximately 60% of the Norwegian population express positive attitudes towards wolves – this also entails that nearly half of the population is *negative* towards it (Krange et al., 2017). There are, however, vast differences within the population (Krange et al., 2017). The most prominent factor that influence attitudes towards wolves is geography or “settlement”, where there are significant differences between urban and rural areas. People living in urban areas tend to be far more positive towards the wolf, and thus, attitudes appear to depend upon one's probability of encountering a wolf (Krange et al., 2017). In line with this, 45% of the population is negative towards having wolves in their local environment (Krange et al., 2017).

With regards to this, and the negative consequences outlined above, it would be intuitive that people living within the wolf zone are more negative towards wolves. However, almost 60 %

of people within the wolf zone are still *positive* towards wolves (Krange et al., 2017). Nevertheless, the wolf zone does also include the Capital city of Norway, Oslo, and with regards to both the “urban positivity” towards wolves, and not least, the very unlikely incident of encountering a wolf within this area, these results may be positively skewed. Although the sample is “representative” (Norsk Gallup, n.d.), urban attitudes may still be overrepresented – as the majority of Norwegians does in fact live in cities (Statistics Norway, 2020).

This “urban positivity” is, however, not only a trend with regards to wolf conservation, but is also prominent in the conservation debate as a whole. As noted earlier, environmentalism and concern for the environment tend to be stronger in areas where the environment has achieved the greatest degree of deterioration – urban areas, and highly industrialised cities (O’Riordan, 1971). Although actions and motivations for conservation arguably stems from a wish of “doing good”, one must comprehend that conservation and valuation of nature is *not neutral*, and that the act of conserving nature – or in this case, the wolf, will have implications for those who bear the costs.

Consequently, one may say the wolf conflict appears to be multifaceted. Opinions seemingly vary according to several factors. There is an urban-rural dimension relating to both conservation in general (O’Riordan, 1971) and the wolf (Tangeland, Skogen, and Krange, 2010). There is also a dimension relating to the consequences (Strand et al., 2016; 2018), and lastly, there also appears to be a symbolic dimension which appear to engage people across the country. We shall return to these elements throughout this thesis.



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Chapter 3: Conceptual Background

This chapter outlines the concepts and theories used throughout this thesis. These concepts are tools used to comprehend different dimensions of both wolf governance and the wolf conflicts. In short, they are means to answer the objectives outlined in chapter one. A selection of concepts and theories will be applied, and in order to differentiate between their respective applications, they will be outlined in conference with the objective they relate to.

The first objective concerns an investigation of the governance system. To investigate the governance system, the *environmental governance framework* (Vatn, 2015) will be applied. The second objective concerns governance outcomes. Theories on *input and output legitimacy* (Vatn, 2015) with particular emphasis on participation and policy effectiveness will be used to evaluate these respective outcomes. The third and last objective concerns discourses on conservation and will evaluate how different discourses may play out in the governance of wolves. Cleavage theory (Aardal, 1994) will here be applied as a framework to understand and categorise the different interests, alongside notions from different discourses.

Moreover, all the relevant findings and theories will be evaluated through the lens of *political ecology* – an approach which emphasises the importance of investigating new, unconventional explanations of human-nature conflicts (Robbins, 2012). Thus, political ecology will be

outlined as the first theory, as it serves as a framework for how the conflict, the outcomes, and the applied concepts should be understood.

3.1 Political Ecology

Political ecology is not a concept nor a theory – it is rather a mode of thinking, and a particular way of understanding social and ecological conflicts (Robbins, 2012). It concerns human-nature relationships and dynamics, and for this reason, political ecology perspectives are often applied to conflicts with both socio-economic and environmental dimensions. One definition of political ecology is presented by Blakie and Brookfield (1987, p. 17), who defines it as “a *field that combines the concerns of ecology and a broadly defined political economy*”, where the political economy can be understood as the relationship between private and public power in the allocation of scarce resources (Ravenhill, 2017).

With regards to this, governance of wolves in Norway is relevant in the landscape of political ecology – as wolves are considered critically endangered, and therefore, a *scarce resource* (Council of Europe, 2020). Moreover, the conflicts undoubtedly inherit both environmental and socio-economic dimensions, as wolves constitute an environmental resource, whereas the consequences of their presence are socio-economic (Hansen et al, 2019; Strand et al, 2016; 2018).

A metaphor often used to describe Political Ecology is the “hatchet and the seed” (Robbins, 2012). The hatchet “*take apart flawed, dangerous, and politically problematic accounts*” whereas the seed “*grow into new socio-ecologies*” (Robbins, 2012 p. 20). This implies both an investigation of the problematic accounts causing the problem, and finding solutions to, and solving these problems. With regards to problematic accounts, this entails contesting *apolitical* ecologies (Robbins, 2012). Such “apolitical” ecologies refer to the conventional explanations, or the “common discourse” applied to understand an issue. In political ecology, finding new explanations to old problems is encouraged, and thus, the approach emphasises critiques of apolitical explanations, with the aim of uncovering new perspectives (Robbins, 2012).

Most theories outlined in this chapter and applied in this thesis can arguably be seen as “apolitical”. However, this does not mean that these are not useful in order to understand the conflict. Undoubtedly, apolitical explanations can serve as frameworks for understanding the

conflict, whereas new explanations emerge through the critique of these. Therefore, the research will build on, and critique existing theories, with the aim of exploring and finding alternative explanations and solutions – both “hatchets and seeds.”

Nevertheless, it would be highly apolitical to not critique the political ecology approach itself. A critique of political ecology revolves this “seed.” Or more precisely, the lack of thereof. Walker (2006) argues that modern political ecology is preoccupied with the hatchet, meaning it is mainly concerned with breaking down conventional narratives, rather than offering possible solutions and compelling counter-narratives (Walker, 2006). As a result, political ecology is often perceived as an “inward” oriented field, which does not offer great value to concrete problems and lacks ability to influence policies (Walker, 2006).

This “inward” leaning approach simply means that political ecology works are often directed towards scholars and academia, rather than the general public (Walker, 2006). There is no single reason for this – it may be due to political ecologists only seeking to influence scholars solely, or due to the theoretical thickness of the political ecology field (Walker, 2006). Regardless, political ecology has arguably become a field for academia and rarely influences policies (Walker, 2006).

This thesis will make an attempt to bridge these two elements – political ecology and policy. It will do so by applying a critical approach to the wolf policy, using political ecology to challenge contemporary explanations, whilst still remaining true to the policy-oriented objective. The aim of this approach is uncovering conflict drivers and finding possible solutions to the conflict.

Objective one – The Governance System

The first objective of this thesis concerns both the governance system and the preconditions in each of the carnivore management regions (CMRs) selected. Three respective research questions are outlined in conference with the objective and these concerns; i) how governance of wolves in Norway is arranged; ii) which actors and institutions are involved; iii) how different interests are taken care of in the policy. The Environmental Governance System Framework (EGS) will be utilised as a means to facilitate answers to these questions.

3.2 Environmental Governance System Framework (EGS)

The EGS framework was developed by Vatn (2015), with much inspiration from the Socio-Ecological Framework developed by Ostrom (1990). The EGS framework outlines different components of the governance system and provides an outline for how different aspects of governance are interlinked (Vatn, 2015). In this research, the EGS framework (Fig. 6) will be used to identify the preconditions and components in the governance of wolves.

Governance will here be based on the definition outlined by Vatn (2012 p. 5), namely “*as the establishment, maintenance and change of institutions to foster coordination and resolving conflicts.*” In line with this definition, environmental governance concerns governance in, and of, the physical environment, which in practice encompasses the management, use, and protection of environmental resources (Vatn, 2015). As the definition by Vatn (2012) implies, these actions require coordination, which means that governance of environmental resources often happens within established structures which are more or less rigid (Vatn, 2015). The aim of the structures explained by Vatn (2015) is to foster coordination to achieve governance targets, and to create compromises between different interests (Vatn, 2015). The different components of the EGS framework (Fig. 6) are based upon these structures.

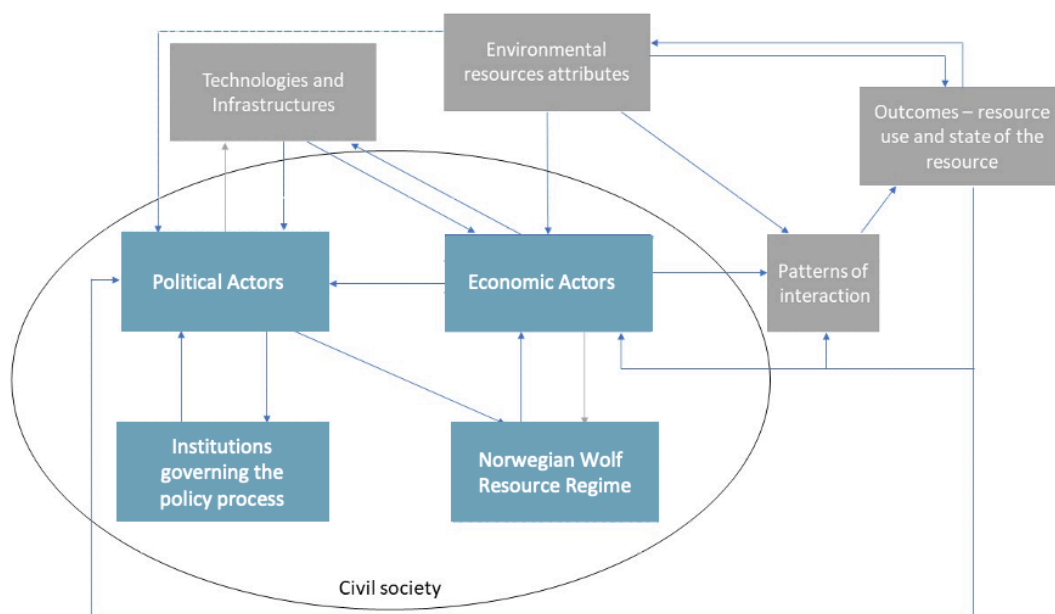


Figure 6: The Environmental Governance System Framework (EGS).

The framework depicts the interrelationship between different actors and institutions, as well as technological preconditions and resource attributes which impact the governance system. Figure adopted from Vatn (2015).

The components of the governance system include the following: attributes of the environmental resource; technological preconditions; institutions; resource regime; actors; patterns of interaction, and lastly; resource outcomes (Vatn, 2015). The subsequent sections will outline these components, with the aim of explaining their importance in the framework, as well as providing a rationale for why and how the different components are interlinked. First, the two variables at the top of the framework – technologies and infrastructure, and resource attributes will be outlined. This will be followed by an explanation of the framework’s core, including actors, institutions, and the resource regime. Lastly, the patterns of interactions and resource outcome will be explained. Nonetheless, given the research questions outlined for objective one, some elements of the governance system will receive particular attention, namely actors, institutions, and the resource regime. Governance outcomes, on the other hand, will be outlined in conference with objective two.

3.2.1 Technologies and Infrastructure

Technologies and infrastructure refer to technological preconditions of the governance system and the infrastructure available to support it. Technologies and infrastructure influence choices actors make in governance, and therefore, it is an essential element for the remaining components of the governance system (Vatn, 2015). As matter of fact, the type of technology available impacts the opportunities of actors, and in consequence, it may influence incentives among economic actors to invest in technology development (Vatn, 2015). In the context of wolf governance, new technology has made an entry over the past few years and this has resulted in several changes to the governance system. For instance, the use of game cameras, radio transmitters (on sheep), and (conditional) motorised hunting have drastically changed different actors’ ability to hunt, track down carnivores, and discover cadavers (of sheep and livestock) following predation incidents (Norwegian Agrarian Association, Norwegian Farmers and Smallholders Union, & Norsk Sau og Geit, 2015).

How influential technology and infrastructure is on the governance system, does however, depend upon the preconditions of the governance system. For instance, in rough terrain, the process of recovering cadavers, and surveillance of livestock is often more challenging than it would otherwise be in “normal” terrain. Thus, the new surveillance technology, including the

use of radio bells and cameras allows for more time efficient surveillance (Norwegian Agrarian Association et al., 2015).

3.2.2 Resource Attributes

The resource attributes refer to the qualities of the resource – for instance its quantity, spatial distribution, mobility, and replacement or reproduction rate. Vatn (2015) notes that the qualities attributed to the respective resource often is based upon actors' *perceptions* of these, rather than actual attributes. With regards to governance of wolves, one example is the size of the wolf population. In Norway, the wolf population target is determined by the government (Norwegian Ministry of Climate and Environment, 2020b). Whenever the population exceeds this number, one can arguably claim that the population is “too large”. In spite of this, this perception is largely based upon the population number determined by the government, and not necessarily the resource attributes itself. Other attributes are, contrastingly, more or less ascertained. Using the example of wolves again, one known attribute which has been the root of several conflicts, is the wolves' mobility, as it tends to stride across national borders and outside the borders of the wolf zone (Office of the Auditor General of Norway, 2019). Although the wolf zone encloses the area in which wolves are known to frequent *most often*, wolves may stride everywhere and anywhere, and these patterns represent the actual attributes.

3.2.3 Actors and Institutions

From the EGS framework (Fig. 6) four elements are located at the centre of the framework; political actors; economic actors; institutions; and the resource regime. The actors – economic and political, refer to those individuals, firms and organisations involved, which have their own respective goals, motivations, rights and responsibilities (Vatn, 2015). The economic actors often refer to those who hold the rights to productive resources (Vatn 2015). The political actors on the other hand, are those who define the resource regimes (section 3.2.4), and the rules for the political process. The two main types of political actors are public authorities, and intergovernmental organisations (IGOs) (Vatn, 2015). Public authority actors may appear at different levels, either national, regional, and local. Both political and economic actors are “embedded” in civil society (Fig. 6) – where civil society in the context of governance refers to the arena which “*creates the normative basis of a society, and civil society actors as the set of actors expressing the interest and will of citizens*” (Vatn, 2015, p. 193).

In addition to the actors, the *institutions* are also embedded in civil society. Institutions can be defined as “*the norms, conventions and legally sanctioned rules of a society*” (Vatn, 2015 p. 113). These institutions define which actors are involved in the governance process, which roles they play, and how they interact (Vatn, 2015). Consequently, institutions influence which rights and responsibilities the actors have, how power is distributed, how interaction is coordinated, which knowledge is considered important, and what kind of motivations are dominating this interaction (Vatn, 2015). With regards to knowledge, this will be of particular importance in the context of this thesis, as competing knowledge systems – discourses – constitute an important driver in the conflict on wolves in Norway. This will be elaborated further on in section 3.5.

3.2.4 Resource Regimes

In the context of environmental governance, the resource regime is defined as the various institutions that govern the economic process (Vatn, 2015). These are often rule-based institutions, and the most important institutions in the resource regime include the rules concerning access to environmental resources, and the rules of interaction (Vatn, 2015). As such, the resource regime defines; *who has the property rights* to the respective environmental resource; *what kind of property rights* these actors have; and *rules and patterns of interaction* between actors with or without property rights (Vatn, 2015). The rules of interaction are also a separate element in the governance system and will be outlined in the next section. Followingly, this section will emphasise the rules concerning *who* has access, and *what kind* of access. But first, a clarification of the concepts *rights* and *access* is required.

Schlager and Ostrom (1992, p. 250) notes the difference between rights and rules, where *rights* are the product of *rules*. Rights refer to the particular actions that are authorised in a certain situation, whereas rules refer to the legal prescriptions that create these authorisations (Schlager and Ostrom, 1992). A property right is therefore the authority to undertake a certain action related to a specific resource or domain (Schlager and Ostrom, 1992).

With regards to access, both Vatn (2015) and Schlager and Ostrom (1992, pp. 250-51) outlines five types of rights’ regulation; access; withdrawal; management; exclusion; and alienation. Access is defined as the right to enter a physical property, and withdrawal is defined as the right

to obtain the products of a resource (Schlager and Ostrom, 1992). Management is the right to regulate and transform the resource, make improvements to it, or change its characteristics (Schlager and Ostrom, 1992). Exclusion is the right to determine who has rights to access, and lastly, alienation is the right to sell or lease both manage and exclusion rights (Schlager and Ostrom, 1992).

Thus, the resource regime is the set of rules which define these different elements, who has access, who holds the rights, and furthermore, what type of access or right respectively. In the EGS framework, the resource regime is closely linked to the different actors. Political actors determine the resource regime, and followingly, the political actors determine *who has access* to resources, and *what kind of access* they have. This way, the resource regime implicitly determines who the economic actors are – as property rights to a resource is what defines an economic actor. The political actors also decide the last element of the resource regime, specifically, the rules of interaction.

3.2.5 Rules of Interaction (in the resource regime)

Rules of interaction refer to the interaction between different actors – both between political actors, economic actors, and civil society, but also within the groups of actors themselves (Vatn, 2015). There are different types of interactions, and many are rule based. Vatn (2015) outlines four types of interaction which are important in the context of governance: trade; command; community rules, and no rules. In the context of wolf governance, two of these are relevant – trade-based rules, and command-based rules.

Trade refers to interactions where goods and services are exchanged against payment. The elements which impact trade-based interaction are usually price, quantity, and quality of the respective goods or services (Vatn, 2015). An example of trade-based rules in environmental governance is payment for emission quotas.

Command-based interaction, on the other hand, is founded on hierarchical power (Vatn, 2015). Interactions are often based upon formal rules, and the authority to control resource use and access to resources lies in the line of command (Vatn, 2015). Interaction within the governance system of wolves in Norway command-based interaction, where different actors inherit

different roles, yet these roles are structured in a hierarchy, with the top authority being the Ministry of Climate and Environment. This will be elaborated on in chapter five.

3.2.6 Outcomes of the Governance System

The governance system in its entirety results in a multitude of outcomes. These outcomes also constitute a reciprocal element where they influence how the resource is managed (Vatn, 2015). Indeed, the aim of the governance system is to create outcomes which reflects the management targets or overall aims. If outcomes deviate from these aims, the governance system must naturally be adapted, hence creating a new and improved system. However, as Vatn (2015) notes, the “wanted outcomes” are largely based upon actors’ perceptions of what the actual resource is, and what the targets are. As such, different outcomes serve different interests, and as a result, different actors may have different perceptions of how the resource system should be adapted. This reflection brings us closer to the thesis’ second objective – to assess the governance system and the outcomes, including the distribution of costs and benefits, with the aim of uncovering important elements for conflict resolution.

It would, however, be very apolitical to discuss “warranted outcomes” only in the eyes of certain governance actors. In fact, “good” outcomes come down to perception, but this is not necessarily subjective. It may just as well be a result of agenda setting, and what certain actors want other actors to perceive as “important”. Here, the concept of *power* comes in. This concept is not included in the EGS framework, yet it is essential in understanding how the governance system has come about.

3.2.7 Power

There are several definitions of power and this thesis will use the conceptualisation provided by Vatn (2015). Power is thus defined as the ability to make things happen, and the ability to control one’s environment, including other actors. This is based upon notions from both Lukes (2005) and Etzioni (1975), which outlines different types of power. These types of power include: i) the ability to control decision-making; ii) the ability to control “non-decision-making” or issues that are suppressed; and iii) the power to form people’s interests and wants.

According to Vatn (2015) Etzioni (1975) refers to these three types as coercive, remunerative, and normative power, respectively.

One can achieve such power through different sources. Vatn (2015) outlines several of these, including brute force, rights, knowledge, capacity to organise, and capacity to motivate. In the governance system of wolves, several of these might be relevant. For instance, *rights*, which are institutionalised sources of power. Rights provide certain actors with rights by law, and one may say that this is a type of coercive power in the governance system. Another example is *knowledge*, which arguably constitutes a normative power. One example of this is how the Ministry in charge of wolf governance, in this case the Ministry of Climate and Environment (MCE), has the power to decide which knowledge is relevant, and thus, influence the interests of actors in the governance system, and not least civil society. In line with the definition on institutions presented in section 3.2.3, one may therefore say that the MCE has the power to determine several *institutions*, including the “relevant” knowledge foundation.

3.2.8 Critique and application

Before theories relating to objective two are outlined, a critique of the EGS framework is warranted. One such critique related to the EGS framework’s rather narrow approach. The model is arguably only applicable to “national” issues and is not applicable to issues on a larger scale, including international and multinational issues (Vatn, 2015). However, as the wolf conflict is a national conflict of a somewhat smaller scale, the model is still useful.

Another element to keep in mind is the issue of “falling slave to the model” during the analysis. In fact, the EGS framework is a useful model in the process of debunking and concretising the different elements of the governance system, but one must keep in mind that it remains *only a framework for analysis*. Although the model undoubtedly constitutes a useful and precise tool for analysing the governance system, the model is quite general, and thus it may not be able to capture the essence of problems which are not caused by rights-based issues, but rather social, cultural issues. Therefore, it is important to not fall slave to the model, but rather attempt to keep an open mind, and allow for investigation of other elements and conflict drivers which may fall outside the frame of analysis provided by the EGS framework – for instance power.

Followingly, the EGS framework will be applied as a tool to categorise and specify different elements of the governance system itself, whereas supplementary theories and models (cleavage and discourse) will be used as means to investigate the conflict itself, to allow for a broader perspective.

Objective two – Evaluating the Governance System

The second objective of the thesis is *investigating the governance outcomes and discussing these in line with theories on legitimacy*. Due to the governance systems reciprocal nature (Vatn, 2015), this objective requires an evaluation of both the governance system itself, and the various outcomes it generates. The aim of this assessment is uncovering important elements for conflict resolution. As governance is understood as “*the establishment, maintenance and change of institutions to foster coordination and resolving conflicts*” (Vatn, 2012 p. 5), objective two also concerns finding ways to *improve* governance of wolves, mainly through conflict resolution.

However, from the preceding sections, it becomes clear that governance is multifaceted and cannot be simply “good” or “bad” (Nanda, 2006). Different actors have different perceptions and interests which both impact the governance system. According to Vatn (2015 p. 217) “*governance structures may influence the preferences of actors and the goals they pursue*”. This entails that different governance structures foster different perceptions of what “desirable” outcomes may look like as well as different perceptions on what “good governance” actually means. As a result, one cannot differentiate governance systems or their outcomes simply by what is “right or wrong”. One needs a conceptual frame for assessment, and a concept capable of serving this purpose is *legitimacy*.

3.3 Legitimacy

Legitimacy is a widely used, yet not easily defined concept in governance theory and political science. It can be used to describe processes, outcomes, perceptions and assumptions, and followingly, it is necessary to create a frame for how to understand it (Vatn, 2015). In this thesis, the definition outlined by Suchman (1995, p. 574) is applied, where legitimacy can be considered a “*generalised perception or assumption that the actions of an entity are desirable, proper or appropriate within some socially constructed system of norms, values, beliefs and definitions*”. This definition implies that one perceives something as legitimate within socially constructed norms, beliefs, and values (Suchman, 1995). The definition implies that legitimacy is perceived in accordance with one’s own values, norms, and beliefs, and can therefore be perceived differently among actors.

In order to use legitimacy as an assessment tool, this thesis will utilise the conceptual framework of legitimacy as suggested by Vatn (2015). This framework makes the distinction between two types of legitimacy; legitimacy in process – input legitimacy; and legitimacy in outcomes – output legitimacy. This approach will allow the research to assess both the governance system itself – input legitimacy, and its outcomes – output legitimacy. Concepts that will be utilised when assessing input legitimacy are; transparency, accountability, participation and procedural justice, whereas the criteria applied for evaluating output legitimacy are; distributive justice, policy efficiency, and policy effectiveness (Vatn, 2015). The two assessment criteria that will be emphasised the most are participation (input), and distributive justice (output).

3.3.1 Input Legitimacy

Input legitimacy refers to how appropriate the decision-making process is with regards to interests and actors involved (Vatn, 2015). It concerns how different interests are accommodated, how they are weighted, and how power is delegated. As Vatn (2015) notes, input legitimacy is fundamentally about the authority to decide, where legitimacy is the element which justifies this authority. Justification of authority is closely related to one of the main elements of input legitimacy – procedural justice.

3.3.1.1 Procedural Justice

Procedural justice refers to that of a “fair process” and equality (Vatn, 2015). The concept of procedural justice stems from Rawls’ (1971) “Theory of Justice” where he according to Vatn (2015) refers to fair procedure in the meaning of equal opportunity. In the context of governance, this is related to *participation and democracy* and how each actor should have equal opportunity to participate in the governance process (Vatn, 2015). Accordingly, the notion of procedural justice is also linked to theories on participation. These two concepts are, however, reciprocal. Procedural justice is dependent on participation, yet in order for participation to enhance procedural justice, equal opportunity is also necessary in the participation process. Participation and how it is arranged is therefore an essential element in input legitimacy and will receive the most attention both in this chapter and in the discussion (chapter five.)

3.3.1.2 Participation

Paul. O. Vedeld (2017, p. 1) defines participation at the governance level as something that “relates to power, its control, distribution and to classical democracy questions in a society concerning who decides what, when, where, how and what”. Participation concerns politics, democracy, resources, and interests, and most importantly – who has the power and opportunity to influence these matters. Participation is an essential element in legitimacy – yet far from all participatory models provide legitimate outcomes. Followingly, this section will outline various types and understandings of participation, and how these are relevant with regards to the concept of legitimacy.

There are many approaches to participation (Pretty, 1995; Vedeld, 2017), which is why some delimitations are necessary. First and foremost, this thesis will only discuss participation within the frame of democratic systems. Second, two specific approaches to participation outlined by Vedeld (2017) will be emphasised – the participatory development approach, and the cultural institutional participatory development approach. These represent two opposing discourses to how participation can be understood, and thus, providing a broader frame for assessing participatory issues in this thesis.

The first approach – participatory development – is described by Vedeld (2017) as participation as a “means to an end”. Participation is here seen as a means to increase efficiency or effectiveness, where people are more likely to agree with and support changes and policies if they are allowed to participate (Vedeld, 2017). Participation is hence an instrument in a goal-oriented approach, where the aim is achieving policy targets. This approach is conceivably founded in a notion of rational choice, where people are expected to act to maximise their own utility (Vedeld, 2017).

The second approach – cultural institutional participatory development – is largely a critique of the participatory development approach (Cleaver, 1999; Vedeld, 2017). This approach emphasises participation as a *rights-based activity* and is largely built upon Cleavers’ (1999) work “paradoxes of participation”. Cleaver (1999) argues that participation has become “an act of faith” and “something we rarely question”, and that this utterly positive notion has resulted in a negligence of evidence that have suggested otherwise. This critique suggests improvements to contemporary models of participation. For instance, participation as a means of protecting interests of less resourceful groups, and not least, participation approaches which emphasise

and adapt to power dynamics; that consider inclusion and exclusion; and that emphasises consensus building (Cleaver, 1999).

The two approaches must, however, be seen for what they are – theoretical approaches to an activity which rarely appears in neither ideal form (Vedeld, 2017). Most cases are likely to include elements from both, and thus, the ideal types described above will be used as a framework for discussing participation in the governance system of wolves, rather than being the bullseye for pinpointing “what type of participation” is present.

In order to avoid a theoretical evaluation of participatory models, a framework for the practical application may be necessary. Therefore, the “policy analysis approach” (Vedeld, 2017) will be utilised to identify *which elements of participation to investigate*. The policy approach emphasises the importance of how “*participation is permeated into policy goals, measures, and instrument selection, and implementation processes*” (Vedeld, 2017, p. 60). Moreover, the approach emphasises an investigation of outcomes for different groups, people, and actors (Vedeld, 2017). The approach therefore corresponds well with the objectives outlined for this thesis.

3.3.1.3 Transparency and Accountability

The last two elements of input legitimacy concerns transparency and accountability. These elements are important at every “level” of governance, including when power or authority is delegated through participatory approaches (Vatn, 2012).

Transparency in the process refers to how open the governance process is, and how information and justifications of the process are made available to the public (Vatn, 2015). When evaluating transparency, one often looks into how information is distributed to the public, and whether this information is actually available to the intended receiver (Vatn, 2015). Potential barriers to transparency are lack of proper channels for distributing information, and also lack of adaptability in information level of difficulty.

Accountability on the other hand, concerns how decision-makers are given authority to decide, and also refers to the processes of shifting this authority (Vatn, 2015). Accountability is often described through the concept of “hierarchical accountability”, a concept which entails that

each actor in a hierarchy is accountable for a representative task or target (Vatn, 2015). Actors are obliged to perform these tasks and are held accountable by the actors on the next rung in the hierarchical ladder. In the context of wolves, such accountability is visible through the appellant system, where complaints made on the regional carnivore committee's decisions are processed by the Ministry of Climate and Environment. This implies a shift in authority when civil society (who makes the appeal) perceives that the committees are not acting in accordance with their mandate (Norwegian Environment Agency, n.d.).

3.3.2 Output Legitimacy

“Output” in output legitimacy equals “outcomes” in governance theory (Vatn, 2015). In other words, output legitimacy concerns legitimacy in governance outcomes. The notion of output legitimacy encompasses three main elements; i) policy efficiency; ii) distributive justice; and iii) policy effectiveness. These elements will be explained in the following section.

3.3.2.1 Policy Efficiency

Policy efficiency is a criterion derived from economics theory and relates to the degree of which outcomes are produced at least cost (Vatn, 2015). The notion of cost efficiency entails allocating resources where the socio-economic benefit is maximised – in other words, where there are no externalities or waste of resources. In theory, both of these elements (zero waste and maximum benefits) are achieved when the marginal costs equals marginal benefits (Vatn, 2015). In the context of wolves, a socio-economic efficient management of wolves imply that efficiency is maximised when the total social costs of wolves equal the benefits – for example, where marginal costs of predation equal the marginal benefit of biodiversity conservation.

However, like most theories derived from economics, this mode of thinking is highly tentative and not easily applicable to concrete problems (Vatn, 2015). For instance, the tentative socio-economic benefits of “having wolves in the fauna” will be an estimate of the aggregated benefits – however, this estimate is highly conjectural, and unlikely to represent the actual benefits. The same principle goes for costs. Albeit, one can argue that the efficiency criterion is problematic in its use, as the “offsetting” of costs and benefits is not carried out as smoothly as theory implies. In practice, this would entail that as long as the “socio-economic optimal level of wolves is obtained”, the economic benefits of wolf presence should and will compensate any

economic costs. This is clearly not the case, given the ongoing conflicts. Therefore, this criterion will not constitute a vital part of this analysis.

3.3.2.2 Distributive Justice

The second criterion, distributive justice, concerns the distribution of benefits and costs related to a particular activity, or in society as a whole (Vatn, 2015). However, there are different competing moral philosophies on what *justice* is, which results in a variety of different approaches to distributive justice. The approaches range from “equal opportunity” to “effort-based”, and for this reason, the concept is difficult to pin down (Vatn, 2015). Despite this, the distribution of consequences stemming from the wolf policy is essential in order to understand the conflicts, and thus, distributive justice will constitute a significant element in the analysis. In order for the concept to be applied, one must create a framework for what justice means. In this thesis, this will be based on notions of justice outlined by Vatn (2015). Four of these approaches to justice are depicted below (Table 1).

Table 1: Different principles of justice. Based on principles described by Vatn (2015).

Principle	Rationale
Strict egalitarianism	Each individual should have the same level of material goods and services
Resource based principle	Each individual has access to the same resources. This implies equal opportunity
Welfare principle	Justice in distribution is ensured where social welfare is maximised, meaning, where the social costs and benefits meet (Vatn, 2015). Since we are here discussing a “social welfare” function, this implies that externalities (third party consequences) are accounted for.
Desert-based principle	Each individual should be rewarded according to effort. Whether that be input of work input of capital, or loss.

Concerns on distributive justice is arguably the foundation to why the carnivore policy has a two folded target, and why means such as licenced culling is allowed to prevent damage to livestock interests. Distributive justice will to some extent also impact how and if the governance achieves policy targets – the effectiveness of the policy.

3.3.2.2 Policy Effectiveness

The last criterion of output legitimacy is policy effectiveness, which is used to evaluate how well a policy achieves its goals and targets (Vatn, 2015). This includes the desired distributional effects, as well as the resource outcomes. Vatn (2015) outlines three elements which constitute policy effectiveness: 1) ensuring and necessary funds to *compensate* “losers”; 2) one must *target* the correct resources; and 3) one must avoid *leakages*. In this context, leakages refer to how policies in one targeted area may cause “leakages” into other areas (Vatn, 2015). With regards to governance of wolves, such a leakage could materialise in different ways, one example being that increased protection of wolves within the wolf zone may result in lower protection and negligence towards wolf conservation in other regions.

Objective three – Discourses on conservation

The third objective of this thesis concerns different *discourses* on conservation and assessing how these may impact governance of wolves. Moreover, objective three also concerns *cleavages*, and how these may be present in the conflict. Several theories are applied in an attempt to explain this, but before these theories are outlined, a conceptual clarification of the concepts *discourse* and *cleavage* is needed.

Discourses will in the context of this analysis be defined as ensembles of ideas, perceptions and concepts, as well as the social institutions that enable individuals to understand the world in a particular way (Grue, 2019). Individuals who share the same discourse, also share a common apprehension of a phenomena or the world. Social constructs that may create such discourses include languages, terminologies, ideologies, and scientific disciplines, to name a few (Grue, 2019). A cleavage, on the other hand, can be defined as a broadly-based and long-standing social and economic division within society (Knutsen, 2017). Within political science, these cleavages are often thought of as the belonging and loyalty to a group, where this membership and feeling of loyalty influence political affiliation (Knutsen, 2017).

In the context of this thesis both these concepts – cleavages and discourses, will be essential. Theory on cleavages provides a historic context for the conflict among different interest groups and actors, and furthermore, it serves as a useful tool for recognising somewhat “established” differences in the conflicts. The discourse concept, on the other hand, allows for an investigation of perceptions, attitudes, and institutions. As the research aims to uncover conflict

drivers, the research may encounter elements which is not defined in an established “cleavage”. Here, discourses come in to play, and allows for an investigation of different knowledge-systems, and how these systems constitute particular subjectivities or perceptions (Bäckstrand and Lövbrand, 2019). The combination of the two concepts allows for a thorough investigation of the wolf conflict and all of its dimensions.

3.4 Cleavage Theory

Cleavage theory is a much-used concept in political science and explains how political actors and civil society are divided in their attitudes on conflictual matters (Knutsen, 2017). The concept is founded in Rokkan and Lipset (1967) work on “voter alignment”, and several of the cleavages outlined by Rokkan and Lipset are still relevant today. This includes the centre-periphery cleavage and the urban-rural cleavage as we shall return to in section 3.4.1.

As outlined earlier, a cleavage refers to a broadly-based and long-standing social and economic division within society (Knutsen, 2017). A cleavage is therefore something more than a “just a conflict”, and it contains political, economic, and cultural elements. In an attempt of pinning this concept down, Aardal (1994) cites Bartolini & Mair (1990) and explains that three aspects constitute the cleavage: an empirical aspect, a normative aspect, and an organisational aspect.

The *empirical element* revolves around the socio-economic foundation for the cleavage, where differences in socio-economic status is seen as a driver for the division (Aardal, 1994). However, a socio-economic division alone, is not sufficient to create a cleavage. In order for such a cleavage to appear there must be a “collective identity” among the people who belong in this group. This is what Aardal (1994) refers to as the *normative element*. This element is constituted on different perceptions, identities, and the belonging one may feel to a specific group (Aardal, 1994). In many ways, the normative element of a cleavage appears reminiscent of the concept defined as “discourse” in this thesis.

The third element of the cleavage is the *organisational element*. This element comes into play when the socio-economic and normative differences are institutionalised (Aardal, 1994). In this context, the term “institutionalised” refers to how interest organisations or political parties are established with a basis in the cleavage. Aardal (1994) argue that the organisational element is

essential, because the organisations and parties become autonomous over time. The normative foundation within these organisations may change, yet they live on as manifestations of socio-economic and normative conflicts. In line with this, Bartolini and Mair (1990, pp. 218-19) note “*Thus, not only do cleavages become more stabilised than do social classes or groups, but they are themselves a means of political stabilisation, providing individuals with a constellation of pre-existing alternatives for their own social and political integration*”

Hence, one may say that cleavages are somewhat “established” differences in society, which are distinguished by differences in socio-economic conditions, normative identity and organisational belonging (Aardal, 1994). Two such cleavages are particularly relevant – the centre-periphery cleavage and the urban-rural cleavage.

3.4.1 The centre-periphery- and the urban-rural cleavage

The centre-periphery cleavage is anchored in the geographical and religious conflict which materialised after the Norwegian National Revolution (Knutsen, 2017). Today the conflict largely relates to the different perspectives on *centralisation* (Opdahl, 2017). Centralisation is here defined as a tendency in the population to settle down and work in cities or urban regions, rather than in rural areas (Langørgen, 2007). The most important dimension of centralisation is not related to settlement, but is rather related to the location of governmental and regulatory bodies (Opdahl, 2017). When the government and administrative bodies are centralised, this entails governmental institutions are located in one spot – most often in the (national or regional) capital. As a result, decision-making is often performed higher up in the governmental hierarchy, and in centralised areas. Therefore, centralisation does not only concern *where* the decisions are made, it also concerns *who* makes the decisions. On this matter, the division between centre and periphery becomes very distinctive.

Where centre-oriented groups perceive centralised management to be optimal, a periphery-oriented group would argue the opposite (Opdahl, 2017). The main conflict between the groups concerns how rural populations perceive management and governmental bodies to be remote, and thus, not suited for governing rural areas. The centre-oriented group, on the other hand, would argue that competency for decision-making is largely centred within central bodies.

On a variety of matters, the centre-periphery cleavage largely overlaps the urban-rural cleavage (Opdahl, 2017). The urban-rural cleavage is anchored in the historical conflict in the commodity market between buyers and distributors of agricultural products. (Knutsen, 2017). This coincided division of society is also becoming apparent in environmental debates, and arguably, an environmental dimension to the centre-periphery cleavage has emerged, with the wolf conflict at the centre. Indeed, the wolf conflict can arguably be seen as a manifestation of the centre-periphery conflict where the urban centre-oriented group and the rural periphery-oriented group represent the two opposing sides (Opdahl, 2017). This cleavage will therefore be further explored in the analysis.

3.4.2 Critique

Similar to most other theories and models, the cleavage theory is highly tentative. Even if the model is used to categorise and group people based on seemingly concrete differences, one cannot presume that the model is universally valid (Aardal, 1994). Moreover, the model as described by Rokkan and Lipset (1967) was developed over time, and therefore, one cannot take contemporary results or attitudes and simply “assign them” to a cleavage. Doing so, would entail that one applies the “*models’ tyranny*” (Aardal, 1994).

In order to avoid this, this thesis will not draw causal conclusions based on the model, and it will not try to “assign” anyone to a particular cleavage. The thesis will naturally pay attention to differences which seemingly are rooted in the centre-periphery or the urban-rural cleavage. Yet, this is used as a means for simplifying and categorising complex attitudes, rather than a means for explaining causal relations between ones perception in the wolf debate, and belonging to a specific group.

3.5 Discourses

As previously outlined, discourses can be defined as ensembles of ideas, perceptions and concepts, where these elements constitute an individual’s understanding of the world (Grue, 2019). This thesis will emphasise two discourses – the conservation discourse, and the sustainable use discourse. The conservation discourse is a known discourse in political ecology literature, and the sustainable use discourse has emerged as a critique to this notion. These two discourses were deemed relevant for this thesis for several reasons; first, because they provide

a rationale for conservation of wolves; second, they allow for further research into two groups that resemble those defined in the centre and periphery cleavage; and third, these discourses – and the sustainable use discourse in particular – allow for a critique of well-established theories which may prove useful in the analysis. The two discourses do, however, represent two sides of the same coin, where conservation is the main topic. Thus, the conservation discourse will be outlined first, followed by the sustainable use discourse.

3.5.1 The Conservation Discourse

In the context of this thesis, the conservation discourse is understood as a worldview or thought pattern shared by people with a certain view of nature. In many ways, conservation discourses can be explained through the definition of conservation itself, where conservation entails “*the protection of plants, animals, [and] natural areas [...], especially from the damaging effects of human activity*” (“Conservation”, n.d.). Nature is hence perceived as scarce, and something worth protecting, particularly from anthropogenic activities. This entails that the conservation discourse, or actors which inherit this discourse, prioritises *protection of nature*, and a *separation of humans and nature*, over *nature-use*. Discourses on conservation are typically expert-oriented and grounded in scientific knowledge (Koen Arts, Fischer, and van der Wal, 2012). Given these two elements – expert-orientation and emphasis on nature-protection – one may arguably say that the conservation discourse is a derivative of the environmental discourse “*green-governmentality*” outlined by Bäckstrand and Lövbrand (2006). This discourse emphasises stewardship of nature and is largely expert-oriented with emphasis on different *eco-knowledges* (Vatn, 2015).

The term “eco-knowledge” encompasses a variety of different ecological approaches. Several of them emphasise the importance of ecosystems, and nature’s “own ability” to recover from external shocks without human interference (Fitzgerald, 2015). From these eco-knowledges, several approaches to conservation have seemingly appeared, including the “rewilding approach” (Soulé and Noss, 1998). This approach was outlined in chapter two and is by Cambridge dictionary defined as “*the process of protecting an environment and returning it to its natural state, for example by bringing back wild animals [...]*”. Carnivores are particularly important in the rewilding approach (Soulé and Noss, 1998), and thus, have rewilding enthusiasts become the main advocates for wolf conservation, or even wolf reintroduction in

areas where they previously roamed (Arts et al, 2016). Followingly, one may draw parallels from the notion of conservation and rewilding to wolf reestablishment in Norway.

3.5.2 The Sustainable Use Discourse

The “sustainable use discourse” in the context of this thesis, constitutes a variety of elements which opposes the conservation discourse. The common denominator for all of these elements is the aversion towards the separation of humans and nature which is commonly emphasised in the conservation discourse. Some elements of this discourse are linked to the critique of the conservation discourse (Arts, 2012; Benjaminsen and Bryceson, 2012), whereas other elements are linked to approaches which value the opposite of nature conservation – use of nature.

3.5.2.1. Good Agronomy

In the context of the wolf conflict, one group is particularly relevant – farmers or livestock holders. This group is often perceived as the main opposer towards the wolf, due to how conservation efforts have implications for this groups ability to *utilise natural resources*. Followingly, the notions of the sustainable-use discourse which draw on contrasting views on nature-use, will stem from the concept of “good agronomy” as outlined by Vedeld (2002) and Vedeld, Krogh and Vatn (2003).

The concept or discourse of “good agronomy” is by Vedeld (2002) described as the common denominator for the practice that realises the self-employed life mode in agriculture. In other words, it is the practice which best secures satisfactory outcomes (Vedeld, 2002). Vedeld, Krogh and Vatn (2003) outlined five elements which constitute “good agronomy”: i) independence and self-reliance; ii) proprietorship; iii) proficiency; iv) management responsibility; and v) production orientation.

The first element is *independence and self-reliance*, which relates to how the farmer is self-sufficient through the farm. The farm is both a means and an aim for this independence (Vedeld, Krogh, Vatn, 2003). The second element, *proprietaryship* is linked to the farm itself. Vedeld, Krogh, Vatn (2003) state that “*the property identity is constituted over time through experience and through the making of a living.*” The farm is the main productive asset, and the farmers knowledge and competence are linked to this particular farm or type of farming. Moreover, the

farm is also tied to individual and family history, as the farm is often handed down through generations farming (Vedeld, Krogh and Vatn, 2003).

The third element is *proficiency*, which is a value linked to the ability of performing “*decent quality work*”. This is fundamental for the farmers self-respect and self-esteem (Vedeld, Krogh and Vatn, 2003). The fourth element is *management responsibility* and relates to how farmers inherit a strong sense of responsibility towards the farm today, and in the future (Vedeld, 2002). As the farm is often handed down, the farmer seeks to manage the farms resources to be both environmentally and economically sustainable (Vedeld, 2002). This entails efficient resource management, without “wasting” resources, and not least, managing these resources sustainably, in order to care for future generations (Vedeld, Krogh, Vatn, 2003). The fifth and last element, is *production orientation*. This element relates to how farmers, despite sustainable and holistic values, are tied to capitalist modes of production (Vedeld, Krogh and Vatn, 2003). They are self-employed, and they must confer with legal and economic obligations. Vedeld, Krogh, Vatn (2003) note that farmers may find themselves in a difficult dilemma trying to confer with both values of *management responsibility* and *production orientation*. They also note that this is likely due to structural changes and reduced subsidies in Norwegian agriculture, where farmers now are “worse off” (Vedeld, Krogh and Vatn, 2003).

Given these values, there appears to be several contrasts between the conservation and the sustainable use discourses. Where the one values nature as something “separate” and worth protecting, the other perceives nature as something to make a living from, and something which can be utilised for economic gain. Although both discourses appear to value sustainability there is seemingly a difference why nature is valued, and how priorities are arranged. Consequently, the conservation discourse values conservation over use, whereas the sustainable use discourse values nature as a means of production, and thus, use is valued over protection.

One may link this to the environmental discourses outlined by Bäckstrand and Lövbrand (2006). As noted in section 3.5.1, the conservation discourse resembles the “green governmentality” with its emphasis on nature stewardship and expert-knowledge (Vatn, 2015). The sustainable-use discourse, on the other hand, resembles the “ecological modernisation” discourse which emphasises participation (P. Vedeld, 2002)

3.5.2.2. Critiques of the Conservation Discourse

As noted in section 5.2, the sustainable-use discourse will in the context of this thesis include both an “opposing” discourse (good agronomy) and critiques of the conservation notion itself. Most of these critiques concern how conservation is often used to justify land appropriation – often referred to as blue-or-green grabbing (Benjaminsen and Bryceson, 2012; West, Igoe and Brockington, 2006). However, as will be described in the following sections, these critiques are also applicable to conservation initiatives within developed countries – including wolf conservation in Norway.

The first critique concerns how conservation is understood – or rather, how one expects conservation to be understood (Arts, 2012). Conservation is founded on the premise that nature and natural resources are scarce, and thus in need of protection. The issue related to this, is the expectation of conservation as a universal value, when indeed, conservation is a socially constructed value endemic to developed countries, and in particular urban areas (Arts, 2012). This has contributed to the belief that people that do not inherit these same values of nature are unable to care for their environment – thus, legitimising green-and blue grabbing (Benjaminsen and Bryceson, 2012).

The second critique concerns the separation between humans and nature in conservation approaches. The notion of both conservation and wilderness as something separate from humans has received vast amounts of criticism from scholars because of the consequences it breeds. (Benjaminsen and Bryceson, 2012; West, Igoe, and Brockington, 2006). The separation of humans and nature in conservation – often referred to as “fortress conservation”, requires no human interference, and as a result, these conservation schemes often lead to green grabbing, as well as the dispossession of local people (Benjaminsen and Bryceson, 2012; West, Igoe and Brockington, 2006).

Although most scholars emphasise controversies concerning conservation in development countries, where green grabbing is carried out by developed countries, these conflicts are apparent also within developed countries (Fitzgerald, 2015; Scarce, 1998). One prominent example is the dispossession of native people in Yellowstone National Park in the US (Colchester, 2004). Whilst the situations in developed and developing countries differ, there is one core similarity – the exploitation of vulnerable groups, including native groups and indigenous people. Moreover, these conservation efforts are often hidden behind much praised

approaches such as “participatory models” or “community conservation” where groups are promised a share of the benefits. But in reality, this is most often proven to be false advocacy (Benjaminsen and Bryceson, 2012). With regards to this thesis, and the political ecology approach, these issues can also be transferred to conservation of wolves in Norway. These issues, and an exploration of them will be outlined in chapter five.

3.5.3 Application

In the context of this thesis, discourses are applied as a means of analysis. The “frame” provided by the sustainable-use and the conservation discourse allow for a critical examination of which type of discourses are present among actors, and how these discourses shape the institutions and the governance system. Rather than taking environmental policy problems for granted, the discourses allow for a critique of policy rationales and policy implementation.



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Chapter 4: Methodology

Delimitations, Methods and Limitations

This chapter encompasses a description of the methodological decisions made before and throughout the research process. These include the overall methodological choices regarding research approach, scope, and case selection, and also the minor decisions such as interview and sampling approach. This chapter also provides an overview over all these decisions – small and large – as well as the implications of these very choices. Furthermore, this chapter will provide an overview of the data collection process, with information on the interviews, how they were conducted, and how they were processed.

4.1 Research Objectives and Data Requirements

Before the research process was initiated, the research objectives from chapter 1. were revisited in order to define the data requirements. Three such objectives were outlined:

- i) Investigate the governance system of wolves in Norway
- ii) Investigate the governance outcomes and discuss these in line with theories on legitimacy
- iii) Research different discourses on conservation and assess how these may play out in the governance of wolves, and in the conflicts.

The first objective concerned the governance system of wolves in Norway. The EGS-framework model (chapter three.) outlined by Vatn (2015) was used to outline the different elements of this governance system including, actors, institutions, rules, and technological preconditions. The information requirements were met mainly through use of secondary data, consisting of governmental databases and grey literature, however, primary data was also needed in order to evaluate whether some elements of the governance system were perceived as problematic or conflictual.

The second objective concerned policy outcomes, and as with the first objective, some of the data requirements were met through the use of secondary data, evaluating policy outcomes, and researching previous policy-evaluations. However, objective two was also concerned about different stakeholders' perceptions on these outcomes. In order to fulfil the research requirements of this objective, it was deemed necessary to speak with different stakeholders, in attempt to uncover how the stakeholders perceived policy outcomes, and whether they perceived the policy processes and outcomes to be legitimate.

The same approach was necessary for the third objective, which concerned values, attitudes, and worldviews among different actors. Here, additional data mapping stakeholder values and attitudes were needed, and in addition, information on how these elements may have influenced management. In summary, all three research objectives required data from primary sources, thus implying that additional data collection was necessary. However, as the first objective could be answered mainly through grey literature, the majority of the methodological choices were made with regards to answering objectives two and three.

4.2 Research Scope and Delimitations

The research scope encompasses what this thesis will explore, and to what extent this will be done. In other words, it gives direction to both the reader and the author herself on what to expect from the research. Therefore, defining the scope mainly concerns delimiting the study, and defining a reasonable area of focus. Delimitations with regards to *what the research would explore* was already outlined through the main research aim, namely, “uncovering important drivers in the wolf conflict in Norway”. Furthermore, three main themes or research areas were

outlined; i) the governance system related to wolf management; ii) the outcomes it generates; and iii) how and why different interests and values in the governance system are conflicting.

Nevertheless, the wolf conflict in Norway is a highly controversial issue, which has received vast attention in mainstream media (Sponberg, 2020). Therefore, the population as a whole could arguably pass as stakeholders in the conflict. A further delimitation was deemed necessary in order to give direction to this thesis. These delimitations were made with regards as to *who* could be considered relevant stakeholders, and *how many of these* stakeholders which could be included in the research.

With regards to *who* could be considered relevant stakeholders, several groups were defined. First, the carnivore management committees; second, the county governor representatives; third, various interest groups; and finally; farmers and landowners. How and why these stakeholders were selected will be outlined in the section on sampling. With regards to *how many of these* stakeholders which could be included in the research, this delimitation was merely a practical one. Undoubtedly, this delimitation was a compromise between the methodological requirements concerning sample size, and the time constraints of the research. With regards to both of these elements, a sample of ten to fifteen individuals was deemed obtainable, and also sufficient with regards to the total *population size* (Section 4.5).

4.3 Research Strategy, Design, and Method

When the initial delimitations were made the formulation of a *research strategy, design, and method* were the next steps. These three concepts are often used interchangeably, though, they do represent different elements of the research.

The *research strategy* refers to the overarching “types” of research, where one often differentiates between qualitative and quantitative research strategies. The selection of a strategy is based upon the research objectives, but not least, epistemological and ontological considerations, and whether one will adopt a rationalist or constructionist stance (Bryman, 2012). *Research design*, on the other hand, refers to the framework for implementing the research strategy. Bryman (2012 p. 46) notes that the design is a framework for the collection and analysis of data, and that “*the choice of research design reflects decisions about the priority*

being given to a range of dimensions of the research process". Different types of design range from experimental designs, to case studies, and laboratory experiments (Bryman, 2012). Lastly, there is the *research method*, which is a technique for collecting data (Bryman, 2012).

4.3.1 Qualitative Research Strategy

The qualitative research strategy typically emphasises words rather than quantification and numbers in the collection and analysis of data (Bryman, 2012). As this research aimed at investigating conflicting concepts such as values and attitudes, and not least conflicting discourses and worldviews, this research approach was deemed well-suited. With regards to epistemological and ontological considerations, qualitative research often takes an interpretivist epistemological position, meaning social concepts are understood as interpretive, and hence different among different actors (Bryman, 2012). Moreover, qualitative research often takes a constructionist ontological position, implying that social properties result from social interactions, rather than predetermined "truths" (Bryman, 2012). Without taking a side, this approach enabled the research to uncover which values and attitudes were present, and how these played into both the conflict and the governance of wolves.

A downside of this approach is the inability to draw universal conclusions from the research. As qualitative research is based on words rather than numbers, the research is often more time consuming, and the scope is naturally smaller. Consequently, one cannot generalise results to be valid for a larger population. Furthermore, qualitative research is often interpreted by the researcher, and thus, there is a larger risk at being subject to different biases (section 4.9.5) in the analysis (Bryman, 2012). Nevertheless, one can never be free of such biases – regardless of approach. In quantitative research biases may inflict the questions rather than the analysis of answers, and hence, the choice of research strategy comes down to research requirements and aim. The qualitative approach was therefore deemed best suited.

4.3.2 Research Design

In order to ensure that the qualitative data was in line with the research objectives, a research design was needed to frame the data collection. This design had to consider several elements, including the research scope, the research strategy, and not least, the research objectives. Thus, two types of research designs were combined: cross-sectional research design, and a case design.

Cross-sectional design is often referred to as survey design, and is carried out by interviewing, observing, and researching several different people, at a single point in time (Bryman, 2012). A case design, on the other hand, is a framework where the research entails an intensive analysis of a single case, person, organisation, or event, to name a few (Bryman, 2012). In other words, case design emphasises an examination of the settings (Bryman, 2012).

This research aimed to interview a number of different people at a single point in time, thus resembling a cross-sectional design (Bryman, 2012). However, as this research emphasised the research of different groups (carnivore committees, county governor representatives, and interest groups), and their relevance for one single case – the wolf conflict – the study undoubtedly inherited elements from a case study design (Bryman, 2012). Thus, the final research design was a combination of these two designs. How this design was implemented, revolved the choice of *research method*.

4.3.3 Research Method – Semi structured Interviews

The cross-sectional design in qualitative research is typically applied through either unstructured or semi structured interviews (Bryman, 2012). The semi-structured approach was in this research deemed superior to other approaches, as a questionnaire would be too rigid, and its impersonal nature was considered unfit for the research objectives concerning values and attitudes (Bryman, 2012). A completely unstructured approach, in contrast, was also deemed unfit, with regards to the scope of the research. This method would entail a longer and more complicated coding process, as there are no predefined themes or concepts (Bryman, 2012). Given the scope and time constraints of the study, this approach was also considered unsuited.

Followingly, the semi-structured approach was deemed the best suited strategy to retrieve the necessary data. In a semi-structured interview, the researcher usually follows an interview guide with a list of questions, or a list of fairly specific topics the interview should cover (Bryman, 2012). As the name implies, the semi-structured approach allows the researcher to diverge from this guide, by switching up the order of questions, or asking relevant follow up questions (Bryman, 2012). Furthermore, the use of predefined concepts (in the interview guide) allowed for a more structured and efficient coding and analysis, which was necessary with regards to the scope and time constraints.

4.4 Case Selection

When the research strategy, design and method was determined, the next steps in the research process entailed the selection of *case sites*, determining which carnivore management regions were interesting for this research. This decision was, yet again, based upon the research objectives. As previously outlined, the thesis aimed at uncovering conflict drivers, through researching governance outcomes and stakeholder perceptions. As the relevant stakeholder groups were already delimited (section 4.1), this round of delimitation merely emphasised the selection of possible research sites. Two criteria were employed to select these sites; i) presence of wolves; and ii) level of conflict. These criteria were closely intertwined, as the presence of wolves is known as a conflict driver (Strand et al., 2016). However, these two criteria were employed for different reasons, where presence of wolves was the criteria used to delimit the number of *possible* sites, and level of conflict was used to identify *relevant* sites.

4.4.1 Presence of Wolves

Wolves are confined to roam in two CMRs in Norway. These regions are referred to as *the wolf zone*, and are the only regions which have nationally determined population targets for wolves (Norwegian Ministry of Climate and Environment, 2016). However, wolves are wild, striding animals, and do not respect anthropogenic borders – therefore, wolves are likely to transpire in several different regions, and their presence is always conflictual. This criterion – wolf presence – is therefore not confined to whether there are wolf population targets within a region, but rather refers to actual wolf presence within a region. Several areas proved interesting with regards to this criterion.

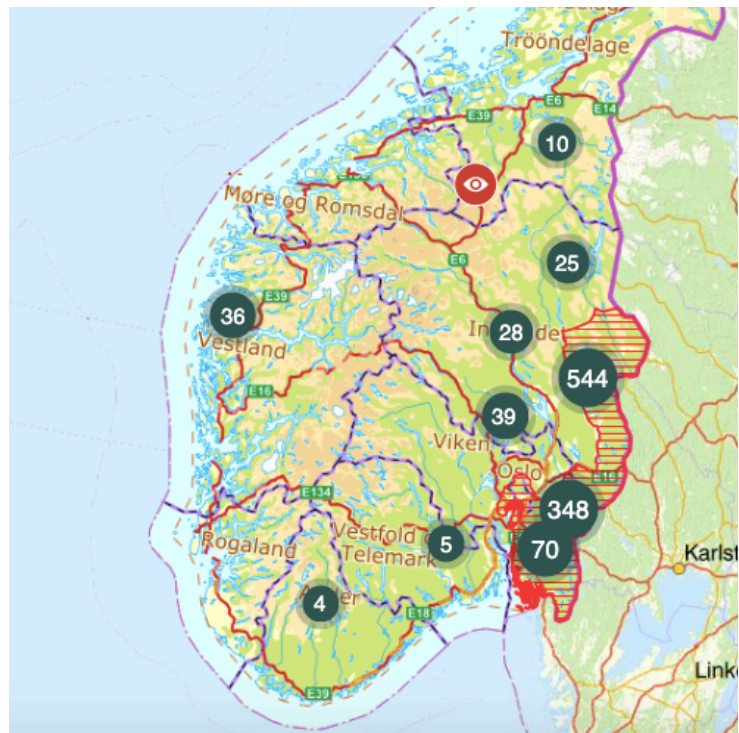


Figure 7: Number of documented wolf observations in 2020. Numbers refers to number of observations, not number of wolves. The wolf zone (regions 4,5) is marked in red. Map retrieved from Rovbase (2020).

Indeed, wolves' striding patterns have resulted in wolf sightings all across the country, and their presence have been documented in several different management regions (Fig. 7).

When applying criterion i) presence of wolves, region four (Oslo, Akershus, Østfold), and region five (Hedmark) were undoubtedly the most relevant case sites. These regions enclose the area known as the "wolf zone", and hence, these regions host the majority of the Norwegian wolf population (Norwegian Ministry of Climate and Environment, 2016). Region three (Oppland) can arguably also fit this criterion, as the region's geographic proximity to the wolf zone makes it subject to striding wolves (Fig. 7). There are also sightings of wolves outside of these regions. Nevertheless, these sightings are merely the exceptions rather than the rule. For instance, the wolf sightings in Vestland county (Fig.7) are traced back to one single wolf, which has frequented in the areas surrounding Hyllestad municipality for the past few years (Helland, 2020). This implies that the majority of the Norwegian wolf population does indeed frequent within regions three, four and five.

4.4.2 Level of Conflict (Predation)

The second criterion; level of conflict, was largely related to the first criterion, as presence of wolves – and followingly, predation – is a known driver of conflict (Strand et al., 2016). Both regions four and five were thus interesting, as they are within the wolf zone, and therefore subject to conflicts (Fig. x). However, in the last decade, animal husbandry and use of the outfield has decreased within the wolf zone, much due to the reestablishment of the wolf (Strand et al., 2018). Livestock in regions four and five are now held closer to the farms, and this has lowered predation numbers in these regions (Environment Agency, 2020d) Consequently, the majority of predation incidents now happen *outside* of the wolf zone (Rovbase, 2020). Region three has been particularly exposed (Fig.8) and therefore, this region was particularly interesting.

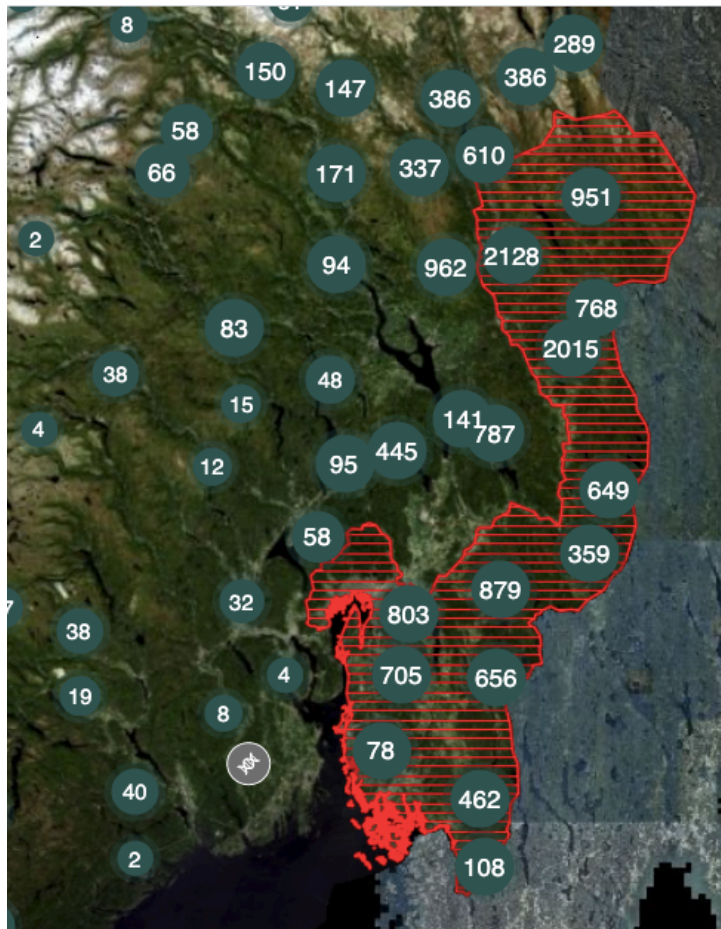


Figure 8: Documented Wolf Predations 2004-2020

Documented and assumed (with high level of certainty) wolf predations on sheep from establishment of wolf zone, and until today (2004-2020). Numbers represent predations within a confined area, and the wolf zone is marked in red. Map retrieved from Rovbase (2020).

4.5 Sampling of Respondents

Selecting the three research sites provided a frame for the next step – sampling of respondents. The three research sites chosen were naturally the most relevant sites for sampling respondents, and the population from which these respondents were to be sampled, was also predefined during the delimitation of the scope. As outlined at the beginning of this chapter, the population (relevant stakeholders) was delimited to; members of the predator management committees, representatives from the county governor’s office; members of relevant interest organisations, and lastly; landowners and farmers. These groups were selected because they represent and inherit different sides and positions in both the governance system of wolves, and in the wolf conflict. The predator management committees and the representatives from the county

governor's office represent political actors in the governance system, whereas landowners and farmers represent economic actors. Lastly, interest organisations represent civil society actors. The sampling was therefore confined to the respective types of stakeholders, within the three selected regions.

Given the nature and scope of this thesis it was not purposeful, nor realistic to have a very large sample of respondents. There were two main reasons for this. First, the case study had a relatively small population, which means that smaller sample of respondents was needed (Bryman, 2012). Second, the main aim of the research was to uncover conflict drivers through conversations with relevant stakeholders – an aim which did not imply the need for generalisation. Based on this aim, a sample of ten to fifteen respondents was deemed sufficient.

Though, due to unforeseen reasons, one of the ten respondents had to withdraw from the research. Given the time constraints, it was not considered useful to replace the respondent so late in the research process. Therefore, the final sample consisted of nine respondents, whereof four were from different carnivore management committees; two were employed at the county governor's office; and three were from different interest organisations. Although these respondents inherited different "roles" in the governance system, they all participated privately, and not on behalf of their organisation or employer. Thus, the responses were the respondent's personal opinions on various matters.

The respondents were selected through both convenience sampling, and snowball sampling. Convenience sampling was applied to sample respondents from carnivore management committees and the county governor's office, as these respondents were listed on the county governor's website. Members of interest organisations were sampled through both convenience sampling (websites), and also through snowball sampling, where personal acquaintances led the researcher to the respondent.

4.6 Data Collection – Execution

4.6.1 Interview guide

As previously outlined, the interviews were semi-structured, meaning they followed an interview-guide (Bryman, 2012). The interview-guide for this particular research outlined

specific themes rather than questions, and six such themes were outlined: the two-folded policy target; formulation and phrasing of wolf policies; decision-making authority; cooperation and trust among different actors; policy changes, and; polarisation in the debate. However, in the event that these themes would prove insufficient, an outline of eighteen questions were prepared (Appendix 1). This question-guide was, however, never used in its entirety. The reason behind this, was the inductive approach of the research – where the aim was to encourage respondents to speak freely about issues they perceived as particularly important.

In order to ensure that the research would support the research objectives, the themes in the interview guide were built upon the objectives of the study. Thus, the different themes concerned different research objectives. The topics concerning: i) perceived decision-making authority; ii) cooperation and trust among different actors; and iii) policy changes, all related to objective two, concerning input-legitimacy.

Questions and the conversation which revolved around the topic of polarisation was directly linked to objective three, concerning discourses on wolf governance. The two remaining themes; i) the two-folded policy target, and ii) the formulation and phrasing of wolf policies, were linked to all three objectives. Discussions on the two-folded policy target related to how different actors perceived that different interests were weighted, and whether they perceived the policies as legitimate or not. The formulation and phrasing of the policies related to how different actors perceived the legal and political framework, and this topic proved vital in understanding how different actors perceived the policies in their entirety.

Although most interviews went on without using the (slightly more) structured question sheet, each interview began with the same question to set the tone. This question simply read: *“whether the respondent perceived the governance of wolves to be more conflictual than management of other carnivore species, and if so, why?”*

The remaining questions were not always used, yet they were all prepared to fit the research design and data requirements. They were mainly open-ended, and if a yes or no answers came up, the semi-structured approach allowed for a follow-up question. Despite the fact that one is normally urged to avoid closed questions, some closed questions proved useful, as it allowed for a variation in the questions, which is often recommended in longer interview sessions (Bryman, 2012). The few times these questions were used, it facilitated more interaction with the respondent, as the yes and no questions allowed for a shift in the conversation. To further

enhance a variety in the session, the questions interchangeably related to either specific governance challenges, or to the respondent's perceptions on different topics.

4.6.2 Data Collection Sessions

As all interviews except one were individual interviews, and the data was therefore collected through eight different sessions. Each session varied in length, but a timeframe of fifteen to forty-five minutes was communicated to the respondents prior to the session. Of the eight sessions, three were able to stay within this timeframe, whereas five interviews exceeded it by a maximum of ten minutes. None of the sessions were shorter than thirty minutes, and hence, all respondents were given a sufficient amount of time to express their thoughts and perceptions.

In order to transcribe and analyse the interviews, the sessions were recorded. Permission to record each session was explicitly given from the respondents, and the records were coded immediately after each session. This was necessary in order for the research to be in line with guidelines provided by the NSD [Norsk senter for forskningsdata]. More information on this will be given in section 4.8.

With regards to location, Bryman (2012) recommends that interviews are conducted in a quiet location to ensure that respondents feel comfortable during the interview. The digital approach removed this concern, as the respondents were able to participate in the session from the comfort of their own home – or office. All that was required was a stable internet connection, and relatively quiet surroundings, something neither of the respondents had trouble with.

Nevertheless, the digital approach required the selection of a suitable *platform*. As most governmental and municipal institutions (including the county governor's office and the regional politicians) have become acquainted with the use of Microsoft Teams during the course of 2020, this was the preferred platform for the majority of the interviewees. One respondent did, however, have trouble with the internet connection, and parts of the interview were carried out over phone. The inconvenience of having to reschedule the session was here deemed greater than the inconvenience of "less interaction" during the interview.

4.7 Qualitative Analysis

After conducting the interviews, the next steps concerned transcribing, coding and analysing the results. This required a new round of methods-selection, where a combination of a discourse analysis and thematic analysis proved to be the preferred method. This method is founded on the establishment of “themes” stemming from the research, and Bryman (2012) identifies four elements which constitute themes “*a category identified by the researcher; that relates to the research focus; that builds on codes identified in transcripts; and that provides the researcher with the basis for a theoretical understanding of the data [...]*” (Bryman, 2012 pp. 580). With regards to the last element, social and scientific concepts can function as springboards for themes (Ryan & Bernard, 2003). Thus, the main theories employed in throughout the research functioned as themes in the analysis. In order to employ these in a suitable way, it was included as part of the coding process. Thus, it will be described in detail below.

4.7.1 Coding

After each of the nine interviews were conducted, they were immediately transcribed and coded. Each respondent was given a specific number code, and the transcribed answers were coded through a two-step process. Both predefined and data-derived codes were used. With regards to how scientific concepts can function as springboards for themes (Ryan & Bernard, 2003), the concepts outlined in the theory chapter were the foundation for the predefined codes.

The coding process was a two-step process. First, the interviews were coded using either preliminary codes, or data-derived codes. Issues that related to the predefined codes were coded according to these, whereas data-derived (new) codes were created when new topics came up. When all answers were coded, these preliminary codes were linked to relevant concepts outlined in the theory chapter. For instance, respondent 3’s thoughts on polarisation, were first coded as “The Green Party” and then later given the final code “Environmental Cleavage” (Table 2). The linkage between the final code and the theories was essential, as these theories were selected based on the research objectives. Based on this, the final codes could be divided by the three objectives, and then used in the analysis to compare and contrast different responses.

Table 2: Excerpt of Coding Table.

Theme/ Question	Unit	Quote/Transcript Excerpt	Code	Concept	Objective
Polarisation	3	“they [the Green Party] think that we should not cull one single wolf. That might be an overstatement, but I believe that this [the wolf population] is something that needs managing [...] If people only had understood that having wolves does, in fact, impact the use of outfield. We have chosen a zoning approach, and then, you don’t let your sheep out here [wolf zone]”	Green Party	Environmental cleavage	3
			Trade-offs	Distributional effects	2
			Policy outcomes		
Polarisation	3	“Well, I think you’ll find fewer people in the Centre Party who perceive that it’s okay with wolves in Norway. In the same way, you’ll find less people in the Green Party who think we should get rid of the wolf [...] I perceive that there is a big difference between regions 4 and 5. They [region 5] are a lot more homogenous, and usually, this implies culling as many wolves as possible – and this attitude is homogenous across different parties. [...] Maybe we [region 4] are more urban? Maybe we just don’t have the same first-hand experience with wolves as them?”	Centre Party Green Party Homogenous attitudes Experience	Cleavages	3
Formulation and phrasing of policies	3	“No, no, no. How are we supposed to relate to that number [the population target]. When we decide on licensed culling both inside and outside of the wolf zone, we don’t have the current population measures available. These are not available to us until, perhaps, December. The case always winds up in the Ministry [of climate and Environment] anyway, and then, they have the population measure. I always act in conference with the case documents, however, some of the others claim that “we know that there are more wolves there, and we know that they have pups” [...] This makes the population targets difficult to adhere to. The Swedes have a precise number for how many wolves they should have, whereas we have a number of annual litters.”	Imprecise information Authority moved	Input legitimacy Participation	2
Policy changes	3	“[...] we voted in favour of this [professional committees]. Then the parliament decided that it was not a good solution [...] Today we have a committee which provide a suggestion for how wolves should be governed. However, anyone can complain on our decision. We process the complaint, but we never change our decision. Then, the case is handed over to the ministry [of Climate and Environment]. One can wonder why we even bother spending our time on this. The decision lies with the ministry anyway, and here, it is treated by professionals.”	Authority	Input legitimacy Participation	2

It must, however, be noted that the coding and analysis had one limitation – as all the interviews had to be translated from Norwegian to English. The interviews were conducted in Norwegian in order to ensure that all the respondents had the same linguistic foundation and prerequisite for answering the questions. This implied that the results had to be translated – and because of this, the risk of misinterpretations in the analysis increased. To accommodate for this, and to ensure that interpretive and linguistic dimensions were not lost in translation, the interviews were all coded in Norwegian, before these codes with the belonging raw data and citations were translated in their entirety. Although this process was time consuming, it was considered an absolute necessity. An excerpt of the coding can be seen in the table above (Table 2). The findings and discussion will be presented in its entirety in the next chapter. Before these are presented, a note on the ethical considerations and the limitations of this research will be outlined.

4.8 Ethical Considerations

To ensure that the research was within safe and ethical standards, the research proposal was filed to NSD [Norsk Senter for Forskningsdata] before the research process began. NSD noted that the research might include information on political association, which is treated as particularly sensitive personal information (NSD, n.d.). Thus, the research excluded information on political affiliation for each respondent in the analysis, and considerations were made with regards to what information was kept on the researcher's private computer. Followingly, no names or information relating to the respondent's political affiliation can be found anywhere in the documents or appendices. Notes on general differences between political parties may still be included, if it is relevant for the analysis, and under the condition that the information cannot be traced back to each individual respondent.

Each respondent was provided with an information form, which included information on the research topic, aim, and the respondent's private rights (Appendix 2). After receiving this form, each respondent was asked to provide his or her written consent. These were collected by mail and provided the researcher with permission to record each interview, and furthermore, store personal information until the research was finalised (December 2020). The question regarding consent to record each interview was also repeated at the beginning of each data collection session.

4.9 Limitations and Assessment

Despite how the methodological choices made for this research have been justified, these choices have led to several implications. These concerns are primarily related to; the sample size; the data collection method and platform; the analysis and translation, and research biases. Such concerns will be addressed in the sections below.

The limitations are evaluated by using two assessment criteria: validity and reliability. These criteria are often interpreted differently in qualitative and quantitative research (Bryman, 2012) where the qualitative approach is the one of importance for this research. The qualitative approach often differentiates between four criteria which parallel validity and reliability, namely: *credibility*; *transferability*; *dependability*; and *confirmability* (Bryman, 2012). Due to this, these criteria will be outlined, before an assessment of the data collection process is

provided. Assessment of the results, however, will be reserved for chapter five concerning findings and discussion.

4.9.1 Assessment Criteria

Validity is concerned with the integrity of the research results, and one often differentiates between internal and external validity (Bryman, 2012). Internal validity is often referred to as *credibility* and concerns the causality of the results. More specifically, it concerns whether the conclusion is actually explanatory for the results. When using theory, credibility is used to assess whether there is a match between the researcher's findings, and the theories that are developed (Bryman, 2012). External validity, on the other hand – *transferability* – determines whether the results can be generalised beyond the specific research context (Bryman, 2012).

Reliability – often referred to as *dependability* in qualitative research – relates to whether the study is repeatable (Bryman, 2012). In order to ensure dependability, records must be kept of the research process in its entirety, from problem formulation to analysis, so that other researchers can evaluate if outcomes are sound (Bryman, 2012).

The last criterion of qualitative research is confirmability, which concerns the objectivity of the research (Bryman, 2012). Although perfect objectivity is near impossible, the criterion of confirmability relates to whether the researcher has acted in good faith – and that personal values and attitudes have not willingly influenced the results (Bryman, 2012).

4.9.2. Delimitations and Scope

The delimitations made for this research with regards to scope were necessary in order to ensure that the research could be completed within the set timeframe. However, these restrictions have brought about some implications. First, the sample size of this research is relatively small, and because of this, results cannot be generalised to the general population. Therefore, this decision has arguably impacted the transferability of the research (Bryman, 2012). Since the population in this particular research was quite small, one can argue that the findings were relevant for the respective actors involved (Bryman, 2012). Although, when outlining the results, it must be made clear that these findings are relevant for the sample, and the small population outlined – not for the general public.

In order to improve the transferability of the research, triangulation can be applied. Triangulation simply refers to the use of more than one method or source of data (Bryman, 2012). Thus, previous research can be used as a foundation to evaluate whether results deviate or simile from what other researchers may have found. Triangulation does, however, concern the results, rather than the method, and will therefore be elaborated on in chapter five.

4.9.3. Data Collection Method

The data collection method also had implications, merely through the use of predefined concepts, and the choice of digital interviews. With regards to the predefined concepts, these constitute a major benefit, as they provide direction as to what topics were relevant during the interview. Nevertheless, if these concepts are presented by the researcher rather than the respondent, it may provide a false link between the results and the theory, thus creating a false sense of credibility. In order to avoid this, any direct use or wording of the concepts were avoided during the interviews. However, some concepts used in this thesis, including the cleavage theory, have been identified in relation to this debate before (Tangeland et al., 2010) and for this reason, there was a substantial risk of respondents adapting their answers to provide more desirable answers. This and other biases will be outlined further in section 4.9.5.

The second limitation relating to data collection was the use of digital platforms rather than physical interviews. Digital platforms were more time-efficient, environmentally friendly, and less costly. Therefore, this was deemed the most suitable approach. Choosing this did, however, arise concerns related to observations. Observation cues such as facial expressions, certain elements of body language, and tone of voice may be lost when using less interactive platforms, but the benefits of a more time-efficient interview did appear to trade-off some of these implications. Furthermore, it has been argued that use of digital interviews is a barrier towards natural communication, and that it may impact authenticity (Janghorban et al., 2014).

However, given the circumstances of the covid-19 pandemic, a majority of people are now becoming more comfortable with the use of digital platforms for communication. In order to ensure that this was the case, the respondents were given the option between different platforms, and could choose the one they felt most comfortable with. As noted earlier, the majority preferred Microsoft Teams, and this platform was therefore used.

4.9.4 Translation

As noted in section 4.7.1, translation proved to be a limitation. Since the interviews were conducted in Norwegian, there was substantial risk that valuable insight would be lost in translation. Moreover, translation has implications for both dependability, and transferability, as the translation would make replication of the research more difficult. In order to ensure a somewhat higher degree of dependability, complete records of the Norwegian transcripts were kept, and the translation was not carried out until coding. To evaluate the quality of translation, one could simply compare the codes, rather than having to look through the transcripts.

4.9.5 Possible biases

Bias is defined by the Oxford Dictionary (n.d.) as: “*an inclination or prejudice for or against one person or group, especially in a way considered to be unfair*”; “*a concentration on an interest in one particular area or subject*”; “*a systematic distortion of statistical results due to a factor not allowed for in their derivation.*” Based on this definition, biases represent errors in the research where the outcome is skewed results. In social research there are several different “bias pitfalls” throughout the process. First, there is design and sampling biases, which concern how the study is conducted, which type of respondents are include, and most importantly – which respondents are not included. (Smith and Noble, 2014). However, sample bias is mainly relevant when the results are generalised to a greater population, without the sample being “representative”. Given this research’s small scope, the research results would not be generalised regardless, and thus, this bias was not relevant.

On the contrary, there were biases that were particularly relevant. Among these was confirmation bias. This type of bias goes by several names – analysis bias, observer bias, researcher bias, and confirmation bias. Despite the various names, this type of bias refers to a human error, concerning the researcher’s tendency to skew the results in favour of one’s own perception – or discourse – and hence, attribute more value to findings that support this pre-existing node of thinking (Smith and Noble, 2014). Confirmation bias is particularly present in qualitative research, as “*qualitative findings rely too much on the researcher’s often unsystematic views about what is significant and important [...].*” (Bryman, 2012 p. 405). This research has explored a highly polarised debate, whereof most people have settled on a position – including the researcher herself. Due to this, several considerations were made to ensure objectivity (to the extent that is possible).

First, extensive research was done with regards to outcomes and implications for *all* actors, where the research included reports from organisations linked to both sides in the debate. Second, different actors from different sides of the debate were included as interview subjects to provide insights on the variety of outcomes, rather than the ones the researcher may have perceived as relevant. Lastly, political ecology was used as a framework to understand how socio-economic and environmental concerns are connected, and how these different dimensions – and the respective discourses – are represented in the debate. This approach and the objectives resulting from it focused on emphasising different underlying conflict drivers, rather than pointing fingers in the debate. Thus, there was essentially no need nor incentive to point out the “heroes and villains”.

Despite how there were no incentives to cast shadow over any parties in the conflict, respondents may still have altered their responses. Indeed, the respondents may have been subject to “social desirability bias” meaning, a tendency to give answers the respondent perceive as more socially acceptable or desirable, and that will please the interviewee (Bryman, 2012). Knowing the researcher came from an environmental-related program, this may have caused such bias. In order to limit the extent of this, the respondents were informed about the project, and the main target – namely, investigating conflict drivers. Furthermore, the respondents were informed about their privacy rights, and ensured that all information they might provide would be anonymised. Therefore, there would arguably be little benefit from altering the responses towards more “socially desirable” answers.



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Chapter 5: Findings and Discussion

Research Findings, Empirical Findings and Discussion

This chapter describes and discusses the main findings of the research. It to create an understanding of the three research objectives, and it will therefore bring back elements from the theory and discuss these in line with the research findings. The structure of this chapter follows the planned research process, where the governance system is outlined first, and the empirical findings and the discussion are outlined later. The chapter is therefore divided into three respective parts: Part one is an outline of the governance system; part two outlines the empirical findings and the discussion for the three objectives; part three outlines a brief assessment of the findings.

All three objectives are therefore described and discussed – tough through different approaches. Part one will present the governance system, and grey literature and governmental documents have been used to create an outline of the governance system in its entirety. Nevertheless, the governance system is reciprocal – in other words, actors and institutions both influence *the system* and are influenced *by the system*. Some empirical findings will therefore relate to the governance system, and these findings will be outlined in part two.

Part two is constituted of the findings and the discussions relating to objectives one, two, and three. Objective two concerns *legitimacy* and is mostly based on the empirical findings. The concerns relating to *input legitimacy* (section 5.3) are based upon the empirical findings alone, whereas concerns relating to *output legitimacy* (section 5.4) are based upon both empirical findings from this research, and additional research on policy outcomes. The inclusion of other research was necessary due to this research's small scope, and how this research did not investigate research outcomes for economic actors directly. Part two does also encompass the findings and the discussion relating to objective three, which concerned discourses and cleavages. This section will draw on the empirical findings and discuss these in line with established discourses and cleavages. The main aim of this approach is to provide an in-depth understanding of the different conflict drivers – how they appeared, and which different discourses are represented. As the research applies a political ecology approach, the chapter will discuss and reflect upon the research findings and challenge the contemporary explanations. In line with the main research aim, this part will also offer some humble suggestions to how the uncovered issues may be resolved.

Part three will present a short and brief assessment of the findings, based on the same assessment criteria outlined in chapter four (Methodology). These are validity and reliability respectively.

Part 1 – The Governance System of Wolves

Objective one of this research aimed to investigate the governance system. It seeks to uncover how the governance system is arranged, which actors and institutions are involved, how different interests are weighted, and lastly, whether certain elements of the system may be perceived as conflictual. The following sections will therefore outline the governance system in its entirety. This is not only essential for research objective one – in fact, the governance system outlines the foundation for research objectives two and three as well. Therefore, this section is the mere foundation for the discussions which will follow in part two of this chapter.

5.1 The EGS Framework Approach

As described in chapter three, governance can be defined as “*the establishment, maintenance and change of institutions to foster coordination and resolving conflicts.*” (Vatn, 2012). In this section, the EGS framework outlined by Vatn (2015) will be used as a means for outlining the governance system of wolves in Norway (Fig. 6) As research objective one emphasises three main elements – actors, institutions, and the resource regime – these three elements will be given particular attention throughout this section. Nevertheless, some notes on the resource attributes and technology and infrastructure will also be described.

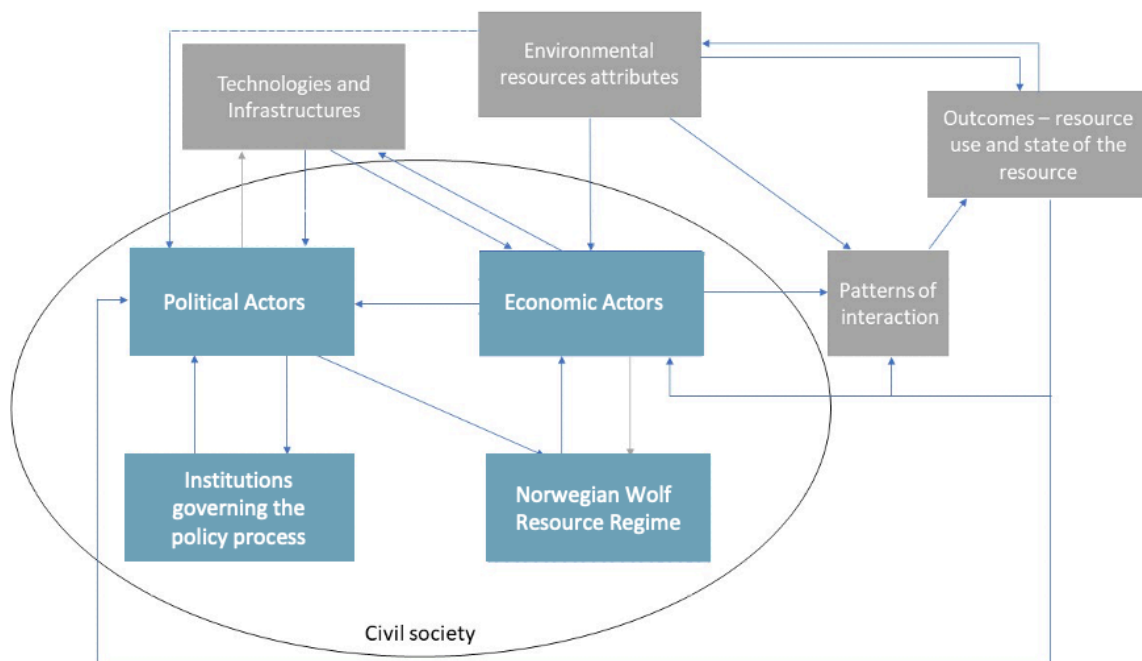


Figure 6: EGS Framework adopted from Vatn (2015), Framework depicts the interrelationship between different actors and institutions, as well as technological preconditions and resource attributes which impact the governance system.

5.1.1 Institutions

Institutions are the “*the norms, conventions and legally sanctioned rules of a society*” (Vatn, 2015 p. 113). The institutions influence which actors are involved, what roles they play, and which rights these actors have. Thus, the institutions are arguably the foundation of the governance system. With regards to wolf governance in Norway, one set of institutions have proved particularly relevant – the legally sanctioned rules. This section will therefore emphasise the rules that dictate the governance system and how these rules influence the actors and resource regime. Particular emphasis will be paid to the Nature Diversity Act (2009), as this law and its prescriptions has been highly conflictual and has been subject to change several times. The other laws of relevance are the Animal Welfare Act, the Norwegian Constitution, the Bern Convention, the Wildlife Act. The majority of these laws relate to the conservation aspect of the policy, whereas one law – the Animal Welfare Act, is the law which legally protects animals and livestock from harm, including predation.

5.1.1.1. Legal rules

The Animal Welfare Act (2009) [Dyrevelferdsloven] entered into force in 2009, with the aim of establishing a legal foundation for “good animal welfare” (Norwegian Ministry of Agriculture and Food, 2009). The law clearly states that animals have *intrinsic value* which comes in addition to the socio-economic value they may present (Norwegian Ministry of Agriculture and Food, 2009). The law is not used to prescribe value to carnivores but is rather used as a means to ensure protection for grazing animals. Indeed, The Animal Welfare Act § 23-24 clearly states that animals should be kept in environments which promote health and welfare, and that they should be protected from danger (Animal Welfare Act, 2009). If pastoral herding is not possible without exposing the animals to unnecessary danger and stress – for instance carnivores – §30 allows the Norwegian Food Safety Authority (FSA) to implement grazing restrictions (Animal Welfare Act, 2009). When carnivores are present, this entails that their grazing rights (The Grazing Act, 1962) may be at stake, and followingly, it may have distributional and economic effects. This will be discussed further as part of objective two.

The first law which relates to conservation is the Norwegian Constitution. § 112 in the Norwegian Constitution is often referred to as the “environmental paragraph” and the law obliges the State to protect the environment, to ensure future generations’ access to natural resources, and to manage and maintain biodiversity (Jakobsen, 2020). The constitution is

superior to all other laws, and § 112 arguably offers carnivores constitutional protection. The reason behind this is the wolf's status as endangered, and its status in other conventions and laws, including the Bern Convention.

The Bern Convention (1979), or Treaty No. 104: Convention on the Conservation of European Wildlife and Natural Habitats (Council of Europe, 2020) was established in 1979 and ratified by the Norwegian parliament in 1986 (*"The Bern Convention"*, 2017). The convention lists grey wolves (*Canis Lupus*) under appendix II: Strictly protected species (Council of Europe, 2020), and in accordance with article six, the Norwegian state is obliged to *"take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild fauna species specified in Appendix II"* (Council of Europe, 2020). The article also prohibits *"all forms of deliberate capture and keeping and deliberate killing"* and *"the deliberate disturbance of wild fauna, particularly during the period of breeding (...)"* (Council of Europe, 2020).

In spite of this, there are exceptions to the Bern Convention (Council of Europe, 2020) which allow for population management (culling). For instance, article two, which states that the contracting parties should take *"requisite measures to maintain the population of wild flora and fauna at, or adapt it to, a level which corresponds in particular to ecological, scientific and cultural requirements, while taking account of economic and recreational requirements (...)"* (Council of Europe, 2020). In other words, the convention allows for consideration of both socio-economic and recreational activities. These targets are very much implemented into the Norwegian carnivore policy, with its two-folded target.

One of the laws which regulate these exceptions (culling) is the Wildlife Act (1982). The Wildlife Act (1982) established a legal foundation for managing wildlife and habitats, with the aim of ensuring sustainable use of wildlife resources (The Wildlife Act, 1982; 2016). The very first section (§1) proclaims that *protecting* wildlife and its habitats are to be prioritised over *extraction* of these wildlife resources – meaning, conservation of wildlife is a priority. The law employed the so called "mirroring principle" (The Wildlife Act, n.d.) where rights to hunting and extracting wildlife resources which previously had accrued to landowners now became restricted. Game and wildlife were hence under state protection, unless otherwise stated (The Wildlife Act, n.d.). In the Wildlife Act, there is also a specific decree which concerns the management of bears, wolverine, wolves and lynxes (No. 656 of 2000), and this decree

emphasised the survival of the four main large carnivores in Norway (Decree for management of bears, wolverine, wolf and lynx, 2000). In 2009, these species became subject to even stronger protection, as a new law for protecting biodiversity was enforced – the Nature Diversity Act (Myhre, 2019).

The aim of the Nature Diversity Act (2009) was to create a legal foundation for managing biological, geological, and landscape diversity, and strengthening the commitment to international and national laws (Myhre, 2019). Section five of the Nature Diversity Act outlines the objective for species diversity, namely that “*the objective is to maintain species and their genetic diversity for the long term and to ensure that species occur in viable populations in their natural ranges [...].*” Furthermore, the “*genetic diversity of domesticated species shall be managed in such a way that it helps to secure the future resource*” (Norwegian Ministry of Climate and Environment, 2009).

Although the Bern Convention (Council of Europe, 2020) and the Wildlife Act (n.d.) both regulate access to and removal of threatened species, the Nature Diversity Act (2009) is the main law which regulates wolf management in Norway. Two articles in the Nature Diversity Act are particularly relevant – §18b and §18c. These two articles provide the legal foundation for culling wolves both within and outside of the wolf zone. §18b allows for removal of wildlife in order to “*prevent damage to crops, livestock, domesticated reindeer, forest, fish, water or other property*” (Norwegian Ministry of Climate and Environment, 2009), and it is the legal basis for *conditional culling or removal* of an individual. §18c on the other hand, allows for removal of wildlife in order to “*safeguard general health and safety interests or other public interests of substantial importance*” (Norwegian Ministry of Climate and Environment, 2009). §18c hence provides the legal foundation for licenced culling.

Despite how the law allows for culling to “*safeguard general health and safety interests or other public interests of substantial importance*”, the law still clearly states that any decision made with a legal basis in § 18 (a-f) can only be made if the removal does not threaten the survival of the population, and the purpose cannot be achieved in any other satisfactory manner (Norwegian Ministry of Climate and Environment, 2009). Thus, the weighting of the population target, and the scientific, cultural, and recreational interests, arguably still cannot be a trade-off for conservation targets. Thus, there appears to be a discrepancy between the policy

(as formulated by the Parliament) and the legal frame. This has indeed proved conflictual and will hence be elaborated on in correlation with objective 2 and 3.

5.1.1.2 Economic Rules

In addition to the legal framework, there are also economic institutions in the governance system (Vatn, 2015). Two such institutions are of particular importance – the compensation schemes (following predation), and the schemes for delegating *conflict resolving funds* (CRFs).

Whenever carnivores inflict damage on *private property* (Section 5.1.2.2.) such as sheep, reindeer, or other animals which are privately owned, the owner is entitled to compensation. The County Governor's Office is responsible for processing compensation applications, and for delegating the compensatory funds (Environment Agency, 2019). The County Governor's Representatives process these applications based on information on the damage which is inflicted, and knowledge about carnivores in the area (Environment Agency, 2019). The Nature Inspectorate [Statens Naturoppsyn] (SNO) carry out cadaver inspections to determine cause of death, and compensations are provided when the cause of death is predation, and when there is knowledge of carnivores in close proximity to the cadaver. As a result, the Environment Agency argues that compensations for predations are likely higher than actual predation numbers (Environment Agency, 2019).

In 2018 and 2019, the total number of compensated lamb and sheep (to all carnivores) accounted to approximately 17.000 animals and 43-44 million NOK for each respective year. Nevertheless, of the 17.000 cadavers found in 2019, only 1455 sheep and lamb were compensated following *wolf predation*. This is the lowest number of compensations (and hence, predations) in ten years (Environment Agency, 2020d). The main reason why the losses to wolves are declining, is the use of means which separate livestock and carnivores in space and time. These funds to these means are commonly referred to as *conflict resolving funds* (CRFs) and constitute another economic institution.

Where the compensation scheme is largely in place to provide economic support *following predation*, the CRFs are delegated as a means to *prevent predation*. CRFs are a vital element in the current policy, and these funds are mainly delegated as financial support for activities that reduce the level of conflict through the separation of carnivores and predators in space and time (Office of the Auditor General of Norway, 2019). Such activities include carnivore fences, or

compensation for early retrieval of livestock in the outfield (Office of the Auditor General of Norway, 2019). Farmers within areas with a higher carnivore pressure, are to be prioritised when CRFs are delegated, but de facto distribution is often based upon previous predation patterns rather than formal location of PCZs (Office of the Auditor General of Norway, 2019).

There are different perspectives on whether these economic schemes are efficient or not. The Environmental Agency argues that the decline in predations (in the wolf zone) can be attributed to the CRFs (Environment Agency, 2019). Others (including respondents in this research) argue that the CRFs are overrated, and that the decline is merely a result of less sheep in the outfield.

With regards to the compensation schemes, there are also different interpretations. The ministry of Food and Agriculture (2012) note that economic compensation schemes are not sufficiently implemented, and that farmers often have to cover the costs of predators themselves. The MAF emphasise routines for cadaver inspections as particularly conflictual, and they note that in order to receive compensation, one must carry out an immediate examination of the cadaver – which is usually not possible when the animals are in the outfield (Norwegian Ministry of Agriculture and Food, 2012). This differs greatly from what is claimed by the Environment Agency (2019) which states that compensation often exceeds actual predation. This, and other issues concerning CRFs and compensation will be discussed further in relation to objectives two and three later in this chapter.

5.1.2. Actors

As discussed in chapter two, governance of carnivores is distributed among several actors, all of which will be outlined in this section. It is, however, important to note that different “groups” of actors are not exclusive, meaning political actors may just as well be economic actors.

5.1.2.1. Political and Bureaucratic Actors

There are political and bureaucratic actors on national, regional and local levels, where tasks and authority are distributed among these different actors. These actors are arranged in a hierarchical system, where authority is centralised at the higher levels. The hierarchical system

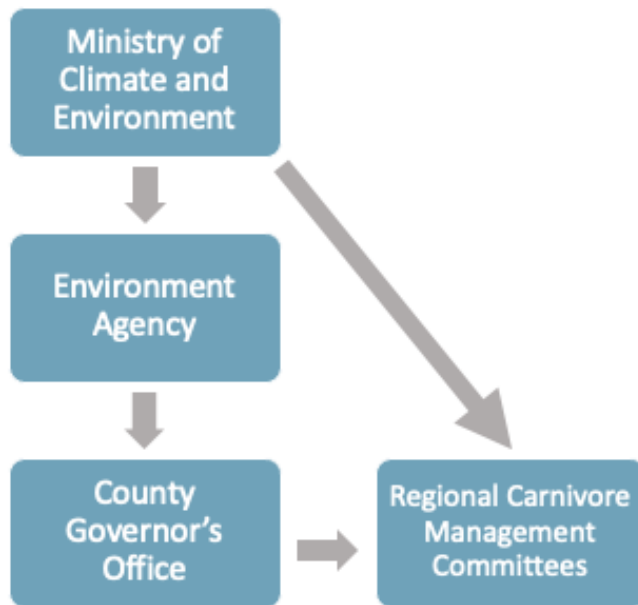


Figure 9: The formally recognised political and bureaucratic actors involved in the governance of wolves and other large carnivores.

is divided into two sections, where one is *bureaucratic*, and the other *political*. The Parliament [Storting] is at the very top (of both of these) and decides the overall policy targets (Fig. 9). The Ministry of Climate and Environment (MCE) are the legal authority in charge of implementing these policies. The MCE is also the highest appellate body in the system, and thus, any objections to decisions made by the regional committees

(outlined below) are directed to the Ministry. The ministry can overrule these decisions if they seem incongruent with policy targets or the law. The ministry is also in charge of delegating CRFs to different management regions (Carnivore Management Committee Region 5, 2014).

There are several rungs below the MCE on the bureaucratic ladder (Fig. 9). The first is the Norwegian Environment Agency (NEA). The NEA is a subordinate agency under the authority of the MCE, and the NEA is responsible for overseeing the regional and local actors, including the carnivore management committees (CMC), and the County Governor's representatives (Norwegian Ministry of Climate and Environment, n.d.). One of the most important tasks of the NEA is providing the knowledge foundation for the carnivore policies to the MCE. Thus, the relationship between the NEA and the MCE is somewhat mutual, where the MCE creates policies on the premises established by the NEA, and the NEA is responsible for keeping *de facto* management in line with these policies. The NEA also decides on the annual number of culling licences and quotas if population targets are not met within the carnivore management

regions. If population targets are met, however, authority of deciding culling licenses lies with the *regional carnivore management committees* (CMCs).

The CMCs are regional actors which have the main responsibility of governing the carnivore populations. These committees are made up of regional politicians, and the representatives are nominated by the county council, and then elected by either the Parliament, or the Sámi parliament [Sametinget]. These committees serve as neutral governmental bodies under the authority of the MCE (Fig. 9) and thus, they are bound by ministerial laws and regulations (Norwegian Ministry of Climate and Environment, 2020b). The CMCs are responsible for establishing a variety of regional targets and management objectives, including the establishment of a regional zoning plan for managing carnivores (Norwegian Environment Agency, n.d.).

Regardless of their responsibility, the CMCs do not have any scientific qualifications for governing the carnivore populations. Therefore, they are dependent on the County Governor's Office (CGO) for professional advice (Norwegian Environment Agency, n.d.). The CGO is under the MCE and the NEA on the "bureaucratic ladder" and functions as a secretariat for the CMCs. They are in charge of administrative tasks concerning carnivore management, and also responsible for the administration of licensed culling. As a secretariat, the CGO will offer scientific advice to the CMCs in decisions concerning culling licenses and hunting quotas (Norwegian Environment Agency, n.d.). All appeals and compensation applications following predation are handled by the County Governor, along with funding applications for preventative measures and conflict resolving funds (Norwegian Environment Agency, n.d.).

In addition to these (main) bureaucratic political actors, there are several other actors who represent important interests or inherit important tasks in the governance system. This includes the Norwegian Nature Inspectorate (SNO) and municipalities. SNO is a subordinate organisation under the NEA and is in charge of surveillance and evaluating predation incidents. The municipality, on the other hand, is in charge of establishing hunting teams for conditional culling (Norwegian Environment Agency, n.d.). Last but not least, are the authorities which represent the agricultural side of the policy – the Ministry of Agriculture and Food, and its subordinate organisations.

As the carnivore policy has a two-folded target where both conservation and agriculture are emphasised, naturally, the Ministry of Agriculture and Food (MAF) is an actor of relevance. In the broader political arena, the MAF is involved not only in policy formulation, but also as a legal authority (Office of the Auditor General of Norway, 2019). There are several subordinate agencies under the authority of MAF, and the one worth noting with regards to carnivore management is the Norwegian Food Safety Authority (FSA). The FSA has, among other tasks, responsibility for enforcing the Animal Welfare Act (Norwegian Ministry of Agriculture and Food, 2009), and the FSA is the authority which can withdraw farmers grazing rights with legal basis in the Animal Welfare Act (Ministry of Agriculture and Food, 2009).

It was throughout the research noted that the agricultural authorities were not sufficiently involved in the governance process. This will be elaborated on in the findings related to objective two. Before that, the remaining actors will be outlined.

5.1.2.2 Economic actors

The economic actors are those who hold the rights to productive resources in the governance system (Vatn 2015). In the governance system of wolves, there are three main economic actors: the state, farmers, and landowners. For simplicity, this thesis will distinguish between landowners and farmers. Landowners are here defined as the *property owner*, who maintain their income through forestry and supplementary activities such as hunting. Farmers or livestock holders are here defined as someone who maintain their income mainly from (livestock) farming. They have private property rights to their animals, and may have property rights to land, or *usufruct rights* on someone else's land (section 5.1.3.2). In reality, these categorisations are not mutually exclusive, as farmers may just as well be landowners. Moreover, local communities are not included here, but they may arguably also pass as economic actor with interests in the governance system and can have *private property rights* to resources such as land and houses.

5.1.2.3 Civil Society Actors

Civil society in the context of governance refers to the arena which “*creates the normative basis of a society, and civil society actors are the set of actors expressing the interest and will of citizens*” (Vatn, 2015). Thus, the civil society actors are those who represent the interests which are present in the general public on either side of the conflict – both the environmental and the

agricultural side. The civil society actors which were deemed most relevant in this research were the various NGOs who have taken a stance in the debate. However, some attention has been paid to groupings in the general public which has manifested on social media platforms. These will be outlined after the environmental NGOs, the agrarian NGOs, and the Forestry and Landowner NGOs, respectively.

The most influential environmental NGOs in Norway include the Norwegian Society for the Conservation of Nature (NVF) [Naturvernforbundet], The Norwegian Association for the Protection of Nature [Miljøvernforbundet] (NMF), Nature and Youth [Natur og Ungdom], Bellona, and Greenpeace (Økokrim, 2011). Moreover, there are several NGOs which engage in diversity concerns, such as World Wildlife Fund (WWF), and NGOs which engage in animal welfare issues specifically, such as NOAH and Peta. In addition to these established organisations, there are several smaller organisations and associations which revolve carnivores specifically, such as Rurals for Carnivores (BFR) [Bygdefolk for Rovdyr], Carnivores Voice (RR) [Rovviltets Røst], and The Carnivore Association (FVR) [Foreningen våre Rovdyr]. What all of these organisations have in common is the vision of achieving larger, more sustainable carnivore populations, and an ambition of a policy which protects each of the four carnivores (lynx, bear, wolverine, and wolf) (RR; BFR; Naturvernforbundet, 2019).

A variety of agricultural NGOs have raised their voice in the wolf conflict. These organisations include the Norwegian Agrarian Association [Norges Bondelag], the Outfield Communities Union (USS) [Utmarkkommunenenes Sammenslutning], Norwegian Farmers and Smallholders Union (NBS) [Norges Bonde-og Småbrukarlag], and the Public Action for New Carnivore policies (FNR) [Folkeaksjonen ny rovdyrpolitikk]. The latter is a civil society grouping which opposes the current carnivore policies (Folkeaksjonen ny rovdyrpolitikk, n.d.). The group was, however, founded during a local NBS meeting, and the organisation inherits much of the same values and attitudes towards carnivores (Folkeaksjonen ny rovdyrpolitikk, n.d.). The main element which recurs within these NGOs is an ambition of not having breeding wolves in Norway and having smaller carnivore populations altogether (Norsk Bonde- og Småbrukarlag, 2008).

Several landowner-and forestry NGOs have been prominent in the wolf debate. These NGOs include, Norskog, the Norwegian Forest Owners Association (NSF) [Norsk skogeierforbund], Glommen-Mjøsen Skog (GMS), and the Norwegian Hunting and Fishing Association (JFF) [Norges Jeger og Fiskerforbund]. These organisations share a common opposition towards the

wolf, where the main reason behind this opposition appears to be the lack of compensation for losses in income from hunting activities (Section 5.1.3.2) (Norskog, 2017).

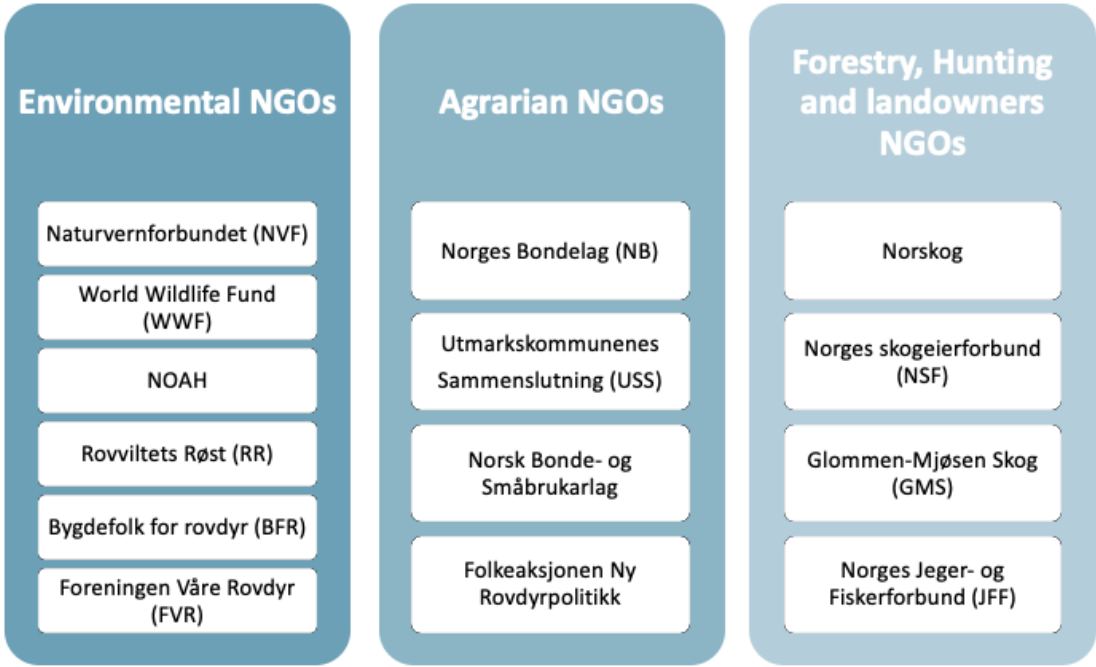


Figure 10: Various NGOs who are present in the wolf conflict.

Figure 10 outlines some of the different NGOs with a strong position in the wolf conflict. The environmental organisations who tend to favour a stronger protection of the wolf are listed on the left, and the agrarian NGOs (middle), and the Forestry NGOs (right), which oppose wolf presence in Norway. With regards to how civil society “creates the normative basis of a society”, it is important to keep in mind that several of the NGOs are not democratic, civil society organisations who aim to create norms for the political and economic actors. On the contrary, some of these organisations are in fact lobbyists, or economic actors with interests in the conflict themselves. For instance, Norwegian Forest Owner Association (NSF), which is constituted of landowners, whereof some have significant economic interests related to hunting (See section 5.1.3.2. concerning rights).

In addition to the formally organised NGOs, there are several groupings in civil society who engage in the wolf conflict. These groupings materialise on social media, and Facebook in particular. Both sides in the debate are represented, and these groups appear far more radical than the NGOs. On the conservationist side, there are Facebook pages such as “Yes for Nature with Wolves” [Ja til en naturlig natur med ulv], “No to slaughter of wolves” [Nei til nedslakting

av ulv i Norge], and “Carnivore Protection” [Rovdyrvern]. Typical statements found in these groups relate to how the Norwegian government is performing an extinction policy, and that the government is slave to lobbyist agrarian organisations (Nei til nedslakting av ulv i Norge, 2020). The environmental oriented groups typically emphasise the importance of carnivores, and their role as a key species in the ecosystem. This resembles arguments found in the conservation discourse and in the rewilding approach (Soulé and Noss, 1998).

On the other side, there are groups such as “Nature for all” [Naturen for alle], “Zero vision” [Nullvisjon], and “Real men kill wolves” [Ekte menn skyter ulv]. The latter is arguably the most radical one, and is known for displaying violent graphics of hunting and culling (Ekte mannfolk skyter ulv, 2020). A recurring theme in these opposing groups is the theory that wolves are no longer “real wolves” but rather mix breeds with no ecological value. In the “Nature for all” group, wolves are consequently referred to as “MIXUL” which is the notion they use for this new mixed species (Naturen for alle, 2020).

One can argue that these different groups represent different discourses. However, one must keep in mind that these groups – on either side of the debate – represent far more radical attitudes than governmental actors and formal NGOs. Their relevance for the discourses in the wolf debate will be elaborated on in conference with objective three.

5.1.3. Resource Regime

In chapter three, the resource regime was defined as the various institutions that govern the economic processes in the governance system (Vatn, 2015). In the context of wolf governance, there are several elements which are important when outlining the resource regime; first, *which resource(s)* are relevant; second, *who has the property rights to these resources*; and third, *the interaction between these (economic) actors*. The latter will be elaborated on in a separate section (Section 5.1.4).

5.1.3.1. Resources

In the governance system of wolves, several resources are relevant. First and most obvious is the wolf. The wolf inherits both a significant physical value as an asset in its environment, and also an incremental value which brings out sentiments in people. With regards to the wolf’s

physical value, the Norwegian Society for the Conservation of Nature (2019) claims that the wolf has significant value as a top predator, as it helps regulate the ungulate populations and keep other small predator populations down. In addition, the wolf is endangered, and thus, it is per definition a scarce resource valid of protection (Norwegian Society for the Conservation of Nature, 2019). With regards to its incremental value, on the other hand, a study by Kränge et al. (2018) at the Norwegian Institute for Nature Research (NINA) found that the majority of the population are positive towards having the wolf in the Norwegian fauna. In this survey, 57 % of the population stated that they like the wolf, whereas only 24% stated that they dislike it. One can therefore argue that the wolf inherits an intangible value, where most people appreciate simply having it present.

The wolf is, however, not the only resource of importance. The two folded policy targets in the governance system implies that other resources are relevant. These other resources include livestock and the grazing resource, forest resources and game populations, and not least, land for recreational use. The second policy target is *maintaining viable agriculture*, and therefore agriculture and livestock are of particular importance.

Livestock and the grazing resource constitute a vital element in Norwegian agriculture. As the majority of Norway is unsuited for crop cultivation, outfield grazing and feed production is an effective way of exploiting resources which would otherwise go to waste (Hansen et al., 2019). Grazing is also essential for maintaining cultural landscapes across the country, and these pastures are vital in maintaining biodiversity. As much as 29% or 700 red-listed species depend upon cultural landscapes as their main habitat (Henriksen and Hilmo, 2015). The animals which constitute the majority of the grazing resource in Norway is sheep, and thus, these are paid particular attention throughout this research.

Another resource which is of significant importance is *game*. In Norway, hunting is seen as both a recreational activity, and an (additional) source of income. The most popular prey are elk and deer, and annually, approximately 30.000 moose, and 40.000 deer are culled (Statistics Norway, 2020c). Within and in proximity to the wolf zone, moose is the main prey, and Hedmark (CMR five), ranges second nationally for moose hunting activities (Statistics Norway, 2020c). These activities have been subject to change following the reestablishment of carnivore populations, and some areas are now subject to reduced hunting quotas, as an increasing share of elk is becoming prey for wolves (Zimmermann et al., 2015). This naturally has implications

for the economic benefits derived from hunting, but not least, cultural traditions and heritage linked to these activities. Hunting with dogs is among the elements which are now changing, due to how dogs are recurrently becoming prey to wolves (Odden et al., 2018). Between 1995 and 2018, there were as much as 617 wolf attacks on dogs, where 400 ended in death. In Norway, this accounts to an estimated 6.8 attacks annually and 83% of the incidents were linked to hunting (Odden et al., 2018).

5.1.3.2. Rights

These different resources have different physical properties and are also subject to different access-and rights regimes. A similarity is the largely rule-based resource regimes which govern all of these resources. As noted in chapter three, *rights* are the product of *rules*, and hence, rights refer to the particular actions that are authorised in a certain situation, whereas rules refer to the legal prescriptions that create these authorisations (Schlager and Ostrom, 1992). In the context of resource management, one often uses the term property rights, which is defined by Cambridge Dictionary (n.d.) as the “(theoretical) legal right to own land or exploit the resources on it.” Onwards, this section will elaborate on which *property rights* are relevant for each resource, which rules apply, and which rights different actors inherit. Before the different rights are described, a clarification between classification of rights and classification of resources is necessary.

With regards to property rights, we typically differentiate between four main types: state property; common property; private property; and open access (no property rights) (Vedeld, 2020). As previously outlined, economic actors with property rights can regulate: access; withdrawal; management; exclusion; and alienation of the resource (Vatn, 2015). “Full” property rights can be described as a vector of these five rights. Some actors may also have *usufruct rights* or *access rights* without having property rights, where usufruct rights are temporary rights to use and derive benefits from another actor’s property. This will be elaborated on later in this section.

With regards to the resource, on the other hand, we typically differentiate between private goods; club goods; common goods; and public goods (Vatn, 2015). These categorisations are based on whether the resource is rival in use, and whether it is possible (and economically viable) to exclude other users from resource use (Vatn, 2015). The categorisations of resources

are not directly related to property rights or regimes, and thus, state property is not necessarily a “public good” (Vatn, 2015).

With regards to property rights (to land) in the governance system, different economic actors inherit different rights. The state may have *state property rights*, meaning they control all the rights defined; access; withdrawal; management; exclusion; and alienation. The same principle goes for landowners, which have *private property rights*. Farmers on the other hand, can be entitled with *usufruct rights*, which provides them with *access* to expropriate the grazing resource. Farmers are entitled to such rights through The Grazing Act (1962). They may have this right on their own land, on others’ land, or on public land (the commons).

Nevertheless, these different rights categorisations are in many ways theoretical, and one can argue that an economic actor never has “full” private property rights. The State, for instance, has legal permission to interfere with private rights if this is perceived to be in the public’s best interest (Bårdsen, 2016). By principle, the benefit for the public must then be significantly larger than the burden imposed on the particular owner. One example is the Norwegian right of access or “right to roam” [allemannsretten] which is legislated in the Outdoor Activities Act (1957). In addition to this, there are also legal prescriptions which regulate access to productive resources, even on privately owned land. One example is *the mirroring principle* [speilvendingsprinsippet] (The Wildlife Act, n.d.).

This principle was first introduced in the Construction Act (1981, 1985, 2008) [Plan-og bygningsloven], and later implemented as part of the Wildlife Act (1982). The principle entails that all wildlife is protected unless otherwise is explicitly stated (The Wildlife Act, n.d.). Hence, all wildlife – including the wolf and also game populations, are essentially *ownerless*, yet still under state protection (The Wildlife Act, n.d.). This entails that landowners do not have *private property rights* to the wildlife on their property. They simply have the sole rights to hunting, and rights to the benefits derived from hunting (The Wildlife Act, 1982; 2016). Nevertheless, hunting must be done in accordance with quotas and regulations determined by the municipality (Environment Agency, n.d.). When the animal is culled (in accordance with the law) it becomes the landowner’s “property” and he or she can derive the benefits from it.

This same principle is also important for understanding the “property rights” to the wolf. In line with the mirroring principle, the wolf is also *ownerless*, and under strict legal protection of the

state and international law. Hunting, removal, and any other means of population control is strictly regulated, where the Parliament decides the legal framework, and the Ministry and CMCs are responsible for upholding and implementing it (Norwegian Ministry of Climate and Environment, 2020b).

Livestock on the other hand, are domesticated animals, and therefore subject to other rules and regulations. Livestock are considered private property (belonging to the farmer), and with this right, the farmer is required to manage the resource according to legal prescriptions, outlined in for instance The Animal Welfare Act (2009). This entails that the farmer is inherently responsible for the animals, even when they are in the outfield. If an animal is taken by a wolf, the farmer is entitled to compensation.

The notion of compensation is of great importance. The compensation scheme was outlined in section 5.1.1.2, however, *who* receives this depends upon rights. Where farmers have property rights to his or her livestock, landowners do not have property rights to the game on his or her property. Therefore, landowners are inherently not entitled to compensation following wolf predation the same way farmers are.

Say, for instance that a wolf kills ten sheep. The sheep are the farmers private property, whereas the wolf is ownerless or “state property” according to the mirroring principle. Hence, there is arguably a “transaction” where the state, who “owns” the wolf, must compensate for the losses that the state’s property has imposed on the farmers property. Landowners, on the other hand, do not own the wildlife – these are “ownerless” (and under state protection) according to the mirroring principle. Landowners only have the rights to derive the benefits from the excess wildlife that the authorities have allowed to be culled on their property. Hence, if game populations are subject to decline due to the carnivore pressure, the landowner does not have the right to be compensated, as no “transaction” has occurred. This is a disputed system, as we shall return to later in this research.

One can naturally argue that the reintroduction of the wolf was (and is) a state-imposed cost on the resource benefits which would otherwise accrue to the landowner. Nevertheless, since the game is inherently ownerless until it is culled, the same compensation schemes do not apply to landowners as for livestock owners. This has proven conflictual in practice, as landowners are subject to income loss following increased carnivore pressure (Strand et al., 2016). This is likely

one of the main reasons why forestry and landowner NGOs are so heavily involved in the wolf debate. The issues concerning compensation and rights will be elaborated on in conference with objective two, concerning distribution of costs and benefits.

5.1.4. Interaction and Authority

In environmental governance theory, interaction refers to how communication is structured and facilitated among the different actors (Vatn, 2015). The EGS framework emphasises interaction between economic actors (Vatn, 2015), however, as the economic actors who hold the rights to the main resource – the wolf – are both political and economic, this section will encompass how interaction is facilitated among all different actors, and which rules that apply. Two elements will here be discussed – the economic interactions, and the general interactions among actors. These will be discussed with regards to the different types of interaction outlined by Vatn (2015) including trade, command, community rules, and no rules.

5.1.4 Interaction between Economic Actors

With regards to *economic transactions*, one could argue that the economic institutions outlined earlier (section 5.1.1.2) constitute one type of interaction. In which case, compensation for predation constitutes a transaction, and one may call this a type of “trade”, between the government who “own” the wolf, and the farmer who owns the shed. In a prolongation of this, one may also argue that the CRFs are a type of trade between the state and the farmer. Nevertheless, Vatn (2015) notes that “trade” is a volunteer transaction – and one can hardly argue that this compensation is warranted. Thus, even “trade-like” interactions in the governance system are largely based upon command-based rules.

5.1.4.2 Interaction between all actors

Governance of wolves is, as noted in section 5.1.2.1, founded in a hierarchical system. Patterns of interaction between the various actors are largely command based, meaning they are founded on hierarchical power (Vatn, 2015). Power is here based upon the conceptualisation provided by Vatn (2015), where power is defined as the ability to make things happen, and the ability to control one’s environment, including other actors. The power in the governance system of wolves is most often sourced through institutionalised power structures, and rests on a third-party – in this case, environmental law. One example of this, is the authority to decide on culling

licenses. As noted in section 5.1.2.1, authority is typically moved up in the hierarchy when population targets are not met, and hence, decisions which can be perceived as more critical are often made by the MCE or the EA, rather than the committees. This is specified in the Carnivore Act [rovviltforskriften] §7 (The Carnivore Act, 2005). Thus, the interaction patterns are arguably command-based, where authority to control resource use and access to resources lies in the line of command (Vatn, 2015).

An issue which appears to follow this line of command, is the perceived lack of authority within the committees. In 2017, licensed culling was put to a halt within the wolf zone, and several committee members withdrew from office (Løkken, 2017; Steien, 2017). Even though this specific case was resolved following a change made by the Minister of Climate and Environment himself (Vidar Helgesen at the time), the committees still argue how their authority is constrained by the ministry through the system of appeals. These issues concern the committee's perceived ability to participate and represent issues of legitimacy. This will be elaborated on in conference with objective two.

5.1.5 Resource outcomes

The governance outcomes in the EGS framework refers to two specific outcomes, namely, *the state of the resource*, and *resource use* (Vatn, 2015). These outcomes will impact both political and economic choices, and followingly, the governance system and the outcomes reflect a reciprocal relation where the governance system causes specific outcomes, and these outcomes influence how the resource is managed next time around (Vatn, 2015). As noted throughout this thesis, the wolf policy has two main targets; ensuring a sustainable wolf population, and maintaining a viable agricultural sector (Norwegian Ministry of Climate and Environment, 2020b) The outcomes mainly relate to the state of these two resources, though as wolf conservation also has implications for other socio-economic interests, this section will also outline outcomes for landowners, particularly relating to hunting.

5.1.5.1. The wolf population

In order to evaluate the state of the resource, one can look at the annual wolf population numbers, along with the number of culling licenses which have been granted for the forthcoming season (Rovdata, n.d.). The latest available population measures are from winter 2019-2020 and this year, 56 fully Norwegian wolves were registered, along with 47-50 wolves

in the bordering territories (Rovdata, 2020a). These wolves are counted by a factor of 0.5 (in both Sweden and Norway), and the entire (Norwegian) wolf population followingly accounts to approximately 80 wolves (Rovdata, 2020a). However, there is a slight error margin due to last year's culling period. The surveillance season endures from Oct. 31st – March 31st (Rovdata, 2020b), whereas the licenced culling period (outside the wolf zone) endures from Dec. 1st until May 31st. During the culling period of 2019-2020, 20 wolves were culled (Statistics Norway, 2020e), and consequently, the population may be smaller than the 80 individuals estimated. The population will also be subject to change following the forthcoming culling period.

The population is currently *above the population targets*, and the CMCs in regions four and five have followingly decided on granting 32 culling licences within the wolf zone for the culling season of 2020-2021 (The County Governor in Hedmark, 2020). On the contrary, the secretariat recommended culling licenses for no more than 16 wolves (Secretariat for committees 4 and 5, 2020). Furthermore, 12 additional culling licenses have been granted outside the wolf zone, and hence, the CMCs have decided quotas for culling up to 44 wolves during the culling season of 2020-2021. Appeals have been filed by a variety of NGOs (The County Governor, 2020b)

These decisions are essential in understanding the state of the wolf population. The population target of 4-6 litters is what ensures growth in the population, whereas the culling and conditional removal of wolves is a means used to control the population (Norwegian Environment Agency, n.d.). When the number of culling licenses exceeds the number of pups born in the preceding year, the population obviously decreases (*ceteris paribus*). An implication of this, and something which is already a known issue, is inbreeding. The entire population descends from only five individuals (Rovdata, 2020a), and this has implications for the wolf's ability to reproduce, and the survival rate among the pups (Kardos et al., 2018). Although the population targets are currently exceeded, this and next year's (2020-2021) culling is likely to *halve* the population, and again make it critically endangered (<50 reproductive individuals) (Artsdatabanken, 2020). Several NGOs also claim that a further decrease in the population could further exaggerate the issues concerning inbreeding (The County Governor, 2020a).

5.1.5.2. Livestock outcomes

As mentioned, the wolf policy has a two-folded approach, where the second target is to maintain a viable agriculture. This section will mainly focus on outcomes for sheep-farmers as these are the ones who have had the greatest losses within the predetermined case sites (Regions three, four and five) (Hansen et al., 2019; Strand et al., 2016; 2018).

The most prominent outcomes relate to how outfield grazing activities have changed in the wolf zone since the reestablishment of the wolf population (Hansen et al 2019; Strand et al, 2016; 2018). Several studies have found that in parts of the wolf zone, grazing activities in the outfield are nearly non-existent (Strand et al., 2018; Hansen et al., 2019). In (old) Hedmark, the number of sheep (whose farmers applied for funding) left for grazing in the outfield has decreased from nearly 12.000 to < 2.500 over the past 20 years (Strand et al., 2018). The total number of sheep in Hedmark (mainly kept infield) has also decreased from approximately 14.000 to about 8.000 during this same period (Strand et al., 2018).

However, in the wolf zone as a whole (Oslo, Akershus, Østfold and Hedmark), the number of sheep has remained stable (Strand et al., 2018). Even though the number of sheep in Hedmark has decreased, the number of sheep in Oslo, Akershus and Østfold has increased slightly over the past year, thus “compensating” for the decrease in Hedmark (Strand et al., 2018). These animals are mostly kept in the infields, and closer to the farm. Therefore, the decrease of animals in the outfield remains prominent. From its peak in 1985 and until 2015, the number of sheep and lamb in the outfield has decreased by 94% within the wolf zone (Strand et al., 2018). By comparison, the Norwegian Agriculture Agency (n.d.) note that the number of sheep in the outfield has remained stable on a national basis.

Carnivore pressure is undoubtedly a driver for the decline in animal husbandry and use of the outfield within the wolf zone. About 6% of the total outfield resources in the wolf zone is exploited and used for grazing, and by comparison, farmers in Hordaland county exploits approximately 62% of the county’s outfield resources (Strand et al., 2018). This trend is concerning – not only for the numerous farmers who now refrain from pastoral herding, but also for the agricultural policy target and biodiversity concerns (Norwegian Ministry of Agriculture and Food, 2012).

As noted earlier, 700 red-listed species depend upon these cultural landscapes (Henriksen and Hilmo, 2015). In Hedmark, where the decline in grazing has been particularly prominent, there are approximately 458 protected species, and an additional 400 species which are considered vulnerable (County Governor in Innlandet, n.d.). An estimated 25% of these species depend upon the cultural landscapes for habitats (County Governor in Innlandet, n.d.), and thus, the decline in grazing activities may have consequences for biodiversity.

5.1.5.3. Outcomes related to game and hunting

Game populations are also relevant to discuss. Wolves have implications for different game populations, and although these populations are nowhere near being threatened or subject to protection, they inherit a large economic and recreational value (Strand et al., 2016). Outcomes relating to the elk population are particularly relevant – as both landowners and the wolf appear to be particularly fond of the elk.

For landowners, elk hunting constitutes significant income – also within the wolf zone (Strand et al., 2016). As described earlier, landowners do not have “full property rights” to these animals, but they reap the full benefits from hunting. These benefits stem from the game itself (meat price), and also from supplementary services such as cabin-rentals and selling or leasing equipment (Strand et al., 2016). As described in 5.1.3.2, hunting quotas are decided by the municipality, and are based upon the state of the resource – in this case, the size of the elk population (Environment Agency, n.d.). If the population decreases following natural variations, for instance a bounce in carnivore population, landowners are not entitled to compensation for this – as the game was not inherently theirs to begin with.

A study by Strand et al. at NIBIO (2016) found that several landowners within the wolf zone have seen a decrease in their income stemming from hunting activities over the past few years. For six respective properties, the total income fell with approximately 50% (From 1.000.000 NOK to 500.000 NOK). The size of the economic loss did, however, depend upon the size of the property, and it is necessary to note that these numbers are not representative, as they stem from only six properties. Nevertheless, it is an indicator of how the wolves impact the wildlife, and the economic consequences that may derive from this.

5.1.6 Summary

The governance system of wolves in Norway is intricate. A variety of actors are involved, and these actors are subject to a vast number of legal prescriptions. These legal prescriptions are often vague, and there are conflicts relating to how these rules should be interpreted. The policy itself is also highly intricate, with zoning and different legal prescriptions for carnivore and grazing zones respectively (Norwegian Ministry of Climate and Environment, 2016b). Nevertheless, the wolves stride freely across zones, creating trouble and conflicts wherever they roam. There are naturally consequences relating to this, and given how wolves are prioritised in specific areas, these consequences and costs tend to accumulate. Most actors are compensated for these costs, but not all, and this has proven conflictual in practice. Consequently, there is arguably reason to discuss certain elements of the governance system further, along with the outcomes it produces.

Part 2 – Empirical Findings and Discussion

This section will encompass the research's empirical findings, and a discussion on these respective findings. In other words, the following sections will outline and discuss the findings derived from the interviews described in chapter four. The findings are based upon nine interviews respectively, with respondents from the committees, the County Governor's office, and interest organisations on either side of the conflict. Regardless of these respondent's affiliation to either organisations or positions in the governance system, it is here important to emphasise that the findings are based on the respondent's *personal opinions*, and that this does not necessarily reflect the stance of the position or organisation they represent. The following findings are used to help understand the conflict through the eyes of different actors, and the aim is not to label these respondents as negative or positive towards the wolf. The main aim is rather to create a better understanding of how actors may perceive the conflict and the wolf, without trying to attribute these respondents with attitudes, values, and opinions.

Objective 1 – The governance system

One of the main objectives of governance is to resolve conflicts (Vatn, 2015). Given the level of conflict regarding management of carnivores in Norway, there appears to be issues linked to the governance system of wolves that is yet to be resolved. As noted earlier, a governance system is reciprocal – where actors and institutions both *influence* and *are influenced* by the system. Hence, the respondent's views of the governance system inherently impact how, and in what ways, the governance system functions – or in this case, does not function. Therefore, the following sections describes and discusses the empirical findings relating to the governance system described in part one of this chapter.

5.2 The Governance System

The main aim of the research is finding ways of resolving the conflicts. Therefore, the elements of the governance system that were described as particularly conflictual will be described in the following sections. As the outline of the governance system was categorised by elements of the EGS framework, so will the following sections be categorised. The elements which will receive

particular attention are the interaction and authority between actors, and not least, the legal framework. The *economic institutions* will not be discussed in this section, but rather in conference with objective two. This is mainly due to how these institutions are dictated by the rights the different actors inherit and is considered relevant for the discussion on rights and distributive justice.

5.2.1. Governance actors

In the interviews, one of the main topics was trust between different actors in the governance system. Nearly all actors proclaimed that they trusted other actors, particularly those at “closer” levels in the governance system. For instance, most committee members appeared to have trust in the knowledge and information provided by the County Governor’s representatives. One of the respondents from one of the committees within the wolf zone noted the following:

"[The County Governor representatives] are always very helpful and share all the information that they can - there is no such thing as a stupid question [...] They inform us about everything they perceive to be important, and probably more than they need, but they do this so that we are able to do our job. I perceive the cooperation as very good. There is no conflict."

However, at different levels in the governance system, several actors expressed distrust. Among respondents who related to CMCs, this distrust was particularly directed towards the Ministry of Climate and Environment. *“We struggle with getting through to the Ministry [of climate and environment]. We don’t always get feedback whenever we reach out, so it’s not all good.”*

From the respondents with relations to the County Governor’s Office, or relations to an environmental NGO, this distrust was often channelled towards the Parliament and its ability to make good policies. One respondent noted *“Different political parties meet in the chamber and discuss how many wolves we should have in Norway. It’s turned into a game of numbers without anyone questioning it, and without any thoughts on whether it’s realistic [...]”* Similarly, another respondent said *“The target becomes the only aim of the governance. There are other elements that should be considered, such as the local population growth trends [...] You also get a very single-minded focus on culling as the only means for governance. And then you lose sight of the ecological and sustainable governance perspective.”*

These “trust issues” did not necessarily relate to different actor’s abilities, as much as it was related to different actors’ tendency to interpret the *legal framework* differently.

5.2.2. Institutions and legal framework

The legal framework and the population targets were deemed highly conflictual by a majority of the respondents. Although one respondent found the population target too precise, a majority of the respondents found this target vague. One respondent said: “*How are we supposed to relate to that number [the population target] (...)*” And another respondent said

“Something that has been problematic is that the Storting, through the Nature Diversity Act has said that we must have 3 fully Norwegian family groups [of wolves], and 4-6 counting the bordering territories. These are the national population targets. However, this is so vague that when other interests are put against it [...] it becomes unclear whether this is the overarching target, or only one of several targets.”

Regardless of this, the issue of vagueness appears to be less related to *lack of understanding*, as it is to *ambivalence in understandings*. One respondent said that “*Depending on which side you are on, you can interpret it to whatever you like (...)*” This proved to be true, even among the respondents interviewed for this research. From the data collection, one law in particular was perceived as particularly conflictual – the Nature Diversity Act (2009) with all its changes and prescriptions. There appeared to be three main reasons for this: first, the interpretive notion of what is required in order to fulfil the criteria of “*public interests of substantial importance*”; second, *how much* the population target should be weighted; and third, that the overarching criteria of the Nature Diversity Act §18 (a-f) remains a prerequisite.

Indeed, as noted in section 5.1.1.1, any decision made with a legal basis in §18 (a-f) can only be made if the removal does not threaten the survival of the population, and the purpose cannot be achieved in any other satisfactory manner (Norwegian Ministry of Climate and Environment, 2009). (Nature Diversity Act, 2009; 2016). Despite the change made by the Parliament in 2020 where the population target is supposed to be weighted more, the criteria for removal remains the same. Consequently, there appears to be a discrepancy between the policy (as formulated by the Parliament) and the legal frame. One respondent noted that “*What has been a major conflict driver, at least related to wolves over the past few years, is that there is a slight*

discrepancy between the policy, meaning the political population target, and the legal foundation for regulating the population.”

This respondent was not the only one which made note of the discrepancy. When discussing this particular policy change (the weighting in population target) two respondents provided completely different interpretations of the policy change. One respondent stated that “*The Parliament tried to correct this [misunderstanding of the population target] through the legislation made last spring, where they said that the population targets should be more than a target, and that the governance should try to confer to the targets.*” Whereas another respondent with a different position in the governance system interpreted this change differently. “*You may interpret this to mean that if the population target is met, then you have a legal basis for culling, but you are not supposed to interpret it this way [...]*” and “*[...] the population target is only one of three conditions that must be met [in order to get legal basis for culling wolves]. There is the Norwegian population target of 4-6 litters which is important, yet the culling cannot be detrimental to the population’s survival.*”

These differences were not unexpected. The different respondents have different roles in the governance system, and they are likely influenced by elements such as political association, knowledge, values, and attitudes. In a polarised conflict like this, where attitudes are divergent even within the governance system, it is near impossible to avoid tensions. These tensions may arise between roles and interests, and then in the different outcomes various actors might aspire for. This is closely linked to both objective two concerning input legitimacy, and not least objective three concerning discourses. It will therefore be elaborated on later.

5.2.3. Discussion: Institutions and Legal Framework

The vagueness in the policy and legal formulations allow for different interpretations, and this creates conflicts. From the statements presented above, it appears as if different actors interpret the legal framework based on their own interest, where some interpretations generate a stronger protection of the wolf, and other interpretations don't. However, the aim of this research was not to pinpoint “*differences between actors*” The main aim of this research was to confer with different actors to get insight to the policy implications. Furthermore, the thesis aimed for using a political ecology approach to try to put these issues into a broader context, and not accept conventional explanations. With regards to this, one may argue that the vagueness in the policy

is not the actual problem – the problem lies in how different actors perceive that *other actors* will interpret the policy.

The Norwegian legal model depends upon trust in the governance officials interpreting the laws (Nickelsen, 2019). In fact, the Norwegian book of laws is among the shortest the world, and hence, the laws are less precise than in most other countries (Nickelsen, 2019). This legal system allows for discretion and interpretation, and in most situations, it is trustworthy and provides consistency (Nickelsen, 2019). Nevertheless, carnivore management appears to be one exception to this rule.

When the laws are vague, there is a need for consistency, and common understanding of how these laws should be interpreted (Nickelsen, 2019). Therefore, integrity and trustworthy interpretations are key (Nickelsen, 2019). This is something the governance system of carnivores appears to lack, as there are different interpretations of the laws among interest organisations, in civil society, and even among the governance actors themselves. In this research, these different interpretations appeared to be systematic, and like one of the respondents noted, these interpretations often support one side or the other. “*Depending on which side you are on, you can interpret it to whatever you like (...)*”

When these different interests are visible among governance actors, this arguably weakens the integrity of the actors interpreting the laws. Therefore, the main issue may actually not be the law itself, but rather the lack of trust in that actors to act in line with the legal intentions, rather than promote his or her own interests. As noted in section 5.2.1, lack of trust was sometimes present between governance actors at *different* levels, and previous research (Krange et al., 2016; Office of the Auditor General of Norway 2019) have found similar tendencies, where different actors attempts to “compensate” for what actors on the “other side” might do. As a result, some committee members feel the need to propose a high number of culling licenses, as there is a perceived force in the bureaucracy to push this number down (Krange et al., 2016).

A quick fix to this problem could be to make the legal framework clearer and more precise – something several respondents suggested. Yet, a clarification of the legal framework would be a trade-off to the element which the CMC members give high regards to – the room for discretion. Indeed, the vagueness is the element which allows for discretion (Nickelsen, 2019),

and without it, there would arguably be no need for committees at all. Furthermore, a more precise policy formulation could potentially create *more conflicts*.

One of the main conflict drivers appears to be the distributional effects of the policy (section 5.4.1) where economic actors in some areas experience that they are left with the costs year after year. A more precise policy would not necessarily change this. On the contrary, more specific targets, for instance stricter regulations of culling inside and outside of the wolf zone, might make distribution of costs and benefits more systematic, thus enhancing the feeling of injustice.

Therefore, it must not come across that the lack of precision is an inherently negative thing. In most cases, the legal framework serves its purpose, and the Norwegian legal system is perceived as one of the best and most fair legal systems on a global basis (Nickelsen, 2019). In situations where the legal framework is sub-optimal, or where there are perceived discrepancies, the legal framework often depends upon a Supreme Court decision to provide clarity (Nickelsen, 2019). One such example of a perceived discrepancy has already materialised in conference with §18c in the Nature Diversity Act – where some actors perceive that it provides a legal basis for culling wolf packs within the wolf zone, whereas other actors don't.

The “wolf case” from 2017 is rooted in this conflict (Tvilde et al., 2020). The case began when the World Wildlife Fund (WWF) sued the Norwegian state for approving the culling of 28 wolves during 2017 – 16 wolves within the wolf zone, and 12 wolves outside of it. WWF argued that the approval of this was against the Norwegian Constitution §112, as well as the Nature Diversity Act and the Bern Convention (WWF, 2020b). WWF lost the appeal in the district court and appealed. In the Court of Appeal, the Norwegian state lost, and the removal of the 16 wolves within the wolf zone was deemed illegal. Hence, it is clear that even within the courtroom, there appears to be different interpretations of the legal frame. This case has now made its way into the Supreme Court and scheduled to begin in January 2021 (WWF, 2020b).

The removal of the wolves within the wolf zone (in the wolf case) were approved with a legal basis in §18c in the Nature Diversity Act. The reason why the removal was approved was an interpretation of the criteria to «*safeguard general health and safety interests or other public interests of substantial importance*». As noted in chapter two, this is one of the added sections

to the Nature Diversity Act (Change in the Nature Diversity Act, 2020), and this section was perceived as particularly conflictual, among the respondents. The reason being how actors with different interests are conflicted in how to interpret “*increased weighting of population targets*” (Change in the Nature Diversity Act, 2020).

The upcoming Supreme Court decision is likely to impact the governance system as a whole and may provide clarification to how the Nature Diversity Act is to be interpreted. Whether this helps resolve the conflict is something only time can show, though until the Supreme Court decision has been made, the “trust-issues” among different actors are likely to prevail. Implications of this include the incentive to file appeals on the CMCs decision, which shifts authority from the CMCs to the MCE. This will be elaborated on in conference with the next objective, and elements concerning *participation*.

5.2.4 Summary

Several elements of the governance system appear conflictual. Among these, the legal framework and interaction between different actors appears particularly prominent. This is seemingly conflictual due to how different actors interpret the policy and the legal framework according to different interests, creating tensions between policy target and management. Nevertheless, in this section it has been argued in favour of a “vague” legal framework, because this allows for discretion, and prevents a systematic distribution of “costs” to some particular groups. The remaining sections will elaborate more on these issues.

Objective 2 – Outcomes of the Governance System and Legitimacy

The governance system represents one “governance outcome”. Nevertheless, the governance system also produces *a set of outcomes*, and a variety of these will be discussed in the following sections. Objective two in this thesis encompasses these outcomes and call for a discussion on these in line with theories on legitimacy. As legitimacy is a subjective concept, the following sections will be based upon the legitimacy framework as presented by Vatn (2015) (chapter three). This framework outlined two types of legitimacy: input legitimacy, or legitimacy in the process, and output legitimacy meaning legitimacy in the outcomes (Vatn, 2015).

Input legitimacy evaluates the *governance processes*, and therefore, the first section (5.3.1) will bring back the topic from the last section (5.2) namely, participation. After this, findings and discussions on accountability (5.3.2) and transparency (5.3.3) will follow. Output legitimacy, on the other hand, entails the legitimacy in the *outcomes*, and findings and discussions on output legitimacy will largely revolve around distributive justice (5.4.1) and policy effectiveness (5.4.2).

5.3 Input Legitimacy

Objective one revolved around the governance system and aimed at finding potential conflict drivers and issues in this system. However, whether one perceives different elements of the governance system “good” or “bad” is highly subjective – thus, these must be discussed through an objective framework. This section aims at doing just that, and it will use the concept of *input legitimacy* to discuss the governance system. Input legitimacy entails whether different actors perceive the process and the governance system itself as legitimate, and in the framework for legitimacy presented by Vatn (2015) three elements are important when evaluating input legitimacy: Procedural justice; participation; transparency; and accountability.

In this thesis, procedural justice has not been included as part of the analysis. This is mainly because the Norwegian political system is perceived as relatively democratic, with rather equal opportunity to participate. Furthermore, the elements of this particular governance system which may be perceived as “undemocratic” will be elaborated on in the section concerning participation. The following sections will therefore elaborate on issues concerning (5.3.1) participation, (5.3.2) accountability, and (5.3.3) transparency.

5.3.1 Participation

As noted in chapter three, participation relates to politics, democracy, involvement, resources, and interests, and furthermore – who has the power and opportunity to influence these matters (Vedeld, 2017). Based on the actors outlined in section 5.1.2, and the interactions described in section 5.1.4, it is evident that participation is included in two main ways: through the CMCs, and through the appellant system. Nevertheless, many respondents found these “channels of participation” conflictual, and two concerns recurred: i) that actors felt that they were robbed

of their decision-making authority; and ii) that participation and involvement of different actors were skewed.

5.3.1.1 Appellant Hierarchy and Decision-making Authority

The appellant system was perceived as sub-optimal by some of the respondents. Several respondents perceived that this system robbed them of their authority, and one respondent noted that “*We process the complaint, but we never change our decision. Then, the case is handed over to the Ministry [of Climate and Environment]. One can wonder why we even bother spending our time on this. The decision lies with the ministry anyway*”. Another respondent said, “*when we make decisions based upon the government’s policies, these decisions are set aside by other authorities, and that is a problem.*”

By some, this blame was not put on the system in itself, but rather on the environmental authorities. Some respondents perceived that these authorities systematically tried to halt their authority and overrule both the committees and the local communities whose participation depended upon the CMCs. In order to understand this, one must first look at the intended governance model, and then evaluate where the process takes a wrong turn.

The intended governance model is quite simple (Fig. 11). The County Governor’s office retrieves information from relevant stakeholders and recommends a number of culling licenses. The committees adjust this number if necessary. The suggestion is then up for appeals, and civil society have the right to complain if they perceive the decision to be illegitimate (Norwegian Environment Agency, n.d.).

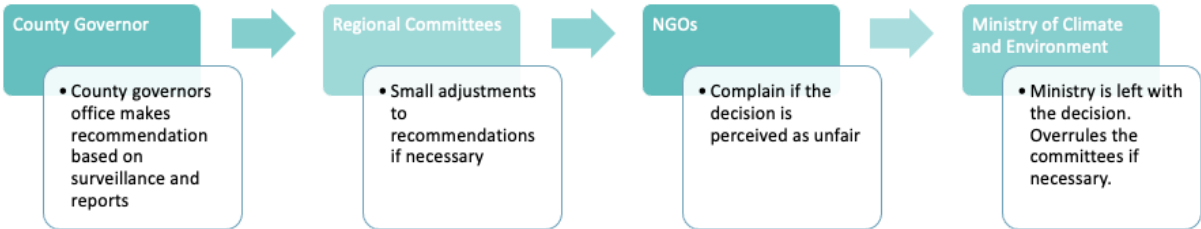


Figure 11: The intended decision-making process.

The process rarely proceeds according to plan. The disruption begins when the County Governor’s office provides their suggestion to the committees. Members in the CMCs may perceive this number to be too low and feel the urge to “compensate” by increasing it (Krange et al., 2016). When a decision is reached, this naturally results in complaints from Environmental NGOs, which perceives the number to be too high. As the committees rarely change their decisions, the case is then handed over to the Ministry of Climate and Environment, which is the highest appellate body (Norwegian Environment Agency, n.d.). If necessary, the MCE overrules the decisions made by the committees, thus causing dismay among the committees and the feeling of losing authority.

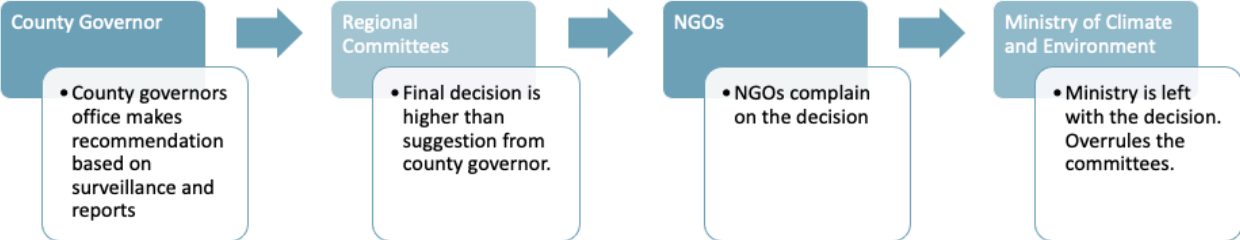


Figure 12: Decision-making process as described by respondents.

Research by the Office of the Auditor General of Norway (2019) found that every decision the committees have ever made has been subject to complaint, thus shifting the authority to the MCE. In spite of this, only 8 out of the 45 appeals (between the years of 2014 to 2018) resulted in a new decision from the MCE (Office of the Auditor General of Norway, 2019). However, several of the changed decisions were related to culling of wolves – more so than any other carnivore (Miljøvedtakregisteret, 2020). Some of the appeals have even been rejected by the Ministry, but later taken into courtrooms – for instance the 2017 “wolf case” which is now up for Supreme Court.

In spite of how decisions are rarely changed (Office of the Auditor General of Norway, 2019), the shift in authority may still have implications for legitimacy. Even though the formal decision remains the same, the authority is moved, thus taking away the committee’s ability to decide. In a recent NIBIO report, Strand et al (2018) cites (Oström, 2009) and notes that when the decisions and changes are made without conferring with local and regional actors, and they don’t have the opportunity to impact the decisions, or feel ownership to it, trust becomes a

trade-off. The two – perceived lack of authority, and actual lack of authority, are likely to yield the same outcome, which is a lack of trust, and lack of ownership of the policy.

This corresponds with what several of the respondents said during the interviews. When the decisions are moved to the ministry, they have no power nor authority to impact this decision. The ministry can choose to keep it as it is, change it, or even fully reject it. This implies that the governance model – which appears decentralised and participatory on paper – is largely centralised in practice, where decision-making authority lies with the Ministry of Climate and Environment, rather than the CMCs.

5.3.1.2 Representation – Weighting of different interests

The second element concerning participation, is the representation of different interests in the governance system. A recurring element from the research related to a perceived skewness in weighting of different interests at different levels, where the environmental concerns were weighted more in the higher governance levels, and agricultural interests weighted more on the local level.

With regards to the first element – how environmental concerns are weighted more – several respondents expressed how they wanted the MAF to be more involved. One respondent said *“we get the case from the County Governors’ representatives, and they retrieve information from other actors such as the Food Safety Authorities. And that’s good but it would be better if they were more present”* Whereas another respondent said *“It’s been encouraged that it is no longer just the environmental authority who should be involved. Because, when we have a two folded target, both the concerns related to carnivores and the grazing rights should be weighted [...] both actors need to have a say.”*

With regards to local actors, on the other hand, there were remarks as to how the agrarian interests were too heavily weighted. One respondent noted that *“In many of the committee’s decisions, only the [grazing] industry’s interests are weighted. [...] Every single proclaim relates to how we need to shoot more wolves to save the industry and the local communities. The committees have an extremely tendentious attitude towards one side of the two folded approach which only concerns the industry.”* This corresponds with findings from previous research. In an Evaluation of the regional committees, Kränge et al (2016) at NINA found that

there was an overweight of people from the Centre Party in the CMCs. These members had a tendency to favour agrarian interests over environmental interests and prescribed themselves the role as intermediaries between the agricultural sector and the environmental authorities. The linkage between attitudes and political association will be elaborated on in conference with objective three. Similar to what Krange et al. (2016) found, it appeared as if some of the (interviewed) CMC members appeared to favour agricultural interests. Several respondents insinuated that this was due to a lack of protection of these interests at higher governance levels, or more precisely, a lack of involvement from the Ministry of Agriculture and Food, and the Agricultural Agency.

The lack of involvement from the MAF is also something which has been noted in previous research. The Office of the Auditor General of Norway (2019) uncovered similar perceptions among respondents, where a majority of the respondents called for more contact with the agricultural authorities. With regards to how de-facto decision-making authority is delegated, and how the CMCs perceive that all authority lies with the MCE alone, the absence of the MAF may continue to uphold incentives for uneven weighing of interests at the local level.

Nevertheless, the absence of the agricultural authorities concerns more than “physical attendance”. The MAF itself have expressed that the formulation of the two-folded targets is challenging, as the conservation targets are far more specific than the agricultural ones (Office of the Auditor General of Norway, 2019). This makes the evaluation difficult – as the MAF have no specific targets to follow up. They do, of course, have specific targets relating to agricultural production, but these are not specified in the carnivore policy.

5.3.1.3 Discussions on the Participatory Approach

The issues described by the respondents, and the way the governance system is set up indicate that participation is used as a “means to an end” rather than something the different actors inherently have a right to. The first element which indicates this, is the somewhat symbolic inclusion of the MAF, which appear to have no real authority in practice. The second element concerns the CMCs. The aim of establishing the regional committees to begin with, was to *resolve conflicts*, with the ambition of creating a decentralised governance model where local actors were given responsibility, and not least, an opportunity to participate (Norwegian Ministry of Climate and Environment, 2004). Participation is hence included as a means to

resolve conflict, rather than a right that locals inherently were entitled to. This resembles participation as described in the participatory development discourse (Vedeld, 2017) (chapter three).

However, as outlined in chapter three, the main aim of discussing participation is not pinpointing “what type” of participation this is, but rather how “participation is permeated into the creation policy goals, measures, and instrument selection, and implementation processes” (Vedeld, 2017). With regards to this, participation appears to lack at every level in the policy process, except implementation. In fact, both the two-folded target, the zoning, and the population targets were all decided in the Parliament. The local actors and stakeholders are left to merely govern these predefined targets. This appears to have had implications with regards to actors’ ownership towards the policy, and their trust towards the MCE who interpret the policy and provide directions for how to implement it.

Nevertheless, one must keep in mind that this is the “standard” approach to governance in Norway – where the Parliament makes the decision, and the Government, along with the respective Ministry are in charge of implementing it (The Norwegian Parliament, 2020a). Moreover, one can argue that the policy changes made time and time again, are signs of how the Parliament tries to act in conference with the feedback and tries to find new solutions to alleviate the conflicts. The seemingly shallow approach to participation does therefore not imply that there are no feedback mechanisms, or channels of participation. Even the largely disputed appellant hierarchy seemingly also exists as a means to *encourage participation* from civil society. The main issue with this system arguably lies in how different actors use it to promote their own interests, and how different actors (over) compensate for actions of others (with different interests) in the system.

There is also another factor that is yet to be mentioned – the Norwegian government has arguably *chosen* which ministry should govern this. In this case, that is the MCE rather than the MAF. Followingly, the MCE is given the *power* over the governance system. When the MCE is set to govern, they inherently have the coercive power to control rules and institutions – or at least, the interpretation and implementation of these. In addition, they also inherit normative power, as they determine the knowledge foundation on which the policy is founded.

Consequently, when the state chooses which ministry is set to govern, they inherently also make a choice with regards to the governing approach, and the prioritisation of different interests. Where the MCE is known for having a more rule based, formal approach to governance (Vedeld, Krogh and Vatn, 2003), the MAF often appears more informal, and encourage more participatory governance (Vedeld, Krogh and Vatn, 2003). Furthermore, their priorities of nature-use and conservation also differ, where the MCE has a “conservationist approach” and emphasises the protection of nature (from mankind), and the MAF tend to emphasise the importance of nature as a basic value and a resource for utilisation (Vedeld, Krogh and Vatn, 2003). In result, they produce different approaches to how the governance system should be compiled, and when the Government selects the ministry in charge, one might say that they choose priorities, governance models, and outcomes as well. One might say that the state decides which *discourse* should be relevant, and which discourse should be considered the “truth”. We shall return to this notion in conference with objective three.

5.3.1.4 Possible improvements

The “hatchet” has already been used to uncover underlying issues of trust, lack of ownership, and the perceived lack of decision-making authority and participation. Hence, what remains is a “seed” or a suggestion for how this may be improved. The first element which arguably has room for improvement is representation of different actors and balancing different interests at different governance levels. A suggestion which was brought up in the Parliament concerned a shift to independent professional committees (Standing Committee on Climate & The Environment, 2020). In the first carnivore agreement it was emphasised that governance should be carried out in a way which enhanced trust among the local communities and the local authorities (Norwegian Ministry of Climate and Environment, 2004). This was the foundation to why regional committees were implemented in the first place – to enhance participation and resolve conflict.

Although the conflict remains even after the implementation of the CMCs, it may be unwise to remove them *for the time being*. The committees are made up of democratically elected politicians (Norwegian Ministry of Climate and Environment, 2020b) and the removal of them may be perceived as the mere opposite of participation – thus creating more dismay and trust issues on a local level. Without the CMCs, agrarian actors are left with only the environmental authorities, and where the main agricultural actor (MAF) participates in a meeting only twice a

year (Office of the Auditor General of Norway [Riksrevisjonen], 2019) Therefore, involvement and more precise policy formulation from the MAF is arguably the most crucial element which must be improved, and this should arguably be emphasised before the committees are tackled. One may say that the MAF should have equal normative power and be able to influence the knowledge foundation which the policy is built on.

The second element which has room for improvement is the participatory approach itself. One suggestion to help resolve the conflict is the adaptation of a more inclusive participatory approach, where participation is enhanced in all different processes of policy creation and implementation, as a means of creating common institutions. This is similar to the described in the cultural institutional participatory development approach as outlined by Cleaver (1999) and Vedeld (2017). However, believing that a change in the participatory approach alone is enough to solve the conflict, is arguably founded in a utopian view of participation. This view of participation as something that is exclusively beneficial, is often referred to as “The Tyranny of Participation” (Cleaver, 1999). In line with the notion of political ecology, one can argue that this approach and argument is highly apolitical and also conventional (Vedeld, 2017).

Indeed, even if participation is included at all stages of the policy formulation, there are no guarantees as to whether this will help alleviate the conflicts. In fact, common institution building may prove difficult when the two interests are based on such fundamentally different knowledge systems, and when the notion of successful outcomes range from “having no carnivores at all” to “having way more carnivores”. This is an indicator of just how different perceptions actors may have, and we shall return to this in conference with objective three.

5.3.2 Accountability

Accountability in governance is the principle used to evaluate whether decision makers fulfil their obligations as a democratic institution – meaning, whether they fulfil the obligations they have made to their voters and to other actors (Vatn, 2015). Several of the elements outlined in this research have implications for accountability, including the lack of neutrality, and the perceived use of party politics both in the CMCs and the Ministry. With regards to this, one respondent noted that “*The Ministry [of Climate and Environment] has systematically been in conflict with the majority agreement in the Storting on how carnivores should be managed*”. Another respondent noted that “*The ministry is highly political. We notice that they are very*

restrictive with regards to taking out carnivores. They are supposed to follow the legislation, yet they keep coming up with new explanations and reasons [to why we can't cull wolves]”.

Many respondents were also wary of the accountability of the CMCs to the Ministry, and how the committees (mis)used their mandate. This issue concerned “both sides” and it appeared as if the committee members were aware of this. One committee member interviewed for this research noted that *“We are not neutral. I try my best, but I know that I have colleagues who don't share my opinions”*. Another respondent said *“Recently, the Green Party [committee members] voted against licensed culling both within and outside of the wolf zone, and when they vote against culling outside of the wolf zone – which is prioritised for grazing – that means that they don't consider the carnivore policies decided by the government.”*

These issues of accountability do not only concern the different actors' responsibility to each other, it also entails these actors' responsibility to the public. Both the Parliament, and the committees which are responsible for implementing the policy, are democratically elected politicians (Norwegian Ministry of Climate and Environment, 2020b). Hence, these actors have a responsibility to the people who have elected them. There may, however, be a discrepancy between the accountability to the law (and other actors), and the accountability to voters.

The committees are supposed to be neutral, and thus, their responsibility to their voters should not inflict carnivore management – yet as noted, these committees are clearly *not neutral*, and hence, there might be a discrepancy. This is also influenced by party politics, and issues may arise if members from very prominent parties in the committees, as their party politics are seemingly incongruent with the carnivore policy targets. It may therefore be difficult to confer to both the policy, and pressures from voters and interest organisations.

Nevertheless, it would be highly apolitical to blame this only on party politics. Pressures for civil society may just as well be the reason why CMC members act outside their mandate. This may be particularly so in regions where the level of conflict is high. One respondent noted that there was a *“(…) will and a pressure that we should be even more offensive in our decisions on taking out carnivores.”* The respondent noted that there was a pressure to take out even more carnivores, even though this respondent noted that they had been *“quite offensive [in taking out wolves] this season.”* Given this, and the committees self-proclaimed role as intermediaries between the agricultural sector and the carnivores (Krange et al., 2016), it appears that the

committees may have issues in trying to be accountable to both the voters, and to the policy target. This will arguably depend upon each actor's interpretation of policy targets, and the level of pressure there is from each particular community.

5.3.3. Transparency

Transparency in the process relates to how information is made available to actors in the governance system, and to the civil society in general (Vatn, 2015). Two themes were recurring among the respondents: i) amount of information made available, and ii) the timing of when information is made available.

5.3.3.1 Amount of Information

With regards to the amount of information, this concern was different among the different respondents. One respondent with relation to the CGO was worried about how the information came across and found difficulty in trying to explain the rationale for why the policy is formulated the way it is. *“This understanding of how nature functions is actually quite advanced. It is difficult trying to explain it in an understandable way.”* And *“You might be perceived as arrogant whenever you try to explain how things are interlinked. You can be perceived as condescending quite quickly – at least, those who listen may perceive you as condescending.”* In line with this, several respondents from the committees expressed that the amount of paperwork and case documents were excessive. One respondent said that *“the number of policies, laws and paperwork is so vast”* and *“sometimes the language is a bit difficult, so I find it challenging”*.

This arguably has implications for transparency. Transparency concerns *how* the information is made available to the receiver and the general public, including the level of difficulty and the channels used to distribute it (Vatn, 2015). As the respondent above describes, the sheer amount of information is overwhelming. There is a vast number of legal rules to confer to, and the case documents are often extensive. Finding the time to process the information might be challenging, as the majority of CMC members are “lay people” and have other obligations, other offices, and external work beside the committee. Nevertheless, as the first citation suggests – it is easier said than done to present the “right amount” of information as wolf conservation is a complex topic.

5.2.5.2. Timing of Information

The other element which was noted by the respondents was *when information was made available*. One respondent noted that “*all the bad news – the review and changes of regional decisions are made public around the 23 of December, right before Christmas. And there is obviously a strategy behind it. There will be less debates when it is published on the last day before Christmas*”.

This perceived withholding of information from the authorities is obviously conflictual, and the information the respondent cited above refers to, is the final decision culling licences after the round of appeals. The committees make their decision on the number of culling licenses during fall, and as appeals are seemingly unavoidable (Miljøvedtakregisteret, 2020), the case is eventually handed over to the MCE. The Ministry awaits final population numbers (from Rovdata) and recommendations from the NEA before they make their decision on the total number of culling licenses. The final decision for culling *outside* the wolf zone is typically published late November (Norwegian Ministry of Climate and Environment, 2020a), whereas decisions for inside the wolf zone – the most conflictual one – is published late December, around Christmas time. Last year, the final decision was not available until midday December 31st, and the licensed culling period was scheduled to begin January 1st (Norwegian Ministry of Climate and Environment, 2019).

Based on findings from this research only, one cannot argue or state that this timing of information from the MCE is intentional. Nevertheless, if actors in the governance system and in civil society perceive that the Ministry is withholding information, this has implications for trust and legitimacy – regardless of whether the authorities have intendedly withheld information or not. Transparency does also entail that actors follow what can be described as “good conduct” of democratic ruling (Vatn, 2015). Although there is no foundation to argue that the government has “broken” this code of conduct and withheld information, or intentionally stalled the process – several groups in civil society perceive it to be so (Lien, 2020, 14:10-14:20). Publishing the processed complaint only *hours* before the limited licensed culling period within the wolf zone is scheduled to begin is undoubtedly a driver for conflict and creates more distrust towards the Ministry from civil society. Nevertheless, the belief that the MCE might be “withholding information” is likely rooted in the conglomerate of reasons previously outlined – not just the timing of information.

5.3.4 Summary

Input legitimacy concerns several different elements, including participation, transparency and accountability. In the governance system of wolves, there appears to be issues linked to all three, thus impeding legitimacy. With regards to the first element, *participation*, the governance model is built on a regional decision-making model, with CMCs in charge of decisions. However, de facto decision-making authority is always moved to the MCE. This has implications for legitimacy, as local actors are often left with the feeling of “not having a say” in matters which concern their daily lived.

With regards to *accountability*, different actors in the governance system are accountable to the law, to other actors, and some are even accountable to their voters. When their interests are incongruent with policy targets, there appears to be a tension between role and interest – this is particularly prominent for CMCs who are elected politicians (Krange et al., 2016).

The third element, *transparency*, concerns how information is shared in the governance system. With regards to this, it appears as if information is often too vast, and some actors struggle to keep up. Furthermore, information is often shared at inconvenient occasions, and by some, this is perceived as a means to adjourn activities relating to wolf hunting. Although this may not be intentional from the authority’s side, the late disclosure of information is conflictual, where trust and legitimacy appear to be trade-offs.

5.4 Output Legitimacy

This thesis aims at uncovering conflict drivers in the governance system of wolves. Until now, the governance system itself has been the main subject of investigation, though one other element is essential in understanding the conflict – *the outcomes* of the governance system. The following sections will therefore assess the governance outcomes and discuss them in line with criteria of *output legitimacy*. Two new assessment criteria will be applied – distributive justice (section 5.4.1) and policy effectiveness (section 5.4.2). The aim of the following sections is to uncover important elements which may explain why some might perceive the policy as illegitimate.

Like the last objective, a major part of the discussions in the following sections are based upon the empirical findings. Nevertheless, as the thesis seeks to discuss distributional effects and policy outcomes, additional information on policy outcomes was considered useful. This information is largely based upon the 2016 and 2018 NIBIO reports by Strand et al, concerning the food production within the wolf zone, and consequences for grazing activities. Furthermore, some elements from the research by Krange and Skogen (2018) at NINA concerning attitudes towards wolves are also used to triangulate for the responses given by the respondents interviewed for this research.

5.4.1. Distributive Justice

Distributive justice is a criterion which concerns rights, justice, and distribution. More specifically, it concerns distribution of benefits and costs related to a particular activity, or in society as a whole (Vatn, 2015). The outcomes which are presented are based upon concerns raised respondents in the interviews. However, in order to discuss these outcomes thoroughly, the discussion is supplemented with material from reports developed by Strand et al (2016; 2018) at NIBIO.

The discussion will emphasise outcomes for *economic actors*. These outcomes are often founded in physical-property and rights-based issues, which makes them easier to evaluate than concerns in civil society (including for instance local communities). This does not by any means suggest that consequences in civil society, such as fear, are not valid and important – these elements will simply not be touched upon in this particular research. This is mainly due to how feelings, such as fear or simply disliking the wolf, are subjective perspectives, and this research has not retrieved such information from the respondents.

As described in chapter three, criteria such as “fair” and “just” are highly subjective, and in order to discuss this, one will require a framework. Therefore, the discussion is based upon different principles of justice outlined by Vatn (2015). Four such principles were outlined in chapter three, and these are also depicted in Table 1.

Table 1: Different principles of justice. Based on principles described by Vatn (2015).

Principle	Rationale
Strict egalitarianism	Each individual should have the same level of material goods and services
Resource based principle	Each individual has access to the same resources. This implies equal opportunity
Welfare principle	Justice in distribution is ensured where social welfare is maximised, meaning, where the social costs equals the social benefits. Since we are discussing a “social welfare” function, this implies that externalities (third party consequences) are accounted for.
Desert-based principle	Each individual should be rewarded according to effort. Whether that be input of work input of capital, or loss.

5.4.1.1. Distributive outcomes within the Wolf Zone

Several respondents made remarks to how the governance system of wolves’ impact different actors. The most important responses concerned farmers and landowners within the wolf zone, as these appears to have received the lion’s share of the consequences (Strand et al., 2016). The 2011 carnivore agreement emphasises the importance of regional management, respect for property rights, and individual and communities’ quality of life (The Norwegian Parliament, 2011). Nevertheless, the respondents expressed that this was not the case. Respondents, regardless of their role in governance, said things such as “*it is challenging for the farmers and the local communities in the PCZs.*” And “*Those who live within the wolf zone find it very unfair. Suddenly they are living within a wolf reserve*”

These remarks capture the essence of the conflict within the wolf zone – that a small number of people are now suffering from the consequences stemming from the wolf population rebound that people *elsewhere* have pushed for. These consequences do, however, materialise in different ways for different actors within the wolf zone, and they largely depend on geographic location (Strand et al., 2018). As the figure below depicts (Fig. 13) the distribution of wolves is not even, hence the findings and discussion below will try to display the differences within the wolf zone and use this as a means to explain the distributive effects.

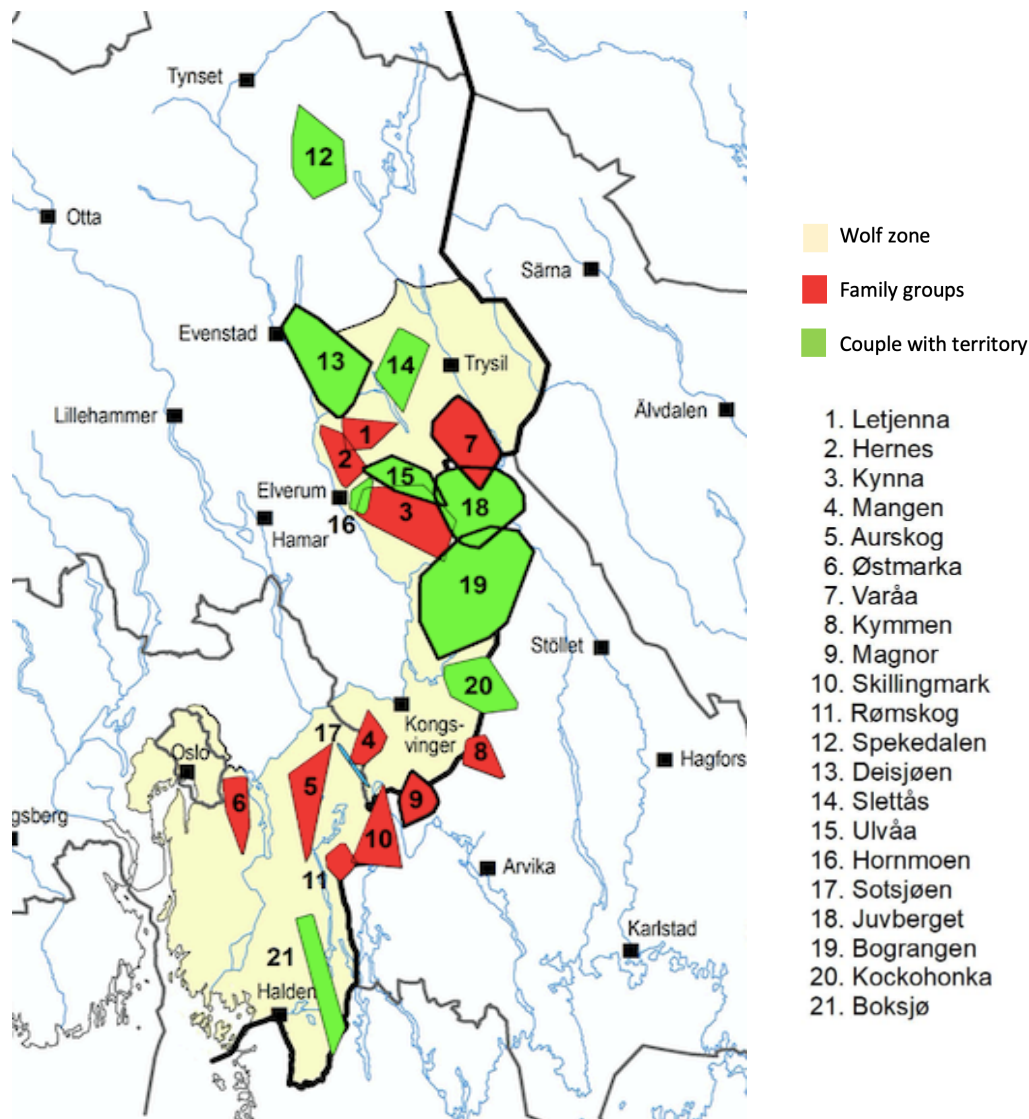


Figure 13: Wolf territories in Norway (2019-2020). Green territories represent couples, whereas red areas represent family groups. Letjenna (1) was however removed during licensed culling early 2020. Map retrieved from Rovdata (2020c).

5.4.1.2 Distributional effects for livestock holders (within the wolf zone)

The consequences differ for the various actors within the wolf zone. With regards to livestock holders there is now an aversion to use the outfield for grazing activities. As one respondent said, “The suffering from wolf attacks is so vast”. And “so many sheep are taken.” These losses are not only a tragedy in themselves, they also constitute economic and psychological repercussions.

First of all, this represents an economic loss for the farmers who endure this. Although losses are compensated (section 5.1.1.2), these compensation schemes are not always sufficient, and

farmers often have to cover the costs of predation themselves (Norwegian Ministry of Agriculture and Food, 2012). In fact, predation is only compensated if several conditions are fulfilled, including immediate examination of the cadaver – which is often impossible when the animals are in the outfield (Norwegian Ministry of Agriculture and Food, 2012). Consequently, farmers now refrain from pastoral herding in the outfield (Hansen et al., 2019), and they are unable to use their *grazing right* in the outfield.

The grazing right is a *usufruct right*, which livestock keepers hold by law (The Grazing Act, 1962). Therefore, the inability to use the outfield resources is not only an economic loss, it is also a loss of rights, which could be detrimental for the farmers ability to maintain his or her livelihood. As Strand et al. (2018) notes, not all farmers have the ability to keep animals closer to the farm all year round, as there are additional economic costs tied to feed, surveillance, and maintenance. Not being able to exploit the outfield could therefore be “the final nail in the coffin” for many farmers and impede their capacity to carry on with livestock keeping as their livelihoods (Strand et al., 2018). This entails a loss of traditions, heritage, sense of belonging tied to the farm, and a loss in livelihood (Strand et al., 2018). These are intangible values, which according to Vedeld, Krogh and Vatn (2003) are integrated in the farmers identity. Such loss cannot be compensated and may be perceived as highly personal and *unjust*.

The reason why these consequences are perceived as unjust, may be linked to their *distribution*. In fact, these consequences are more prominent in areas closer to wolf territories, which entails that the north-eastern part of the wolf zone is receiving the lion’s share of the consequences (Fig. 13). This corresponds with the findings presented earlier (section 5.1.5.2) stating that the number of sheep left in the outfield have decreased from nearly 12.000 to < 2.500 in these areas (Strand et al., 2018). When farmers who endure these consequences are not sufficiently compensated, this goes against principles of *strict egalitarianism* which suggests equal distribution, and it goes against resource-based principles which suggests *equal opportunity* for all.

There are, however, different principles of justice which may support other arguments, including the welfare-based principle of justice. As noted, this principle emphasises the “welfare of society at large”, and justice is found where social welfare is maximised (Vatn, 2015). Looking at the country as a whole, the majority of the population are positive towards the wolf (Krange and Skogen, 2018). One can therefore argue that the wolf is a necessary

resource to “meet the wishes for society at large”. Yet, the social welfare principle entails that externalities (third party consequences) are accounted for and that benefits derived should compensate the costs (Vatn, 2015). It appears unlikely that the benefits of wolf conservation will surpass the consequences, and furthermore, farmers are not sufficiently compensated (Norwegian Ministry of Agriculture and Food, 2012). Hence, it does not appear “just” at all.

On the contrary, there is another argument which is arguably founded on welfare-based principles. This argument concerns how there is an overproduction of sheep in Norway, and consequently, a need to downscale the sector. In 2018 the overproduction of sheep- and lambs meat was so vast, that *1.000 tons* of sheep and lambs meat were used for feed in the fur farming industry (The Norwegian Government, 2018). In comparison, 2.600 sheep and lamb were compensated for following wolf predation in 2019 (Environment Agency, 2020d), and of these, only 400 was documented as “surely taken by wolves” (Environment Agency, 2020c). Hence, the *overproduction* greatly surpassed the losses to wolves, and this raises questions to whether the grazing activities even *should be* maintained at their current level. The sustainability of these activities is questionable, and one can dwell on whether the downscaling within the wolf zone is concerning or not. Nevertheless, one must also remember that this challenge is a nationwide concern – whereas the wolf related consequences are limited to people who live in its proximity. Thus, there are concerns with regards to distributive justice, even when applying welfare-based principles of justice.

5.4.1.3 Distributive effects for Landowners

As noted earlier, landowners and forestry NGOs have been particularly involved in the wolf debate. The term “landowner” encompasses a wide range of different stakeholders. It includes farmers, forest owners, private property companies and state property companies to name a few. This section will focus on *private property landowners*, which have their income on forestry, hunting, or other activities which are directly linked to the property. This delimitation is necessary in order to explain and discuss the distributive effects for these specific actors.

These actors have been heavily involved in the debate, and this seemingly relates to how landowners are not compensated for losses in game, or other income-generating activities on their property (Dalen, 2017). Several respondents also mentioned these actors and said things

such as “*There are a lot of hunters who want to take out more wolves.*” And “*Wolf advocates try to trivialise the challenge that those who try to make a living off of nature meets [...] It impacts hunting grounds, and we can no longer use dogs when hunting.*”

As noted in section 5.1.2.2, landowners are not entitled to compensation through rights or ownership to resources – they don’t inherently own the wildlife, and therefore, they cannot legally claim compensation. Nevertheless, this constitutes an issue with regards to distributive justice because, similarly to livestock holders, landowners *within the wolf zone* are the ones who are left with the costs (Strand et al., 2018). As previously noted, these costs are linked to both hunting efforts (meat), and also to supplementary services such as cabin rentals, lease of equipment and so on (Strand et al., 2018). In order to discuss these outcomes, it may be relevant to “put them on scale” and look at the historical development of elk hunting alongside the reestablishment of the wolf population.

The Norwegian elk population is currently at a historic high. From 1890 and all the way up until 1970, annual hunting quotas averaged at around 3.000 – 5.000 (Statistics Norway, 2020c). In comparison, annual hunting quotas today average at around 30.000 – 40.000. Of these, approximately 7.000 elks are culled within proximity to the wolf zone, meaning, within the (old) counties Østfold, Akershus, and Hedmark (Statistics Norway, 2020c). Since the wolf received its status as protected in 1971, the number of culled elks in Hedmark (as a whole) have bounced up from around 2500 to between 6000-7000 annually. This is likely a result of new and improved hunting laws, and a more cautious management of the elk population. Even after the wolf zone was established in 2004, the number of annual hunting quotas have been relatively stable and averaged at around 8.000 (Statistics Norway, 2020b). It is not until the last few years that this has been subject to change.

The past few years, both quotas and culled elks have averaged at 6.000 (Statistics Norway, 2020a). This is likely a result of several factors, including the wolf, which is now more abundant than before. A study by Zimmermann et al. (2015) found that a wolf may consume up to 140 elks annually, and this naturally influences the quotas. As the wolf territories are unevenly distributed across the county it is likely that different landowners may experience differences in an income fall, where some have a larger income loss than others (Strand et al., 2016).

In the White Paper to the Parliament number 21 (2015-2016), the Government acknowledges that wolves may have *local consequences* for elk populations. Despite this acknowledgement, these consequences are not compensated for. The Government argues that optimising hunting strategies for a maximum population growth is possible – and followingly, compensation is not necessary. Such optimisation can be achieved through targeting male elks during hunting and sparing mature elk cows. This ensures a surplus of productive females, which may increase the productivity of the local population, and maintain the current elk population level despite the presence of wolves (Norwegian Ministry of Climate and Environment, 2016a). Overall, the Government argues that wolf conservation, biodiversity concerns, and grazing activities should be weighted more than local conflicts and hunting interests (Norwegian Ministry of Climate and Environment, 2016a).

One can discuss these outcomes in conference with several principles of justice. On the one hand, you have strict egalitarianism and resource-based principles which would not favour compensation for landowners. Strict egalitarianism entails that each individual should have access to the same level of material goods and services (Vatn, 2015), and with regards to this principle, one can argue whether landowners would be entitled to compensation, as the majority of landowners appear to be far from “marginalised” (Byermoen and Nervik, 2012). Resource-based principles of justice entails that each individual has access to the same resources (Vatn, 2015). This implies equal opportunity, and in line with the conflict we are discussing here, this principle to justice would not be in favour of compensation to landowners, but rather compare to that outlined in strict egalitarianism.

On the other hand, there are principles such as the desert-based principle to justice. This entails that each individual should be rewarded according to effort, whether that be work or capital input (Vatn, 2015). Each individual which is subject to income loss should therefore be compensated – including landowners. However, this principle is highly utopian. If one were to be rewarded only for effort or input of capital, it arguably takes away risks which follow any investment. One could for instance argue that farmers would be entitled to compensation for every sheep lost – even if the loss is caused by “normal” risks these animals are subject to in the outfield, for instance disease and drowning.

In line with both rights and (these principles of) justice, it is hence reasonable to argue that landowners are not *entitled* to compensation. With regards to rights, the wildlife (and elk) does

not inherently belong to landowners, and there is consequently no legal foundation for compensation. With regards to justice, one can question whether it is the State's duty to compensate landowners who likely are well off, regardless of the loss in income following predation. This comes down to one's subjective perspective of what is "right" and "just" and is likely to be influenced by political and ideological stance. Even through the lens of political ecology, one may find difficulty in arguing that landowners are "marginalised" following the wolf conservation efforts.

The State could of course compensate the losses, as a means to reduce or resolve conflict – regardless of what the landowners are *entitled* to. Yet, the Government stated in White Paper number 21 (2015-2016) that wolf conservation, biodiversity concerns, and grazing activities should be weighted more than local conflicts and hunting interests (Norwegian Ministry of Climate and Environment, 2016a). Moreover, even if the state did choose to compensate – this would likely yield an "unfair" outcome, given the complex rights to game. As wildlife move across property borders it would be near impossible to determine who has the right to compensation, and when this compensation should be provided. If some landowners receive compensation for losses which are inherently "natural", one could also question what other compensatory measures must be taken, for instance compensation for game which is run over annually. This number is also significant, where 1500 elks are killed by either trains or cars each year (Statistics Norway, 2020d).

5.4.1.3 Distributional effects for livestock holders (outside the wolf zone)

In spite of how the major bundle of negative outcomes is centred within the wolf zone, these outcomes are by no means confined to this area. As of fact, wolves are striding animals, and consequences may thus appear wherever the wolves' roam. Given the selection criteria (chapter four), region three was particularly relevant, as farmers in this region experiences losses to wolves each year, even though it is "outside of the zone".

With regards to this, one respondent noted that there might be more reluctance towards the conflict resolving funds (CRFs) in regions outside of the wolf zone. These funds are delegated to finance means to separate livestock in space and time, however, these are often implemented at the expense of farmers. For instance, carnivore fences are strictly regulated, and must follow specific standards in order for the farmer to qualify for funding (Hansen, 2018). Other means,

such as early retrieval entails a loss in the usufruct rights, which may be perceived as highly “unfair” particularly in regions where grazing is meant to be prioritised. One respondent said *“I believe that this [instruments to separate livestock and carnivores] may meet more opposition in region 3. This is probably principled resistance from the [livestock] industry, as the early retrieval makes you unable to utilise the full potential of the outfield resources. It can be perceived as if you are robbed of your right to use the outfield.”*

Given the historical, cultural, and not least economic importance of the grazing right, early retrieval or inability to expropriate the resource can be perceived as an undermining of this right and these traditions, in favour of the wolf. As noted above, this may be particularly conflictual in regions outside of the wolf zone – as grazing activities are meant to have higher priority. If these activities are restrained due to the carnivores, then farmers lose the priority which the zoning principle entitles them with. It may thus have similar implications for legitimacy, and perceived notions of justice as within the wolf zone, even if the consequences are of a smaller extent.

Nevertheless, unlike predation within the wolf zone, predation outside the wolf zone is not decreasing. Indeed, the last few years both separation of livestock and carnivores in the wolf zone, and fewer animals in the outfield have largely reduced the predation within regions 4 and 5 (Environment Agency, 2020d). However, reluctance towards “changing operations” have not yielded the same reduction in region three. On the contrary, regions outside of the wolf zone are now experiencing the vast majority of losses (Fig. 14).

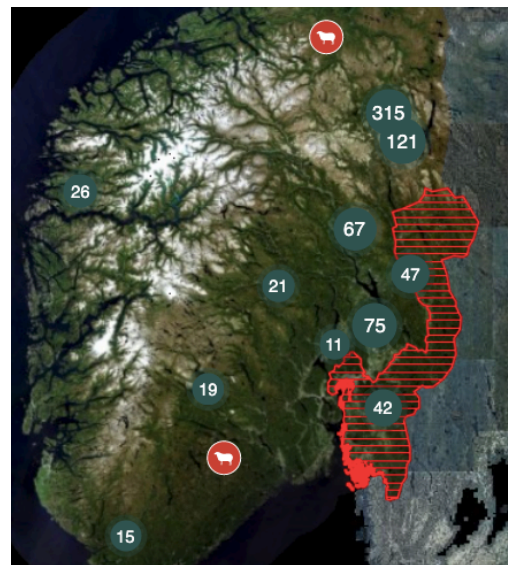


Figure 14: Wolf predation on sheep (2017 -2019).

This has raised questions as to whether the wolf zone should be expanded. With regards to this, one respondent said *“The consequences are so vast for those living in the wolf zone. It is difficult to say that we now want to spread this to the country as a whole.”* And another respondent said *“I am a bit sceptical to expanding it [the wolf zone], as the authorities show very little willingness to help regulate the population. It will only lead to the same problems in an even*

larger area.” Hence, there is seemingly reluctance to expand the area. This is no wonder given how the respondents perceive that they are not heard, the perception that the MCE is neglecting its responsibility in maintaining the second policy target. This brings us to the last criterion of output legitimacy – policy effectiveness.

5.4.2 Policy Effectiveness

Policy effectiveness is by Vatn (2015) defined as the governance systems ability to achieve its targets. As the carnivore policy has a two folded target, policy effectiveness relates to the level of achievement for both of these targets. Nevertheless, there are also three additional elements which constitute policy effectiveness: 1) compensating the “losers”; 2) targeting the correct resources; and 3) avoiding leakages. Before these criteria are discussed, it is relevant to look at the overall policy target achievement for the two-folded targets, and not least, how the respondents perceived the effectiveness of the policy, and the compatibility of the different targets.

With regards to the conservation target, the main “indicator” of policy achievement is the population target (4-6 annual litters). In addition to this, one may look at the sustainability of the population, here referring to its chance of long-term survival. As noted in section 5.1.5.1. the wolf population is now slightly above the population target of 4-6 litters, something which arguably indicates “target achievement”. However, the genetic diversity within the population is critical (Rovdata, 2020a), and this may pose a risk for the population’s survival in the long run. One respondent noted that *“We should have higher targets, in order to ensure sustainable and ecological management, and confer with the Nature Diversity Act on the sections on sustainable management for genetic survival.”* Thus, implying that the population target is incompatible with sustainable and ecological management.

With regards to the second target, several respondents were critical to whether this target was compatible with conservation of wolves. One respondent said *“We have a carnivore policy which says that we should have wolves, yet we should also have livestock in the outfield. This has proven unrealistic.”* And another respondent said, *“it is so obvious with the wolves, that the two folded targets are not compatible”*

In order to discuss whether these two targets are incompatible or not, one can use the three criteria of policy effectiveness. For this thesis, the first and last criteria are particularly relevant. The arguments are here founded in the outcomes discussed throughout this chapter (Sections 5.1.5.1. – 5.1.5.3, and section 5.4.1).

With regards to the first criterion “*compensating losers*” the previous sections on distributional effects are indicators of how this is not achieved. The “losers” in this case, are undoubtedly the farmers within the zone. They are experiencing the lion’s share of the consequences from wolf conservation, and they are not sufficiently compensated (Strand et al., 2016; 2018). Although compensation schemes and funds for (predation) preventative measures are available, there appears to be reluctance towards these, and many now refrain from pastoral herding and farming altogether (Strand et al, 2018). Intangible values, such as heritage and culture are also at stake, and these losses cannot be compensated for (Strand et al, 2018).

The other criterion of importance is “avoiding leakage” and also here, there appears to be some concerns. In line with what was discussed in section 5.4.1.3, the consequences which previously accrued in the wolf zone, are not spreading to other areas, and particularly region three (Rovbase, 2020). As the zoning approach aimed to confine the conflict to a smaller area, one can therefore argue that this “leakage” is sign of an inefficient policy.

In spite of this, there are several arguments which may support the view that this policy is successful. This seemingly depends upon the scope of which one chooses to evaluate the policy outcomes. For instance, on a national basis, one may argue that the policy is successful – the conflict is confined to a rather small area, with some leakage into nearby regions. National food production is also sustained, and grazing activities are stable on a national basis despite carnivore pressure in some regions (Strand et al., 2016; 2018). If one “zooms in”, the picture is entirely different – as described throughout this chapter, the consequences are vast, and it impacts farmers, landowners, and local communities. The outfield resources can no longer be exploited like they used to, and a large fraction of farmers are forced to change operations or refrain from farming altogether (Hansen et al., 2019; Strand, et al., 2018).

Hence, it appears that even policy effectiveness is not a completely universal criterion. This perceivably “objective” criterion can be interpreted differently based on subjective notions, and different actors may therefore have different perspectives on whether the policy achieves its

overall targets. These subjective interpretations are thus of high relevance in this thesis, and this is also the reason why objective three seeks to tackle this element specifically. The remaining sections of this chapter will therefore be devoted to discussing these subjective notions – the different discourses – among the respondents and actors in the governance system of wolves.

5.4.3 Summary

Output legitimacy concerns “legitimacy in the outcomes” and in the preceding sections, two criteria have been used to assess this – *distributive justice* and *policy effectiveness*. With regards to distributive justice, there appears to be several issues. First and foremost, the uneven distribution of costs. This is seemingly a consequence of the zoning approach which aims to confine the conflict to one specific area (Norwegian Ministry of Climate and Environment, 2004). When the inhabitants in the area are not compensated properly, they experience this as “unfair” and “unjust”, especially farmers. With regards to how farmers have lost their rights to use the outfield, these feelings appear to be completely warranted. In fact, as the zoning principle is founded in a governmental decision, it is no wonder how farmers within the wolf zone perceive this as a “robbery of rights” and often tend to distrust the authorities (Krange et al., 2018).

The second criterion, policy effectiveness, is also related to this. One of the elements which constitute policy effectiveness is “*ability to compensate the losers*” (Vatn, 2015 p. 224), and thus, one may say that the policy is currently ineffective. Nevertheless, with regards to overall policy achievement, the policy may actually be perceived as successful, but this entirely depends on subjective perspective and on which “scope” one perceives it.

Objective 3 – Different Discourses and Cleavages

The elements which have remained relevant throughout this entire chapter are the divergent perspectives on the wolf and on the different policy elements. This is arguably founded in something deeper than just “different interpretations” – it is arguably founded in *discourses*, and *cleavages*.

As outlined in chapter three, discourses refer to ensembles of ideas, perceptions and concepts, which constitute an individual’s understanding of the world (Grue, 2019). Cleavages, on the other hand, are long-standing social and economic divisions within society (Knutsen, 2017). Cleavages are constituted of different empirical, normative, and organisational elements, where the normative element represents a “collective identity” (Aardal, 1994). This research is not scoped to discuss or generalise elements such as a “collective identity” on a broader scale, and therefore, the following sections will emphasise the empirical and organisational elements of cleavages – meaning, the socio-economic and organisational differences which appears to be prominent in the wolf debate. Normative differences will in this thesis be discussed through the discourse concept and is used to reflect and discuss different notions and perspectives that are seemingly present among actors in the governance system.

The combination of these two concepts – cleavages and discourses – allow for a broader understanding of the wolf conflict. Elements from two different discourses – the conservation, and the sustainable-use discourse – are applied to understand the different perspectives on wolf conservation today, whereas cleavage theory is used to understand how socio-economic and institutional differences may influence the governance and provide a context to these discourses. First, the findings relating to both of these elements will be outlined, followed by a discussion on how they intertwine, and how they play out in the governance system.

5.5 Cleavages in the wolf conflict

A cleavage is a long-standing conflict with several dimensions (Aardal, 1994). There is an empirical element which relates to socio-economic differences, a normative element which refers to different perceptions and identities, and an organisational element, where different

organisations or political parties are formed based on the collective identity in the cleavage (Aardal, 1994).

5.5.1 Organisational Differences

The organisational element of a cleavage is the institutions in which the cleavage materialises (Aardal, 1994). Such institutions include both interest organisations and political parties, and these organisations are in many ways' physical representations of the normative and the empirical elements in the cleavage. Two particular types of organisations were remarked on – political parties and interest organisations. The various interest organisations have already been mentioned previously in this chapter (Section 5.1.2.3) and thus, this section will emphasise the political parties.

With regards to political parties, the respondents in this study kept referring to the “wing parties” in the conflict. In this context that refers to the parties who are on either side in environmental debates, and these do not necessarily equal the traditional “wing-parties” on either side of the political spectrum. These environmental wing-parties were perceived as particularly conflictual and they included The Centre Party (SP) and The Progressive Party (FrP) on the one side, and The Green Party (MDG), the Liberal (V), and the Socialist Left Party (SV) on the other side. One respondent who arguably can be described as a more moderate (from neither of the wing parties) made a remark on how members of these parties often had systematic differences in the governance. *“The Progressive party [FrP] for instance, who state that we can get rid of more animals, and the Centre Party [SP] definitely. These are the parties where the members want to take out more wolves than the administration”* and *“[the Green Party] think that we should not cull one single wolf.”*

When the respondents discussed actor's which they perceived to contribute to the conflicts, several respondents noted that these “wing-parties” were conflictual, as they arguably had benefits from having such a “radical” and clear stance in the conflict. One respondent noted that *“the parties on either “wing”, with their particular voters. They might be more concerned with fronting their views rather than finding a solution”* and *“I don't really see a motivation to solve the conflict among those on the wings, rather the opposite”* One respondent even noted a slight distrust towards the Ministry (of Climate and Environment), because the Ministry is run party which arguably belongs to the conservationist wing *“We may feel that those who sit*

within the Ministry [of Climate and Environment] now, may have a slightly different opinion on the issue, than what is stated in the carnivore agreement.” The Liberal party (V), which now holds the MCE, was according to the respondent more “carnivore friendly”.

These responses were not unanticipated. All of the parties mentioned have made themselves prominent in this and other environmental debates. One the one “wing” we have the Centre Party (SP). The Centre Party in Norway is known for trying to appeal to the “people” rather than the “elite” (Jupkås, 2019), and the majority of the voters are located in rural areas (NRK, 2019b). Among their heart matters is “decentralising Norway” (The Centre Party, 2020), and they undoubtedly appeal to a rural group, which favours decentralisation. Furthermore, this party and their voter group are also the most prominent opposers of wolves in Norway. The Green Party on the other hand, has gained support from the opposing group. Voters are mainly urban, centre-oriented individuals, and their support is more extensive in cities, and suburban municipalities (NRK, 2019a). Furthermore, the party aims to raise wolf population targets, and emphasises the importance of the population’s position in the Norwegian fauna (The Green Party, 2020).

What makes this division relevant, is arguably its apparent linkage with to the urban-rural, and the centre-periphery cleavages. One respondent noted that *“They [another CMR] are a lot more homogenous, and usually, this implies culling as many wolves as possible – and this attitude is homogenous across different parties. [...] Maybe we are more urban? Maybe we just don’t have the same first-hand experience with wolves as them?”* Arguably, this response captures the essence of what this thesis aims to uncover – the underlying differences which is often portrayed simply as “political association” when it rather relates to values, attitudes, and social differences. The political parties and other organisations merely capture these social and cultural differences and prolongates them. The next section will therefore encompass the *second* element in the cleavage – the socio-economic differences.

5.5.2. Empirical Differences – Centre-Periphery and Urban-Rural Cleavages

The empirical dimension of a cleavage is constituted by socio-economic differences between different groups. This may include differences in level of education, settlement, and socio-economic status to name a few. From the last section, two cleavages appear particularly relevant – the centre-periphery cleavage, and the urban-rural cleavage (Opdahl, 2017). In this particular

case, it appears as if these are largely coincided, and they manifest as a division between a rural group who typically favours decentralised governance, and an urban, centre-oriented group. Moreover, the urban group tend to favour the wolf, whereas the rural group tend to dislike it (Krange and Skogen, 2018).

Despite this apparent correlation, this thesis did not aim to uncover socio-economic *differences* among different respondents. It rather wanted to investigate the various attitudes among the respondents, and how socio-economic preconditions may influence the governance system. To avoid confirmation bias, it was never referred to these conflicts directly. Nevertheless, some respondents drew parallels to the urban-rural and the centre-periphery cleavages themselves. For instance, one respondent said, *“The wolf debate is one of only a few conflicts where attitudes are divided 50/50, and it is also related to the urban-rural [conflict]”* Whereas another respondent noted that *“The wolf has become the metaphor for rural Norway, the grazing industry, and the possibly marginalised small-scale farmers. It is a metaphor for the negative development trend, much more than it is a real problem”* and that it relates to *“The way it’s portrayed – that it threatens the industry, grazing activities and the survival of farmers. And that it ravages rural Norway”*

However, the majority of the respondents, did not refer to this division directly, but expressed attitudes and experiences which arguably relates to such groupings in society. When the respondents were asked whether they had experienced stigmatisation, two respondents expressed that they were perceived as *“environmental bureaucrats”*. One of the respondents said, *“One version from the Centre Party is a “caffè latte drinker” or an environmental bureaucrat from inside of Ring Three [Referring to Oslo city centre]”*. Whereas the other respondent said *“some may perceive that we are a bit remote from the realities that people experience. That we are “desk people” or “bureaucrats” that hatch our own plans”*. This is arguably a sign of how respondents were subject to stigma based socio-economic differences such as higher education or settlement.

The notion of “remote control” that the respondent cited above noted, is an important element. The foundation of the centre periphery conflict concerns *where* governance is carried out, and by *who* (Opdahl, 2017). In this research, there were different opinions on this, and particularly with regards to the suggestion of “professional committees” which was suggested by the Parliament earlier this year (Standing Committee on Climate & The Environment, 2020). One

the one hand, one respondent noted that “[...] *this is such a conflictual topic, so maybe it should be taken care of by professionals.*” On the other hand, other respondents said “[...] *If you have a professional committee, it is remote and far away from the local communities*”. And “*I don’t think the conflict would be less tense if the governance was carried out by professionals. It would likely increase the distance between theory and practice*”.

“Being remote” and “lacking experience” are two sides of the same coin, and these are both arguments which are typically found in both the urban-rural and the centre-periphery conflict. The centre-oriented group tend to favour “scientific knowledge” and education, the rural group emphasise “experience and traditions” (Vedeld, 2002). These are of course generalised attitudes, yet they are to some extent present in the governance system. Several respondents stated that being close to the conflict and experiencing the consequences of it was essential. One respondent noted that “*They [the local communities] feel like they don’t have a say, and that they are not considered. Maybe that is a sign that too many people with no relation to the conflict are governing this*”. The same respondent also expressed dismay to how the different CMCs within the wolf zone (four and five) had different perceptions on how governance should be carried out and attributed this to lack of experience.

“They [the other CMC] have a variety of different attitudes within the committee. And I guess that is part of the danger and challenge with the regional committees, is that those who live close to this, and feel the consequences, whereas those who live in Oslo and the bigger cities don’t experience this the same way as us”

On the one hand, one may argue that this statement captures the essence of why this conflict fits so well into the “urban-rural” division – the consequences are largely divided by this same “urban-rural” cleavage, where the consequences and challenges related to wolves are concentrated in rural areas, and within the wolf zone particularly (Strand et al., 2016; 2018). Thus, people in rural areas are more negative towards the wolf, whereas people who don’t *experience the consequences* are more positive. On the other hand, there are arguments which rather portrays the wolf conflict as “symbolic” and states that the conflict is founded in cleavages only. As one respondent noted:

“There are just as many hateful proclaims against the wolf in Nordland, Vestland and Telemark [counties], where they don’t have issues with wolves at all. Whenever there

are demonstrations in front of the Parliament [Stortinget], busloads of people from Vestland [county] arrive to participate, where they don't have issues with wolves [...]".

Hence, it is apparent that there are different perceptions, also on the wolf conflict itself, and different interpretations of why the conflict has arisen. This will be discussed further in the next system, concerning discourses.

5.6 Discourses in the Wolf Conflicts

Discourses refer to ensembles of ideas, perceptions and concepts, as well as the social institutions that enable individuals to understand the world in a particular way (Grue, 2019). Nevertheless, discourses are not "individual" perspectives, they are largely social institutions which allow us to understand the world in a particular way, and which is often common within disciplines or in different groups. In many ways, one may argue that discourses simulate the "normative basis" in the cleavage, yet in this thesis, discourse term will be applied as something separate.

In the context of this research, two main discourses appear to be present –the conservation discourse and the sustainable use discourse. This section will discuss the two and reflect on how they impact the governance system of wolves. In order to outline the differences, the arguments and statements which appear to have direct relation to either the conservation discourse (section 5.6.1), or the sustainable-use discourse (section 5.6.2) will be outlined. After this section, the main discussion and comparison of the two will be presented. Lastly, a discussion on how these discourses may relate to the cleavage theory, and the implications of these discourses will be presented.

5.6.1 Conservation Discourse

The conservation discourse emphasises the importance of conserving nature, and provides a rationale for conservation actions and reintroduction of carnivores (Soulé and Noss, 1998). The conservation discourse with its ecological disciplines does in many ways appear to be the rationale for wolf protection in Norway.

In fact, several elements in the governance system of wolves can be linked to the conservation discourse. First and foremost, the policy's origin. Indeed, the wolf and other carnivores were near eradicated from the Norwegian fauna at the beginning of the 1900s, because the government prioritised agricultural interests (Richardsen, 2012). When the third conservation movement rushed through western world in the 70s (O'Riordan, 1971), carnivores regained attention, and several species, including the wolf, gained status as a protected (Norwegian Carnivore Visitors Centre, n.d.). Along with the emphasis on conservation came new approaches such as the ecosystem approach which emphasises the value of integrated ecosystems, which remains a vital part of the knowledge foundation today. The legal rules which dictate the governance system today, are arguably also founded in notions from the conservation discourse, as it defines nature as something scarce and hence, worthy of protection (Norwegian Ministry of Climate and Environment, 2019)

With regards to how the discourse comes into play in the conflict and the wolf debate, one must look at arguments and justifications which are supported by different actors. Several of these arguments were present. One respondent said, "*We should have higher [population] targets, in order to ensure sustainable and ecological management, and confer with the Nature Diversity Act on the sections on sustainable management for genetic survival*" Another argument related to the size of the PCZ, where the respondent said, "*We see that the prioritised carnivore areas are shrinking [...] the biological and ecological needs the carnivores have are set aside.*" This last argument arguably parallels the rewilding approach, where carnivores justify larger conserved areas (Soulé and Noss, 1998). Arguments from the opposing discourse – the sustainable-use discourse, provides completely different rationales to these same elements in the governance system.

5.6.2. Sustainable-use Discourse

Where the conservation discourse emphasises the protection of nature, the sustainable-use discourse emphasises the *use of nature*. This comes to show both through a critique of the conservation discourse, but also through different approaches to nature-use in itself. The most important "nature-user" in this context are the farmers, and thus, the sustainable-use discourse is here founded on notions from the good agronomy discourse outlined by Vedeld, Krogh, and Vatn (2003). The aim is here to display how these notions may diverge from the conservation discourse.

Vedeld, Krogh, and Vatn (2003) outline several elements which constitute “farmers identity” and their perception of “good agronomy” in Norway. Three elements which appears particularly relevant for this research are i) independence and self-reliance, where the farmers ability to uphold production is essential; ii) proprietorship, where the farm is the core of the production, and the farmer’s knowledge and competence is linked to the particular farm or type of farming; iii) management responsibility, which entails sustainable and efficient use of resources. In particular, this entails that resources should not be wasted, that the animal stock is productive, and not least, that the farm can be handed down to the next “proper successor”.

These particular elements are important as the outcomes of wolf governance appear to impede farmer’s ability to live by the principles they perceive as important to achieve “good agronomy”. One example is the inability to use the outfield resources which arguably relates to the management responsibility and use of resources. One respondent noted that *“more and more people keep their animals in smaller pads around their houses. This leads to less predations, but the outfield resources are not utilised”*. Another example is the perceived lack of willingness to adopt to new regulations, and use of predation preventing means, which arguably requires a shift in the farmers “way of farming” and the farmers proprietorship. One respondent said *“It requires so much inspection and maintenance of the [private] fences, that people can’t be bothered. There is so much resignation.”*

5.6.3. Main Differences in the Discourses

Elements from both discourses arguably come in to play in the governance system. The main difference was seen in how actors justify or argue against specific outcomes based on notions from either of these discourses. More often than not, these arguments were often founded in the “other side” and how one must compensate for the “extreme” attitude found in this other camp. Table 3 below is used to depict these differences. The aim of the table is not to pinpoint differences between different actors (respondents), but rather focus on the different perceptions which seemingly were present in the governance system. The table outlines elements from the interviews which arguably relate to one discourse or the other, and it is a means to compare and showcase just how different perceptions actors within the same governance system has to the very same elements of this system.

Table 3: Different discourses on different elements of the governance system. Quotes from interviews.

Topic	Sustainable-Use	Conservation
The wolf	“Some people believe that we shouldn’t have licenced culling outside the wolf zone, and that within the wolf zone, we shouldn’t confer with the population targets, but rather consider the wolf an endangered species [...]”	“[The wolf] is a threatened species which we have an international responsibility to protect.”
Weighing of interests	“There is an opposing force in the bureaucracy. That is why the committees have emphasised the importance of including agricultural actors in the governance, because everything related to the environmental protection laws is so heavily weighting the conservation side, whereas the use-side”	“In many of the committee’s decisions, only the [grazing] industry’s interests are weighted. [...] Every single proclaim relates to how we need to shoot more wolves to save the industry and the local communities”
Referral to Research	“Looking into how the use of the outfield recourses has changed, it’s quite alarming, NIBIO has a report on this”	“The committees have an extremely tendentious attitude towards one side of the two folded approach which only concerns the industry. This was also stated in the 2016 NINA evaluation, where many of the committee members claimed that the environmental organisations and the biologists have gotten their way through the Parliamentary decision [roviltforliket].”
Appellant hierarchy	“complaints are filed on every decision that we make. And people are doing this full time – finding reasons to why we shouldn’t take out animals or govern [the carnivore populations].”	“They are supposed to be an extension of the MCE on a local level, but they make the premise that they don’t want to be overruled. But they make decisions where this is bound to happen. And we have gotten quite a few complaints [on decisions] through over the past 10 years.”
Population targets	“We are lucky in [our]committee, because we agree on most things, and that we need to make efforts to keep the population down at the population target”	“We should have higher targets, in order to ensure sustainable and ecological management, and confer with the Nature Diversity Act on the sections on sustainable management for genetic survival”
Wolf zone	“Those who live within the wolf zone find it very unfair. Suddenly they are living within a wolf reserve” “There are people who want that the entire south of Norway should be one large carnivore area. And they maybe have romanticised this and think that nature will find a way. [...]”	“We see that the prioritised carnivore areas are shrinking [...] the biological and ecological needs the carnivores have are set aside. The maps are made based on the sheep industry, rather than where the carnivores may have the best preconditions. [...]”
Predation	“With wolves, it is difficult, and we see that. In the wolf zone, there are almost no sheep left. It is often noted that the predations are less frequent, but that is because there are no more sheep left” “The lynx is simply harvesting what it needs, whereas the wolf clear-cuts everything in sight, and particularly sheep”	“This year, and last, the culling has been carried out more effective, and further development might alleviate the level of conflict.” “We can’t have a vision of zero predation, because that is not how nature works” “The lynx and the wolverine are the carnivores who take out the majority of sheep and domesticated reindeer”
Conflict resolving funds	“With regards to the [conflict resolving] funds, there are strict criteria for receiving them. Some have been delegated to the municipalities for improvement of already existing fences, and I think this might be a great way of allocating the funds. It requires so much inspection and maintenance of the [private] fences, that people can’t be bothered. There is so much resignation”	“We have lots of funds for conflict resolving measures that can be delegated from the committees. We have the prioritisation of areas either for carnivores or for grazing which is used in the governance.”

The first element outlined in the table is the wolf itself. On the one hand, the wolf is described as *scarce* and *threatened*, and a resource we must protect. Others perceive this as a resource that must be governed in order to protect other interests. Where the first view is arguably founded in the conservation discourse, where wolves are given particular value, the second argument is founded in the sustainable-use discourse, and in “good agronomy” values, which emphasises the ability to make use of natural and not let resources go to waste (Vedeld, Krogh, Vatn, 2003).

The second element in the table concerns the weighting of different interests. Where arguments founded in the sustainable-use discourse perceive that the conservation side is too heavily weighted, the other side perceives the exact opposite – that only the agricultural sector’s interests are weighted. Both sides are arguably right, as they base their arguments on skewness on *different levels*. Where one argument refers to the environmental bureaucracy, the other refers to the CMCs. This was discussed in section 5.3.1.4 where a proposed solution to enhance legitimacy and participation was a more even distribution of interests at every level in the governance system. The same goes for the fourth element (Table 3.) – the appellant hierarchy – which is arguably dependent on trust and participation in order to serve its intended purpose.

The third element concerns the referral to different knowledge. With regards to this, there were also differences in the governance system. In fact, different actors tended to refer to reports which supports their interests, thus implying that there might be some level of “confirmation bias” (Bryman, 2012), It must however be noted that this was just a tendency among the respondents, and it cannot be generalised. In the governance system as a whole, this bias appears, if anything, even stronger among several civil society actors. None of these were interviewed for this particular research but given how the various Facebook groups on either side tended towards “echo-chambers” with very one-sided circulation of interests, this appears to be a hinder for a common understanding of the conflicts. Nevertheless, this is just an observation, and would naturally require more research.

The next two elements – the population targets and the wolf zone – are more conflictual. As noted in section 5.6.1, conservationist arguments simile the rationales of the rewilding approach, and the arguments relate to how the wolf zone is too small to ensure the wolf’s ecological needs. In line with this, there is also an argument to how the population remains endangered when the population is at the current level, and that the (low) population targets

have implications for genetic diversity. On the other hand, inhabitants in the wolf zone has expressed a feeling of living inside a “*wolf reserve*”, and these same people are often those who experience the consequences stemming from the wolves (Strand et al., 2018). Thus, it is only natural that these same people argue that wolves should be kept “*down at the population target*”.

Both of these arguments are essentially true. As a result, these two discourses are seemingly incompatible. Both sides have valid arguments to why the other discourse is “wrong”, and thus, a common interpretation of the issues has proven difficult. On the one hand, the reestablishment of the wolf population has had dramatic consequences for livestock farmers in the wolf zone. These consequences appear to correlate with the growing wolf population (Strand et al., 2016; 2018) and thus, there is reason to argue that population targets should remain as low as possible. On the other hand, the wolf population as it is today is by international standards categorised as endangered (Artsdatabanken, 2020), and the genetic diversity is at a critical level (Norwegian Ministry of Climate and Environment, 2016a). This has consequences for reproductive ability, and hence the population’s survival in the long run (Kardos et al., 2018).

The next two elements concern *policy outcomes*, and how these are described in different discourses. The outcomes which were emphasised by the respondents were predation and consequences for livestock farming, particularly sheep. With regards to predation, the sustainable use-oriented arguments emphasise that the wolf is violent and brutal in its attacks and takes out far more sheep than necessary. One respondent even noted that the wolf “*practices killing*”. On the other hand, arguments which are founded in the conservation discourse tend to undermine these arguments, and rather focus on how the wolf is accountable for *less predation* than the lynx and the wolverine. The wolf is merely “a symbol” rather than a “tormentor”.

Again, both of these arguments are essentially true. Wolverines account for more predation than the wolf (Environment Agency, 2019), yet wolf attacks tend to be far more severe. An example of this, is the “wolf summer” in Hadeland (Oppland County) in 2017, where more than 300 sheep were taken by one single wolf (County Governor Oppland, 2017). Although wolverines account for more predations, wolverines have a larger prioritised roaming area, which is distributed over several counties from Oppland in the south, to Finnmark in the north (Environment Agency, 2020b). Hence, predation costs and consequences for farmers are more spread out than for the wolves, which only has a small PCZ in Hedmark, Akershus, Østfold and

Oslo. Indeed, the wolf PCZs accounts to 5% of the total land area, whereas PCZs for wolverines is 24% of the land area (Strand et al., 2016). The consequences are less centralised, and (as of today) less conflictual than the outcomes related to wolves. Hence, the consequences of wolves may feel more severe for those who experience them.

Yet again, this appears to concern two different worldviews which are both inherently “true”. Where one side is arguably founded on statistics and predation numbers, whereas the other side is founded on experiencing the conflict and the consequences.

The last element (Table 3.) concerned CRFs and how different actors perceived that these funds worked. Where the one side argued that these measures are successful, the other side argued that the requirements to receive funds are too rigid, and that the means were not adapted to “fit all” conditions. According to the respondents, local farmers within the wolf zone could not be bothered to use these means, as they required too much maintenance and inspection. As noted in section 5.6.2, this has implications for the farmers proprietorship. On the other hand, there are arguments to how these means are successful, and that there are still available funds. Again, both of these arguments are true, they are simply based upon different interpretations of the same issue. The means supported by CRFs are successful *when implemented*. This does, however, not imply that they are easy to implement, or flexible. This comes down to perspective, and how you choose to understand the problem. Nevertheless, when funds remain unused, one may argue that they are, in fact, not sufficiently implemented, and that there is room for improvement. One respondent did, however, note that the funds that were allocated to the municipality for “community purposes” was somewhat more successful than the “private fund”, and suggested this as a means for improvement. This might be a good solution if private funds are left unused.

A common notion throughout this section is the existence of multiple “truths”. This is not unexpected, nor unwarranted given this research’s interpretivist epistemological position (Bryman, 2012). Nevertheless, it may prove an issue when the target is conflict resolution, and the creation of common institutions. In fact, it appears as if the majority of the respondents are already looking at the same outcomes, yet with completely different “discursive goggles”. Consequently, it is interesting to discuss these discourses in a larger context. The next sections will therefore discuss these arguments and their possible linkage to the cleavages. The aim of this is simply to investigate whether these different perspectives can be linked to the structural

and established differences provided by the cleavage theory, or whether they are founded in outcomes alone. The following section will use the centre-periphery and the urban-rural cleavages as a tool for analysis and see where these cleavages appear to interplay with the discourses.

5.7 Discourses and Cleavages – Differences and Similarities

Through this study, several linkages between the urban-rural and the centre-periphery cleavages and the two (main) discourses are arguably present. This section will therefore discuss these similarities, as a means to understand the conflict.

First of all, there is the history of wolf conservation in Norway. The wolf became protected in Norway at the same time as the last “conservation movement” rushed through the western world (O’Riordan, 1971). The main driver for this movement was the ever-degrading environments people in the western world had become acquainted to. In urban environments, the conservation trend was even more prominent, simply because nature was more degraded (Arts, 2012). Thus, wolf conservation does inherently have an urban-rural dimension (Arts, 2012). In urban environments, nature is scarcer, and one may therefore have a stronger urge to protect it (Arts, 2012). Contrastingly, people in rural areas are surrounded by wilderness on a daily basis, and they perceive it as something useful, and something one can retain a livelihood from (Vedeld, Krogh and Vatn, 2003).

The second element concerns notions of decentralised and centralised governance, and how this correlates with perspectives on wolf governance. Centralised governance is described as remote and where centralised actors lack experience and knowledge of the consequences (Opdahl, 2017). In like manner, the policy premise remains relevant here. Wolf conservation in Norway is founded upon the legal requirements by the Bern Convention (Council of Europe, 2020), and in practice, one may say that this constitutes a type of “remote control” of the governance system. When the laws and prescriptions are regulated by a convention which is founded on international basis, one may say that an international “urban elite” shifts the burden of carnivores onto the “anti-elite” in rural areas. In this research, the lack of trust towards an “urban elite” arguably comes to show through how some respondents lacked trust in the Norwegian

Environmental authorities, and the scepticism towards professional committees with the argument that these would “only favour the wolf” and “neglect agricultural interests”.

Nevertheless, this lack of trust towards professionals may just as well be linked to one’s perception of knowledge – or more precisely, whether one agrees with the knowledge foundation presented by the environmental authorities or not. Within the governance system, there appears to be differences with regards to this. On the one hand, there is the conservation discourse which emphasises scientific knowledge, whereas the sustainable-use discourse tends to refer to *experience* (Vedeld, Krogh and Vatn, 2003) This could arguably also relate to the centre-periphery cleavage, where issues of “remoteness” refers to the lack of experience with the problems (Opdahl, 2017).

Last, and most prominent, are the different approaches to the wolf itself. As described throughout the research, the wolf conflict is often described as an urban-rural cleavage, where “urban” groups are more positive towards the wolf and wolf conservation, whereas the “rural” groups are less positive (Krange et al., 2017; 2018; Opdahl, 2017). This correlation has been depicted by NINA several times (Krange et al., 2017; 2018). And various scholars have also described the conflict as an urban-rural conflict previously (Tangeland, Skogen, Krange, 2010; Opdahl, 2017).

Despite these apparent linkages, one should not discard the conflict as only an urban-rural conflict or a centre-periphery conflict. If the conflict is simply discarded as a cleavage, one falls for the temptation of drawing causal relationships between elements which may only appear to correlate. This is the “tyranny of the cleavage model” which discards the model as axiomatic, rather than looking deeper to see whether there are other drivers (Aardal, 1994). As noted throughout this research, the consequences of wolf conservation are very much real, and it would be highly apolitical to discard the conflict as “only a cleavage”. Hence the next section will discuss the discourses and cleavages more critically, through the lens of *political ecology*.

5.8 Critique of the model – a political ecology perspective

In spite of how the cleavage theory appears to be a useful concept for explaining the resistance towards the wolf policy, it may also be a detrimental concept in trying to understand the conflict drivers. The reason for this, is the risk of undermining the injustice and legitimacy issues which

are present in local communities within the wolf zone. As described throughout this thesis, the consequences of wolf presence are very much real, where farmers within the wolf zone are slowly forced out of their livelihoods (Strand et al., 2016; 2018). The wolf constitutes a threat to their way of life, their identity, and the cultural heritage these farmers may want to pass on to their successors (Vedeld, Krogh and Vatn, 2003). Yet, if the conflict is discarded as an urban-rural cleavage, it arguably takes away from these consequences and focuses on the historic elements of the conflict, rather than the current ones.

One element which appears to relate to this, is how the wolf is described as a symbol of the conflict, rather than a “terror” to local communities. This notion arguably shifts the focus away from the consequences for farmers, landowners, and local communities alike. Nevertheless, this does not entail that there is not a *symbolic dimension* to the wolf. As noted in section 5.5.2, a variety of different groups with no direct linkage to the conflict appear to engage in it, thus implying that the wolf governance has become a symbolic conflict.

Instead, one could argue that the wolf conflict is a conglomerate of all of the elements mentioned above, where all of these elements constitute important conflict drivers. The urban versus rural conflict is one dimension, the uneven distribution of costs is another dimension, and finally, the symbolic conflict attached to the wolf is one dimension. These dimensions are founded in both physical and economic outcomes, and also in different discourses and institutions, where different approaches to knowledge reinforce actors’ perceptions. All of these elements create polarised divisions in the conflict, making it tense and difficult.

Nevertheless, the symbolic dimension of the wolf does not take away the consequences. Despite how different groups all across the country appear to engage in this debate, there is largely one group who are left with the consequences – the inhabitants of the wolf zone. These people are left without a say in the conflict, and their only participatory channel – the CMCs – are perceivably left without real authority in the governance system. Hence, it is no wonder why several respondents noted that local communities are left with “resignation” and perceive that they live within a “wolf reserve”.

This arguably showcases how conservation approaches in Norway may not be inherently good or fairly implemented. In the wolf zone, the distribution of consequences appears highly uneven, and the groups who experience these consequences are not compensated sufficiently

((Norwegian Ministry of Agriculture and Food, 2012). Moreover, these people are left without a say, despite how the governance model is “decentralised” and “regional”. As a result, this approach appears no different than conservation efforts described by Benjaminsen and Bryceson, Benjaminsen (2012), where marginalised groups are left with the consequences of conservation efforts. One may even argue that the wolf policy has resulted in green grabbing of pastures, which predominantly were used by farmers. Without labelling farmers in Norway as “marginalised people”, they are still subject to the same type of appropriation of rights. In fact, traditional grazing rights have been set aside for the benefit of conservation, without these losses being compensated for. The result is farmers who are forced to give up their livelihoods, their traditions, and parts of their identities – all in the name of conservation.

Nevertheless, this critique of the conservation discourse does not mean that it is inherently *wrong*. As described in chapter two, the rationales behind the conservation efforts are founded in established knowledge on biodiversity loss and its consequences (Cardinale et al., 2012) The current extinction rate of species is highly problematic, this biodiversity loss is essential for other environmental and biochemical processes – whereof some, human life are dependent on (Andersson & McPhearson, 2018). Depending on one’s approach to this problem, one may perceive the wolf as more or less important.

Followingly, it appears that the two discourses or “sides” in the conflict are both right when looking at their respective arguments. Where on the one hand, wolf conservation in Norway is problematic and conflictual, particularly with regards to the uneven distribution of consequences (Strand et al., 2018). On the other hand, wolf conservation is important with regards to biodiversity, where carnivores constitute a significant value as a top predator (Soulé and Noss, 1998). As a final remark before the conclusion, it appears that the two are not incompatible – however, the way the two “groups” argue, they both tend to undermine the importance of the other argument.

As a result, it might be possible to resolve this conflict, yet it would depend upon a common ground between these two priorities – conservation and sustainable use – and frankly, that is what the current policy has attempted to do. In fact, the current policy is a compromise between the two, where neither carnivores, nor agricultural activities are given priority over the other. The aim of this, was to help alleviate the conflict. Nevertheless, as the policy has failed at implementing the regional approach, and the means which were supposed to support the people

suffering from the consequences, the result is a policy without legitimacy, and a governance system which upholds the conflict, rather than resolving it.

5.9 Relation to other environmental problems

As a final note in this discussion, it may be relevant to examine these challenges in relation to environmental governance in Norway on a larger scale. Indeed, it appears as if these challenges relating to interests and authority are rather common, where different sectors, and priorities are conflicting (Vedeld, 2002). Vedeld (2002) notes that conflicts regarding both biodiversity and authority may arise within different segments of the public sector, and that different conflicts are common between “green segments” and “development-oriented ones”. This may come to no surprise given the very different approaches which have been outlined throughout this chapter. One may argue that these conflicts arise from the “overarching” aspect of environmental governance itself, as environmental policy often emerges as a consequence of *environmental problems*, which are often caused by other “segments”. Therefore, there is seemingly a conflict of interest from the very first moment, relating to how environment and “other activities” are prioritised respectively. In environmental governance, one may thus be left with a tug-of-war between different interests which endeavour for authority to decide which interest gets prioritised – conservation or use.

There are several examples of such conflicts over the course of history, and the handling of pollution in agriculture is one of these (Vedeld, 2002; Vedeld, Krogh, and Vatn, 2003). In the pollution-case, the MCE was in charge of management, yet their command-based approach was not welcomed among Norwegian farmers. There was opposition from users, quarrels on implementation, and eventually the authority was shifted to the MAF (Vedeld, 2002). Followingly, the approach was restructured and adapted to accord to “good agronomy values” and this approach was deemed more successful to that of the MCE.

Nevertheless, this does not imply that the MAF should receive all authority and power in the governance system of wolves – on the contrary, one may argue that neither part should have “complete control” of the governance system. The example is arguably only an indicator of how environmental problems do not necessarily require an “environmental approach” and thus, this builds on the argument which calls for more even weighting of interests at the top levels of governance.

5.10 Final Critique and Assessment

Before the conclusion is presented it may be relevant to revisit the assessment criteria outlined in earlier – reliability and validity – and reflect on the research in line with these. As noted in chapter four, *reliability* – often referred to as *dependability* in qualitative research, relates to whether the study is repeatable (Bryman, 2012). In order to ensure this, the interview guide and sampling methods are outlined, and thus, it should be possible to repeat the research. Information of the specific respondents is of course not be available due to privacy concerns. In relation to this, it must also be noted that the interviews were based on the respondent’s personal opinions, and if the research were to be carried out again, new conflict drivers might be uncovered. For that reason, there is arguably need for more research on this topic.

Validity on the other hand, is concerned with the integrity of the research (Bryman, 2012). One often differentiates between *credibility*, which concerns the match between the results and the findings, and *transferability*, which concerns whether the results can be generalised beyond the specific research context (Bryman, 2012). With regards to this, there are some limitations. The first and most relevant limitation is the research’s scope. The research is based upon interviews with a limited number of respondents, and thus, these results cannot be generalised to account for all actors in the governance system, nor the general public. It must, however, be noted that the research did not plan for generalisation – on the contrary, the main aim of this research was to uncover potential conflict drivers in the governance system through conversations with relevant actors. This research aim has largely been fulfilled.

Another limitation which also relates to scope, is the risk of different biases. A small research like this, with only one researcher is also more likely to be subject to different biases. Qualitative research, in particular, depends utterly upon the researcher’s opinion, and when there is only one researcher, this risk of bias may be more prominent (Bryman, 2012). As noted in chapter four, one bias is particularly relevant – *confirmation bias*. This entails that researchers tend to skew the results in favour of their own perception – or discourse – and hence, attribute more value to findings that support this pre-existing node of thinking (Smith and Noble, 2014). One may be subject of such bias in every step of the research process, and thus, it may be difficult to uncover.

As a means to reduce the chances of confirmation bias, this thesis has throughout the findings and results attempted to use findings from other research to triangulate for the results (Bryman, 2012). Therefore, findings have occasionally been compared and contrasted with findings from other research on wolves, carried out by the OAG (2019) NINA (2016; 2018) and NIBIO (2016; 2018) respectively.

This brings us to the next limitation, which is the lack of *primary* research on outcomes in relation to objective two. Objective two emphasises the legitimacy in the governance *process* and in the governance *outcomes*. With regards to *input legitimacy* (process), the research approach was well-suited as the respondents could provide useful insight with regards to how they perceived both the governance system and the process. With regards to *output legitimacy*, on the other hand, it would have been useful with more research to uncover how different actors, and particularly economic actors, perceive the different outcomes – not just through the eyes of the stakeholders that were interviewed. Some of the interviews were with interest organisations (on both sides of the debate), and these interviews were very useful when answering this objective. However, as noted in section 5.4, supplementary research on the outcomes for economic actors and civil society actors was needed. This research requirement was filled by using different reports and research, whereof most were from NIBIO. As noted earlier they provide a very solid description of outcomes, yet one must keep in mind that these might be slightly one-sided, and there might be dimensions to the outcomes that this research has been unable to grasp.

In line with this, one could also say that both the civil society perspective and the “economic perspective” s somewhat lacking in this research. There are two main reasons for this, and they both relate to the research’s scope and overall aim. First of all, the research was not scoped for more interviews than the ones that were carried out. In fact, the research was carried out within a restricted time period, and the sampling was one of the delimitations that had to be made. The second element is largely a prolongation of this. Given the time constraints, the most relevant actors had to be selected – and as the overall research aim concerned conflict resolution, it was necessary to interview people with insight and knowledge of the governance system. This does not mean that civil society or economic actors do not have insight in the governance – but the opinions in civil society appears to be far more divergent and “radical” than what you find among (most) actors which are directly involved in governance. Therefore, the interviews were simply targeted as a means to retrieve constructive arguments and feedback.

In sum, one may therefore say that the research has discussed some interesting elements of the governance system of wolves, and the conflict surrounding this. There is, however, need for more research on opinions in civil society, and not least, more extensive research on the governance system as a whole, before these results can be generalised. Nevertheless, the research has – in line with the main research aim – uncovered elements which are perceived as conflictual among the governance actors, and with regards to the reciprocal governance system, these elements may constitute barriers to effective and legitimate governance.



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Chapter 6: Conclusion

This chapter finally collects the loose threads. It revisits the research objectives from chapter one and contextualise these in accordance with the discussion presented in chapter five. This chapter followingly aims at providing the reader with an understanding of how all of the main topics – the governance system, the governance outcomes, and the different discourses – are linked, and how all of these elements contribute to the conflicts.

In order to do so, the chapter is divided into three sections. The first section (6.1) outlines the main objectives and describes how these objectives were approached. The second part (6.2) provides an outline of the main findings, before discussing these in accordance with the research objectives. In this section, the initial research questions are finally answered, and final summary is presented. The third and last part outlines the authors final remarks. This section presents the questions which may have arisen throughout this research – hence, it will provide suggestions for further research on questions which remains unanswered.

6.1 Research objectives and Problem Statement

Governance of wolves in Norway is an incredible tense and difficult subject. The conflict has divided the population in two (Krange and Skogen, 2018), where one side seeks to protect the wolf, and the other side wants it gone. This conflict is present in civil society, in the political

arenas, and even in academia, where different perspectives and disciplines drive the debate further and further, to which it appears virtually impossible to resolve. Different sides are using different arguments and knowledge to argue their stance, and in civil society, this is reflected in social media “echo-chambers” on each side, which provide more and more radical arguments. These groups are flooded with fake-news, radical stories, and not least, a strong distrust towards the authorities which are left to govern this. The media contributes to further hype these different groups, and the debate is now prominent on several arenas, including social-media, comment-sections on different platforms, and in tabloid newspapers (Lien, 2020).

It appears this conflict is impossible to solve – and on that note, one may say this thesis has aimed for an impossible target – *finding ways to resolve the conflicts*. Indeed, given the state of things, it appears unlikely that these findings will contribute to solving the issue – nevertheless, it has been made a thorough attempt of understanding the conflict, and hence, this research may be a useful tool in understanding *which* elements are perceived as particularly conflictual, and *why* it might be so.

This thesis has investigated the governance of wolves in Norway, with the main aim being to uncover important conflict drivers. The research aimed for a three-folded approach, where three main elements were emphasised: i) *the governance system of wolf management*; ii) *the outcomes it generates*; and iii) *how different discourses play out in the governance of wolves*. In order to approach this overall research aim, three main objectives have been outlined, accompanied by specific research questions. These objectives were created as a means to provide structure and direction to the research, and they are as follows:

Objective 1: Investigate the Governance System of wolves in Norway.

- a. According to the EGS-framework, how is governance of wolves in Norway arranged?
- b. According to the EGS-framework, which institutions and actors influence governance of wolves in Norway?
- c. How are different interests taken care of in the current policies?
- d. Which, if any, elements of the governance system are particularly conflictual?

Objective 2: Investigate governance outcomes and discuss these in line with theories on legitimacy.

- e. Using the different criteria of input legitimacy, with particular emphasis on participation, can the carnivore policy be described as legitimate?
- f. Using criteria of output legitimacy, with particular emphasis on distributional issues, can the carnivore policy be described as legitimate?

Objective 3: Research different discourses on conservation and assess how these may play out in governance of wolves, and in the conflict.

- g. Using cleavage theory, which interests in the governance system appear to conflict?
- h. How can different discourses on conservation be used to understand the wolf conflict in Norway?
- i. Which elements are important in finding ways to deescalate the level of conflict with regards to wolf management in Norway?

6.2 Summary and Final Conclusion – The hatchet and the Seed

6.2.1 Summary of findings – The “hatchet”

The previous chapter was arranged by the research objectives. However, as discussed throughout this thesis, these elements are highly interlinked. Issues of the governance system are visibly through their impact on legitimacy, and on resource outcomes. Thus, these elements and their outcomes will therefore be described accordingly. In accordance with political ecology, one may say that this section employs the “hatchet” to the governance system, to discover issues and concerns which are conflictual, apolitical or both.

6.2.1.1 The Governance System

Several elements of the governance system were perceived as conflictual among the respondents. What appears to be a recurring issue is how different rules are interpreted according to own (or one’s “groups”) interests, creating issues with regards to accountability (to voters and to other actors), and not least, trust-issues among different actors. These issues consequently create incentives to skew the governance in one direction or another. In general,

the governance appears to deviate in separate directions at different levels, where the MCE often favours the wolf and the conservation objective (Sjölander-Lindqvist et al., 2020), whereas the CMCs tend to favour the agricultural objective (Krange et al., 2016).

The skewness towards agricultural interests at the local level is a well-established “fact” among environmental NGOs. Consequently, appeals are *always* filed (OAG, 2019), and the authority shifts towards the MCE. This shift in authority has implications with regards to participation and input legitimacy, as both the CMCs and civil society (communities in the wolf zone) perceive that they are “not heard” and have no opportunity to participate. In this research, several respondents from CMCs argued that they had no real authority, leading to the argument that the governance system is “decentralised on paper” and centralised in practice. Such lack of authority and inability to participate in decisions which concern oneself, is likely to yield lack of trust, and lack of ownership to the policy (Ostrom 2009 in Strand et al., 2018). Consequently, the constant shift in authority towards the MCE takes away any legitimacy this “participatory” and “regional” approach was supposed to yield.

According to several respondents, this skewness was a result of a vague legal framework. Indeed, several respondents noted that the legal framework was an issue, because different actors could interpret the legal framework in *their* best interests. When the interests are systematic at different levels (as outlined in the paragraph above), this arguably creates incentives for each actor to skew the governance *in his or her best interest* to compensate for what other actors might do. In spite of this, this thesis argued that *all Norwegian laws* are vague, as a means to allow for discretion (Nickelsen, 2019). The discretion is arguably an important element of the CMCs mandate, and without this vagueness, there would arguably be no need for CMCs at all. Hence, this concern appears to boil down to trust, and issues concerning different perceptions towards the policy – different *discourses* among respondents.

6.2.1.2 Outcomes of the Governance System

Issues of legitimacy were not only related to the governance system and its facets, but also to the outcomes this system generates. This thesis has given much attention to outcomes concerning *distributive justice*, as issues relating to this criterion was recurrently noted by the respondents. One particularly relevant element concerned the uneven distribution of “costs” and “benefits”, where the costs have mainly accrued to economic actors within this the wolf

zone, and sheep farmers in particular (Strand et al., 2018). In fact, sheep farmers have been forced out of their livelihoods and are no longer able to use their usufruct rights to the outfield (Strand et al., 2018). Although they are compensated for losses directly stemming from carnivores, there are additional intangible losses which relate to the farmers identity and his/her ability to maintain (and pass on) traditions and cultural heritage (Vedeld, 2002). These consequences are not compensated for, and they are an important driver of conflict.

The wolf also constitutes a trade-off for hunting activities, and these trade-offs are also not compensated for (Norwegian Ministry of Climate and Environment, 2016a). Unlike farmers, landowners (as defined in this thesis) do not inherently have the property rights to the game, and nor to compensation. This has been a root of conflict, and despite the Ministry's conflict resolving means (information and cooperation), the conflict prevails.

Although the costs appear to accrue in local communities, one must not forget to discuss the benefits of the policy. The "benefits" are in this conflict highly subjective, and even among the respondents of this research, different attitudes were present. Some perceive the wolf to be an enrichment to the fauna and to biodiversity, whereas others argue the opposite. For those who perceive the wolf as a benefit, the presence of wolves in one's local community might be valuable. In which case, both the benefits and the costs from the policy also accrue to local communities in the wolf zone. In line with the subjective notion of "benefits", Krange and Skogen (2018) found, the attitudes among people who live close to wolf territories are highly polarised where 31% of inhabitants *strongly disliked* the wolf, and 28% *strongly liked* it. It is however difficult to put the costs and benefits of wolves up against each other, as the costs are both material and intangible, whereas the benefits are mostly intangible. The inability to compensate for losses is a sign that policy effectiveness is not achieved (Vatn, 2015). The criterion of policy effectiveness entails that the "benefits" should compensate the "costs", either economically, or through beneficial repercussions.

6.2.1.3 Discourses and Cleavages

There were several indicators of how different actors in the governance system were influenced by different discourses. Given how the respondents interviewed for this research came from different scientific (or non-scientific) disciplines and inherited different ideologies, this was only natural, as these elements are constitutes in the discourse (Grue, 2019). This thesis

distinguished between the “conservation discourse” and the “sustainable use discourse”, but these discourses were not used to differentiate between respondents or “groups of actors”, nor was it used to assign respondents to a particular discourse. These discourses were here only used as a means to display the different perceptions that appeared to be present in the governance system and trying to explain how these perceptions may have come about. However, it must be noted that the discourses were quite regular – meaning, all respondents tended to use arguments from one discourse or the other. Although this study cannot generalise, these different perceptions appear to be systematic among different governance actors, and these differences contribute to the skewness on different levels which inherently influence the governance system.

Arguments from either discourse varied greatly by different elements. With regards to scientific disciplines and knowledge foundation, different respondents in the research referred to different research to argue their stance. Where some who appeared “more negative” towards the wolf referred to NIBIO reports on implications for agricultural activities, other respondents who appeared more “positive” towards the wolf referred to research carried out by NINA. These two actors (NIBIO and NINA) are both highly regarded scientific institutions – yet both of these actors arguably paint a very one-sided picture of wolf conservation. The knowledge foundation may consequently contribute to the polarisation.

There were also polarised descriptions of the wolf, where some described the wolf as a great tortfeasor, and others referred to the wolf as a symbol of the structural changes in agricultural Norway. Where the “wolf-opposers” referred to how the wolf made it impossible to use the natural resources, the “wolf-advocates” referred to the lack of understanding of natural processes, and how conservation was set aside for agricultural interests. This leads back to how these different elements – conservation and nature-use – are prioritised within each of the two respective discourses, and how the wolf has implications for the latter.

Several respondents also referred to established “cleavages” when they discussed the conflict. In this context, cleavages refers to broadly-based and long-standing social and economic divisions within society at large (Knutsen, 2017). As defined in chapter three, one may argue that discourses constitute the normative elements of the cleavage, and hence, this thesis has attempted to draw parallels between the different discourses, and the cleavages which were outlined. The urban-rural cleavage, and the centre-periphery cleavage were in chapter three

deemed relevant, because they appeared to parallel the different perspectives in the wolf conflict. Nevertheless, in this conflict, all the three elements: discourses, the urban-rural and the centre-periphery conflict, appear to be largely coincided. where there is an urban centre-oriented group who favours the wolf, and a rural periphery-oriented group who dislikes the wolf. These urban-rural and centre-periphery cleavages have been linked to the wolf conflict before (Tangeland et al., 2010). For instance, Krange and Skogen (2018) at NINA found that the majority of people who are in favour of wolf conservation live in cities, and that most “wolf opposers” live in rural areas. Hence, is there arguably a tendency towards an urban-rural division in attitudes towards the wolf.

Such tendencies were also present in the interviews. On the topic of professional committees (as suggested in the Parliament), some respondents appeared more “centre-oriented” and perceived that professional committees may be a good solution to solve the problem. Others perceived this to be a bad solution and made remarks to how the governance was already “remote” and that professional committees would lack the “experience” which was deemed necessary to understand the conflict. One may argue that this similes notions from the sustainable-use discourse, where experience-based and local knowledge is highly regarded (Vedeld, 2002). This does not imply that these particular respondents belong to “either side” of the cleavage, it only comes to show how different arguments appear to have linkages to both a particular discourse and a particular cleavage.

Several respondents also referred to the “organisational” or “institutionalised” element of the cleavage – meaning, interest organisations or political parties which have sprung out of the normative, collective identity, that individuals in the cleavage share. Organisations and parties which were noted as particularly conflictual were the Centre Party (SP) and the Progressive Party (FrP) on the one hand, and the Liberal party (V), and the Green party (MDG) on the other. The Centre Party and the Progressive Party are known for valuing agrarian interests over conservation interests, and the Liberal Party and the Green Party are known for valuing conservation interests. Hence, one may argue that these parties are an “organisational” manifestation of the sustainable use, and the conservation discourse respectively.

This is by no means “new information” as these parties have made themselves known in the public debate over the past few years. Nevertheless, several respondents made a note on how these parties may *benefit from the conflict*. Several respondents noted that taking a clear stance

in the conflict would be valued by the “collective identity” which supports this particular party or organisation. In a prolongation of this, some respondents noted that they found difficulty in cooperating with people from these parties, as they perceived them to be political even in the governance system (where they should be neutral). This can be linked to (the input legitimacy notion) accountability – as CMC members are politicians, they are elected based on party politics. This entails that they are accountable to their voters, which may have elected them based on party politics. As one of the respondents noted – the Centre Party (SP) has a high representation in the committees. This *could be* a reason why the committees often tend to skew governance in favour of agrarian interests. However, as this research has argued, it would be highly apolitical to conclude that different interpretations and attitudes comes down only to party politics or to one’s position in the urban-rural landscape. It would also be a case of the model’s “tyranny” where one attributes a causal relationship between the cleavage and a contemporary conflict (Aardal, 1994).

In fact, it may not be linked to the cleavages at all – it may just as well be linked to policy outcomes. This brings back the first element, which is the notion of the wolf as a *tortfeasor*, and the notion of the wolf as a *symbol*. Where the one side perceives the wolf as a symbol for “all the wrongs in rural Norway”, the other side (who suffer the consequences) argue that the wolf causes both material and intangible damage. As discussed, both of these elements are inherently true – the wolf is a tortfeasor, but it is *also* a symbol. The conflict appears to be a conglomerate of different values, perceptions and attitudes, which make the conflict tense and polarised.

6.2.2 Possible solutions – The “seed”

The aim of this assessment was uncovering important elements for conflict resolution. Its approach in doing so was largely based upon political ecology, with the aim of applying the “hatchet” to uncover the potential issues, and next, provide a “seed” to grow into new approaches (Robbins, 2012).

First of all, a more systematic involvement of the MAF is needed, in order to balance interests and power the “top” governance levels. This is preferred over a shift at the local level, as the CMCs are a democratically elected organ, and the removal of these may be perceived as undemocratic, and hence counterproductive. Altering the top layers of governance may also

allow for a shift in power, where both the MCE and MAF inherits normative power, and can contribute to agenda-setting and a more balanced knowledge foundation.

In line with this, notions such as “common institution building” have been motioned as a means to resolve the conflict. This was suggested because the actors in the governance system appear to base their arguments on completely different knowledge foundations and rationales. If a common foundation was enhanced, this may help clarify some ambiguities, and furthermore, help increase the predictability in the decision-making. This would again require a more balanced weighing of interests at the top governance levels – as of today, the MCE are the highest authority in the wolf governance system, and arguably, the MCE defines which institutions and which knowledge is deemed relevant (Sjölander-Lindqvist et al., 2020). In order for such an approach to function, one would necessarily require more involvement from the MFA.

With regards to discourses, the notion of “improvement” is difficult. This is mainly due to the research’s interpretivist epistemological position, meaning social concepts are understood as interpretive, and will hence vary among different actors (Bryman, 2012). Furthermore, it would necessarily be based on the researcher’s subjective opinion on what is “true” or “more important”. Given how arguments from both discourses are *essentially true*, it is therefore difficult to offer a “solution” to solve the disagreements, without this solution being a push in one direction or another. One element which would be beneficial, is yet again, common institution building. Here this entails fostering institutions which encompass arguments from both sides and allows for separate realities to coexist. This entails acceptance of how the wolf is both a symbol, a “tormentor” and a magnificent animal – all at once.

Last but not least, the economic institutions used for conflict-resolution should be re-evaluated. This entails both the CRFs and the compensation schemes. Even though there are different approaches to whether these schemes work or not, *the people who are meant to be compensated*, are seemingly negative towards it. With regards to CRFs, it appears as if the rules are very rigid (Hansen, 2018), and the maintenance and extra surveillance is extensive. Farmers are thus reluctant to use these measures, and the funds are left untouched. Funds which are delegated to the municipality *first*, do arguably receive more acceptance, and might be a possible solution onwards.

Nevertheless, compensation appears to be an ineffective means to resolve the intangible losses that actors within the wolf zone are subject to. Like Strand et al (2018) notes, the compensation schemes are developed to compensate smaller, material losses – not for losses in livelihoods. Based on findings from Strand et al (2018), and in line with what the respondents made note of, farmers within the wolf zone express resignation and despair to their situation, where they are slowly forced out of the livelihood which is so tightly linked to their identity and sense of self (Vedeld, 2002). Economic compensation cannot offset these losses – nevertheless, if they were implemented for the *benefit of the farmer*, the attitudes towards the means and compensation might improve. With regards to the discussion relating to justice, one does not necessarily imply that *more actors should be compensated*, but rather that the compensation schemes should be implemented in such a way that the farmers are systematically given the benefit of the doubt.

6.3 Final Remarks

This section will provide some final remarks on the governance system. The conclusion is already outlined, and thus, this section is merely conjecturing on how the governance system may change in the near future. Nonetheless, the nearing of these events is intriguing, and thus they are outlined below. These include the upcoming Supreme Court Lawsuit, and not least, the 2021 parliamentary election. These two events may even help solve some of the challenges the governance system is currently facing.

Indeed, the governance system is subject to several challenges. In order to solve, or at least, reduce the current conflicts, it appears as if these different interests need a common ground for interpreting the policy – if not, both the policy, its targets, measures, and outcomes are also understood differently, and the conflicts concerning whether the policy is effective and legitimate or not, will prevail. There are, however, some elements that may influence the governance system in the near future. These include the upcoming Supreme Court Lawsuit, and not least, the 2021 parliamentary election.

The Supreme Court Lawsuit entails the interpretation of the Nature Diversity Act §18 letter c, concerning licensed culling within the wolf zone. The Supreme Court's decision might create precedence for how future decisions should be understood, and most importantly, their decision

may help create a more common understanding of the policies and the legal framework – which is something this governance system seems to be lacking at present time. Nevertheless, if the decision will forbid licensed culling within the wolf zone, this might be an additional driver for conflicts. Consequently, the need for a mutual understanding, and not least, sufficient means to compensate the “losers”, will be more important than ever.

The second element – the parliamentary election, may be just as important. Given the state of things, it is likely that the 2021 election will be crucial for the governance of wolves – particularly since the Centre Party is now rushing forward as one of the largest parties in Norway (Kantar, 2020). If there is to be a change in government, the carnivore policies could move in either direction, depending on which parties that are included in this new coalition. A government with the environmental oriented parties on the left side (SV, MDG, R) might not constitute a major difference, however, a majority government with the Centre Party (SP) and the Labour Party (AP) might have consequences for conservation targets. A sign of this, is how these parties have acted with regards to the “Elgå wolf” which has caused quite the uproar these last few weeks of 2020 (Mo, 2020).

The “Elgå wolf” is a wolf of Finnish-Russian origin which has now settled outside of the wolf zone with his newfound mate. Given the wolf’s origin, it inherits valuable genes that the Norwegian wolf population depends on, however, as the Elgå wolf has settled territories outside of the wolf zone, it is now subject to licensed culling from December 1st. According to the carnivore agreement, genetically valuable individuals should be protected, and the Minister of Climate and Environment (V) has therefore suggested temporarily protecting this wolf. Yet, the Centre Party (SP), The Progressive Party (FrP), and also the Labour Party (Ap) voted against this. Some argue that this is a sign of how the Labour Party is now “flirting” with the Centre party before the upcoming election, and that this is the beginning of the changes that may come.

Nevertheless, it is important to note that the Norwegian political system is very volatile on this particular governance matter. Thus, the influence of the election may be very different from the (subjective) speculations outlined above. Moreover, the wolf policy remains anchored in national and international law – regardless of which parties are left at the wheels. However, there may be changes relating to how the policy is perceived, and how the wolf population is governed accordingly. Given the level of conflict today, it remains to see whether a change will alleviate this, or whether there will be a change at all.

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Appendix. 1. Interview Guide

1. Opplever du at forvaltning av ulv er mer konfliktfylt enn andre rovdyrarter, og i så fall, hvorfor? [Do you perceive management of wolves to be more conflictual than other carnivore species? If so, why?]

Todelt målsetting og sonopolitikk [Two-folded targets and zoning]

2. Vi har et todelt mål innenfor forvaltningen av rovvilt. Hvordan synes du at ulike interesser er vektlagt? [We have a two-folded target in carnivore management. How do you perceive that different interests are weighted?]
3. Tror du at de to målene er forenelige? [Do you think that the targets are compatible. Yes/no, explain]
4. Hvordan synes du at sone-politikken fungerer (i din region)? [How do you perceive that the zonation scheme works (within your region)]

Politikken [The policy]

5. Tror du at forholdet til bestandsmålet påvirker forvaltningen? Hvis ja, hvorfor? [Do you think that the population targets impact the management? If so, why?]
6. Hvordan synes du at virkemidlene i politikken fungerer? Henholdsvis konfliktdempende midler, lisensfelling og skadefelling? [How do you think that the means in the conflict are working (conditional culling and licensed culling)?]
7. Opplever du at det enighet og felles forståelse mellom aktører mhp hvordan politikken skal tolkes? [Do you perceive that there is a common understanding among actors on how the policy should be interpreted?]

8. Hvordan opplever du din beslutningsmyndighet innenfor denne rollen? [How do you perceive your authority?]
9. Hvordan opplever du selve formuleringen av politikken? [How do you perceive policy formulations?]
10. Er det noen viktige problemstillinger du mener ikke har fått nok oppmerksomhet i ulvedebatten? I så fall, hvilke? [Are there any issues which have not received enough attention?]

Endringer i politikken [Policy Changes]

11. Hva er dine tanker rundt de endringene som er gjort av forvaltningen underveis? [What are your thoughts on the policy changes?]

Tillit mellom aktører [Trust among actors]

12. Hvordan opplever du at samarbeidet mellom ulike aktører [How do you perceive the cooperation between different actors?]
13. Opplever du ofte at andre forvaltningsaktører handler i strid med hva du oppfatter som riktig? [Do you sometimes feel like other actors act contradictory to what you perceive to be right?]
14. Hvordan opplever du at dine eventuelle innspill blir tatt imot av andre forvaltningsorgan? [How do you perceive that your feedback is accounted for in other governance bodies?]
15. Blandede meninger om hvorvidt regional forvaltning er effektivt. Hva er dine tanker om dette? [There are divergent opinions on whether regional management is efficient. What are your thoughts on this?]

16. Klima og Miljødepartementet har jo tidvis uttrykt at de ønsker å innføre nøytrale/faglige nemnder. Hva tror du ville blitt resultatet av dette? [The MCE have expressed that they wanted professional committees. What are your thoughts on this?]

Polarisering [Polarisation]

17. Opplever du at enkelte grupper drar debatten i en uheldig retning? [Do you perceive that certain groups push the debate in an unfavorable direction?]

18. Opplever du at din rolle er stigmatisert? I så fall, på hvilken måte? [Have you experienced that you or your role is subject to stigma?]

Appendix. 2. Information and Consent form

Information sheet sent out to all respondents prior to interviews.

The information sheet is approved by NSD.

Vil du delta i forskningsprosjektet

Norsk Ulvepolitikk – Forvaltning, konflikter og mulige løsninger.

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å undersøke hvordan ulike aktører opplever ulvepolitikken og konsekvensene av den. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Dette prosjektet har som formål å undersøke og evaluere norsk ulvepolitikk. Studiet fokuserer på hvordan ulike aktører opplever politikken, og hvorvidt disse aktørene har innspill eller tanker om hvordan politikken kan forbedres. Studiet vil vektlegge hvordan de ulike interessene i konflikten er vektet i den nåværende politikken, og hvordan utfallene av politikken «fordeler og ulemper» er distribuert mellom aktører.

Målet med studien er å avdekke faktorer som kan bidra til konfliktløsning.

Prosjektet er en del av en masteroppgave ved NMBU i M.sc. International Environmental Studies.

Alle personopplysninger som innhentes vil anonymiseres og ikke brukes til andre formål.

Hvem er ansvarlig for forskningsprosjektet?

Johanne Kjerstad (masterstudent) ved NMBU er ansvarlig for prosjektet. Pål Vedeld (Professor ved NMBU) er veileder.

Hvorfor får du spørsmål om å delta?

Utvalget for undersøkelsen består av aktører som enten har en sentral rolle, eller en interesse i ulvekonflikten. Kontaktopplysninger for sentrale aktører (eks. Rovviltneemnda) er hentet fra fylkesmannens nettside.

Hva innebærer det for deg å delta?

Hvis du velger å delta i prosjektet innebærer dette et kvalitativt intervju, som vil foregå enten digitalt (teams, skype e.l.) eller fysisk, dersom dette lar seg gjøre. Intervjuene vil bestå av omlag 15 spørsmål, og omfanget vil avhenge av mengden informasjon eller synspunkter du ønsker å dele. En tidsramme på omlag 15-45 minutter er lagt til grunne. Personopplysningene som innhentes i intervjuet er navn, politisk tilhørighet (kun om en innehar politisk verv) og

beskjeftigelse. Opplysningene vil registreres gjennom notater, men også digitalt ved lydopptak. Dine svar blir så registrert elektronisk, og personopplysningene vil anonymiseres. Alle opplysninger, lydopptak, og notater vil slettes så snart studien er fullført.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- Det er kun jeg (Johanne Kjerstad) og min veileder som vil ha tilgang til svarene som fremkommer av undersøkelsen, samt personopplysninger.
- Navnet og kontaktopplysningene dine vil jeg rett etter datainnsamling erstatte med en kode som lagres separat fra navneliste og øvrige data.
- Alle utsagn og opplysninger vil anonymiseres i forskningsprosjektet, og i oppgaven vil det ikke være mulig å indentifisere enkeltindivider basert på utsagn eller beskrivelser.
- De eneste personopplysningene som innhentes er navn, beskjeftigelse og politisk tilhørighet (hvis relevant). Ingen av disse opplysningene vil fremkomme i oppgaven.
- Alle personopplysninger vil slettes så snart datasettet er ferdig kodet.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, noe som etter planen er i desember 2020. Alle opplysninger og uttalelser vil slettes permanent etter prosjektslutt.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- - innsyn i hvilke personopplysninger som er registrert om deg, og å få utlevert en kopi av opplysningene,
- - å få rettet personopplysninger om deg,
- - å få slettet personopplysninger om deg, og
- - å sende klage til Datatilsynet om behandlingen av dine personopplysninger.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra NMBU har NSD – Norsk senter for forskningsdata AS vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Hvor kan jeg finne ut mer?

Hvis du har spørsmål til studien, eller ønsker å benytte deg av dine rettigheter, ta kontakt med:

NMBU

- ved Pål Vedeld (Veileder) tlf: 909 75 257 epost: pal.vedeld@nmbu.no
- Johanne Kjerstad (student) tlf: 959 27 654 eller epost: johannekjerstad@gmail.com
- Vårt personvernombud: Hanne Pernille Gulbrandsen (Deloitte Advokatfirma) tlf: 402 81 558 personvernombud@nmbu.no

Hvis du har spørsmål knyttet til NSD sin vurdering av prosjektet, kan du ta kontakt med:

- NSD – Norsk senter for forskningsdata AS på epost (personverntjenester@nsd.no) eller på telefon: 55 58 21 17.

Med vennlig hilsen

Pål Olav Vedeld

(Forsker/veileder)

Johanne Aalen Kjerstad

(Student)

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet «Norsk Ulvepolitikk – Forvaltning, konflikter og mulige løsninger» og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i kvalitativt intervju

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

(Signert av prosjektdeltaker, dato)

Appendix 3. Coding Sheet

Excerpt of coding sheet. Respondents coded through preliminary code, before it was coded by theme/concept. Theme was followingly linked to objective and used for analysis for the different objectives.

Question/ Theme	Unit	Quote	Code	Concept	Objective
Changes in policy	2.	“After the debate in the Storting it became evident that some perceived this change to mean that if the population target is exceeded, it will be of public interest to regulate the population down to the target. However, there are several parties that argue that the formulation does not necessarily provide a legal basis for culling within wolf territories – and this is what the minister [of climate and environment] has proclaimed later. So, I perceive this phrasing a bit unclear.”	Phrasing unclear Population target	Policy Effectiveness	2
Thoughts on PCZ and the wolf zone	4	“Those who live within the wolf zone find it very unfair. Suddenly they are living within a wolf reserve, whilst they [the government] keep saying they can continue business as usual when it comes to livestock. At the same time, it is difficult to say that we should remove the zone, because the consequences are so vast for those living in the wolf zone. It is difficult to say that we now want to spread this to the country as a whole.”	Unfair Wolf reserve	Legitimacy, Justice Conservation discourse	2, 3
Phrasing of policies	4	“Something that has been problematic is that the Storting, through the Diversity Act has said that we must have 3 fully Norwegian family groups [of wolves], and 4-6 counting the bordering territories. These are the national population targets. However, this is so vague that when other interests are put against it [...] it becomes unclear whether if this is the overarching target, or only one of several targets.”	Legal rules Diversity Act	Legal rules Input Legitimacy Cleavages	1,2,3
Two folded targets	5	“In the politics we have the Ministry of Climate and Environment, who are in charge of the governance. And I believe we are quite a few who find that they emphasise the carnivores too much, compared to the livestock industry. It’s been encouraged that it is no longer just the environmental authority who should be involved. Because, when we have a two folded target, both the concerns related to carnivores and the grazing rights should be weighted. And that is a fine balance. But both actors need to have a say.”	Ministry of Climate and Environment, Authority, Grazing rights, Both sides need to “have a say”	Input legitimacy, Participation	2
Wolf more conflictual than other carnivores	9	“There is a lack of knowledge. The way its portrayed – that it threatens the industry, grazing activities and the survival of farmers. And that is ravages rural Norway. It makes no sense given the actual state of things. So, it is largely a metaphor. “	Lack of knowledge, Rural Norway	Cleavage, urban/rural	3
Actors and trust	3	“We are not neutral. I try my best, but I know that I have colleagues [in the party] who don’t share my opinions, but like I said, I base my opinion on what I read, and I perform my job based upon this as well. “	Political biases in governance	Input legitimacy	2



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