Environmental Governance in the ARCTIC

A case study of Norwegian stakeholders engagement in environmental governance:

"*The Repparfjord mining project controversy*"

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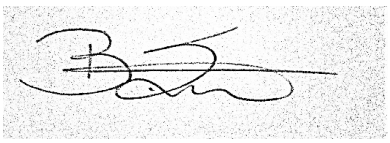

Abstract

Keywords: Environmental policy, Environmental Governance, Public Administration, Decentralisation, Norway, Ecosystems, Mining.

This thesis explains environmental governance of the ecosystems by applying the public administration theory and explores the weakness of environmental policies, and stakeholder's engagement in the process of adapting to the guidelines from the international and scientific community. Norway presents a success story of a decentralised state and environmental governance. They have adopted environmental policies, which allocates responsibilities to local authorities and supports cross-sectoral participatory decision-making processes. However, the case study including the Repparfjord mining project points out several implications of environmental governance.

Firstly, the case study shows that the knowledge which has been produced for the assessment reports and has been central to the ongoing conflict between the stakeholders for nine years. Secondly, it appears that different types of knowledge can overlap each other, resulting in undermining the power of the most influential and knowledgeable stakeholders. Moreover, the involvement of different stakeholders creates a space where power, interest, and opinions collide. Thus, resulting in the situation where stakeholders cannot agree, and the executive power and decision is transferred to the central government. Lastly, it is argued that decentralisation creates obstacles to the processes of effective resolutions, particularly in environmental issues. Similar implications appear between the Arctic states. Arctic governance is weak and slow in coordinating environmental issues. The diverse institutional systems among the Arctic states is a fundamental obstacle to transform regional decisions into national policies. This influence the global environmental politics negatively because there are too many stakeholders that are involved in the Arctic affairs.

Therefore, further scientific research is needed to elaborate whether decentralisation or centralisation is the best approach to environmental governance and policy making. Moreover, another research is required in clarifying whether or not there should be executive power of decisions in the Arctic Council.

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List of Abbreviations

AP Assessment Programme
CE Climate and Environment
CP Conservative Party
Cr Chromium
Cu Copper
CD Christian Democratic
CEO Chief Executive Officer
DMA Directorate of Mineral Administration
DoF Directorate of Fisheries
e.g. For example
EU European Union
EBA Ecosystem Based Approach
EIA Environmental Impact Assessment
FeFo Finnmark Estate
IA Impact Assessment
ILO International Labour Organisation
LP Liberal Party
LGM Local Government and Modernisation
MDA Ministries, Departments and Agencies
MRI Marine Research Institute
MPAs Marine Protected Areas
MSP Marine Spatial Planning
Ni Nickel
NEA Norwegian Environmental Agency
NGOs Non-Governmental Organisations
PA Pollution Act
PM Prime Minister
PP Progress Party
PCA Pollution Control Act
SD Sustainable Development
SP Stakeholders Participation
TIF Trade, Industry and Fisheries
UN United Nations
UNDP United Nations Development Programme
USD United States Dollar
vs Versus

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1 Introduction

The thesis' main topic is inspired by the emerged environmental impacts that have been caused by the rapid processes of modernisation and globalisation. These developments increased the role of the environment as the global political issue in the last decades (Eckersley 2017:494).

Therefore, the role of global environmental politics became critical in addressing the environmental issues such as climate change and ecosystem degradation (Lemos&Agrawal 2006:298), which have been introduced in the environmental politics by the key discourses such as *limits to growth*, *sustainable development*[1], *ecological security*, *environmental justice* and *planetary boundaries* (Eckersley 2017:493).

The World Commission on Environment and Development (WECD) known as Brundtland report (United Nations 1972) defined sustainability as "*development that meets the need of the present without compromising the ability of future generations to meet their own needs"* (Brundtland 1987). In other words, the long-term sustainable management and the responsible use of natural resources are mandatory to preserve the environment.

The lack of regulation of human activities and the increasing conflicts over the division of natural resources among nations have raised concerns about environmental degradation, preservation of natural resources and what is left after the impacts of human activities (Garcia et al. 2003:1).

Therefore, the community worldwide have reached a consensus in recognition of the fact that the environmental and ecological are factors that are directly linked to socio-economic development (Haque 2000)

In 2005, the *Millennium Ecosystem Assessment*[2] report evaluated the consequences on human well-being caused by ecosystem change. Furthermore, they have evaluated how

[1] Sustainable development – SD further in the text

[2] Published under UN Secretary in collaboration with UN Environmental Programme. It was initiated in 2001, with main objective to assess the impacts of ecosystem change for human well-being. Moreover, on the basis on the scientific research propose sets of actions that needed to enhance the conservation and sustainable use of ecosystems. Source: https://www.millenniumassessment.org/en/About.html#

the human impacted the ecosystems and how the ecosystems impact the human activities (Millennium Ecosystem Assessment 2015: ii).

The findings of the report suggested actions for achieving sustainable management of ecosystems. Firstly, by targeting institutions and governing systems, due to their ineffective arrangements[3] (Ibid:92) and secondly, focusing on economics and incentives, social and behavioral factors, technology, knowledge, and cognition. At last, the decision makers suggested considering and including the knowledge of ecosystems in the decision-making process and outcomes.

The main challenge to the relationship between the ecosystems and human activities is the economic gains, and as a result, sixty percent of all ecosystems used unsustainably (Lemos&Agrawal 2006:317). This factor linked to the ecological changes that in return, affects the number of diseases, fisheries collapse, alteration of water quality, and regional climate shifts. Consequently, the need for sustainable use of the ecosystems caused a paradigm shift in management of natural resources in the last decades.

Previously the state had a responsibility to manage ecosystems and the natural resources. However, the concerns about the loss of biodiversity, deforestation, overfishing, and other environmental damage that has been caused by the human activities, required from governments to be more inclusive and participatory and include the stakeholders from other sectors in the decision-making process (Ibid:317).

Meaning all stakeholders are responsible for actions in order to change the human impacts on the environment, while reducing the economic gains from the ecosystems. At the same time, the different type of knowledge needs to be integrated into process (AMAP 2017: ix) and outcomes of decision-making in order to close the gaps in missing knowledge (NIVA Report 2019).

The Arctic is a region where profound impacts on a fragile ecosystem exists that have been caused by the changing climate (Nordic Council 2019 ; Blaesbjerg et al. 2009:52) technological development and global economic demand of natural resources (Atkisson et al. 2018:11). These impacts caused shifts to the environment, traditional livelihood and economic activities in the Arctic, creating challenges and the need for adequate knowledge in order to mitigate these impacts (AMAP 2017).

[3] Including corruption, weak rule of law and accountability

Recent scientific reports from different research groups in the Arctic[4] have proposed urgent actions to policymakers to decline these activities, for the sake of preservation of the ecosystem. However, Arctic governments have been slow to implement these guidelines into their national policies, as it was suggested by the scientific community (Atkisson et al. 2018:55).

Another criticism of the national environmental policies stated in the recent WWF[5] report: "*development in the Arctic is not going towards sustainable direction since its processes do not make good use of the experience of people who have lived in the region the longest and know it best and its knowledge not integrated into the policy"* (Atkisson et al. 2018:55). This statement stresses out the lack of inclusion of the different type of knowledge in the decision-making process for ecosystem management and natural resources.

Meanwhile, the changing Arctic (Carson & Peterson 2016) offers new economic opportunities in the region, which put further pressure on the ecosystem. Therefore a close collaboration between the sectors and all relevant stakeholder is required to manage the increasing activities in the area (Atkisson et al. 2018).

To achieve cross-sectoral collaboration in addressing environmental issues, some scholars argue that decentralisation of public administration is required since it can contribute to the utilisation of more flexible and effective measures to include the local knowledge in addressing regional disparities and environmental degradation (Kim & Yoon 2018:1062). Furthermore, decentralisation increases accountability (Kim & Yoon 2018) and alongside with active participation of local communities in the decision-making process can reinforce official's accountability (Ibid).

Hence, this thesis studies the interlinkages between environmental and social-economic development and its impact on the ecosystem. Furthermore, it seeks to explain the effective institutional arrangements that are necessary to engage all relevant

[4] Arctic Biodiversity Assessment; Arctic Climate Impact Assessment; AACA Barents Area; AMAP Assessment 2013; Arctic Ocean Acidification; Arctic Human Development Report; Snow, Water, Ice and Permafrost in the Artic (SWIPA) 2017; The Economy of the North 2015; AACA Baffin Bay/ Davis Straight Region; AACA Bering, Chuckhi, Beoufort Region; Arctic Resilience Report.

[5] "Getting it right in a new ocean: Bringing Sustainable Blue Economy Principles to the Arctic" 2018

stakeholder and their knowledge in addressing environmental issues. Therefore, the main problem of this paper is the following:

How are stakeholders from cross sectors involved in the decision-making process of contemporary environmental governance, and what are the implications in the governance process?

2 Research design

The research design presents the structure of the logical matter in which this research based on (Vaus 2001:16). In the first part, the research problem guides the process of the research, the analysis, and the methodological stances explained. The second part introduces the overview of the chapters.

2.1 Research problem and Methodology

The main purpose of the thesis requires studying environmental policy, particularly on the ecosystem, which requires participatory management of natural resources.[6]

Therefore, the theory of governance under the Public Administration Theory has been applied to describe the administrative processes of the public sector related to environmental considerations. The theory presents environmental governance as an explanation of the shift in public sector towards more participatory processes.

There are various concepts[7]of "*governance"*(Rhodes 2000:5), depending on the inquiry of study. However, the *socio-cybernetic* governance was applied in this study since it explains the shift of government from being *centric* to *participatory*[8]*.* Henceforth, it is required to analyse relevant policies, its processes, and outcomes (Ibid).

[6] Forest, oceans, coastal waters and fresh water systems.

[7] The minimalist state, corporate governance, the new public management, good governance, international interdependence, socio-cybernetics, and networks (Rhodes 2000:6)

[8] A further explanation on the socio-cybernetic governance is described in the theory part Chapter 3.

The main research question of this thesis is explanatory and adheres to the method of a case study (Yin 2008:9). It aims to explain phenomenon based on contemporary events, on which the investigator has little or no control (Ibid:11.).

This methodological choice has been selected strategically in order to study participatory governance in the environmental policy. Therefore, it requires an in-depth analysis of a governance process over a certain period time.

The case of the Norwegian environmental governance was selected for this thesis. It represents the success story in achieving sustainability internationally. Whereas, on the national level Norway commits to the participatory, inclusive and representative decision-making since it is a key to a well-functioning society (Agenda 2030 2016). The state of Norwegian ecosystems is considered good, and achieved by the management of administrative, economic and legal frameworks (Ibid). Moreover, it prides itself as a country that holds great expertise on the management of marine resources and particularly in the environmental issues.[9]

The Norwegian government implemented the Sustainable Development Action Plan in 2004 and adopted sets of environmental approaches including the ecosystem approach (APSD 2004:20) to the management of forests, oceans, coastal waters, and freshwater systems.

Furthermore, the current legal framework requires from management authorities to take into consideration not only scientific knowledge but also "*experience-based knowledge derived from the use of nature, hereunder such Sami use, and which can contribute to sustainable use and conservation of biodiversity*[10]" in the decision-making process (Brattland 2013:39).

At the same time, environmental issues are complex. Particularly in cases where socio-economic development and inclusion of the different type of knowledge can poses challenges. Therefore, this case does not only describe success in achieving SD but it also presents conflicts that arise between stakeholders and their relationship. Moreover, this research investigates the inclusion of the different type of knowledge in the environmental decisions (scientific, local, and traditional).

[9] Accessed April 4 2019 from https://www.regjeringen.no/en/aktuelt/the-ocean--norways-proud-history/id2615839/

[10] Nature Diversity Act 2009, §8, translation from Norwegian by Camilla Brattland in 2013

The environmental conflict used in this study has recently been discussed in the national and international media, known as "*Repparford*"[11] mining project by Nussir ASA in Kvalsund Municipality. The project is one of the most significant mining projects in the history of Norway. At the same time, it is the second-largest conflict after Alta conflict in 1970, since its threat that possesses to the National salmon fjord. The company was granted an operation license by the local and central government that allows disposing the tailing waste into the fjord waters in the period for over 25 years.

Furthermore, it is necessary to mention the criticisms towards case studies based on the opinion that a single case study cannot be generalised and contribute to science at this level (Flyvbjerg 2006:228). Whereas, it can be argued that the research of this particular thesis can contribute to an overall study of environmental policies, the decision-making processes, and its outcomes.

Even though the study is based on a single country, it describes the process of decentralisation of public administration, which leads to the adaptation of more inclusive and participatory principles. The conflicts that arise in one single case cannot necessarily be generalised since the outcome varies in every case however, it contributes to the overall more profound understanding of the issues and complexities of participatory processes in environmental issues (Brattland 2013).

Therefore, it can strongly be argued that the case study of Norwegian environmental governance in this paper could not be perceived as a random sample (Flyvbjerg 2006:229), and this paper can contribute to future investigations of the Arctic region related sustainability and participatory governance in the environmental politics.

2.2 Chapters overview

The theoretical part[12] firstly presents the theory of governance and the definition. Secondly, the environmental governance and theoretical framework adopted from Wittmer et al. (Wittmer et al. 2006) included in this part. Decision-making process, in this study it is not only defined by the outcome but by the decision process as a whole. The theoretical

[11] Know legally as "Nussir ASA" case

[12] See Chapter 3 page 15

framework, which was applied in the findings chapter,[13] was based on the following four criteria: *information management, legitimacy, social dynamics and costs.*

The Method chapter[14] includes an explanation on the choice of sources and data collection methods. This research uses three types of sources (Yin 2008:102) such as: official sources, media sources, and academic papers, from which the qualitative data have been collected.

The sources have a different purpose in different stage of analysis. Therefore, the official sources are treated both as a representation of how it happened in real life e.g., official documents. However, the governmental statements that used in the analysis, they have been treated as self- representation. The media sources were only used for self-representation purposes.

Governmental sources – policies, ministerial documents, official statements, instruments and public journals. These documents provide official information on regulations and legal decisions. The time frame that is selected for official sources is from 2004 to nowadays.

Media sources – media articles from a journalist point of view presents perspectives and opinion relevant to the conflict. The time frame that was applied for data extraction of media sources is from 2012 until today, relevant to the conflict.

The *academic journals were* used as supplementary information to the analysis findings and strengthen the validity of the findings.

Academic papers - scientific papers and articles used to include scientific knowledge and research. The journals that selected firstly, by typing keywords as mentioned above[15] and by applying the same timeframe to official sources (2004-nowadays).

In the analysis chapter,[16] the first part presents the regulatory system and legal framework of Norway since 2004. The second part of the analysis is focusing on the conflict, introducing the historical development and following by the stakeholder analysis.

[13] See page 52

[14] See Chapter 4 page 26

[15] Environmental policy, Environmental Governance, Public Administration, Decentralisation, Norway, Ecosystems, Mining.

[16] See chapter 5

Stakeholders in this study were defined as both: actors that make decisions, and actors who are impacted by the decision outcomes (Wittmer et al., 2006:6). The purpose of stakeholder analysis is to identify and describe the main stakeholders of the conflict. Furthermore, it helps in understanding interaction between the stakeholders throughout the conflict.

Once the stakeholder analysis is complete, the findings applied to the Wittmer's et al framework. In this findings chapter[17], the framework used to identify weaknesses and implications. The Discussion[18]and Conclusion[19] include a summary of the whole thesis research.

3 Theory

In the recent years, Public Administration theory has gone through a transformation, due to reforms in the public sector (Kjær 2011:101). As a result, the role of government has shifted, whereas the term governance is often used in the scientific papers ever since. Hence, this chapter describes the concept of governance used in this paper.

3.1 Theory of governance

Both government and governance share the same agenda. However, the main difference between them is who has the executive power. In government, it can only be the governmental entities within the public administration, whereas in governance it can vary from governmental to NGO's or arrange as a joint entity of governmental and private organisations (Keping 2017:3).

According to Rhodes,[20] governance "*changes the meaning of government" and refers to new process of governing, or a changed condition of the ordered rule, or the new method by which society is governed*" (Rhodes 1996:653).

[17] See chapter 6

[18] See chapter 7

[19] See chapter 8

[20] Rod Rhodes – a British professor that has contributed to governance theory, particularly in the Public administration. Moreover, he introduced the concept of governance and theories about the changes during the long period of reforms.

The interests of government and governance are not the same, however. The government represents its agenda, whereas the focus of governance is on society and its issues as a whole (Keping 2017:3).

In general, "*governance concerns how society organizes to solve public problems, set policies, allocate resources, and produce public goods"* (Brinkerfhoff 2013:97). It is a consensus-based decision on how the administration should be in order to provide well-being to its beneficiaries.

Various scholarly works use the "term" governance. Rhodes dedicated his work to summarise various concepts of governance, that is mostly used in the scientific articles and separated seven different meanings of governance based on its uses: (a) *the minimalist state, (b) the new public management, (c) good governance, (d) international interdependence,(e) socio-cybernetic, (f) network* (Rhodes 2000:5).

The most appropriate explanation of the governance for this paper is the *socio-cybernetic* system. Rhodes (1996) building on Kooiman (Kooiman 1993:258) explained that the governance as "socio-political" system that is "*a common result of the interacting interventions of all actors involved. This pattern cannot be reduced to one actor of a group of actors in particular* (Kooiman (a) 1993)*."*

As a result, the actions of the central government have no direct impact on the policy outcome. The central government has regulative power. However, it has constant interaction with all relevant stakeholders from the public, private voluntary sector, where they also interact with each other (Rhodes 1996:657).

Furthermore, Kooiman states that the interaction in governance based on:

"...the recognition of (inter)dependencies. No single actor, public or private, has all knowledge and information required to solve complex, dynamic and diversified problems; no actor has sufficient overview to make the application of needed instruments effective; no single actor has sufficient action potential to dominate unilaterally in a particular governing model (Kooiman (a) 1993:4)."

This statement explains that every actor in the particular policy is dependent on each other knowledge, meanwhile should contribute equally. The knowledge and resources are not possessed by a singular actor. It is a system of sharing and contribution to the policy (Rhodes 1996:657).

The figure below (*Figure 1)*, visually explains the allocation of roles and responsibilities of stakeholders in a governance system.

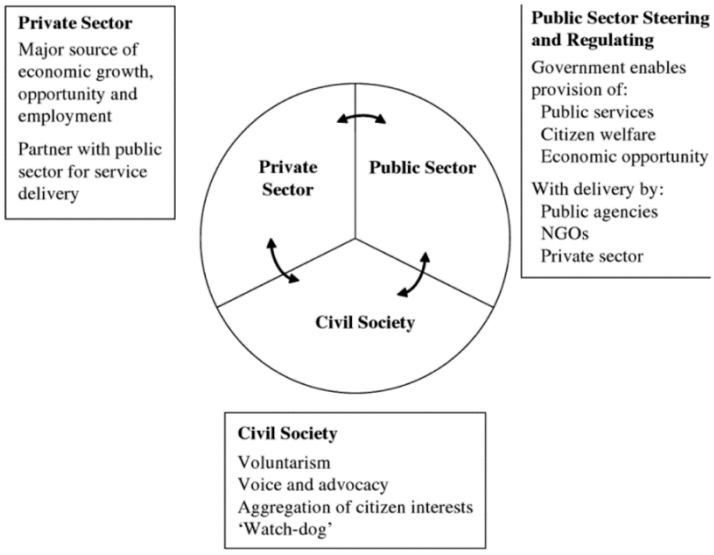


Figure 1: Governance Framework. Source: Glasbergen et al. 2013:98

From the public administration perspective, the government's role is to promote an inclusive collaboration with the private sector and civil society to provide effective public services and infrastructures.

The private sector's role is to promote economic growth by providing opportunities and employment through close collaboration with the public sector. In other words, public administration should be *decentralised, responsive, flexible, and participatory"* in order to close the gap between the state and the citizens (Brinkerhoff 2013:98).

Thus, society has a stronger voice in governance that contributes to more efficient and effective collaborations between stakeholders. It is evident that principles of governance contribute to the decentralised and participatory process.

Some scholars argue that decentralisation of public administration is required since it can contribute to the utilization of more flexible and effective measures to include the local knowledge in addressing regional disparities and environmental degradation (Kim & Yoon 2018:1062). Furthermore, decentralisation increases accountability and alongside with

active participation of local communities in the decision-making process can reinforce official's accountability (Ibid).

3.2 Environmental Governance

The environmental governance represents the political-economic relationships that governmental institutions shape with the relevant stakeholders, including local communities, private sector, and NGO's (Lemos & Agrawal 2006:299).

As previously stated, governance has to be decentralised. Therefore, in the case of this study, the concept of decentralised environmental governance that embraces significant environmental issues, particularly the ecosystem degradation (Ibid).

In theory, the successful decentralised governance of natural resources has a minimum of three sets of changes (Arun 2001) related to the following requirements:

(a) Decision makers at the lower level should relate to those a higher level (Andersson 2004), and they have to interact with each other.

(b) It is required to possess knowledge regarding the management of natural resources.

(c) To have an understanding of the relevant stakeholders relationships, their environment, and what are the power relations are (Lemos & Agrawal 2006:304) between them. Moreover, there are three social mechanisms that present schematic structure of environmental governance strategies presented in the figure below (Lemos & Agrawal 2006:310): *(a) co-management (between state agencies and communities), (b) public-private partnerships between state agencies and market actors*, *(c) private social partnerships (market and community).*

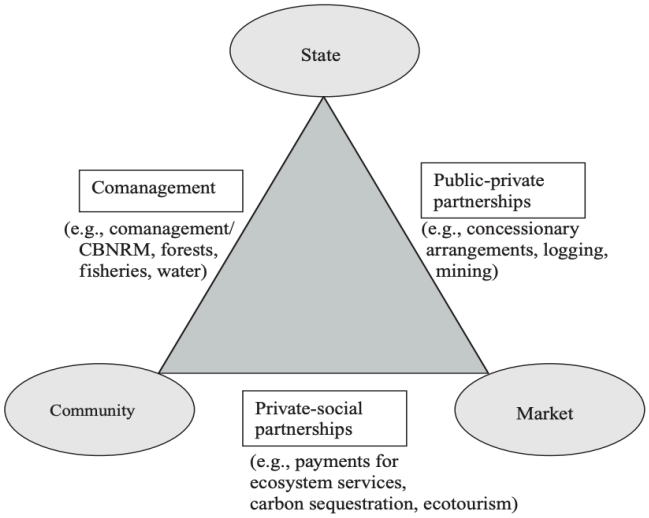


Figure 1 Mechanisms and strategies of environmental governance. Abbreviation: CBNRM, community-based natural resource management.

Figure 2: Structure of environmental governance. Source: Lemos and Agrawal 2006:310

These social mechanisms of environmental governance are gathered together to help to address major problems related either: *to climate change or ecosystem degradation.* Since this paper focuses on the ecosystem degradation, climate change is not explained further; however, considered as an equally important issue.

The relationship between ecosystems and human activity poses a complex set of multiscale issues for environmental governance. As a suggestion, to a successful environmental governance strategy, all three sectors: market,[21]state[22], community[23], which have to be involved in the cooperation in achieving successful outcomes concerning ecosystem.

It also included the cases where the environmental conflict and interest arises between three social locations (Ibid:317) (Figure above). Therefore, the next part is dedicated to the framework for environmental conflicts.

[21] Market - further referred as Private sector

[22] State – further referred as Public sector

[23] Community - further refers as NGO's and Civil Society

3.3 Theoretical framework

Participation in a decision process is complex if it involves environmental issues. Moreover, the process of participation then has to include both environmental and social considerations. Therefore, this thesis uses the theoretical framework adopted by Wittmer et. al (Wittmer et al. 2006), which presents four criteria for evaluating a decision related to environmental conflict.

Information	Coping with complexity Integrating different types of information Coping with uncertainty
Legitimacy	Legal compatibility and integrating procedural knowledge Accountability Inclusion/representation Transparency of rules and assumptions to insiders and outsiders
Social dynamics	Respect/relationship Changing behaviour, changing perspectives/ learning Agency/empowerment Facilitate convergence or illustrate diversity
Costs	Cost-effectiveness Costs of the method Decision failure costs

Figure 3: Framework adapted from Wittmer. Source: Wittmer et al. 2006

This framework helps to indicate the adequacy of different instruments, which can be assessed by the four criteria (Ibid). Firstly, by determining which criteria are the most important in the conflict and lastly, by finding out the methods or approaches that applied to deal with the most important criteria. The four criteria are the following:

- *Information* - focus on how knowledge of natural systems enters the process.
- *Legitimacy* - focus on institutional, legal and political legitimacy
- *Social Dynamics* - focus on trust building and social dynamics
- *Costs* - focus on the costs of decision-making processes

3.3.1. Information

The information in an environmental conflict is crucial to the decisions made. The knowledge produced and used by the stakeholders can be complicated to be understandable from all actors and can be conditional to serve actors' interest. Therefore, the probabilities of the impacts can be characterised by uncertainty, as the knowledge used may not be accurate.

Information in environmental conflicts includes risks and uncertainties. The knowledge that exists is divided into two categories: the knowledge, which is produced by different scientific disciplines, governmental administrations, and stakeholders[24]. It includes technical knowledge on the processes and feasibilities of outcomes

The second category is knowledge held by locals, and it is based on experiences, which people got through their interaction with nature. This type of knowledge is particularly important when the conflict is related to natural resource management, as water management or nature protection is.

In order to integrate the different types of knowledge, modelling is often used. However, it is not a sufficient way to integrate scientific and local knowledge (Wittmer et al. 2006). Moreover, the diversity in knowledge, the risk, and uncertainty, which characterise both types of knowledge, create difficulties for the integration of the knowledge in the decision-making process. Moreover, one stakeholder possesses only partial expert knowledge, which reflects on its interests. It results that the power and interests play a crucial role.

3.3.2. Legitimacy

Legitimacy reflects on the process as well as the outcome of a decision. A decision can be legitimate if the relevant stakeholders expressed their opinion, and the policy outcomes aligned with the current regulations and standard rules. Therefore, legitimacy, in this case, depends on whether the knowledge of all stakeholders have been fair and included throughout the process, moreover whether all of the stakeholders had chance to participate and share their knowledge in the process (Cash et al. 2003).

[24] EIA assessments in this case

Furthermore, Wittmer et al. (2006) explain that the context of the decision-making process (Wittmer et al. 2006:4-5) differs when studying the legal aspect of the participation importance holds, who has the authority to make rules. Under this scope, it is relevant, if a stakeholder's participation is voluntary or it is an established right for a stakeholder (or group) to participate in the decision-making process. Also, which is the binding level of the outcome and who is accountable for it (Ibid:5). Therefore, it is necessary to consider legal compatibility and accountability in the decisions.

Moreover, interest of legitimacy and power are essential to be taken into consideration (Wittmer et al. 2006) since "*social dynamics do not disappear simply by inviting all relevant interest groups to participate"* (Ibid:5). Wittmer et al. further argue that the nature of an environmental decision does not allow the identification of all interests, as the consequences of environmental decisions need time to be seen (Ibid). However, the decision process should take into consideration, reflections on the participation of interest also from people who cannot express their opinion, i.e., next generations. Furthermore, the transparency of decision rules and assumption is criteria, which is needed incorporating under legitimacy.

3.3.3 Social dynamics

Social dynamics explains how different stakeholders are involved in the process and the dynamics of the relationship between them: including ethical considerations, such as confrontation upon values and behaviour of people concerning the decision. Likewise, it is common in such decisions, to see the confrontation of the allocation of property rights, as there are rights, which are hard to define, such as traditional use of land (Ibid:6).

Mayor concern, in this case, is the relationships between the stakeholders since it can determine the possible decision outcomes. For example, a relationship based in mistrust will probably produce limited solutions. In contrast, a decision-based on trust and mutual benefit solutions can produce an outcome a win-win manner (Ibid).

In a perfect situation, social dynamics respect human rights, and the agency promotes and empowers all actors, including the minority and (or) indigenous groups. However, a relationship based on trust and mutual interests can influence positively the decisions of the proposed solutions (Wittmer et al. 2006).

It is also possible seeing a change in the actor's behaviour through the knowledge exchange. A decision-making process can have a scope to let the stakeholders show their interest and perspective in the conflict, which can boost the understanding between the stakeholders' interest.

3.3.4 Costs

Costs criteria often considered as costs from an economic perspective. However, in the case of this framework, costs are perceived in the relationship between effects vs. costs, which do not have a monetary value.

The concerns need to be taken into consideration when analysing the costs have a different aspect. One is how well a decision procedure included and took into consideration cost-effective solutions for the conflict. Another aspect is related to the costs of the *solution's procedure*, including any additional costs for the solution. It is a matter, which should discuss, and all interest considered while selecting a solution for a conflict (Ibid:7).

Last, in cost criteria, the concern of the decision failure should be studied, i.e. whether the chosen solution took into consideration the possible costs of conflict, arisen from the chosen solution. In other words, costs can be existing due to the weak decision process, insufficient solution methods application, the inadequate solution itself etc. (Ibid).

To summarise this part, the framework, applied in the findings, helped to describe the participation process based on the inclusion of all types of knowledge and interests. Whether or not the whole process and the outcomes align with the current regulatory norms that were provided equal representation and if the decisions consider the costs accordingly.

3.3.5 Stakeholders

From the theoretical perspective, stakeholders should respect and recognise each other right to participate, as well as not exercise power to eliminate opportunity representation and knowledge inputs (Jentoft 2017:271). Therefore, as Mitchell et al. (Mitchell et al. 1997) have listed two benchmarks that helps to promote fair participation such as *(a) the legitimacy of their concerns (interest)* and *(b) the power they hold or (power*). Based on this category, those who have scored high on both of these two criteria[25] named

[25] Power and interest

as "*proponents",* those who scored high on interest but low on power named "opponents". However, there are also the ones who have low interest in this case and low power, namely *"latents"* (Jentoft:271; World Bank Group).

3.4 Criticism to the theory

It is essential to mention that there are also implications in governance. The politics and environment operate as interdependent variables, where the socioeconomic conflicts often arise (Bryant 2015:28).

One example is that decentralised administration causes local competition to attract investors with higher capital and human resources, "*while discouraging local governments from producing an optimal level of policy outputs including environmental protection*" (Kim & Yoon 2018:1062)

As a result, economic gains have priority above ecosystem considerations, as it promotes the development and welfare of the local governments, whereas the environmental concerns are perceived as less important.

Moreover, this notion suggests that economic and industrial investments in the local or regional development can create gaps, where the local officials engage in the economic competition between the regional (Kim & Yoon 2018:1062). Hence, the economic development implication of environmental preservation (Ibid).

The other implications are that the role of the state has changed. Firstly, impacted by the international authorities, e.g. trade agreements, international authorities. Secondly, on the national impacted by assigned bodies and agencies. Therefore, the central authority and its capacity are limited (Peter 1995:117).

At last, one can argue that as some policies require more participatory and coordinated structure, with different stakeholders to interact each other, it can limit the capacity of governments to coordinate them effectively. Therefore, Rhodes presents in his work also examples of the challenges in the process of governance:

(a) *Fragmentation vs Control* - the core executive steering, once reduced the scope of interventions, at the same time remained the greater control of what left under control of the governments (Rhodes 2000:29). As a result, it can lead to the different power allocation between the central government and the other stakeholders in the governance.

(b) *Internal Independence vs External dependence* – the interdependency of the international constraints impacts the decision-making process on the national level by the core executives (Ibid:30). It can affect the outcome of the decision-making process if the international commitments or economic interests overlap the interests of a national or a local scale.

(c) *Centralisation vs Autonomy* - "*The search for internal independence saw both a centralisation of power on the core executive as it sought to assert its control over priorities and greater autonomy for other state actors in managing and implementing policy* (Ibid:30)."

The main criticism to Rhodes work (Marsh et al 2003) (March and Olsen 1995) is that he did not consider the conflicts arisen from the power that central government has (Kjær 2011:107). Marsh et al. emphasised that a critical characteristic of the policy is the inequality of it the governmental (Marsh et al. 2003:312-313).

Likewise, the relationship between the center and local governments is also unequal, due to the concentration of the power in the center. Meanwhile, another critique (Kjær 2011:107) to governance is the interest and conflicts between the stakeholders and the role of socio-economic power. Therefore, powerful actors most likely can dominate if the interests collide, particularly if it is considering the resources and economic gains. The most common outcomes of conflicts are either inaction or decision voted, and this leads to the necessity of governmental intervention.

These issues to governance point out to the primary purpose of the governance, which is reshaping the state and have an understanding of this process. Moreover, according to Rhodes, governance is about changing the nature of government and how "*national traditions interpret such changes*" (Ibid:46).

In opposition to criticism, Rhodes accepted that the socio-economic aspect of governance needs to have a more in-depth explanation and integrated more clearly. However, he further explained that his focus was on "*traditions*" of governance and referred to "*set of understandings someone receives during socialisation* (Rhodes 2007:1250). *Traditions explain how rule, power, order and norms arise and sustain patterns of governance within civil society (Ibid:1253)."*

The main idea behind this statement is that traditions play an important role in society. In order to change the system, it requires a change of traditional rules and norms.

4 Method

The Method chapter includes explanation of sources and analysis approach that have applied in this study.

4.1 Data Collection

Since this case study adheres to qualitative method, it requires different data sources collection, for the analysis (Yin 2008:101). It is primarily based on the three types of information: *including documentation and archival records, media and academic sources* (Ibid:102).

4.1.1 Governmental sources

The following official sources used in the analytical part which are classified based on the type, timeframe, purpose, and how its treated.

Type	Name and Year	Purpose	Treated As
1.Official report	"*APSD*" (2004)	Introduction to Environmental Policy, Regulations and Instruments (national and local level).	Highly reliable
	"Agenda *2030*" (2016)	Explains, governmental system, local and regional responsibilities, and reforms.	
	"*Ministry of LGM decision" (*2014)		Highly reliable
2. Final Desicions	1st phase "*Saksfremlegg Kvalsund Kommune*"[26] (2010-2012)	Pre-assessment stage of conflict, public opinions and evaluations of consequences on municipal level and ministerial level, decision on approval of zoning plan.	Highly reliable
	"Zoning Plan decision of LGM ministry" (2014)		Highly reliable

[26] See Appendix

	2nd phase NE agency (2016) "Permission of tailing disposal by CE Ministry (2016)	Decision on permission of tailing disposal on agency and ministerial levels.	Highly reliable Highly reliable
	3rd phase Directorate of Minerals, "TIF Ministry decision" (2019)	Final decision for operation permit, Directorate and Ministry level.	Highly reliable Highly reliable
3.Objections	Mail correspondence[27] (10 Stakeholders,2015) Norske Laksselver (2015) Natur og Ungdom Naturvernforbundet (2015)	Official documents that have been sent by a stakeholder's trough out the process.	Very reliable, however, some source available only upon request[28]
4. Official Statements	Available from the official website of government (2012-2019)	The statements of governmental representatives and their opinions.	Very reliable, however, treated as self-representation.

Table 1: The table explains the different approaches to how official sources are treated.

Moreover, these sources used in the different parts of the analysis:

- The First part (Policy and regulation) used official reports.
- The Second Part (Conflict) used official documentation.
- The Third part (Findings) Statements.

[27] See Appendix

[28] Through an online application documents can be accessed and received by email. The official site is the https://innsyn.no. See Appendix

4.1.2 Academic articles

The academic sources are used as supplementary to the findings. The sources extracted from "*International Journal of Public Administration", "Land Use Policy",* "*Geoforum Journal", "Journal of Environmental Policy and Planning", "Environmental Law", "Acta Borealia"* include analysis of policies from different aspect such as rights to land use and natural resources management. All the journals provide information of international governance on natural resources from economic, political, social, and environmental approaches.

The academic paper "*The Nussir case and the battle for legitimacy: Scientific assessments, defining power and political contestation*"[29] from Dannevig and Dale (Dannevig & Dale 2018) and the thesis "*Mining or Traditional Use? Conflicts in the Northern Norwegian Copper frontier*" (Rør 2018) by Anders Vieth Rør are used in the analytical part of this thesis.

These two papers supplement the findings from the interviews with the local's from Kvalsund on the outcomes on the "Repparfjord case", conducted in 2017. Moreover, the findings on participation in the decision process and the legal compatibility of the process used where it was relevant to supplement the findings of this thesis analysis.

4.1.3 Media publications

Articles and media publications are extracted mainly from web sources. Different online media covered the conflict in the Repparfjord. The media publication presents opinions from stakeholders involved in the decision-making process and treated as self-representation of the process. It gives different perspective to the official sources, by making it less formal.

The statements included in the analysis represent points of views, opinions, and claims of various stakeholders, according to their participation in the decision process and outcomes. Moreover, other media sources describe the context used and its meaning.

[29]Introduces a research on legal compatibility of the mining permission process.

4.2 Data Analysis

The first part of the analysis requires a descriptive data analysis approach, as to provide a general description of the administrative structure and the regulations. The second part of the analysis requires a more systematic approach to data analysis.

Firstly, by distinguishing the stakeholders who are relevant to the chosen environmental conflict and categorised by the sector, they represent the *public, private, NGO's, and civil society*. Secondly, by categorising them based on the power (in the decision-making they possess) and interest (protect their interest in the process)[30].

Lastly, by arranging all relevant stakeholders based on the phases of the "Repparfjord case" from 2010-2019 according to their position in the process: proponent, opponent, and latents.

Therefore, the second part of analysis is divided into three stages of the conflict, which includes stakeholders.

Phase 1 (2010-2014)	Early stage of conflict (Zone Planning Approval).	Municipal/ LGM Ministry Level.
Phase 2 (2015-2016)	Middle stage of conflict (Tailing Waste Disposal Permit).	NE agency/ CE Ministry.
Phase 3(2016-2019)	Last stage of conflict (Operation Permit).	The Directorate of Minerals/TIF Ministry final decision.

Table 2: Presents the phases of the conflict

To finalise all part of the analysis, the theoretical framework as applied to the findings, as well as, the official and media statement supplemented with the academic sources.

[30]Additional inspiration for stakeholder analysis gathered from World Bank. http://www1.worldbank.org/publicsector/anticorrupt/PoliticalEconomy/stakeholderanalysis.htm?fbclid=IwAR3i5pWn09TLn12rYeXlaKkzL6QU4ttHE1Th6SGeQWsONU7k9INmCRUN0qI (Accessed on May 10 2019)

4.3 Limitation

The relevant governmental documents were retrieved easily and accessed without implications. However, it is worth considering that some information might have been deliberately withheld. Information that is available to the public, cannot be perceived hundred percent reliable. In this thesis to avoid biased selectivity (Yin 2008:102), the conflict phases are used as a tool for collection of data. Additionally, by using different type of evidential sources. Meanwhile, there is a certain limitation to this data.

Some of the official documents are only available in the Norwegian language. In the case of this paper, this factor has not created the obstacles in the research since one of the authors is able to understand the language.

However, in some instances, translation tools have been applied and, therefore, it is essential to consider that some understanding may have been lost in translations. This factor can possess challenges for future research without the Norwegian language understanding.

Another limitation is that the authors have not been part of the public meetings of the conflict, and to identify who was indeed participated or invited to the meetings is challenging. Perhaps, the qualitative study that involves interviews of participants and stakeholders can in many cases supply with a deeper understanding of the whole process.

5 Analysis

The following part describes the environmental policy, which the Norwegian government adapted in 2004, and the relevant instruments that have been applied to the national, regional and the municipal level. The main purpose of this chapter is to introduce the change that the Norwegian government went through in order to implement the sustainability act of the environmental policy, its instruments, and to present relevant regulatory acts. Moreover, it describes how Norwegian government implemented the reform in the public sector for environmental governance.

5.1 Norwegian environmental policy

Norway is a monarchy with a political system that is based on the representative democracy (“Local Government in Norway” 2014). The power is divided in three branches:

A legislative branch, also responsible for appropriations, the Storting (Parliament) an executive branch of the Government, and a judicial branch, the courts[31].

It consists of fifteen ministries that coordinate the work of the Norwegian government.[32] With the current Prime Minister[33] – *Erna Solberg*, the governing cabinet is under the Norwegian center-right (Conservative Party). The main agenda of the party is economic liberalism, reduction of taxes and individual right (Wayne 2012:54). Moreover, in January 2019, the PM was able to include the fourth party Christian Democratic Party (CDP) under existing coalition of Progress Party (PP) and Liberal Party (LP).

Norway is ranked as top country in the world in the human development index by the UNDP and fifth in the environmental development in the Arctic.[34] It is also ranked high in the implementation of the SDG's and has been expected to put further efforts in achieving development in socio-economic and environmental development (Agenda 2030 2016:1).

Furthermore, the Norwegian Government respects participatory, inclusive and representative decision-making process as fundamental for a well-functioning society. Therefore, the Government involves the indigenous peoples' assembly, the *Sámediggi*[35] in the dialogue with the ministries and formal consultation mechanisms and cooperates with local and regional authorities.

These governmental consultations involve different stakeholders such as: *the civil society, the business sector and academia representatives.* It is one of the most important agendas for the Norwegian government, as it brings to the dialogue different sectors meanwhile strengthening the democratic principles and the decentralisation process.

Furthermore, the top priorities for the government are *sustainable natural resource management*, *climate change mitigation* and *adaptation* (Ibid:4). Moreover, they address the responsible use and protection of oceans and marine environments.

[31] Accessed on April 29 2019 https://www.regjeringen.no/en/the-government/id443314/

[32] See Appendix

[33] Further referred PM

[34] According to UNDP statistics of 2018, http://hdr.undp.org/en/countries/profiles/NOR Accessed on May 26 2019

[35] Sámediggi – the Sami Parliament. See more p.37

The recent emphasis on the environment policy is related to the health of the ocean. It is important for Norway and other Arctic and coastal countries as the healthy oceans contribute to the "Blue Economy[36]", while protecting the ecosystems (Ibid).

As a response, Norway has established integrated ecosystem-based management plans for its sea areas (Ibid:4). In May 2016, the Storting[37] adopted a *Norwegian Action Plan for Biodiversity* [38] alongside the other actions plans and act, which is described in the following section.

5.1.1 The Action Plan for Sustainable Development

In 2004,[39] the Norwegian Government adapted the Action Plan for SD[40] as a national strategy for SD. It was the first step to make efforts on national level, to ensure environmental long-term political agenda. Moreover, it is a tool for the authorities, the business sector, the voluntary sector and individual people for environmental action (APSD 2004:3).

Under APSD, following environmental principles and a set of policy instruments have been introduced:

5.1.1.1 Stewardship responsibility principle

Stewardship responsibility principle[41] is central to the Government's fundamental values. Based on the Sem Declaration statement:

> *"The Earth provides the basis for all human life, and we have a responsibility to manage it in such way that future generations have the same opportunities to experience the natural world and make use of natural resources as the present generation*. *We will use the environment and natural resources in such a way that*

[36] Blue Economy –" Blue "economy in the Arctic related to the economy that is dependable on the large bodies of water: oceans, seas and large inland lakes. Almost every country with a coastline has some part of "Blue economy "adapted also in the policy (Atikson et al.2018)

[37] Norwegian Parliament

[38] See page 37

[39] Under former Prime minister of Norway Kjell Magne Bondevik (Christian Democratic Party)

[40] Known also as Agenda 21

they benefit the community as a whole and within the limits of their capacity for renewal (Ibid:20)"

Therefore, it is required to ensure economic development within framework of a long-term management of the environment and natural resources. Under this requirement, the government made a commitment to reduce the economic pressures that are associated with economic growth (Ibid:20).

5.1.1.2 Precautionary principle

The precautionary principle adheres to a following statement:

" *Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost effective measures to prevent environmental degradation" (Ibid:20).*

Whereas, it is emphasized to have a precautionary principle for all sectors and activities that puts pressure on environment and natural resources.

Additionally, it is stated in the document that it is challenging for developed and industrialized countries particularly, to achieve a sustainable development on a national level.

5.1.1.3 Ecosystem approach

The ecosystem approach considers ecosystems such as forests, oceans, coastal waters and fresh water. The framework known *as ecosystem* approach elaborated internationally and is based on following principles:

(a) Management should be based on all type of information that includes scientific, traditional and local knowledge, contributing to maintenance of the ecosystems.

(b) Management should be evaluated continuously from intensive use to strict protection

(c) Management should be in in consideration with temporal ecological variations and impacts on the neighboring eco-systems. Moreover, state management should be decentralised to the lowest level possible.

5.1.1.4 Polluter-pays principle

The polluter-pays principle is complex in its nature since it involves the economic interlinkage with the environment (APSD 2004:21). The additional costs added to polluting activities to promote a development of new solutions that have less impact on the environment. This is principle based on the idea that the welfare of the society is central in SD. Polluter-pays principle aims to promote technological development solutions, to reduce emission and at the same the costs of production, broadly knows as *"Green taxes".*

This polluter-pays principle leads to reduction on the environmental pressure, while society shifts to other more efficient resources.

5.2 Instruments

The Norwegian government has established policy instruments for tackling the environmental issues on the national level: *economic, administrative and guidance and information* (APSD 2004:22-24).

5.2.1 Economic instrument

The economic instruments are related to the influence on the behavior of consumers and businesses. By putting extra expenses, it is expected that actions will follow to reduce pollution where the environmental improvements is achieved at the minimum costs of operation (APSD 2004:22). The environmental taxes, tradable emission quota and deposit and return schemes and subsidiaries are the example for the economic instruments.

5.2.2 Information instrument

This instrument obliges the authorities to provide a framework that promotes producer and consumers to act in an environmentally friendly way. Therefore, establishment of the Environmental Information Act requires commercial actors to be transparent, as well as providing information regarding the provided goods or services. It also involves spreading the information that can contribute to the businesses and consumers to make "environmentally sound choices" (Ibid:25).

5.2.3 Administrative instruments

This instrument influences the decisions directly by creating requirements to promote certain behaviors and prohibit other. The power of implementation of administrative instruments is given to the local government administration.

These instruments involve direct regulations and arrangements between the authorities and sectors of industries or private business establishments. Under Norwegian legislation, the following acts are adapted:

The Pollution Control Act[42] and the Planning and Building Act[43] – for governance for the use of natural resources and the environment (Ibid:24).

The PB Act provides guidelines for a long-term development, which can contribute to the reduction of the needs of transport, pollution and help to safeguard biological diversity. Alongside with the Cultural Heritage Act[44] is also important for the use and protection of the cultural heritage (Ibid).

Moreover, on important addition to the administrative instruments is the Environmental Impact Assessment (EIA)[45]. The assessment is prerequisite as a practical tool under precautionary principles. The purpose of the assessment is to ensure "*that the general public can take part and influence the decision-making processes in accordance with the Environmental Information Act",* adopted by Storting in 2003 (Ibid:24).

All the above-mentioned instruments allocate the environmental responsibilities from the state to other sectors and therefore contributes to a decentralization process.

5.3 Policy for Sustainable development

Under the policy for SD the Norwegian government adapted sets of objectives[46] for the international and national level. Whereas the relevant objectives under this policy for ecosystem preservations are the following:

[42] Further referred as PA Act, see page 38

[43] Further referred as PB Act, see page 39

[44] Further referred as CH Act, see page 38

[45] See page 40

[46] International cooperation to promote SD and combat poverty, climate change, the ozone layer and long-range air pollution.

5.3.1 Biological diversity and the Cultural heritage

For the biological diversity[47] and the cultural heritage (Ibid:32):

(d) The government committed to establish *a knowledge-based management system[48].*

(e) Implement the protection plan for the forest to increase the territories of the mainland protected areas under *the Nature Conservation Act.*

(f) Establish the marine protected areas (MPA's) to protect and guard the vulnerable species in Norway's marine and coastal areas.

(g) Establish a system of *national salmon rivers and fjords* where special measures will be taken to protect wild salmon stocks.

5.3.2 Natural resources

For the natural resources (Ibid:34):

(a) Establish framework condition for possible conflict resolution between the interests of the fisheries, aquaculture and petroleum sectors under the framework of sustainable development. The role of the impact assessment (IA) is critical to monitors consequences to the environment fisheries and society[49].

(b) To prioritize the environmental research where challenges in areas of petroleum, fisheries and environment collide.

(c) Reduce overcapacity of the fishing fleet and introduce a structural scheme of quotas.

5.3.2.1 Sami perspectives on environmental and natural resource management

The Norwegian government's objective is to make sure that Sami[50] interest and considerations are included into, both the SD policy and in collaboration between the central environmental and regional authorities alongside other stakeholder involved in

[47] See the whole list in SD Action plan:32--33

[48] Described in the white paper on Biological Diversity

[49] As the example IA from the Lofoten Islands and northwards the Barents Sea.

[50] The right to their land and resources for livelihoods, the right to practice their language, the right to be free from discrimination, the right to self-determination and the right to be consulted in decision-making.

environmental efforts. Moreover, Sami culture is protected by the UN international law ILO No.169[51] which main agenda is to include indigenous peoples into the decision-making process (Ibid:34). Including the following steps (Ibid:38):

(d) Sami custom, tradition and interest are considered in the legislative work. In the case of environmental disputes, the government will take into consideration Sami views.

(e) Establish closer collaboration between Sami and other sectors for the SD.

To summarize the APSD since 2004, the Norwegian government went through a transition towards more decentralized state that allocates the environmental responsibilities to different stakeholders, by adapting various instruments and legislations under the environmental policy. Moreover, the inclusion of the Sami Parliament in the environmental decision-making, presents inclusive and participatory collaboration in the decentralization process.

5.3.3 Action Plan for Biodiversity

The Action Plan for Biodiversity (2015-2016) is the Government's policy for biodiversity management in Norway is based on these principles: (a) *More clearly targeted nature management,* (b) *Climate-resilient nature management*, (c) *Strengthening municipal expertise on biodiversity,* (d) *Safeguarding threatened species and habitats,* (e) *Long-term conservation of a representative selection of Norwegian nature,* (f) *Knowledge-based management,* (g) *Adaptation of tools and instruments to the different ecosystems* (Biodiversity Action Plan 2014:6).

Moreover, the importance of traditional knowledge (TK), is emphasised in the policy, and also referring to §8 of Natural Diversity Act[52], which requires from authorities to include and attach importance to any TK[53] when making official decisions, particularly for the public authorities (Ibid:71). Particularly in Sami areas, where TK being nature is still used in the traditional way, and they possess a large body of unique knowledge only to Sami.

[51] International Labour Organisation Convention.

[52] See page 39

[53] Regulations on TK under Nature Diversity Act, that implement Norway obligations under the Nagoya Protocol on Access and Benefit-sharing.

5.4 Overview of Norwegian Acts

In this part, relevant Acts that are most commonly used in legal environmental cases will be introduced to give a better understanding of the Norwegian environmental regulations.

5.4.1 Cultural Heritage Act

The following Act (9th June 1978) protects architectural, archeological monuments and sites, and cultural environments, as part of cultural heritage, cultural identity, and as overall environment and resource management.[54]

5.4.2. Pollution Control Act

The Act's (3th March 1981) the main agenda is to prohibit to pollute and litter. With this act, the outdoor environment is protected from external pollution from solid substance, liquids or gas to air, water or ground, as well as noise and vibrations.

5.4.3 Marine Resource Act

The Norwegian Marine resource Act[55] (6th June 2008) the following act ensures sustainable and economically profitable management of wild living marine resources, as well as promotes employment and settlement in a coastal community. Under §7 main principles are mentioned: a precautionary approach, in accordance with international agreements and guidelines ecosystem approach that takes into account habitats and biodiversity. Moreover, to safeguard the material basis for the Sami Culture.

5.4.1.2 Salmon Fjords

Under the policy for SD 29 Norwegian salmon fjords have been establish nationwide[56]. The main reason for this is to provide the most important salmon stock with protection against various intervention that can harmfully affect the breeding activities and overall conditions of the salmon with pollution in the nearby fjords and its coastal areas (APSD 2004:14).

[54] https://www.regjeringen.no/en/dokumenter/cultural-heritage-act/id173106/ Accessed May 26 2019

[55] https://www.fiskeridir.no/English/Fisheries/Regulations/The-marine-resources-act, Accessed May 26 2019

[56] Under the biological diversity and cultural heritage. See page 35

5.4.4 Planning and Building Act

The Norwegian Planning and Building Act (of 27th 2008) (Ministry of LGM 2008) this regulation is related to EIA that obliges to do the EIA for the extractions of ore, minerals and similar. Under the §4 of the Act it is stated that:

"Permits *pursuant to the PC Act may not be granted in violation of adopted land use/ zoning plans in the municipality in question, and without from the municipality (NIVA Report 2019:14).*

This act refers to the land *use* and *zoning plan* that the municipalities have the authority to grant the permission.

5.4.5 Nature Diversity Act

The Norwegian Nature Diversity Act – (of 1st July 2009) (Ministry of CE 2009) this regulation's purpose is to protect the "*biological, geological and landscape diversity and ecological processes through conservation and sustainable use*." This §8 (knowledge based[57]) states:

"*Official decisions that affect biological, geological and landscape diversity shall, as far as is reasonable, be based on scientific knowledge of the population status of species, the range and ecological status of habitat types, and the impacts of environmental pressures. The knowledge required shall be in reasonable proportion to the nature of the case and the risk of damage to biological, geological and landscape diversity.*

Furthermore, the authorities shall attach importance to knowledge that is based on many generations of experience acquired through the use of and interaction with the natural environment, including traditional Sami use, and that can promote the conservation and sustainable use of biological, geological and landscape diversity."

The §8 obliges the inclusion of two different knowledge. The scientific knowledge that evaluates impacts on the environmental pressures and ecosystem and the traditional knowledge based on experience or traditional use. The §9 is related to the *precautionary principle* and §10 to *the eco-system approach*. Which states that any pressure on the eco-system shall be evaluated and assessed based on the environmental effect on the current

[57] Knowledge based principle, under ecosystem approach. See page 33

and on the future ecosystems (NIVA Report 2019). Furthermore, §14 states that all measures under this Act shall "*be weighed against all other important public interests. When decisions are made under the Act that directly affect Sami interests, due importance shall be attached, within the framework that applies for the individual provision, to the natural resource base for Sami culture".* In current legislation, authorities are obliged to make sure that management decisions are made according to the principle of safeguarding the material basis for Sami culture (Nature Diversity Act 2009, §14).

5.4.6 The Finnmark Act

This Act that has been created (17 June 2005) by Sami Parliament and Finnmark Council. It facilitates the management of the land and natural resources in accordance to ecosystem considerations in sustainable manner for the benefits of County's inhabitants. Particularly as basis for Sami culture, reindeer husbandry, the user of outdoor land, business activities and community live. This Act is connected to ILO Convection 169[58] (Lovdata.No 2005).

5.4.7 Environmental Impact Assessment

The EIA's purpose is to ensure that the environment and community are taken into consideration during the planning. It helps to decision-making process, by including the public be involved in the evaluation process (TIF Ministry 2014:1).
Since Norway belongs to EEA, consequently, it is obligated to align its land use legislation with the EU law. Therefore, according to 2011/92/EU the procedure to make changes in land use and industrial development needs to be followed by EIA.

5.5 Local Government

Norwegian local democracy is strong, and the local governmental institutions are well established. It has a two tier-system of local government: the (428) municipalities and the (19) county authorities[59] ("Local Government in Norway Information" 2014, p.8). The

[58] "Indigenous and Tribal Peoples Convention" 1989. The convention concerns on Indigenous and Tribal Peoples in Independent Countries, regarding human, economic, social, cultural and political rights of Indigenous people.

[59] As for 2012.

municipalities are political bodies, that elected by democratic council. Since the councils are accountable to the local public, they are expected to promote local interests, values and also fulfil local demands (Falleth & Hovik 2009, p.1). All municipalities and county authorities are required to fulfil the same functions and same responsibilities regardless of size. The Norwegian government distributes responsibilities between the different levels, based on the generalist local authority system.

As a result, since 2006, the government adapted reform that based on the principles of delegation and decentralization of responsibility and authority. This step has promoted even further the local democracy, which contributes to more efficient and "user friendly" public administration (Ibid, p.11).

The responsibilities between governmental institutions are divided as following (Local Government in Norway Information 2014:11)

- *Central Government responsibilities*[60]
- *The County responsibilities*[61]
- *The Municipality responsibilities*[62]

Since the municipality and country given various responsibilities, the authorities must not exercise power but closely collaborate with the private and voluntary sector (APSD 2004, p.41). Moreover, the local authorities maintain contact with the central authorities concerning various issues on administrative and political level ("Local Government in Norway Information" 2014:30).

The parliamentary elections in 2013 proposed a new reform that includes an establishment of larger municipalities, with increased number of tasks and responsibilities

[60] The National Insurance Scheme, Specialised health services (hospitals), Higher education/universities, labour market, refugees and immigrants, National road network, railways, agricultural issues, environmental issues, Police, courts, prisons, armed forces, foreign policy, Specialised social services.

[61] Upper secondary school, Regional development, County roads and public transport, Regional planning Business development, Culture (museums, libraries, sports), Cultural heritage, Environmental issues.

[62] Primary and lower secondary school, Nurseries/kindergartens, Primary healthcare, Care for the elderly and disabled, social services, Local planning, agricultural issues, environmental issues, local roads, harbors, Water supply, sanitation and sewer, Culture and business development.

(Ibid, p.12). As the result, the number of the municipalities will be cut in the future from 428 to 354, and 19 counties will be merged in 11 regions[63].

Currently, the most controversial case in the public sector is the merge of the two Northern counties of Troms and Finnmark, whereas the regional administration of county Finnmark opposes to this decision (Staalesen 2018).

Even though the Storting has twice approved the decision, the Finnmark county leader R. Vassvik refused to meet with the Minister of LGM, Monica Mæland, for further discussions. She has expressed her opinion, mentioning that insufficient knowledge and understanding of Finnmark region and its culture is present among the people from the Southern part of Norway (Staalesen 2018). Moreover, the public opinion of Finnmark County strongly, opposed to this decision on referendum of May 2018 (Ibid).

Therefore, tensions between the local and the central governments are currently present, particularly between the southern (center) and the northern governments (Staalesen 2018).

5.6 Sub-conclusion

The Norwegian government, after adapting the APSD in 2004, went through institutional change, alongside implementation of environmental principles under the sustainable policy. The precautionary principle became a requirement to use in all sectors and activities, which puts pressure on the environment.

Meanwhile, the government also acknowledged that for the developed and industrialised countries it is a challenge to reverse environmental damage that have been caused by industrialisation. Therefore, achieving sustainability at national level is particularly challenging change (APSD 2004:20).

The ecosystem approach required from the management of ecosystem to include different type of knowledge, to establish protected areas and monitor the impacted area.

Whereas, the managements required to become decentralised by promoting participatory governance of natural resource.

Decentralisation of central government in Norway led to local and regional governments be responsible for addressing the environmental issues.

[63] 422 Municipalities as 2019 and 18 Counties.

Therefore, the EIA became a practical tool for application of environmental principles and serving as regulatory since then. The necessity of IA promoted to obtain that environmental knowledge that is needed and is missing to close the knowledge gaps. As well as to ensure the public participation in the decision-making process (APSD:24).

The role of a local administration became more significant after they have received the executive authority for the land use and zoning plan.

The public sector reform since 2006, resulted in major structural changes, where the local authorities have been given more responsibilities by the state, as part of decentralization strategy.

At the same time, the central government has also gone through administrative changes. In 2013, under the former parliamentary election, which has been won by Liber party (LP), the further reforms of the local administration have been proposed in order to reduce the number of Municipalities and merge them. The same applied with the number of Counties. At that time, the LGM Ministry was under the CP. Since then, the CP was getting political recognition and strengthening their influence, which lead to the winning on parliamentary elections in 2017. Under the CP administration, the reform of the local and regional structured has been approved. However, it creates tension in the public sector between the central and local authorities.

This part has shown the complexity of public administration structure and relations, between public authorities and institution. Since the Municipalities have been granted responsibility to address environmental issues, the recent conflict in "*Repparfjord case*" is described to further explain the complexities when different stakeholders are involved in the environmental decision-making process. Therefore, the next chapter provides information regarding the background of the conflict and introduces to the main stakeholders involved in this issue.

5.7 Background of the Repparfjord conflict

Among various fjords that are located on the west coast of Northern Norway, one particular fjord was brought to the attention of not only the whole Norwegian Nation, but also the international community. The *Repparfjorden* in Kvalsund Municipality, which is located on the Barents Sea.

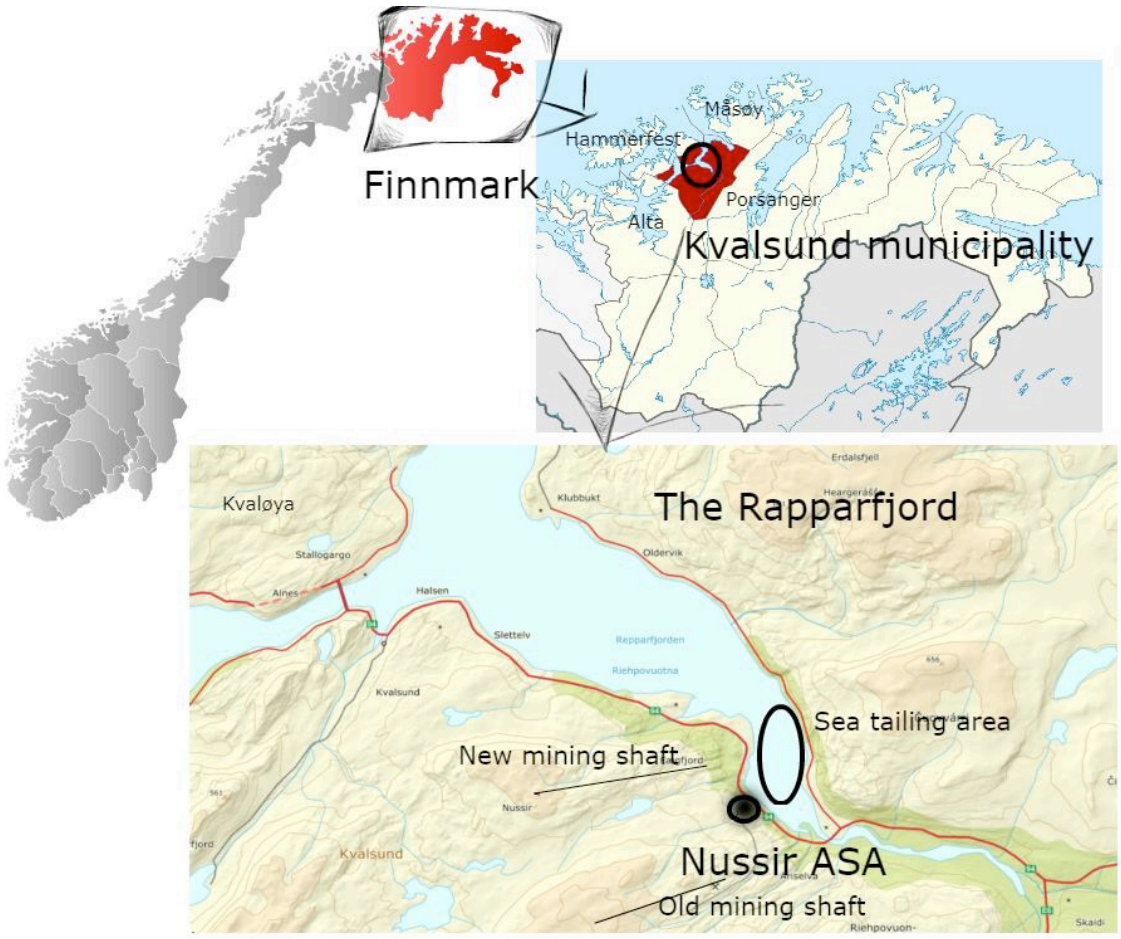


Figure 4: The location of the proposed Nussir mining project. Adapted from Wikimedia Commons and Norwegian Mapping Authority. Source: Rør 2018:43.

It is home for only about 1100 inhabitants including Sami[64], indigenous community, however, often visited by the neighboring residents from Hammerfest[65] town. Historically, the area belongs to a fishing community, but for the last 20 years, the decline of coastal fisheries in Norway lead to the disappearance of livelihood in the area (Dannevig & Dale 2018:16).

[64] Indigenous people, who live in Finland, Russia, Sweden but the majority lives in the county of Finnmark in Norway. The Sami in Norway have their own parliament. Likewise, Norway was the first country who ratified Sami's right to use the land through the ILO Convention in 1990. Source: https://www.unric.org/en/indigenous-people/27307-the-sami-of-northern-europe--one-people-four-countries Accessed May 05 2019.

[65] Hammerfest - population of 10417 (January 2016).

Repparfjorden is a place of a cultural meaning, where the local Sami settlements and reindeer herder have coexisted with the local Norwegian communities for centuries. They also share the common understanding and knowledge of the landscapes, nature and the ecosystems (Ibid:17).

The Kvalsund Municipality describes the fjord as a place that has *"many good fishing waters and rivers…one of Norway's best salmon rivers…Repparfjord River."*[66]This description by municipality presents a sense of pride that the natural resources offer.

The Norwegian government has classified the Repparfjord as a "*National Salmon Fjord*" as it is important to the Atlantic salmon spawning grounds, cod and the other marine species (Friends of the Earth International 2015). Therefore, it is particularly important to keep the ecosystem of the fjord healthy, as well as, its communities and their culture.

Norway is globally known for being a seafood nation, with beautiful fjord system contributing to the world's food supply approximately 38 million meals of seafood every day (Friends of the Earth International.Org.2015). Since the fjords and its marine species are important to Norway as a nation, the Norwegian government has a special responsibility to protect the health of the fjords. This is the reason why the Norwegian government established national fjords that have a special status for the environmental protection.

5.7.1 Nussir ASA

Nussir ASA[67] is a Norwegian mining company. In 2005, it proceeded with the legal procedure to obtain permission to mining activities in the area of Kvalsund Municipality. The project is hundred percent owned by the company, with the total investment of 150mil USD, that are sponsored by Switzerland investors (Rør 2019).

In order to understand the steps that Nussir ASA went through to get the permission for operation, the table below presents a chronological overview.

[66] Kvalsund Municipality official homepage http://www.kvalsund.kommune.no/english.109751.au.html Accessed on April 30 2019

[67] http://www.nussir.no/en_about_nussir.php CEO Mr. Øystein Rushfeldt Accessed on May 02 2019

1970's	Copper mine was operated by the Norwegian Company "Folldal bruk". The tailings[68] were disposed to the Repparfjord. Closed in1978 due to the global copper price fluctuation.
2007	Nussir ASA started test drilling in Ulveryggen and Nussir. Large deposit of copper, gold and silver ore were discovered.
Late 2009	Nussir ASA's CEO Mr Øystein Rushfeldt started talks with the Kvalsund Municipality. The company initiated meetings with leaders from the municipality and people at the public meeting.
2010	Nussir ASA got approved an Assessment Program (AP) by the Kvalsund Municipality, afterwards the municipality initiates an EIA. Nussir ASA secured approval for the zoning plan, from the municipality. At this point, Sami Parliament could start to object.
2011	In 2011 consultations, tastings and planning started to evaluate the impacts of the mining project in the area.
2012 Oct. 25th	Kvalsund Municipality approved zoning plan to Nussir ASA. Sami Parliament and Områdesstyrret for Reindrift i Vest-Finnmark opposed this desicion.
2012 Jan.	Nussir ASA applied to NEA to get a permission to deposit mining waste in the fjord.
2014 March 20th	Nussir ASA got the governmental approval for the zoning plan by the Ministry of Local Government and Modernisation. Counter notification from Sami Parliament and the Area Council was denied.
2015 March 17th	10 stakeholders representing fishery industry send petition opposing the tailing waste dumping to Reppafjord
2015 Dec. 8th	Final tailings disposal permit which was granted by the Norwegian Ministry of the Environment

[68] *Tailings* - are the sludge left once the mineral is extracted from the ore. They contain crushed rock, processing chemicals and naturally occurring elements that become toxic when exposed to air or water. This toxic cocktail settles on and smothers the seafloor, killing everything that lives there. Tailings can also spread, contaminating other areas and destroying coral reefs and the other habitat. Source - https://earthworks.org/stories/kvalsund/ - Accessed May 06 2019

2016 May	Nussir ASA applied to the Directorate for Mineral Management for an Operating License for exploitation of the Repparfjord copper deposit. During this hearing the Sami Parliament has objected according to Mineral Act
2016 Dec. 19th	Granted an emission permission by the Ministry of Climate and Environment, including the permission to depose tailings in a Repparfjord sea deposit
2017 Sep. 27th	The Ministry of Trade, Industry and Fisheries received application,
2017 Oct. 25th	The TIF Ministry asked the Directorate to provide the Ministry with professional mining advice to the objective application from Sami Parliament. The Directorate responded with the advice on 27 February 2018. Nussir ASA replied on the Directorate's advice in letter of 5 April 2018.
2018 May 18th	Open input meeting and an inspection in Kvalsund and the Repparfjord areas, with participants from the reindeer herding industry and relevant authorities (Eilertsen 2019). Same day there the consultations between the affected reindeer herding districts and the Ministry in keeping up with the 2005 Consultation Agreement. Representatives from the Sami Parliament attended as observers.
2018	Nussir scheduled to begin operating, close to receive all necessary permits[69].

Table 2: Mining Development in Repparfjord.

The final decision from the TIF Ministry gave permission to operate with the mining activities in Ulveryggen and Nussir that will dispose the mining waste / tailings to the fjord's waters over 2 million tons per year for approximate period of 25-30 years. Tailings that consist of heavy metals of which 240 tons of Nickel (Ni), 588 tons of Chromium (Cr) and 1400 tons of Copper (Cu) will be disposed to the fjord every single year.

[69] Accessed on May 06 2019 https://earthworks.org/stories/kvalsund/

Figure 5: Overview of Repparfjorden. Source: Rør 2018:44.

This decision-making process and its outcome had provoked many stakeholders to be involved in both the process and its outcome, since Norway is one of the handful countries[70], which permits dumping waste in the seabed.

5.8 Stakeholders

Kvalsund Municipality

It is the actor, who holds the authority to grant permission for environmental project, according to the current Norwegian legislation. Therefore, they are responsible for the zoning plan and land use. They gave the permission to Nussir ASA in 2010, after implementing the EIA.

They strongly support the mining project and their core argument during the conflict, was the economic and social development, which the project will bring to the area, which is much needed.

[70] Other countries are Chile, Turkey, and Indonesia, Papua New Guinea.

Nussir ASA

The company holds the 100% exploration right of the amounts of gold, silver, platinum, palladium add copper available in Nussir field. The economic contribution of the project in the local community was the core arguments of the company during the conflict.

The company interacted with the local people during all the decision-making process, and strongly support that all the necessary legal procedure has been followed during the application process.

Ministry of LGM

The Ministry is responsible for housing policy, the Planning and Building Act, local government finances and local administration, ICT Policy and Public Sector Reform, rural and regional policy, the conduct of elections, government employer policy, Sami and minority affairs and national mapping and geodata policy.

Ministry of CE

The Ministry of Climate and Environment has a particular responsibility for carrying out the environmental policies of the Government.

Ministry of TIF

The Ministry is responsible for the trade, industry and seafood policy.

NEA

Its tasks and responsibilities focus on managing Norwegian nature and preventing pollution. Its report for the Repparfjord showed medium negative impacts on the fishery industry, but higher on the reindeers. However, it found that the project will not cause irreversible manage to the fjord nature.

DMA

It is responsible for administrating the extraction of mineral resources in Norway.

DoF

Monitors Norwegian and foreign fishing vessel's activities.

MRI Marine Research Institute

It is Norway's largest center of marine science. Their main task is to provide advice to Norwegian authorities on aquaculture and the ecosystems of the Barents Sea, the Norwegian Sea, the North Sea and the Norwegian coastal zone.

Its report for the Repparfjord showed the potential negative impacts of the mining activities in the marine ecosystem in the fjord.

Finnmark County Council

Finnmark Country Council is highest governing body of the county municipalities in Norway.

Finnmark County[71]

It is the regional governing administration for Finnmark County, located in in the town of Vadsø. It holds responsibilities on economic and social development on the region, as well as on constructions, roads, upper secondary education and cultural services.

Under the current legislation, county together with Municipality is eligible to authorise permission for environmental projects. It has been opposed to the project, with the claims that it will have negative environmental impacts in the region.

Sami Parliament

It is a representative organisation of indigenous Sami people. It has a value of an institution and according to the current Norwegian legislation, Sami Parliament has the right to oppose to environmental decisions. This right has been used during the decision-making process, where they have been opposed regarding the environmental impacts of the mining activities, which consequently will negatively influence their interest in the region.

Sami have been inhabited in Finnmark region before Norway, adhered the region. In the area where the zone planning of the mining activities covers, Sami communities use this territory for husbandry purposes.

22 Fiettar

District 22 Fiettar is a reindeer community, between the Repparfjord and Porsa, to Sennalandet (or district 22), who uses this area for graving purposes during spring/summer/fall. They hold an oppose position during the conflict as they claimed that the mining project blocks the migration routes to and from Kvaløya (Rør 2018;56).

[71] In original language Finnmark fylkeskommune

FeFo

It is the landowner and own legal entity in Finnmark, that manages land and natural resources in accordance with Finnmark Act. The body of FeFo own 95% of Finnark that have been transferred from state to local ownership[72].

Finnmark gjenvinning

District 22 Fiettar is a reindeer community, between the Repparfjord and Porsa, to Sennalandet (or district 22), who uses this area for graving purposes during spring/summer/fall.They hold an oppose position during the conflict as they claimed that the mining project blocks the migration routes to and from Kvaløya (Rør 2018:103).

10 Stakeholders[73]

It is an alliance of 10 stakeholders, from private and civil society sectors. The private sectors consist of the top biggest seafood companies in Norway companies and other related to the fish industry sectors. Where the civil society consist of fishery and handers associations.

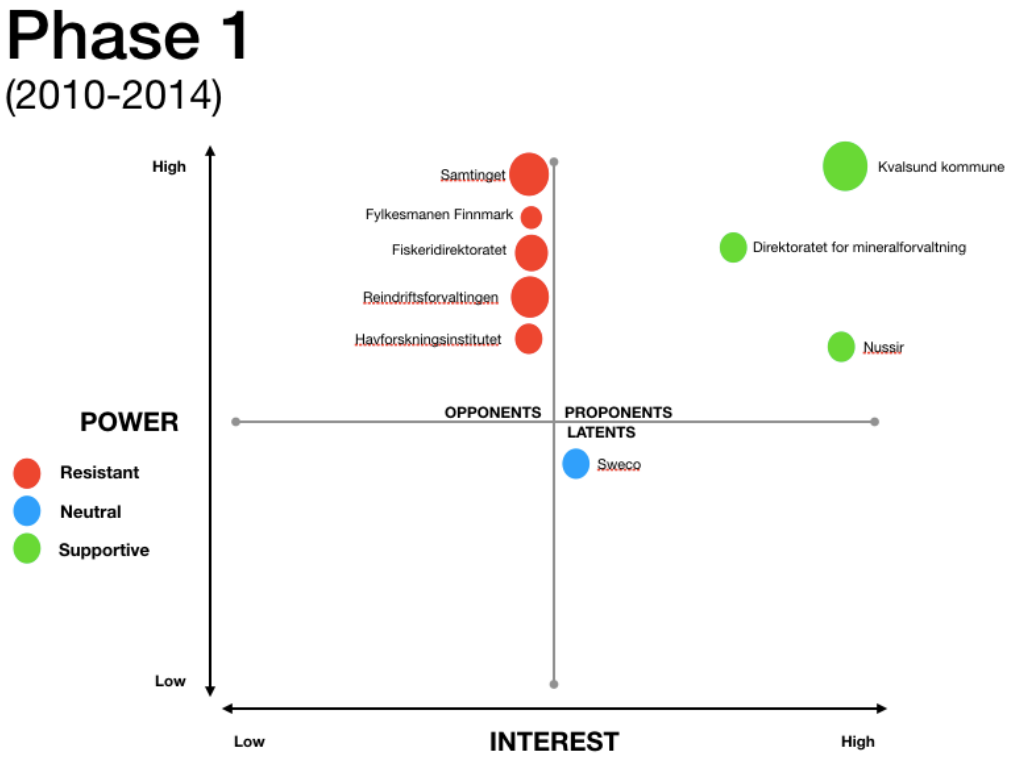
They expressed their opposition, by sending a letter to Ministry of environment and climate, expressing their concerns on the environmental impacts of the mining activities, which they will have negative influence on their economic interests in the Repparfjord area. Some of the companies e.g Grieg Seafood Finnmark AS, is a globally leading fish farming company, having activities in the region with an important contribution to local value creation.

[72] https://www.fefo.no/om-fefo/ Accessed May 15 2019.

[73] Cermaq Norway AS, Grieg Seafood Finnmark AS, Norway Royal Salmon Finnmark AS, FHL Nordnorsk havbrukslag, Kvalsund Kystfiskarlag, Fiskarlaget Nord, Hammerfest Fiskarlag, BIVDI, sjøsamisfangst og fiskeriorganisasjon, Vest-Finnmark Jeger og Fiskeriforening, Norske Lakseelver (It is and Industry organisation for licenses and leasing association for fishing of salmon, trout, and sea trout. https://lakseelver.no/nb/norske-lakseelver Accessed May 2019)

6 Findings

6.1 First phase



In the first phase of the mining project in 2010, there were many stakeholders that had to be engaged according to the regulations, based on the zone planning and land use. Since the municipality had initially the power to grant the permit to Nussir ASA it had also responsibility to include different stakeholders.

In the proposal document the Kvalsund (Kvalsund Municipality decision 2012) municipality expressed their opinion of the Repparfjord mining project. In general, the consequence of the mining waste has negative impacts whether it is the land or marine solution. The initial investments of the startup investment are a hundred times more expensive on the land versus the marine solution (Kvalsund Municipality decision 2012:22-23).

Additionally, the day to day operations are also concluded to be ten times more expensive on land, so Nussir will not pursue a land solution.

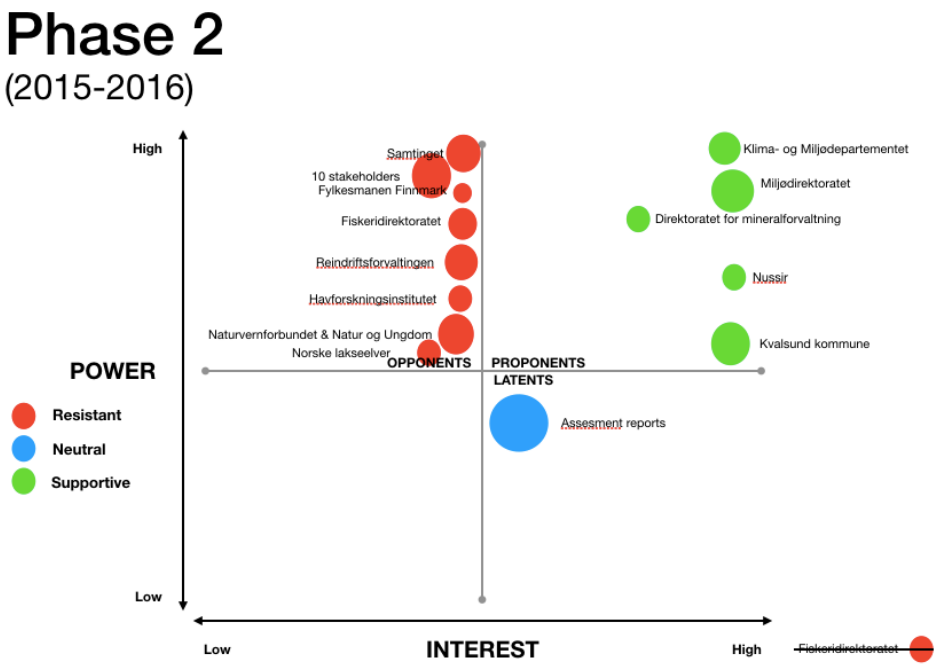
However, the conclusion regarding marine tailing waste solution and the surrounding ecosystems are that there will be severe negative consequences if this solution is chosen. This is the reason this decision was proposed to public hearing.

The stakeholders from different sectors were involved in the decision-making process and this case was particularly relevant to the fishery community since the level of pollution in the fjords water is the main concern.

Moreover, the Repparfjord is a wild salmon protected area that has a special environmental status. At this stage of the conflict there were mixed feelings between stakeholders. The Institute of Marine Research was claiming that the marine solution will invoke irreversible damages to the ecosystems.

Opposing to the Kvalsund municipality that perceived this project as opportunity for economic growth. The EIA's played an important part in phase one. Alongside the civil society that have been participating in the public hearing

6.2 Second phase



During this period (2015-2016), Nussir ASA, applied for permission to tailing waste into the water, as it requested under\from the PC Act. Firstly, the power to grand the permission holds the NEA. Due to the appeals, the power to grand the final decision for this permission transferred to the Ministry of CE.

However, appeals from private and civil society sectors have been granted first for the knowledge used in the assessment process. The Alliance of 10 stakeholder in their letter to NEA (17.03.2015) prior to Nussir's ASA application for license under the PC Act, recognised the growth and the economic contribution of the mineral activities in the area.

The assessment made by NEA concluded that no significant effects have been noted for the species live in the fjord and especially to the wild salmon (NE Agency decision 2016:47). Although, the report stressed the negative consequences to reindeer husbandry in the absence of mitigating measures, from the land disposal (Ibid).

Moreover, appeals have been granted from different actors regarding the legal compatibility of the decision. In 22.12.2015 the organisation Friends of the Earth Norway[74] among with 11 other NGOs, Organisations and Unions[75] sent a complain letter to EFTA[76] accusing the Norwegian government that the decision did not comply with the Water Framework Directorate[77] . In details they claimed that the permission violates *"the article 4.7 and article 1 of the WFD, as well as the article 4.1 and 10.1, which refers to the high danger of concentration of nickel in the tailings"* (Naturvernforbundet 2015:1).

Likewise, Sami Parliament requested from Ministry of CE to reject the permission of application given by NEA to Nussir ASA. Sami argued that their established rights to sustain themselves and their culture through the exploitation of the natural resources in Sami areas was violated.

This phase of the conflict shows the continuation on the conflict over the knowledge used during the assessment period. Furthermore, the stakeholders based their appeals on the adversary of their interest with the decision.

[74] In Norwegian Naturvernforbundet.

[75] Natur og Ungdom (Nature and Youth), Vevring og Førdefjorden miljøgruppe, Friends of the Earth Europe, Norske Lakseelver (Norwegian Salmon Rivers), Greenpeace Norway, WWF Norway, Norges Jeger- og Fiskerforbund (Norwegian association of Hunters and Anglers), SABIMA (The Norwegian Biodiversity Network), Framtiden I våre hender (Future in our hands), Den Norske Turistforening (The Norwegian Trekking Association), Norges Kystfiskarlag (Union for Norwegian coastal fishermen). The Norwegian Fishermen's Association (Norges Fiskarlag) supported the complain.

[76] European Free Trade Association, Surveillance Authority, Brussels.

[77] In October 2000, EU adopted the EU Water Framework Directive (WFD), to ensure the protection and sustainable use of water.

The Alliance of 10 stakeholders in their letter, they strongly opposed to the knowledge, which have been used in the assessment report by NE Agency. They further supported that their economic interests will be adversary affected by the mining activities, a fact that they perceived as threat for their industry (fishery) (10 Stakeholders). With their movement to allied together, wanted to show that they are strong research and financial power for the region, but as their knowledge and opinion has been neglected from the authorities, it seems that the government perceived their influence as low.

Likewise, Norske Laskeelver send an individually letter to Ministry of CE on 28.12.2015 to complain about the knowledge used in the process. They argued that the argument that the salmon has a short residence time in the fjord and migrate quickly was false. Laskeelver accused that this conclusion was not based on the best available knowledge (Norske Lakseelver:2).

They further argued their appealed to NE Agency's decision that the decision is defective as there is a legally binding instrument, which protect the wild salmon (Ibid:2). They referred to § 7 of the PC Act, which obligates the government when it takes decisions or actions that may affect the salmon's living conditions to take these considerations into account to protect the national salmon foundations.

Geode Consult AS made a report with title "Potential for mine water contamination after cessation of mining at Nussir" for Nussir ASA. The report was technical with focus on the geological effects in the fjord. It concluded, "*that mine waste will not generate acid rock drainage. Leach testing showed that very little copper was leached from the sample*" (Ettner & Sanne 2016:1). In other words, the report did not recognise that the chemicals would have negative effects on the fauna and flora of the fjord.

However, in the report it is written that the research and the project's prediction was based on the available data and mine plans. The company came out with a result without collecting primary data and samples (Ibid:11).

This fact can be one more confirmation on the complains coming from the fishery industry, about the inadequate data and knowledge, which have been used in the impact assessments.

In 2006, the Minister of CE, Vidar Helgesen stated in the governmental announcement that: "*the environmental impacts of the mining activities have been comprehensively assessed. The permit is granted with strict conditions, and is*

environmentally acceptable" (Ministry of Climate and Environment 2016). This statement is a confirmation that the project by governmental opinion would not damage the environment and the eco-systems of the area.

Both stakeholders here it seems that they did use of their power to produce and present knowledge, which was convenient for them and their interest. However, the Ministry had bigger influence as the executive actor.

However, the organisation Friends of Earth Norway and Youth and Nature had another opinion and expressed that they "...*believe the decision on mining in Nussir and Ulveryggen and the discharge permit for landfill of mining waste in Repparfjorden should not be legally enforceable and the project is rejected*"[78] (Naturvernforbundet and Natur og Ungdom:20). The organisation has been used its advocacy role in the whole process to spread the awareness of the negative impact in the environment, which seems to be hidden by authorities. They further tried to win the interest of the public and stop the project.

Strongly opposition on the NE Agency's decision hold also by the Sami Parliament. In their complain letter (08.12.2015) sent to Ministry of CE they stated that after consultation between NE Agency and Sami Parliament, both "*parties disagree on whether to grant a permit pursuant to the PC Act for Nussir ASA*[79]" (Sametinget 2015). They made it clear that there was no agreement between them and the NE Agency.

They further argued that the pollution-related disadvantages for Sami industries[80] are so large compared with the benefits that the project otherwise supposed to entail. They added that the consequences are so big that it is difficult to set measurements for mitigation. They also wrote that both the operational under PC Act and zone planning permission were against their right and reported the violation of the Civil and Political Rights Convention (SP) of 1966 Article 27[81].

However, NEA supported that they have set strict conditions for the chemical release and for maximum permitted noise. As well as they set requirements for monitoring the

[78] In authors' own translation.

[79] In authors' own translation

[80] Fishery and husbandry.

[81] In original language "De forurensningsmessige effektene av gruvedriften vil derfor, etter vår vurdering, ikke innebære en innskrenking av samisk kulturutøvelse, jf. FN konvensjonen om sivile og politiske rettigheter av 1966 artikkel 27".

emissions and what effect they will cause to land and the sea according to § 16 of PC Act (NE Agency 2016:46-47). In other words that these strict conditions and requirements need to be followed (while mining activities) to prevent undesirable pollution and consequently disadvantages for the natural resources in the area. Furthermore, NEA's report concluded that there will not be pollutant effects on the Sami culture practice, therefore NEA did not recognise violation of the UN Convention on Civil and Political Rights of 1966, Article 27 (Ibid:47).

In this stage of the conflict the Sami Parliament, stand against the decision, to protect its established right. The social dynamics were in tension throughout the whole process of the decision so far. This also reflected on the fact that the decision passed from the Agency level to Ministerial, as the Sami and NE Agency could not come to an agreement.

In the Ministerial announcement is stated, *"consider that the complaints do not give foundation for changing the assessments previously made and upholds the decision. The decision is final and cannot be further appealed*" (Ministry of Climate and Environment 2016). This statement referred to the appeals raised by Sami Parliament and NGOs and verify one more time that the process was participatory to an extent, that authorities let it be.

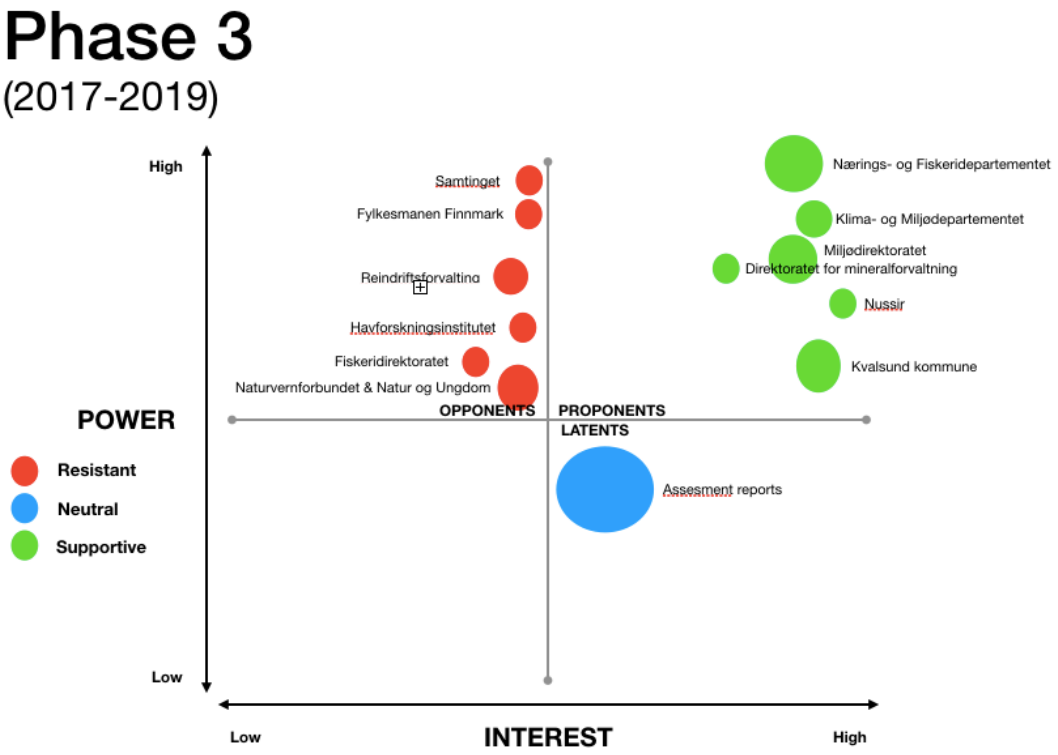
The analysis of this stage shows the decisive character of government to give permission to Nussir AS, besides the appeals and complaints. The confrontation in this stage is mainly due to the incompatible character of the decision with the PC Act. All the opposed stakeholders accused the government that the knowledge used in the impact assessments is inadequate.

The opponents' opinion repeatedly raised their voices that the interests causing controversy. The private sector, the civil society and the Sami Parliament made their position clear against the process of the decision. They did not hold power as they did not have executive power, but they used their advocacy role, to attract attention and spread awareness on the unlawful processes of the decision.

However, the proponents of the decision did not find a collision of interest. They kept their position that there were no significant potential impacts on the water in the Repparfjord and consequently in the fishery industry.

The most significant outcome in this stage is that the stakeholders coming from the fishery industry is proven to have a weak voice throughout the process. From this moment, the fisheries perspective it has been neglected, and the focus turned to reindeer husbandry.

6.3 Third phase



During this period, the Nussir ASA applied for the operational license under the Mineral Act in 2016. This application went on public hearing on 21st of June 2017, with consultation deadline 1st of September 2017. The public consultation held by the TIF Ministry.

The County of Finnmark and the NEA pointed out their requirements for strict operational control to protect the reindeer's husbandry and strict control and monitoring over the pollution (TIF Ministerial decision 2019:6-7).

The DoF continued opposing the license and continued underlined the negative consequences in fishing industry in local and regional level. In the official document, it is presented the DoF's opinion that there are new results from surveys from 2017 that were not known at the time of the preparation of the zoning plan or when processing the emission permit for the measure (TIF Ministry decision 2019:7).

The FeFo recognised the positive contribution of the Nussir project and emphasised that the project can have positive social spill over Sami people, through increased settlements in marginalized coastal areas (Ibid:7).

Sami Parliament opposed to decision and accused for violation of the Section 43, fourth paragraph of the Mineral Act (ibid:8). Furthermore, they underlined that the mineral administration is obliged to assess the effects of the decision on Sami culture, business practices and livelihood according to UN Convention on Civil and Political Rights Article 27. Furthermore, the Sami Parliament referred to the ILO Convention No. 167 Articles 6 and 7, which impose an obligation on the state to consult the indigenous peoples when considers introducing a legislation or administrative measure, that may have direct impacts on them.

The last decision on the permission has been given by the Ministry of TIF in 2019, which reaffirmed the first decision of Kvalsund Municipality. There requirements included in the decision, set the operational (reports) and financial terms (creation of financial security) which the company has to follow before and during the works. Furthermore, the final decision included clarifications on the exact time when and here the activities will take place, as a measurement to minimize the impact on reindeer's husbandry (Ibid:2-5).

The Nussir ASA's CEO, Øystein Rushfeldt admitted that "…*all mining has negative consequences for disturbing the environment, use of land and other effects and it doesn't matter if the tailings are placed on land or in sea, it's always consequences (Nielsen (b)2019)".*

The lack of adequate knowledge was an argument throughout the process from cross sectors stakeholder. As evident can be argued the fact that the following stakeholders Reinbeitedistrikt 20 Fàla, Sami Njarga AS, Repparfjord eiendom AS, Yeoman Halsvik AS, Hammerfest Energi AS, have been authorized by the TIF Ministry, Fishery department to be part of the public hearings. However, statements regarding their opinion were not included in the official outcome document of the public hearings.

From another stakeholder perspective, the chair or Friends of the Earth Norway, Silje Ask Lundberg gave a phone interview at the Real World Radio[82] stated that "*this project is one of the most environmentally damaging industrial project in Norwegian history*"

[82] It is a communication platform between the Friends of the Earth around the world. https://rwr.fm/who-we-are/ Accessed on April 30 2019.

(Lundberg 2019). She added that even scientists raised their concern about the impact of the chemicals and metals, which will be used in the project as well as copper waste and mercury dumping in the sea, the government, did not stop the permission process (Ibid).The cross sectors stakeholders pointed out in every argument that the knowledge used did not represent different types of knowledge, as the ecosystem principles required.

This phase of the conflict it can be argued that shows a scaling up from local level to regional and consequently to national level and national level. The leveraging referring to the relationship between the costs and effect of the decision.

The Minister of Trade and Industry Torbjørn Røe Isaksen[83] (CP) in his interview at the NRK Sampi webpage[84] gave his explanation why his ministry gave the final permission to Nussir ASA. His core argument is stated as: "it will make a *positive contribution on the development of the local community, with new jobs, industrial skills and economic growth*[85]" (Mariela Idivuoma 2019).

Moreover, he underlined that the "*reindeer husbandry interest and the consideration of Sami culture have been important in the Ministry's assessment over the application for permission*"[86] (Ibid). With this statement, the Minister wanted to show the willingness that the government evaluated and included the consideration of Sami.

Still, Beaska Niilas, representative from the Norwegian Sami Association brought a different opinion about the Repparfjord project and he stated that *"is a test pilot project to see if it is possible to destroy indigenous land in the north of Norway. If they manage to open this then it will be open for grab by anyone" (Nielsen (b) 2019).* His statement reflects the tensioned relationships between the central government and the Sami people, which led to the unresolved status of the conflict

However, the explanation from Minister Torbjørn Røe Isaksen (CP) aligns with the claims of Minister of Local Government and Modernisation, Jan Tore Sanner, (CP) that this project is needed to support the green shift that Norway is investing on (Regjeringen,

[83] He belongs to Conservative Party, Høyre.

[84] Same article by the journalist Mariela Idivuoma, published 23.02.2019.

[85] In original text "Den vil særlig gi et positivt bidrag til utviklingen av lokalsamfunnet rundt, med nye arbeidsplasser, industriell kompetanse og økonomisk vekst."

[86] In original text "Denne gruvedriften berører to reinbeitedistrikter og jeg understreker at reindriftsinteressene og hensynet til samisk kultur har vært viktig i departementets vurdering av søknaden.

Ministry of Environment and Climate 2016). Furthermore, both of them underlined the economic development in the area as the outcome of the project APSD 2004:20). A statement, which is in agreement with the position of Mayor of Kvaslund Terje Wikstrøm (LP), who had the initial executive power to permit the project.

At his interview at "The Barents Observer" (Nielsen b 2019, b), the Mayor welcomed the mining project, and confirmed the position Municipal position presented in the outcome decision. Where it stated "*there are limited opportunities for other business activities in the municipality. The project is estimated to provide many new jobs*[87]" (TIF Ministry decision 2019:6). The Kvalsund Municipality made their position and interest to growth clear from the beginning of the conflict.

However, a survey (held by InFact for) presented in NRK Fimmark showed that 45.4% of the population in County of Finnmark did not support the mining project and the tailing dumping into the sea in Kvalsund. A 38,7% supported the project and 16% were not sure (Klo and Jakobsen 2017). The opposition expresses mainly from the population aged 30 to 44 years old, where the youngest population, 18-29 years showed support.

In another research, the local population, excluded reindeer herder showed a positive attitude towards the mining activities (Rør 2018). They considered that they will not be affected by the project, and they expected to see more benefits than costs. However, their interest is not strong in the area (Ibid:87).

In national level, Norway is depending on the natural resources extraction industry (Nilsen (b) 2019) and further the Minister or Trade and Industry underlined that the economic development was priority for the Ministry. The mining sector was important in that stage for Government, as copper is mandatory to the "green shift", which government works on (Mariela Idivuoma 2019).This statement can be consider as confirmation to current administration agenda, which promotes extractive developments.

Furthermore, Minister of Trade and Industry, Torbjørn Røe Isaksen in another interview in Barents Observer media, he commented regarding the green shift and the global respond to climate change, *"most of the copper we mine in the world today is used for*

[87] In original language "Kommunen peker på at det er begrensede muligheter for annen næringsvirksomhet i kommunen og at prosjektet er anslått å gi mange nye arbeidsplasser."

transporting electricity. If you look at an electric car for example, it has three times the amount of copper compared to a regular car" (Nilsen (b) 2019). With this statement, he tried to convince the public that Norway response to the global growing demand for copper with the scope to tackle the climate change. He further argued that Norway is able to do extractive projects in sustainable way (Ibid).

The argument about the "green shift" that Norway tries to achieve, have been criticised though by the NGO Friends of Earth. The chair of the organisation accused government that violated the law (with the decision) and "*is hiding behind, that this is part of the green shift, we need the copper...to reach our renewable society…hide behind that we are environmentally friendly mind (RealWorldRadio)*."

The above argument shows the complexity of the decision related to the costs and effects of the decision. During the whole process, the stakeholders were arguing about the negative effects of the mining activities in the environment of the fjord, which consequently adversary would affect the economic interest of the stakeholders who sustain themselves form the natural resources in the area. They further argued that there are costs that you cannot see or predict for the close future.

The proponents of the decision were arguing that the economic benefits of the decision are big and much necessary for the region. Then the argument turned to the national economic benefits from the mining activities, which Norwegian authorities projected it as the contribution of Norway to international responses to tackle climate change.

This part of the conflict reflected on the potential economic spill overs from the mining activities. Rhodes argues that the interdependency of the international constraints affects the decision-making process on the national level. The case of Norway seems to follow Rhodes argument, as the main argument of the Kvalsund Municipality was that the economic development of the small municipalities, contributes to the overall economic development of the region. Moreover, the country's interdependence on the international market and increasing demands of copper, have been proven to influence the decision and placed the executive power to the core, where the political agenda on "green shift" overlap the local developments.

Moreover, the decision related to environmental governance should take into consideration the internal and external interdependencies of the country as well as the

international commitments which it follows (Rhodes 2000, p.30). In the process of decentralilsation, when local authorities or region, get authority it also creates a gap between relationships in the public sector (state and periphery). This is also proven in the case of Norway, where the Finnmark Region authorities strongly opposed to the central administration agenda.

Likewise, commitments can influence the decision. In the case of Norway, the international commitment to protect Sami rights and livelihood have been used by the Sami Parliament to appeal the decision. Consequently, the discussions due to the appeals lasted many years and the last decision will be taken by King's Court.

The most significant though is the Norwegian commitment to international Conventions and Agreements. Norwegian government based their core argument on the contribution of the country to tackle the climate change by being "green". This can be translated as the country perceived the global benefits higher than the local one.

7 Discussion

The study case of Norway has been particularly relevant for this thesis since it has contributed to a deeper understanding of the complexities that environmental governance consists of. Norway presents a strong democratic state that has rule of law, decentralised government and functional institutions.

Norwegian administrative system represents a paradigm shift from economic to ecosystem considerations. The Repparfjord controversy explains not only the process but also the length of one environmental decision. It took nine years of ongoing disputes and still consensus has not been achieved between involved stakeholders.

The Norwegian government has established a two-tier administrative system that allocates power to local government. The environmental responsibilities became instrumental not only to the local governments but also to private and civil society

On the first phase of the conflict, the role of civil society was included in the process.

Another concern in this case is that even the governance followed a participatory process, giving place to other stakeholders to express their opinion, to succeed a prosperous decision for all and the environment. However, the findings show that it is not enough to have a participatory decision-making process when the participation cannot have an impact on the decisions.

The process of decentralisation led to the involvement of different stakeholders with different power and interests. Therefore, social relationships, which involve various stakeholders, consequently caused conflicts since they have different interests (economic development, political agenda, and technology).

A participatory process does not necessary mean that different types of knowledge are considered. The longer the process takes most likely the knowledge can jeopardies the decision's outcomes, as it will be discarded. The alliance of private sector and private sector and NGO's was initially very impressive, but in the end did lead to their favorable outcome.

The connection between power and knowledge is proven strong and influential. Whose knowledge the decision authorities used to assess an environmental decision and how the pros and cons in economic, social and environmental perspective are evaluated, is crucial element for an effective decision.

In the real world, local knowledge should be along with the scientific, to create effective decisions and precautionary measurements. However, in this case study Norway are willing to dismiss the user's knowledge.

From the theoretical aspect, environmental governance is a "socio political system" of interactions and interventions of all actors involved in the process (Kooiman, 1993:258). Which recognizes that knowledge between all actors is important since no singular actor possess all knowledge and information to solve complex problems (Kooiman (a) 1993:4).

This explains that every actor in the particular policy are interdependent on each other knowledge and where all can contribute equally. The knowledge and resources do not possess by a singular actor, it is a system of sharing and contribution to the policy (Rhodes 1996:657). Furthermore, it represents the collision between the socio-political system and socio-economic power. Additionally, this conflict has demonstrated that precaution should persist when talking about political shift and decentralisation since there is a various implication that needs to be addressed by the scientific community.

It seems that under the environmental governance that has changed the traditional way of governing, the relationships between power politics and democratic norms of government has also changed (Griffin 2010:288). It leads to different power allocation between the stakeholders since the state is not the main body of power. Since the Norwegian government acknowledges the interdependencies between the ecosystems and

human impact, the main governmental agenda is still the economic welfare of the state (Kim&Yoon:1062).

In the case of Repparfjord mining conflict, it can be argued that the stakeholders protect their own interest. In a socio-political system, there are stakeholders that protect either economic or political interest or interest based on culture. The main weakness of decentralised state caused by the fragmentation of power by allocating responsibilities. However, the state assigns more power on the rest of the responsibilities. Therefore, when higher decision is taken, the economic and political interests outweigh all other interest (Rør 2018:103).

8 Conclusion

In Norway, as the research has shown, the local and the regional government has responsibilities in addressing environmental issues. However, relationships between the stakeholders in environmental governance are complicated. The governmental institutions can be established as an effective administrative body, but the whole decision-making process can take many years to reach consensus and resolution that is satisfactory to all parties involved.

The mining conflict reveals the complexities of the relationships between the stakeholders in a decentralised state. In the three phases of the conflict, the stakeholders' influence and power of the opposing side either disappeared or was removed by the administrative system processes.

Despite the growing body of knowledge regarding the negative environmental consequences, the stakeholders of the proponent side were getting more influential and more powerful. As a result, no decision could be made on the local level.

Norway represents a decentralised governance decision-making process that does not prove efficient due to the many stakeholders ongoing opposing views and lack of consenting decision to move forward with the best possible solution for the environment. Therefore, the Norwegian government ends up being the central governing decision body instead of decentralised system.

The Arctic consists of eight different countries, among the biggest countries in the world, and they hold central power and function under different institutional systems. On

May 8th, 2019, The Arctic Council Ministerial meeting for the first time did not reach a consensus between the member states. The reason is that some states felt uncomfortable with the interference of non-Arctic states. It possesses the main challenge in the Arctic because environmental governance does not have an institutional arrangement that has executive power of the decisions. The Arctic states own individual environmental governance is proven to be weak to respond to the increasing demand for actions towards ecosystem preservation.

In order for the Arctic countries to strengthen their environmental governance, they may have to establish a central governing system with decision power. However, the Arctic countries are among the biggest in the world, with strong individual economic and political agendas, facts that may procrastinate this implementation. Hence, for this purpose, it may be valuable to conduct more scientific research in the area of environmental governance decision-making process.

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