Dealing with Volcanic Terrains: Conflict, Communication, and Consensus Building among Stakeholders of Protected Areas in Iceland and Japan

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Magister Scientiarum degree in Environment and Natural Resources

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Abstract

The thesis takes a human perspective of stakeholders on issues related to protected area management and presents a communicative model to manage conflicts and create consensus. The literature research explores techniques in conflict management and a survey is used to evaluate the opinion of stakeholder concerning the themes of conflict, communication, and consensus.

The survey focuses on the Daisetsuzan National Park in Japan and the Vatnajökull National Park in Iceland with the aim to formulate a suited conflict management approach that can be used in protected area management in general. The findings suggest that despite difference in cultures a communicative approach to conflicts in protected area management may support forming consensus regarding the issues at stake.

Útdráttur

Ritgerðin skoðar hug hagsmunaaðila á álitaefnum sem snerta vernduð landsvæði og kynnir samskiptaaðferð til að takast á við ágreining og skapa samstöðu innan slíkra svæða. Rýnt er í efni um ágreinings- og deilustjórnun og spurningakönnun er notuð til að meta hug hagsmunaaðila varðandi deilur, samskipti og samstöðu.

Spurningakönnunin var lögð fyrir hagsmunaaðila í Daisetsuzan þjóðgarðinum í Japan og hagsmunaaðila í Vatnajökulsþjóðgarði á Íslandi með það að markmiði að hanna deilustjórnunaraðferð sem mætti nota við stjórnun verndaðra landsvæða. Niðurstöðurnar benda til þess að þrátt fyrir ólíka menningu í Japan og á Íslandi að þá sé samskiptaleiðin líkleg til árangurs ef takast þarf á við ágreining og tryggja samstöðu hagsmunaðila í stjórnun þjóðgarða.

Dedication

To my teachers – The ones who shared the 'lessons of life' and the ones who encouraged me to take responsibility for nature and future generations

Preface

Often in my life I found myself in a situation of conflict. At work, at home and during studies, I struggled with disagreements. It made me wonder: what are the reasons behind this strange thing called “conflict”? Why do we have to face, avoid or deal with conflicts?

A thesis is often a journey. A journey for stories, for answers, but often this journey opens new questions, while answering some. My journey about conflicts began in Bavaria, where I grew up, with my Diploma Thesis in Industrial Engineering in 2007but maybe already years before. Starting in the Master programme of Environment and Natural Resources at Háskóli Íslands gave me the opportunity to broaden my horizons, to explore other points of view, and to re-evaluate the things I had learnt so far. My fellow students and others helped and challenged me with it.

This thesis is the first one I write in a foreign language, which often gave me some ‘internal’ conflicts as well. Coming to Iceland as an exchange student created some more. The environment of Iceland is something I saw as fascinating - barren, yet still vibrant. Over all, my own cultural heritage and way of valuating nature might have influenced my decision to start in the field of science and thus move on from my old one. Nevertheless, my original mindset might be shining through in this thesis. I hope, that the reader has the opportunity not only to see, what I have come to realize about my own mindset of conflicts, communication and consensus, but also understand what I try to bring forward.

My journey came to a certain halt. This thesis represents a log of what I have experienced and learned so far. I hope it is of use for the reader and can be used in order to increase not only environmental protection, but also to strengthen the role of people, living close to a beautiful and dynamic environment.

“Ein Krieger des Lichts gibt einem jeden Ding den Wert, den es verdient.

Angesichts schwieriger Situationen flüstert ihm der Dämon häufig ins Ohr:
‘Mach dir keine Sorgen, das ist nichts Ernstes.’

Und bei belanglosen Dingen sagt der Dämon:
‘Du mußt deine ganze Energie darauf verwenden, dies Problem zu lösen.’

Der Krieger des Lichts hört nicht auf den Dämon. Der Krieger ist der Meister seines Schwertes.”
Paulo Coelho

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Abbreviations

CM	Conflict Management
DNP	Daisetsuzan National Park
EU	European Union
ff.	following pages
IUCN	International Union for Conservation of Nature
MFE	Ministry for the Environment (Iceland)
MOE	Ministry of the Environment (Japan)
NGO	Non-Governmental Organization
NP	National Park (plural: NPs)
NPO	Non-Profit Organization
OECD	Organisation for Economic Co-operation and Development
PA	Protected Area (plural: PAs)
PP	Public Participation
STATICE	Statistics Iceland
TNP	Thingvellir National Park
UN	United Nations
UNECE	United Nations Economic Commission for Europe
UNESCO	United Nations Educational, Scientific and Cultural Organization
UST	*Umhverfisstofnun* - The Environment Agency of Iceland
VNP	Vatnajökull National Park
WCD	World Commission on Dams
WCED	World Commission on Environment and Development, also known as the Brundtland Commission

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First of all, I would like to thank The Scandinavia-Japan Sasakawa Foundation for providing the financial support for my research in Japan. Their financial support provided the ground for going to the Hokkaido University in Japan to conduct research there and to broaden my point of view. I also would like to express my gratitude for all the other financial support I got from other official donors, but most of all, I thank my parents for their financial support, without them, this project would not have been finished yet.

I would also like - to thank my main supervisor Dr. Haukur Ingi Jónasson from the University of Iceland and my contact in Japan, Dr. Tetsuya Aikoh of the Hokkaido University for all their support, knowledge, and sometimes faith in me. Their time and efforts helped me to develop new ideas in this thesis and brought me forward.

A project like this is not possible without the support of so many other individuals. Special thank you, therefore, to Dr. Þorvarður Árnason. His input in this thesis, his time and the opportunity to execute this project is very much appreciated. I would like to take this opportunity to forward my thanks to all the administration and teachers at *Háskóli Íslands* for their help and valuable input. I would also like to thank the many interviewees and participants for their patience and the time they contributed to answer my questions and to help me understand the situation better. Especially I would like to thank the representatives of the Ministry for the Environment in Iceland, various members of the whole management of the Vatnajökull National Park, and the administration, teachers, and staff at the *Háskólasetur Vestfjarða* and *Háskólasetrið á Hornafirði*. I also like to thank *GAIA*, my student organization in the Environment and Natural Resources programme, for giving me the freedom to organize the seminar in Ísafjörður. I would like to thank also more than 140 stakeholders participating in the questionnaires, all the people that I spoke with in order to prepare or execute the interviews and all the people who I can't remember to name personally but supported this project.

I also would like to thank all the people I had the chance to meet in Japan. Thank you to the researchers at the Hokkaido University, my fellow students there, and the participants during the seminar in Sapporo. The time in Japan was not only insightful for this thesis but also taught me another lesson for life.

I would like to thank also my fellow students here in Iceland, who became friends, and who were so kind to support me in this thesis with comments, critics, and questions. I would like to thank especially also all my friends who are outside of University. They often provided me with a much better way to look at things and to build up my motivation to keep this project running, when I ran into troubles. They provided me with light, when there was darkness around me.

Above all, I would like to thank my family for their support and understanding. I can only imagine that it might be difficult to understand, not only what and why I am doing this project, but also why it is so hard to keep in touch, as they wanted me to be. Thank you!

"In wilderness is the preservation of the world."
Henry David Thoreau

1 Introduction

A protected area [PA], according to the International Union for Conservation of Nature [IUCN], is defined as "a clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values". (IUCN, 2008, p. 8). Within the last decade, international organizations like the IUCN have widely recognized that protected areas have an important socio-cultural and economic value for those individuals living within or next to them (IUCN, 2003). But protected areas can also be important for the individual himself, since the individual can have an emotional attachment to the PA. A national park [NP] represents a level of protection which is of great importance for the individuals of a nation in terms of many factors (e.g. economic, social, cultural, and religious). International guidelines by the IUCN suggest the possibility of a unified valuation of protected areas among all cultures, but the question still remains to which extend this evaluation is really similar among different cultures, where similar natural environments are under evaluation.

The non-human environment influences both the way individuals perceive their environment and their mode of communication and interaction with each other. An example of this influence is when the utilization of nature within a PA as a resource for economic gain and social well-being prepares the ground for an environment of divergent values and conflicting interests. This research will study PAs in Iceland and Japan to find out what similarities exist between two different culture and individuals within these cultures in their relationship to PA conflict management and how effective a communicative approach to PA conflict management is in those two cultures, in light of existing similarities. The study seeks to find these two things out in order to provide baseline data for other researchers interested in the proposed transcultural nature of PA conflict [and] to provide a model of conflict management for possible use in the event of PA conflicts in Japan and Iceland. To analyze the link between natural resource use in PAs and conflicts among stakeholders, the Vatnajökull NP (Icelandic: *Vatnajökulsþjóðgarður*) and the Daisetsuzan NP (Japanese: 大雪山国立公園) have been selected as representative case studies. This research project also includes the Nature Reserve *Hornstrandir* in the northwest of Iceland as a third research site. The two selected NPs share not only key geological features, but also evince a strong bond between local people and the land.

As the results in this research suggest, conflicts are an important component of culture and a consensus-orientated approach to conflicts characterizes cultures that are still geographically separated yet similarly challenged by interaction with a violent natural environment. PA-related conflict issues are especially important and should be addressed in a systematic fashion as subjective perceptions of nature can cause conflicts of interest among stakeholders to emerge. Though stakeholder conflicts are conflicts over interests, they are underpinned by the motives, values, attitudes, and beliefs of the individual. It is now seen by international conservation agencies as good practice to include people with a 'stake' in the management of PAs (IUCN, 2003; Phillips, 2003), but often conflict management does not treat the deeper layers (e.g. inner motives, cultural influences, sacred beliefs) of an individual's intention that have a determining influence on the interests in

question. This thesis will focus on the human influence and the deeper layers within the self and its relationship with the non-human environment, and the need to consider them when dealing with conflict and consensus-building among stakeholders.

This thesis will define the researcher's method of "3C's" (conflict, communication, and consensus) as a possible technique in PA conflict management. It could be suggested that 3C's method appears to be widely applicable, since the results from Iceland and Japan show that the majority of participants in both countries hold similar opinions about statements regarding conflict, communication and consensus-building in PA. The purpose of this study is to investigate whether a communicative approach to conflict management can assist in consensus building among stakeholders in PAs.

1.1 Aim, Scope, and Limitation

Dealing with conflict situations requires taking various aspects into consideration. According to the results of the surveys conducted, given the different cultural background of the participants, this research suggests a communicative approach which appears to be applicable in the conflict management processes at the PAs under analysis and in others, since it brings the stakeholders' values into consideration. Besides the examination of the individuals' values, the chosen examples also reveal uncertainties and interests that have caused – and may still continue to cause – disagreements over how to use the natural resources in the given areas (e.g. in terms of energy utilization, tourism and farming). These uncertainties and interests include disputes over landownership or unclear plans by officials for future regional development. These disagreements could, if not dealt with, affect the well-being of local communities, and cause problems with the management of PAs. The management of a PA should take these disagreements into account within conflict management, and recognize them as disagreements linked to the individual. The recognition of disagreements among stakeholders as a part of PA management appears to have not been recognized as an important factor by officials. Since the 1980's, recognising the right of individuals to participate in the management and planning processes has influenced the way PAs are managed (WCED, 1987; UN, 1992b; Phillips, 2003). Recent international agreements advocate the implementation of a bottom-up approach in the management of PAs, rather than the top-down approach that has traditionally been practiced. This suggests that there is a need and recognition to insure the participation of local stakeholders in the decision-making processes over the use of natural resources, as they are parties directly affected by them, and thus marks a transition towards a bottom-up management approach.

The recognition of the importance of participation by local stakeholders has recently also influenced governmental decision over PAs, examples of which are the Vatnajökull National Park [VNP] in Iceland and the Daisetsuzan National Park [DNP] in Japan. The recent establishment of the Vatnajökull NP, along with the example of the long-standing Daisetsuzan NP, give the opportunity to examine examples of PA management with respect to this importance and possible disagreements over stakeholder's interests. In order to provide the management of the examined PAs with a possible framework for consensus building among stakeholders, the main focus group of this research will be the stakeholders of the two NPs in Japan and Iceland, along with the stakeholders at Hornstrandir, their values and interests.

Recent scholarship has focused a great deal of research on conflict management and the interaction of stakeholders (e.g. their participation in environmental projects – see chapter 2.2.2). In contrast, the values of stakeholders of PA in Iceland and Japan have not been much discussed in international publications. This study aims to provide a baseline from which further research in the area may be conducted. It will do so by investigating whether the application of the communicative model can effect the progression from conflict to consensus by addressing stakeholder values, motives, and beliefs. The application of such a model encourages individuals to express their values, motives and beliefs to each other, which in return helps in formulating consensus. It is the researcher's hope that the surveys of the target groups' values and the importance of communication will ultimately provide techniques in conflict management suitable for PAs.

The formulation of an actual PA management policy does not fall within the scope of this dissertation; however the results might help future development of existing ones. Moreover, the researcher does not aim to provide an examination of all conflicts at the selected Pas – this is way beyond the scope of the thesis. Still, this work's exploration of values among stakeholders of PAs in Japan and Iceland can lay out the foundation for future research which could assist in the promotion of better PA management procedures in the chosen focus areas. It should also be noted that this dissertation does not propose to appraise the possible success of the implementation of a communicative method to conflict management. In addition to above delimitations, it is important to point out that this thesis does not evaluate the quality of the current management of the VNP or DNP in terms of how conflicts are dealt with. It is the researcher's aspiration that this project will provide assistance to stakeholders both locally and globally in their endeavours to build consensus.

1.2 System Boundaries

For purposes of clarity and guidance, this section will lay out what the researcher understands by system boundaries and introduce key concepts that will be used later on in the thesis.

1.2.1 Concepts used: Conflict, Consensus, and Individuals

In dealing with individuals in conflict, it is of paramount importance that one look to the cultural matrix out of which those individuals are operating. To state the obvious, culture influences how individuals perceive and interact with each other. Taken in its broadest possible sense, in a general understanding, culture can be seen as a compilation of shared values, beliefs, and behavioural patterns among individuals and parts of a community. Culture is a mercurial phenomenon that can vary between communities and parts of communities; it is transmitted and shared between individuals and as such in a constant state of flux (e.g. Axelrod, 1997; Fromm, 1976).

In daily life, individuals interact with each other by enlisting verbal and non-verbal forms of communication. As culture influences the way individuals communicate, it can also have a significant impact on how individuals communicate their interests and motives in their attempts to achieve what is important for them. The complexity of individual interests and motivation commonly leads to a conflict of interest and/or motivation between parties who share similar concerns or are in competition for the same resources. We can see conflict, then, as an integral part of culture as a whole and conflict resolution ought thus to take culture into consideration to be able to successfully build consensus. Therefore, an open and participatory approach is here suggested to be more helpful for the parties

concerned: it creates the possibility of establishing a framework of transparency through which individuals can come to recognition of what is at stake in the conflict.

Acknowledging general observation which can be made, but does not suggest that consensus always happens when dealing with conflicts. Consensus is understood in this thesis as the mutual understanding of a situation based on the willingness to deal with a disagreement over values and interests. The results of this study make a case for seeing the will of individuals to seek consensus around PA conflicts as an intercultural phenomenon. Evidence suggests that a communicative approach to build consensus within conflicts is shared by both Icelandic and Japanese cultures. Despite their varying geographical situations, these cultures share similar challenges in their interaction with a violent, natural environment. These challenges can be faced in a multiplicity of ways; in view of communication's indispensable role in the conduct of everyday life, it seems eminently sensible to enlist communication as a tool in consensus building and conflict resolution processes when dealing with such challenges.

Given the complexity and variety of interests, values, motives, attitudes, and beliefs in individuals, it is relatively safe to assume that points of conflict over PAs will, at some point, emerge. Conflicts over PAs are sensitive precisely because individuals are attached to the land. It is important, therefore, to use techniques that are responsive to the concerns of individuals and their communities. It is the premise of this thesis that similar techniques of conflict resolution may be implemented where there are overriding similarities in the environment and in individuals' attachment to the land. Environmental features may vary, but it can be argued following the results of the surveys, which indicated that Icelandic and Japanese participants answered in a similar way in most of the cases (see discussion in chapter 4.2), that living in similar environments (e.g. volcanic active zones, islands, etc.) might result in a similar valuation of the environment by individuals (e.g. similar appreciation of nature, or conflict interaction by stakeholders, etc.) Hence, it calls for similar solutions when these effects turn into serious problems, such as conflict over the aims of conservation or tourism within PAs.

1.2.2 Framework for Concepts used

The following section will introduce the main concepts used in this study. As elaborated on below, these concepts have been developed by leading scholars in the fields of communication, conservation management, and psychoanalysis.

Conflicts and the Self

Conflicts are a part of the interaction of individuals and have an impact on their life-world. As individuals and communities depend on natural resources as means for their income (Xu, *et al.*, 2009), they can have a strong emotional attachment to their natural environments and the conflict issues that spring from competing interests, needs, attitudes and beliefs. There is a mutual connection between conflict and individuals, and as Sauer (2008) points out, this connection is grounded on subjective experience of individual and has its source within us (*ibid*).

In order to come to an understanding of the various sources of conflict, it is interesting to look at Abt's approach to the relationship of the self and life, as described in his book *Progress without loss of soul* (1989). Abt states that the connections between the human and non-human environment represent a network of relationships that, "taken together,

comprise all aspects of life" (Abt, 1989, p. 331). Jónasson (2005) also applies a four realms in his PhD thesis and develops an four realm approach to the interaction of the self and its environment (Jónasson, 2005), similar to Abt's four realms (Abt, 1989, p. 332). Jónasson describes his four realms as follows: intrapersonal (the psyche), interpersonal (human environment), suprapersonal (non-human environment), and transpersonal (the sacred) dimensions. For Jónasson, the 'Self' is then defined in its relationship according to these four realms; he sees the self as living within the network of these dimensions (*Figure 1*).

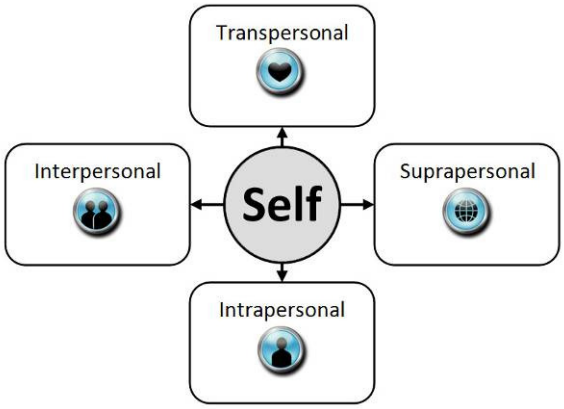


Figure 1: The 4-Dimensional Approach in Assessing Conflicts (own; deriving from Jónasson, 2005; Abt, 1989)

As the 4-Dimensional Approach suggests, there is a profound difference in the realization of the self with regards to its inner (intrapersonal dimension), outer (interpersonal and suprapersonal dimension), and sacred (transpersonal dimension) environments. The interpersonal and suprapersonal dimensions are the ones where the interaction with others and the non-human environment takes place. The interaction of the individual surfaces, but since the self is also influenced by the intrapersonal and transpersonal dimension, the definition of inner motives and sacred influences are important. One of the strong connections of the self to the sacred and the non-human environment becomes distinctive in Abt's statement that "people (…) feel a pronounced bond with the soil" (Abt, 1989, p. 332). It is because of this attachment that conflicts over PA are influenced strongly by the subjective valuation of interests, e.g. the evaluation of the four realms with regards to the *self*. On the surface, conflicts regarding PAs primarily focus on the non-human environment but the three remaining dimensions are present and need to be considered, since all four realms together create the environment in which the self exists. The model of the four realms is useful to analyze the individuals' concerned attachment concerning morals, values, and interests but may appear unconventional when applied to conflict management of PAs. It must be understood that the four realms are supposed to provide managers of conflict situations with a better understanding of the *hidden* (or subjective) aspects of conflict situations.

Consensus

Defining conflict as the opposite to consensus, it can be said that based on people's experience the understanding of conflicts is attached to escalation, stress and even disorder. Consensus on the other hand can be perceived as the absence of these phenomena. In fact, as mentioned above, this thesis will see conflict situations rather as a creative process through which stakeholders can come to a mutually equitable agreement.

Conflicts related to PAs can be introduced, exacerbated in terms of extent and intensity, and escalate through an imbalance in the self and with regards to the four realms. To bridge the imbalance in conflict situations, the type of communication used can either move the conflict forward towards escalation, or hold the key for a possible de-escalation of the conflict. To transform conflict into consensus, it is the suggestion in the model presented in this thesis to channel the conflict situation through different phases. These phases are each marked by a phase transformation, or filter, through which the negative phenomena underpinning the conflict are transformed through the agency of communication. At the end of the process, conflict can be changed into consensus through communication. The aim is to prevent the escalation of conflicts and to bring about consensus through the positive capacity of communication (see *Figure 2*).

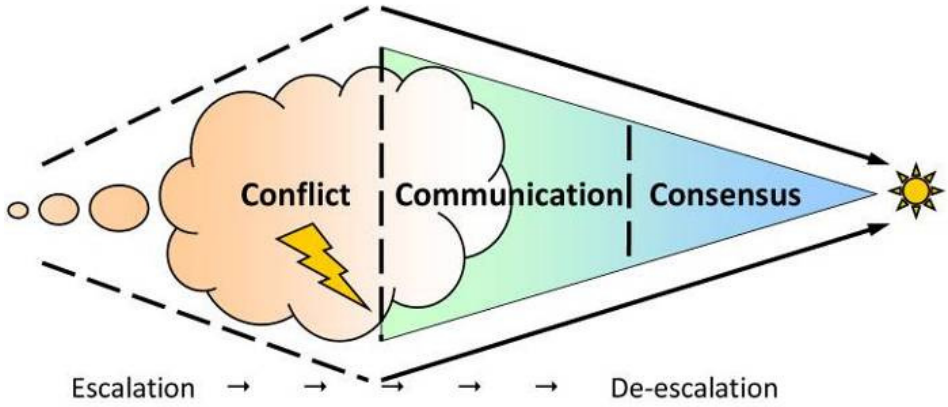


Figure 2: Management of Conflicts to Transform Escalation to De-escalation (own)

Individuals and Organizations

detached from the individual, there is, it will be argued, an 'individual component' to every conflict. The models used in this thesis will thus be aimed at analyzing the individual's perspective, while at the same time displaying sensitivity to organizations. After all, it is the individual who represents the organizational stakeholder. Though representatives often stand for the values of the organization they are representing, it will be argued that the representative's personality is still the critical factor in any given conflict situation.

The distinction between individuals, stakeholders, and organizations determines the successful use of conflict management techniques. This study will advocate a personal perspective on conflict, communication and consensus. The term stakeholder (see definitions in chapter 2.1.1) will, therefore, refer to individuals who have a stake in the decision making of PA management and will also include the organization and society.

"Chaos was the law of nature; order was the dream of man."
Henry Adams

2 Literature Review

Managing PAs involves the conservation of the land, but it also has to take the utilization of the non-human environment by people into consideration. When dealing with the 3C's (conflict, communication, and consensus) at PAs and the human perspective on conflicts, management has to take account of a variety of factors. The following literature review will account for this variety of factors, and provide a brief overview of what has been written about conflict in PAs (mainly in Northern America, and Europe), the role of communication in conflict situations, and techniques employed for consensus building. For purposes of clarity, an outline of the structure of this literature review will follow.

The review begins with the topic of conflict and conflict management (see chapter 2.1.). It will first define stakeholders as the protagonists in conflict situations: they are the participants or driving forces of the conflict; it lies within their power to exacerbate or resolve the conflict. The discussion will then turn to a definition of conflict and the literature on conflict management.

The next section takes a look at the values, beliefs, attitudes, and behaviours that are involved in conflicts or invariably emerge when dealing with individuals as stakeholders. The influence of culture takes on an especially important role here; therefore, this section will also discuss the Icelandic and Japanese cultures (see chapter 2.2).

The review will then move on to the research that has been carried out on nature conservation, and public participation in dealing with conflicts. It will present research on the motivation behind public participation in environmental projects (see chapter 2.3).

After discussing conflict management of PAs, basic techniques of conflict management applied in PA management will be introduced (see chapter 2.4).

Finally, chapter 2.5 will tackle issues related to nature conservation in Iceland and chapter 2.6 will review the research literature on nature conservation in Japan.

2.1 Conflict and Conflict Management

The focus of the following section will be on negotiation and collaborative learning as ways of dealing with conflict situations in open communication. The section on negotiation relies on examples from organizations. Nevertheless, it will present conflict management as a framework within which stakeholders (see chapter 2.1.1) and their disagreements can be dealt with (see chapters 2.1.2 and 2.1.3).

2.1.1 Stakeholders

Employee involvement and the consideration of individuals in relation to the organization, even though prominent within research after the second half of the 20th century (see e.g. Regnet, 1992; Taormina, 1997; Milakovich, 1991; Richter von Hagen & Stucky, 2004, and others) gained more importance through the work of researchers like Mitchell *et al.* (1997) and Grimble & Wellard (1997).

Mitchell *et al.* (1997) defines and discusses the use of the term 'stakeholder' where the term 'stake' usually refers to an investment and thus to a risk, thereby drawing one party's interest in perspective of another. Stakeholders, in contrast to shareholders, do not have a legal ownership right within an organization, as they do not invest monetary value in it in order to have something at stake. The various entities that a stakeholder can represent are manifold; they include persons, groups, neighbours, organizations, institutions, societies, and even the natural environment (*op. cit.*, p. 855). The stakeholder's interests are of importance in the decision-making process for the management of protected areas, since their interest is influencing the utilization of natural resources. In order to assess this importance Mitchell suggests that stakeholders should be grouped according to three different attributes: power, legitimacy and urgency (*op. cit.*).

More recently, Murray-Webster and Simon (2008) contrast the view of Mitchell and his colleagues, by defining stakeholders by attributes of power, interest, and attitude. It could be argued that Murray-Webster and Simon in contrast to Mitchell *et al.* incorporate also the stakeholders' own motivation into the classification of stakeholders. In addition to this classification, Grimble and Wellard (1997) describe a stakeholders' classification according to the impact of or on them. They describe stakeholders as "those who affect (determine) a decision or action, and those affected by this decision or action" (*op. cit.*, p. 176). This distinction classifies of stakeholders between active or passive stakeholders. Besides this classification, Grimble and Wellard also define stakeholders according their influence and importance, which in terms of importance can lead to the division into primary and secondary stakeholders (*op. cit.*).

Stakeholders' involvement has gained more importance in governance in general (Jansson, 2005) and is now also considered as an important part in the decision-making process of PA management, furthermore, stakeholder participation in conservation is now widely acknowledged as essential for good practice in PA management (IUCN, 2008; UN, 1998; Phillips, 2003). As Billgren and Holmen (2008) argue, the managers of conflicts need to take also the stakeholders' beliefs, motivations and perceptions into consideration. Stakeholders influence the decision making process with regards to conservation and PA management since decision made can affect directly their way of living (Hovardas & Poirazidis, 2007; Hjortsø*, et al.*, 2005), especially when it comes to economic livelihood (Xu*, et al.*, 2009). The correct identification of stakeholders is of importance for the management of PA as it lays out the foundation to assess the conflict situation.

2.1.2 Conflicts and Conflict Management

Conflicts are a part of the every-day life and interactions among individuals and groups. The management of protected areas is from this perspective no exception. Conflict management has been studied from such wide perspectives as conflict resolution and problem solving (see e.g. Deutsch & Colemann, 2000); it has also been considered from an evolutionary perspective where conflict is seen as a form of human interaction that has its origins in its animal ancestors (see e.g. Aureli & De Waal, 2000). Apart from this broad research perspective, the human interaction in conflicts and the resolution of conflicts at PA has been the main focus of this research.

Even though many people associate conflicts with negative emotions and unwelcome memories, not all scholars view conflicts as negative (see e.g. Walker & Daniels, 1997; Mitchell-Banks, 1997; Tjosvold, 2006). For Mitchell-Banks (1997), disagreements are a natural component of culture and a creative process (*op. cit.*, p. 152). Walker and Daniels

(1997) argue that disputes have the potential to empower participating parties and to give them the recognition they deserve. Viewed as a creative process, conflict then brings with them a collaborative potential that Walker and Daniels (*op. cit.,* pg. 22) define as the opportunity for parties to work together to make progress in a conflict situation. They argue that conflicts are not inherently positive or negative, but have the "potential to be either" (*op. cit.,* p. 15). As Walker and Daniels explain, conflict situations and their potential to be either positive or negative is based on the difference between, as they describe it, what the conflict is about ('inside') and how the conflict partners communicate with each other ('outside') (*op. cit.,* p. 19). Not only do conflicts need, for them, to be assessed in terms of what role the conflict partners play and the way they communicate; conflicts also have to be appraised by looking to the power structures underlying the conflict. Often, however, conflicts are perceived as negative, due to their negative consequences. Although it might be desirable to find a resolution for a conflict, some conflict situations may never be resolved (Walker & Daniels, 1997, p. 21). To transform the destructive tension of conflicts into a creative and developing process, proper conflict management is essential, and as Walker and Daniels indicate, by applying the correct management tools, conflicts might "not become destructive" (*op. cit.*).

Walker and Daniels (1997) provide a theoretical assessment of conflict management with regards to land management, which can be also seen as applicable for PA management. According to them, conflict management can be seen as a process which involves the assessment of different aspects of conflicts. For them, conflict management should not be seen as a single action, but rather as a process which interrelates: (1) Substance or 'What is the conflict about', (2) Relationship or 'Interaction of the conflict groups', and (3) Procedure or 'How to manage the conflict situation' (*op. cit.*, p. 22). Following their argumentation, conflict management ought to be thought of as a toolbox which gives the conflict manager and other involved parties the means to accommodate an improvement of the conflict situation. What makes conflict management a process is looking at conflicts as a situations, driven by the concerns about connection of one's own outcomes with regards to other's outcomes (*op. cit.*, p. 23). In relation to these fundamental aspects, especially in the case of the strong attachment to the land of a PA, it can be argued that disagreements in and around PAs a high concern about ones own interests and stake will be dominant. Since in that situation a subjective valuation of interest can lead rather to a competing or collaborative strategy in managing conflicts, it is of importance to create an environment for communication, so that all parties can take part in building consensus. Conflict management strategies involve an active engagement of the participants and "presume joint decision making and social influence" (*op. cit.*, p. 24), but they can have a different concern about others' interest. This difference can influence the possibility to form consensus. Especially since collaboration is not synonymous with cooperation because it does not imply a mindset of joint settlement seeking (*op. cit.*, p. 25).

2.1.3 Communication within Conflict Management

As the title indicates, Borisoff and Victor's *Conflict Management: A Communication Skills Approach* (Borisoff & Victor, 1998) focuses on conflict management as a communicative process. Their study provides descriptions of the possible reasons behind conflicts and offers strategies for promoting a supportive communication climate in dealing with conflict situations. They identify four possible roots of conflicts: 1) conscious and unconscious communication (e.g. nonverbal communication), 2) gender differences and their impact on the style of conflict management, 3) cross-cultural awareness, 4) writing style as a source of conflict. By identifying these four roots, Borisoff and Victor's study furnishes a basic

framework for understanding and dealing with conflicts through collaboration among individuals. It not only equips the conflict manager with a clear and universally applicable structure; it also lays down the foundation for the furtherance of supportive and objective communication within conflict situations, with consensus formation as the end goal.

Negotiations and collaborative learning can be seen as a part of this communicative process of dealing with conflicts. Negotiations are a communicative form of sharing interests and information among individuals with the aim to form an agreement. Communication as collaborative learning is also helpful to share information and motives among individuals and aim for an increased understanding of others' standpoint. The following sections will describe both techniques and indicate their communicative potential within conflicts to form consensus.

Negotiations

When dealing with conflict situations with a view to building consensus, it is imperative that a framework or venue be established within which stakeholders can articulate their concerns and express what is at stake for them. Negotiations can form this framework or venue, where communication among individuals can occur. Negotiations typically take place in a cooperative environment where parties seek mutual gain on the basis of mutual trust (e.g. Walker & Daniels, 1997; Fisher & Ury, 1991). A prerequisite for Gavin Kennedy (1998) is that both parties must have something of value to tender at the negotiation table, and one party can not simply take what they want without first securing the consent of the other party. In respect of PA management, negotiations are a particularly important tool in addressing the needs and deeper motives of individuals in a conflict situation.

For Calcott (2008), negotiation is the most obvious tool to reach for in a conflict situation, because it is based on communication and is more efficient in building consensus when stakeholders have different information about the conflict. Negotiation, then, is a communicative process, involving a communicative interaction of the participants in their attempts to reach consensus. For negotiations to take place and have a positive outcome for the participants, it is important to have a supportive and collaborative environment. In order to create this environment, it is essential to generate an atmosphere of trust among conflict partners, in which negotiations can take place. Kennedy is right in defining negotiations as "an interactive process between people who want something from each other" (Kennedy, 1998, p. 5), but the interaction between stakeholders in conflicts is not necessarily a cooperative one. In order to satisfy all parties and to arrive at some form of consensus, it is important not only to create an environment of trust and open communication; it is also imperative that one recognise and explore the interests of all parties concerned.

Scholars explain the connection between conflict management and the deployment of negotiation as a communicative tool by the fact that both conflict management and negotiations build upon the exchange of interests of individuals, and the aim of both techniques is to find mutual agreement between stakeholders. One of the more seminal works that tries to define negotiations as a form of conflict management is a study carried out by Fisher, Ury and Patton (Fisher & Ury, 1991). In *Getting to Yes: Negotiating Agreement Without Giving In*, they try to give answers to the very basic question: "What is the best way for people to deal with their differences?" (*op. cit.*, p. xi). In a nutshell, the main message of the study is the importance of separating participants from the problem

(*ibid*, p. 17), of focusing on their interests and not their positions (*ibid*, p. 40). Such a separation of participants and problem, with an emphasis on interests as opposed to positions, is fostered in order to explore new options in the negotiation process and find new ways for mutual gain (*ibid*, pp. 66 ff.). It has to be noted that the perspective of mutual gain during negotiations should be understood as one possible objective, since other objectives (e.g. competition, increased understanding, etc.) might drive negotiations as well. It can be argued that the approach of separating the participants from the problem, as suggested by Fisher & Ury (*ibid*), tries to eliminate as much as possible the subjectivity of participants in an attempt to deal with conflicts more objectively. Others would argue that in the case of PA management, the consideration of both (subjectivity and objectivity) is necessary in arriving at a resolution of the conflict (e.g. Kyllönen*, et al.*, 2006; Billgren & Holmen, 2008; Martín-Cantarino, 2010)

Another study of seminal importance is Erika Regnet's *Konflikte in Organisationen* (Regnet, 1992) (English: Conflicts in organizations); in it she describes the process of resolving conflicts in organizations from the perspective of organizational psychology. Regnet's argument focuses on preparation and communication as essential elements of the conflict resolution process; in contrast to Ury and Patton, however, Regnet brings the 'personality' back into the process of dealing with conflicts. Gavin Kennedy (1998) picks up on the trail of Fisher and Uri (1991), providing extensive guidelines on how to react in negotiations and how to resolve dead-end negotiations. With his phased model, Kennedy builds on the previous models of negotiations and develops existing models further into a phased model of negotiations. He promotes negotiation as a dialogue between parties, which can be understood as a practice of personal and collective liberation in all aspects of human endeavour and, if conducted in a democratic, honest, trustful and ethical way, excludes nobody from its benefits (Kennedy, 1998, p. 24). His work also makes clear that the behaviour of the opponent shall not interfere with the objectives at stake or interest in the negotiation process.

As pointed out in this section, negotiations are one form of a communicative approach to conflicts. Negotiations are dependent on various factors (e.g. trust, communication, collaboration, etc.) in order to form a mutual agreement. Besides negotiations there are other, less formal techniques, of increasing mutual understanding, and dealing with conflicts. Collaborative learning can be seen as one of such techniques.

Communication as Collaborative Learning

The process of negotiation described by Kennedy (1998) is one of collaboration in the name of consensus building. But Kennedy does not focus that much on the dynamics of groups. Group dynamics and communication are also valuable sources for a possible conflict resolution for other scholars such as Walker (1997) or Walker and Daniels (1997). They view stakeholder participation in the form of dialogue as the driving force for collaborative conflict management (Walker, 1997; Walker & Daniels, 1997). Walker and Daniels go a long way to bridging the collaborative and competitive strategies as laid down by Uri and Fisher (1991) with negotiation strategies presented by Kennedy (1998). Walker and Daniels (1997) note that in the environment of natural resource management, well-managed conflicts create the opportunity to make "better decisions, improve social cohesion, stimulate innovation, and increase morale" (*op. cit.*, p. 33). By encouraging the participation of stakeholders in an open, rich, and meaningful communicative and sharing process, well-managed conflicts can help in the formation of a stronger social bond among stakeholders

Daniels and Walker (1997) introduced collaborative learning as a "technique that was designed as a collaborative approach to land management decision/disclosure process" (*ibid*, p. 37). As a form of communicating the participants' interests, collaborative learning affords the possibility of exploring the interests and motives of the participants and of furthering mutual understanding in the conflict situation (e.g. *ibid*; Kennedy, 1998). Daniels and Walker describe collaborative learning as a hybrid of "soft systems analysis and negotiation/conflict management" (*op. cit.*). Collaborative learning is then split into different phases (see Figure 1 in Daniels & Walker, 1997, p. 45). The result is a phased model of collaborative learning that can be seen as a continuous process of conflict situation reassessment; the phased model is sensitive to future assessment and as such is similar to continuous process reengineering used within organization management (e.g. Lawler, 1994). Collaborative learning is not a one and only 'silver bullet' solution to conflict situations (Daniels & Walker, 1997, p. 57), but it provides the possibility for the promotion and generation of dialogue between diverse communities, the integration of different sources of knowledge about the problem situation, as well as for increased rapport, respect and trust among participants (*ibid*). As a result, collaborative learning is one method to improve conflict situations through communication and to work towards, if not to effect consensus formation among stakeholders. Daniels and Walker (1997) emphasize that the focus in consensus building lies in the communicative approach to conflict management and that in essence it can be seen having its origins in the approach developed in the work of Borisoff and Victor (1998) and Kennedy (1998). Thus, collaborative learning can be seen as a helpful method in the promotion of consensus through communication, especially where disputes fall with the purview of PA management: here the stakes of individuals can be charged with a subjective valuation that makes it difficult to deal with conflict situations without taking the persons' values, interests, and motives into consideration.

2.2 Culture and Conflict

The following chapter will discuss the meaning of culture in relation to conflict, and give examples of how cultural differences can influence and affect conflicts. It will focus on culture with respect to protected areas in Iceland and Japan. Given the influence of culture on conflicts, it worthwhile taking a brief look at culture and how it influences people's behaviour in a conflict situation.

2.2.1 Culture and Communication

Definition and the Importance for Conflicts

In daily life, *culture* is often used as a nebulous term for the way individuals behave and communicate. Despite this rather vague understanding of culture, it is nonetheless a truism that culture does have a profound influence on how individuals behave and on the forms of behaviour deemed acceptable in any given social situation. Culture can therefore be seen as one of the determining factors, if not *the* determining factor when it comes to an individual's action. Axelrod argues along similar lines when he contends that culture can be reduced to "social influence influences" (Axelrod, 1997, p. 207), and exists only as a concept in constant flux (LeBaron, 2003; Axelrod, 1997; Fromm, 1976, p. 134). But culture can also be seen as an expression of ways of thinking, feeling and reacting; communication as social interaction cannot then be separated from culture (Borisoff & Victor, 1998, p. 151). For Mitchell-Banks (1997), there are three main principles that can be assigned to culture: (1) culture is "created and recreated on a continual basis through

social interaction between people – it is not imposed upon them", (2) "the evolution of culture is a continuous process" and has neither "deterministic power or identifiable referents ('laws')", (3) culture is "manifest , rather, in the capacity with which it endows people to perceive meaning in, or to attach meaning to social behaviour" (Mitchell-Banks, 1997, p. 151). It would be noteworthy that culture, as Mitchell-Banks (1997) elaborates often influences our behaviour with 'acted' or 'unwritten' rules and limitations. For her, culture acts also as an agent which holds or joins the members in a community together (Mitchell-Banks, 1997). Culture can be learned, exchanged, and adopted according to changes in the social environment (Axelrod, 1997, p. 206), and has a communicative component (Habermas, 1979). The social interaction of individuals is, due to the communicative component of culture, defined by scholars through communication (Habermas, 1992; LeBaron, 2003a, 2003b).

As indicated before, conflicts can emerge out of a community for different reasons and in most cases these reasons are anchored in the individual members of that community. Reasons for conflicts can include disagreement about values and objects, and lack of trust among participants (see Walker & Daniels, 1997; Borisoff & Victor, 1998; Deutsch & Colemann, 2000; Höppner*, et al.*, 2007). Conflicts are also steered by other socio-cultural influences such as religion, politics, and legal or environmental circumstances. These circumstances can be significant to define the shared symbolic values among members of a community (Mitchell-Banks, 1997), which act as a binding agent between individuals within a community, and are not limited to geographical or social boarders. In fact values and symbols can vary between members of the same country, family and group. These values can be expressed by shared norms, symbols or beliefs, both as an ideal or in reality, and sometimes as both simultaneously. And yet communities are constituted by more than just shared values. The shared values are also important to define a member of a community and employ, therefore, a membership, or a sense of belonging together (see e.g. Axelrod, 1997, pp. 206 ff.; Mitchell-Banks, 1997, p. 151). This sense of belonging together can also influence the interaction between communities. The perception about the culture within the community in contrast to the one outside of the community can easily be influenced by ethnocentric paradigms and can emerge as an "unconscious tendency to interpret or to judge all other groups" (Borisoff & Victor, 1998, p. 153) according to the values of the own culture. Examples of this can be the preference of the own language over the others, or customs of introduction and interaction with others.

The Dynamics within Culture

Part of culture's being in a constant state of flux is evidenced in how regional settings and the family shape culture and influence behaviour, body language, and the communication style of individuals. As indicated in the previous section, the awareness of cultural differences is of importance when dealing with individuals. How individuals see themselves in conflict situations is influenced not only by their own culture, but also by the way individuals perceive others. Borisoff and Victor (1998) point out that perceiving one's own culture as more dominant may lead to conflict, and that such a mode of perception serves as a carrier for ethnocentric communication and interaction among participants. To put it in their words, "the ethnocentric party views culturally derived variations in communication as wrong rather than as simply different" (*op. cit.*, p. 153). Of paramount importance in any conflict situation, then, is the way individuals perceive themselves and each other and the mindset which is operating in conjunction with such acts of perception.

When it comes to managing conflicts within a protected area, therefore, the awareness of culture and the dynamics of a group (Harrington*, et al.*, 2008) are important. In addition to this, stereotyping also plays a driving role in conflicts (Billgren & Holmen, 2008, p. 560). Stereotyping manifests itself when prejudices negatively colour an individual's perception of others in a conflict situation: the individual perceives the conflict opponent from a biased perspective. Since stereotypes may have little in common with real life, it is dangerous to follow the perception of other individuals coming from stereotyping without further assessment, because they can prohibit an individual from exploring the *reality* of the conflict situation (Harrington*, et al.*, 2008). However, stereotyping seems to simplify the interaction between individuals during their first encounter by providing a simplification of a complex cultural structure, in most cases it creates an environment conducive to conflict (Harrington*, et al.*, 2008; Förster, 2007). It is common knowledge that individuals begin to perceive others from beyond the narrow bounds of stereotyping, when they begin to know each other. What remains abundantly clear is that stereotypes profoundly influence how people perceive information, making it difficult for the individual to eradicate a false bias (Förster, 2007). Dealing with stereotyping as a part of individuals interaction, Harrington *et al.* (2008) describes such a structure of mind of individuals in a culture as an "inside-outside binary" (*op. cit.*, p. 204). Harrington defines this binary as between the inner and outer community (e.g. rural and urban community) and according to the attachment to the members of the community and the definition of spatial distribution of the community.

Cultural awareness can be described as that element which plays a crucial role in the recognition and acknowledgment of cultural differences. As indicated, culture and its characteristics play an important role in conflicts, in order to minimize the risk of conflict generation or escalation, it is imperative that cultural awareness be fostered between conflict parties. Without cultural awareness, individuals may be bereft of the ability to communicate their interests in a manner that does not incite unfriendly or antagonistic feelings. If parties are made purblind by their respective cultures (e.g. Luyken, 1996), it becomes all the more difficult for them to understand the signals and values specific to each other's culture, thus rendering them partially, if not wholly incapable of conflict resolution and making mutual agreement all but impossible.

2.2.2 Culture and Communication in Japan and Iceland

This section will examine the cultural values with respect to conflict, communication, and consensus among stakeholders in Iceland and Japan. It will do so on the grounds of the stakeholders of the Hornstrandir Nature Reserve and the Vatnajökull NP in Iceland, and of the Daisetsuzan NP in Japan. It will do so by exploring the interaction and communication styles of Icelanders and Japanese. A more detailed analysis of the conflict potential vis-à-vis protected areas can be found in chapter 2.5 and 2.6. The researcher is fully aware that the following discussion on the facets of the Icelandic and Japanese cultures is merely a 'snapshot' of the respective cultures. The researcher is also aware that the ensuing analysis might not be wholly detached from the researcher's own cultural background.

Iceland

Covering an area of about 103,000 km^2, Iceland is as an island nation of volcanic origin with human settlements mainly dotted around the coastline. The first settlements in Iceland are believed to date back to as early as AD 871 (Ogilvie & Pálsson, 2003). The non-human environment may not only have influenced how humans perceive the natural

environment; it may also have had a significant impact on the very formation of the indigenous culture and the human interactions that go to define it. Spirituality is one example of the [possible] influence of the non-human on the human environment. The stories of the *Huldufólk* (English: hidden people) are an example of how Icelanders appear to believe in an environment animated by spirits. This belief is for Jónasson (2005) a projection of the mind upon the non-human environment. It can be speculated that another example for the influence of the non-human on the human environment within Icelanders could be the form of communication and social interaction with each other. Swatos (1984) thus argues that the remoteness of the island's settlements, in addition to isolating the islanders from each other, might also have contributed to their strong sense of social boundaries (Swatos, 1984). Swatos also contends that Iceland's never having directly engaged in any war on its own or foreign territory might also have left its mark on the indigenous social structure in terms of isolation between individuals (*op. cit.*, p. 40).

Icelanders have a long history of subsistence fishing and farming. According to Ferðamálastofa, the fishing industry was still very important for Iceland in 2008, in respect of export revenues, even though heavy industries and tourism have become more important in recent years (Ferðamálastofa, 2009). The way in which Icelandic people make use of natural resources to generate income can be seen within the context of a century-long struggle for survival. Swatos (1984) claims that Icelandic people are different from most people in Western Europe, especially when it comes to their view of religion, nature, and the human being's place in nature. It can be argued, but for him, Icelanders are "children of nature (…) immature in the way youth is immature" (*op. cit.*, p. 39). That mistakes will come as a natural consequence of this youthfulness is to be expected; what is of real consequence, however, is that such mistakes represent powerful learning moments for the culture at large.

Besides the abovementioned processes shaping the culture of Iceland, the human interaction with other individuals might have also had an impact. Incidents of violent intrusion of foreigners (e.g. the invasion of *Vestmannaeyjar* [English: the Westman Islands] in the 17th century by foreign pirates might have influenced the development of the Icelandic culture. It can be speculated that incidents like this for a long time has also shaped how the islanders interact with each other and with non-indigenous individuals and groups. The non-human environment has influenced how individuals perceive nature and each other and, one might speculate, have led to the islanders' strong identification with their own ethnicity over against individuals of other ethnic origin. This self-identification of Icelanders over against individuals and groups of other ethnicities (Eyjolfsdóttir & Smith, 1996) appears to be similar to Japanese self-identification over against other ethnicities (see Takata, 2003; Toma, 2009)

Eyjolfsdóttir and Smith's (1996) study about Icelandic business and management culture sheds light on Icelandic society from a management perspective. According to their study, Icelandic society expresses two main values which define the most important factors determining the working of Icelandic organizations: (1) egalitarianism and (2) reaction to adverse nature (*op. cit.*, p. 64). Their research shows that although Icelandic society many characteristics of a collectivistic society, individual freedom and "individualistic characteristics are also very strong (…) and may be steadily growing stronger" (*op. cit.*, p. 66). Their study reveals that Icelanders' preference for equality over individual freedom has its origin in "their intense concern about justice and a strong belief that equality can coexist with freedom within a society" (*op. cit.*, p. 65). This is a point worth dwelling on, especially in respect of conflict situations and the freedom of the individual. Eyjolfsdóttir

and Smith state that "Icelanders are by nature consensus seekers, in managerial decisions as in other matters" (*op. cit.*, p. 66). Being a consensus seeker requires also an amount of flexibility. Icelanders place a high premium on individual freedom and flexibility, which can be explained by the contention that Icelanders manifest a "fisherman mentality" (*op. cit.*, p. 69). This fisherman mentality would seem to characterize Icelanders as short-term decision makers, and would suggest a lack of common orientation within Icelandic society (*op.cit.*, p. 70), but appears to be in conflict with Icelanders being also consensus seekers. This lack appears to surface when it comes to the situation of public participation, such as Environmental Impact Assessments (EIA). Icelanders tend to be reluctant to take an active part, even though such processes are highly appreciated (Árnadóttir, 2002; Ögmundarson, 2009).

Japan

Japan is an island nation of volcanic origin whose dense settlement is mainly around the coastline; the island covers an area of about 377,835 km^2. Japanese culture is unique among world cultures, due to its long isolation until the mid 19^{th} century (see Oyadomari, 1989; Thomas, 2001). The connection between the islanders and nature is an intimate one and is evidenced in the very strong emotional bonds to the land (Thomas, 2001). Spirituality and religion play a significant role in this bond (*ibid*). Ohbuchi *et al.* (1999) describe the Japanese as a collectivists (Ohbuchi*, et al.*, 1999) whose primary concern is with harmony and group decisions. Fetters (1993) also advance this notion of collectivism and concern with harmony. He describes the Japanese technique called in Japanese '*nemawashi*' as a "semi-formal but systematic and sequential consensus building process" (Fetters, 1995, p. 375). *Nemawashi* is a process in which a proposed idea or project is presented to various persons in an organization and is usually roughly translated as "consensus building" or "political manoeuvring behind the scenes" (*ibid,* p. 375). Though *nemawashi* is a technique generally deployed for seeking agreements, it can also be used in brainstorming sessions or informal meetings, as it enables the participants to express their ideas and concerns about new ideas and projects in a safe environment without the fear of loosing face common to formal meetings (*ibid*, p. 376). As a consultation process, *Nemawashi* considers every individual who is thought to hold a significant organizational position. Given the intensely hierarchical nature of Japanese society, *nemawashi* is particularly important when dealing with decision-makers. In terms of decision making in Japan, the family, not the individual, was for a long time considered as the most natural fundamental unit of society (*ibid*). This form of decision-making is seen very different in most of the western societies (*ibid*).

Fetters goes on to stress how *nemawashi* tries to answer the question as to who to involve and more importantly, the question as to who not to leave out. In this light, *nemawashi* can be seen as a consensus building process that not only takes into consideration the different hierarchical level of participants, but also incorporates in the top-down process a bottom-up approach by including lover level decision makers in the early stage of *nemawashi*. By applying *nemawashi* in the process of consensus building, conflict managers consciously avoid controversy, whereas in western cultures controversy is characterized as the best mechanism for problem exploration (*ibid*, p. 379). In terms of forming consensus among stakeholders, it can be still argued that especially in the case of *nemawashi* in Japan, the silent participants are not necessarily unimportant, as other research on Asian conflict management indicates (Tam, 2006).

According to Takata (2003), the Japanese define strongly between the members of a inner and outer group (Takata, 2003, p. 543). As in the case of Iceland, Japan's status as an island nation raises the question whether there might be a strong division of an inner and outer social group (e.g. Japanese and non-Japanese, locals and non-locals). In contrast to this strong distinction between groups, the Japanese try to move towards being open for others, and yet in many ways their culture still appears to be trapped in the dualism of traditional and modern values (see Thomas, 2001). Interestingly enough, foreigners in Japan are more allowed to cross cultural boarders and explore knowledge than Japanese would be allowed to do because of social and behavioural boundaries in Japanese culture (Fetters, 1995, pp. 379-380), which can be seen as an advantage when dealing with issues across cultures and indicates the awareness or politeness towards cultural differences by Japanese.

2.3 Nature Conservation and Conflict

The previous chapters have focused on defining conflict, conflict management, communication, and consensus from the perspective of human interaction. When dealing with conflicts in protected area management, the values and motives of humans, as influenced by the non-human environment, often play a fundamental role. To throw this connection into relief, the following chapter will examine what nature means for humans and how humans perceive the non-human environment.

2.3.1 Nature

The term *nature* functions mainly in western societies as a synonym for the natural environment, landscape, and vegetation. This definition is, however, rather simplistic and even misleading. For the purposes of this study, a more comprehensive clarification and deeper understanding of the concept, particularly with regard to nature conservation, is essential.

When looking outside their homes, people might see man-made gardens composed of various 'natural' elements such as grass, flowers, trees, plants for commercial use and weeds. Gardens are typically used for enjoyment, nutrition and activity, but they can also serve as barometers of how individuals imagine nature to be. Outside towns and cities and in the wilderness or 'nature' there is a different reality. For many, nature is an untouched wilderness created by a higher being or force and is often experienced as animated by the supernatural (see Abt, 1989; Johnson, 2000). Also as Moran (2006) points out, for "most of human history, nature has been seen as (…) powerful and dangerous" (*op. cit.*, p. 59). Even though seen differently throughout the centuries, the natural world with everything individuals know, see, and feel has been viewed among Christian believers as being a "creation" of God (Johnson, 2000, p. 4). The view of nature as being created by a higher force (e.g. a God or superior being) is shared among many religions (e.g. Christianity, Judaism, Shintoism). It is up to the individual to realize what nature really is. For the human mind, nature is a construct (see Ingold, 2000), based on peoples experiences of nature. By restoring natural habitats, by creating parks and especially gardens (Pálsson, 2006, p. 92) in towns and cities, human beings are in many way striving to reinvent nature (Cronon, 1996, p. 24) in accordance with the image they have of it. Nature is not only what individuals' value about nature, then, but is also what they project onto it and how they interact with it over time.

And yet not every individual shares the same view of nature. Abt (1989) points out that that views of nature may differ between rural and urban people, for example. Using the example of farmers in Switzerland, he describes how rural populations living in mountainous regions are still grounded in traditional beliefs, even as urban developments are increasingly connecting isolated areas with modern ways of living. Abt argues that the images, held by urban people, about farmers in rural areas being entrenched in conservative values and 'slow' to modernize should not lead to the view that they are somehow unsophisticated or benighted, or that they are the "underdog of society" (*op. cit.*, pp. 29-31). In this context he also mentions that traditional values are not necessarily negative, since they often perceive the meaning and values for the next generations (*op. cit.*).

This transition of values is especially evident among farmers, since farmers in particular display a strong attachment to nature and the soil; without these they would not be in a position to survive (Abt, 1989). In terms of traditional values, Abt argues that modern ways of living and rural development exert pressure on traditional beliefs and values (e.g. religious practices in align marking transition of seasons). As he continues to describe, 'modernism' is synonymous with 'progress' and 'traditionalism' with 'retreat' (*op. cit.*) Following Abt's argumentation, progress and modernization are possible, but change has to be rooted in the acknowledgment of traditional beliefs and values, otherwise it creates disturbance and suffering The valuation of nature in recent times has therefore to be connected to the traditional beliefs. Around the time of Abt's (1989) and Fromm's (1976) work the reconnection with traditions, the value of traditional knowledge, and the notion that 'dead' matter resurrects with spiritual meaning are examples of re-valuating those beliefs among individuals mostly from western societies. The resurrection of matter with meaning can derive from what Erich Fromm (1976) describes as an *end of an illusion* (Fromm, 1976, pp. 69 ff.). For Fromm this resurrection also describes a change from the 'having mode to the being mode' (*op. cit.*, pp. 87 ff.). This change of mindset of the individuals in western societies also has implications for how people change their view of nature away from a form of commodity towards a resource valued for the survival of our living environment. How individuals understand nature invariably influences how they value the natural environment at protected areas, a fact that has to be taken into consideration in any PA conflict management procedure worthy of the name.

2.3.2 Nature Conservation

Nature conservation is influenced by the appreciation of nature by individuals. As Emilio Moran points out "[o]ur current tendency to value wilderness comes from its rapid disappearance" (Moran, 2006, p. 59). Moran goes on to argue that the "notion of conservation is relatively recent" (*ibid*). The emergence of nature conservation as a concept conjoins with the depletion of 'untouched' wilderness and the change of views about nature by individuals also has implications for nature conservation.

Nature and Conservation

This section will discuss the notion of individual's views towards nature conservation and protected areas. For this thesis, two national parks and one protected area have been selected as focus areas, a decision which in turn requires a brief introduction to the history of national parks and the valuation of nature conservation by people in general, before going into a detailed analysis of national parks in Iceland and Japan in a later sections (see chapter 2.5 and 2.6).

The history of the national park begins in the year 1872 with the establishment of the Yellowstone National Park in the United States, followed by the Banff National Park in 1885 in Canada (Canadian Heritage, 1997). Many other countries followed the American example, e.g. Iceland and Japan, to mention two. In 1928, Iceland passed a law to establish the Þingvellir National Park as a ”protected national shrine of all Icelanders” (TNP, 2009) and for means of conservation of the old parliament place called *Þingvellir* [English: Thingvellir]. At Þingvellir, which can be translated literally as "Parliament Plains", the *Alþing* [English: Althing] or general assembly was established around AD 930 (TNP, 2010). Until 1798 (*ibid*), Þingvellir functioned on a national level as a place for dealing with disagreements and conflicts, to speak the law, to communicate different perspectives, to judge, and to reach consensus among stakeholders. Japan established its first national parks in the early 1930’s and used examples from abroad as a framework for establishing the Daisetsuzan National Park in 1934 (MOE, 2008b, p. 46; Ito, 1996; Shiratori & Ito, 2001). Even though the national parks in America were the first ones, the conservation movement in Japan was mainly influenced by the German conservation movement and emerged out of a sense of national pride and aesthetics (Oyadomari, 1989; MOE, 2009). Germany, however, did not establish its own first National Park until much later with the Bavarian Forest National Park in 1970 (Wald, 2009).

At the beginning, national parks were seen as, mainly by policy makers, a defined area where land was set aside by law in order to preserve it for [recreational] enjoyment and national pride, as well as to conserve nature. Brown describes the prevailing approach to conservation at national parks as ‘fortress conservation’ (Brown, 2002) because the area of national parks has been removed from the daily natural resource utilization by local inhabitants and strict rules designed to prevent the area from being used have been implemented. Nowadays, the views of nature have expanded and the establishment of national park as part of safeguarding the economic value of nature as a scarce resource (see e.g. Moran, 2006). Newly established protected areas around the world, in line with IUCN regulations, are now established as a form of nature conservation with the valuation of nature protection and recreational utilization, to create business opportunities for present and future generations (see Canadian Heritage, 1997; Kaltenborn*, et al.*, 1999; Phillips, 2003; Xu*, et al.*, 2009). In Iceland, the Vatnajökull NP represents the movement towards a cooperative and conscientious use of the protected area in order to generate income for local people whilst protecting the environment (MFE, 2007), and adheres to modern international agreements and regulations (Phillips, 2003).

Protected Areas and National Parks

Protected areas such as the Vatnajökull NP are defined in accordance with the guidelines of the International Union for Conservation of Nature and Natural Resources (IUCN, 1994, 2003, 2008) as

> *A clearly defined geographical space, recognised, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values (IUCN, 2008).*

In the context of protected area management, the IUCN is seen as the most reliable international source for regulations and guidelines. The reason for this is its long history of collaboration in research beyond single discipline views by governments, NGOs, scientists, companies and community organizations (IUCN, 2009a). The IUCN differentiates between different categories of protected areas (IUCN, 1994, 2003; Phillips, 2003) repeats in his

article. These categories vary mainly in their limitation of access to the protected area and with regard to the purpose of conservation (see *Table 1* for description of categories).

Table 1: IUCN Categories of Protected Areas (IUCN, 1994, 2003; Phillips, 2003)

Category	Description (PA managed mainly for…)
Ia	Strict Nature Reserve: for science
Ib	Wilderness Area: for wilderness protection
II	National Park: for ecosystem protection and recreation
III	Natural Monument: for conservation of specific natural features
IV	Habitat/Species Management Area: for conservation through management intervention
V	Protected Landscape/Seascape: for landscape/seascape conservation and recreation
VI	Managed Resource Protected Area: for the sustainable use of natural ecosystems

It is important to point out that the IUCN identifies all three dimensions of protected areas in respect of protected areas: the airspace above, the surface of the area itself, the sea and soil level below. The IUCN regulations state that all dimensions have to be recognized and protected by the guidelines and the management plan of the protected area (IUCN, 2008, p. 9). The Vatnajökull National Park is managed in accordance with the PA category II of the IUCN, i.e. it is a protected area managed mainly for ecosystem protection and recreation (MFE, 2007, p. 16; for further information see chapter 2.5).

2.3.3 Public Participation

In most, if not all, Western countries, the individual has the right of free speech and can therefore take part in the democratic decision-making process. For Habermas (1979), democracy is a "normative process" where a "legitimate agreement among individuals and society" is formed by communication and interaction (see Habermas, 1979, pp. 186-187). The agreements are then formed by the participants, but to reach these agreements and for them to receive approval by society, the cultural environment of society and communication with other individuals is important. The freedom of the individual is embedded in our legal system, in which political discussion and dispute is seen as a part of a democratic society. For a long time public participation was understood as a form of democratic right in the decision making process but not necessarily considered very important by officials and governments. In the case of natural resource management, public participation has gained greater importance as a communicative tool in the promotion of public involvement, particularly because the rights and interests of local stakeholders are thereby acknowledged by officials (see UN, 1992b, 1998, 2002; WCD, 2000; WCED, 1987; Phillips, 2003).

Arnstein (1969) addresses the important role of public participation in the US. Her work sets forth the concepts emerging in the 1960s around the issue of empowerment of the public and tries to clarify the misleading use of the different terms concerning public participation. Her work lays out several different types of participation and nonparticipation, moving from nonparticipation over tokenism towards forms of citizen participation (*op. cit.*).

As Phillips (2003) mentions, citizen empowerment and participation, as addressed by Arnstein (1969) did not exist in decision makers' agendas in the 1960s. The UN

Conference on the Human Environment (also known as the Stockholm Conference) in 1972 marked the beginning of growing environmental awareness among the public and governments. Citizen empowerment and participation emerged on the agenda of nature conservation during the 1980's and gained considerable momentum in the 1990's (Phillips, 2003, p. 18). The *Brundtland Report* (WCED, 1987), written in preparation for the 1992 *Earth Summit* by the United Nations (UN, 1992b), laid out the importance of recognizing the right of citizens to participate in issues concerning the management and planning of change, especially in relation to natural resource dependency. As a follow-up to the Earth Summit, later international agreements and conventions started to incorporate participation as a valuable tool in dealing with environmental issues (UN, 1992a, 1998).

The Rio Declaration of the Earth Summit (UN, 1992b) was the starting point from which on the broad involvement of stakeholders in the decision-making process began. The Earth Summit is understood as the key to effective environmental decision making and evidence-based policy formulation. It emerged from the acknowledgment of the importance of stakeholder involvement that complex conflict situations, and the problems caused because of stakeholders utilizing the environment, can only be solved if all stakeholders concerned take part in the decision making process and share their knowledge of the situation. In 1992, the involvement of stakeholders and public participation was described as one of the key contributory elements in achieving the sustainable development goals of the *Agenda 21*, proposed by the United Nations in 1992 (*ibid*), and citizen information and empowerment (UN, 1998).

Since the Earth Summit and as a result of its communicative approach, public participation has been adopted by many organizations and implemented in many regulations as a form of stakeholder acknowledgment. As a part of the network of international regulations, the IUCN states that societies' establishment of special protected areas has been a cultural phenomenon for centuries (IUCN, 2001, p. 1). Apart from this, the IUCN states that as a result of nature conservation it can be observed by the management of PAs that as the number of visitors grew, so too did the management challenges (*op. cit.*).

2.3.4 Protected Areas and Conflicts

In the fields of environmental protection and protected area management, public participation is at the time of writing this thesis more commonly accepted in decision-making processes than it was before. In the context of PAs and PP as a part of decision-making, Moran (2006) argues that public participation in conservation is an "issue of individual choice and is at the core of what needs to be understood in the study of how we make decisions" (Moran, 2006, p. 35; emphasis: own). For Moran it is not surprising that "[v]alues and attitudes are very important in shaping individuals choice. It appears [author: for him] that favorable environmental behaviors lie at the end of a long, causal chain involving both individuals and contextual factors" (*op. cit.;* emphasis: own). Moran's view of conservation would suggest that the approach to disagreements over national park issues has to be multi-pronged. The following section will present the work of several scholars that have studied different aspects of public participation in nature conservation; it will also take a look at the significance of the social dimension that underlies conflict situations (see e.g. Priscoli, 1997; Hiedanpää, 2005; Tam, 2006; Kyllönen*, et al.*, 2006; Zietsma & Winn, 2008).

Conservation policies often promote conflicts within protected area management, as they do not always incorporate a participatory approach. For Hiedanpää (2005), strict

international regulations can lead to more disturbances in local life when the existing regulations and programs are not taken into consideration. For him, the European network represents an example which demonstrates how international regulations can shape conflicts over protected areas. Such regulations can act as a restraining force on the sovereignty of local people and businesses "by prohibiting certain previously rightful productive practices" (*op. cit.*, p. 490) on areas new included into the conservation networks. As a result, regulations often interfere with existing economic regulations and habits, and make it much harder to reach stakeholder agreement in the effort to implement new regulations.

Looking at conflicts about protected areas from the perspective of participation, while incorporating an interdisciplinary perspective on protected area management, it is evident that fundamental aspects of individual freedom are called into play, creating the potential for a highly volatile conflict situation. A participatory process within natural conservation settings is a very powerful democratic process, as e.g. Priscoli (1997) argues the "new democratic spirit and a new ecological spirit are two of the most powerful transformational forces in today's world" (Priscoli, 1997, p. 61). The combination of democratic and ecological mindsets creates the foundation of participatory processes used in conservation, these are characteristics which shape the new paradigm of nature conservation and conservation regulations, defined by the IUCN (Phillips, 2003).

Priscoli (1997) also points out that participation in protected area management is usually only used by a minority of the affected public. Typically, only the very motivated or vocal parts of the community express their opinion. The risk here, as Priscoli goes on to point out, is that decision makers often rely on the opinion of the few in order to reject or approve decisions that have an impact on many stakeholders (*op. cit.*). Though conflict management is supposed to involve all stakeholders, it often has to reduce the number of participants in order to work effectively. The problem is that the conflict management processes unconsciously facilitates the creation of an expert group, as Priscoli argues, representing only "those with money and position" (*op. cit.*, p. 63) or those who are vocal (Tam, 2006). In essence, these "procedures can easily leave out the voiceless or those who will be affected but do not know it" (Priscoli, 1997, p. 63).

Conflict management in the context of conservation has also been criticised. Papst (2008) mentions that techniques of conflict management sometimes include processes and techniques outside governmental judicial process and incorporate a participatory approach (e.g. negotiation, mediation, collaborative law and arbitration). Papst points out that these techniques are reactive, and are often implemented too late to effectively protect a natural habitat, especially if affected stakeholders do not participate. However, Papst does argue that participatory techniques often result in non-legally binding agreements that would enforce parties to follow the negotiated terms, which makes enforcement practices "toothless" (*op. cit.*, p. 26). This point is important, especially when it comes to communication over conflict issues. As indicated earlier in the chapter, Tam (2006) argues that communication in public participation projects can have very important implications for the individual in the community vis-à-vis structures of economic and political power. The position of stakeholders within a community will steer the process of conflict management and PP, which makes it difficult to involve silent stakeholders (Tam, 2006). Tam's argument is especially important apropos to dealing with communities or groups where a "culture of harmony and respect for authority" (*op. cit.*, p. 1) is dominant. In the ideal social setting, the excluded participants will not complain about their exclusion, and yet it is this silent exclusion that can subsequently manifest itself as conflict Tam

therefore sees communication "to reach consensus [as] a useful ideal" (*op. cit.*, p. 12; emphasise: own).

2.4 Two Perspectives on Conflict Management in Protected Areas

After having discussed some aspects of human-human and human-non-human interactions and conflicts, this chapter will now explore two perspectives on conflict management in protected areas management. Scholars presented in this chapter have looked closely at the successful and not so successful techniques of conflict management. Most of the successful conflict management techniques (e.g. negotiations, workshops, mediation, or public meetings) described by scholars (e.g. Carpini, *et al.*, 2004; Halvorsen, 2001, 2003; Höppner, *et al.*, 2007) appear to be usable without adjustment to PA management.

On closer examination, the use of conflict management techniques can be categorized into two broad approaches: the regulatory approach or the participatory approach. Both approaches vary in terms of stakeholder participation, the legal enforcement necessary within the conflict management technique, and the manner in which conflict management techniques are employed and shaped. Though both approaches aim to build consensus in conflict situations, it should be pointed out that, in the main, each method focuses on a different group of stakeholders and their needs. The regulatory approach tends to accommodate the needs of officials, whereas the participatory approach foregrounds the needs of stakeholders. The participatory approach acknowledges the importance of the public for a meaningful decision making process as indicated by international agreements (see IUCN, 2008; UN, 1992a; UN, 1998). *Figure 3* illustrates the different characteristics of both approaches and provides examples of the techniques associated with them, before the next section will present the regulatory approach, followed by the section about the participatory approach.

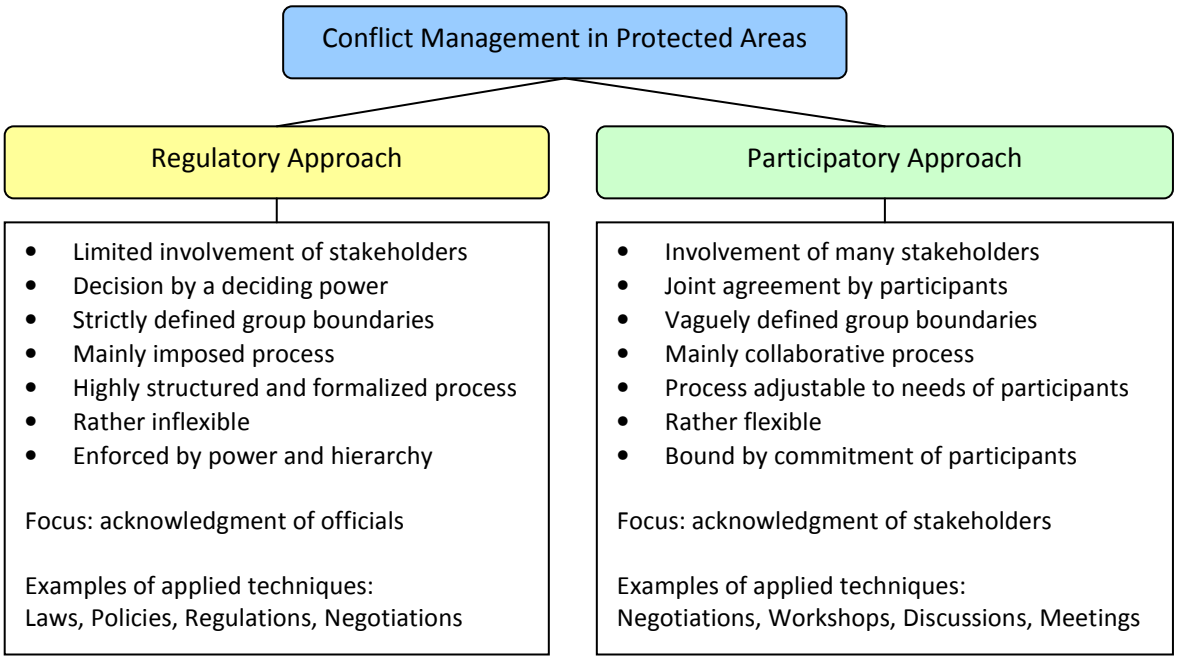


Figure 3: Conflict Management in Protected Areas: Regulatory or Participatory Approach (own)

2.4.1 Regulatory Approach

While it is true that the regulatory approach involves the interaction between interest groups, it is still primarily enforced by an administrative system rooted in power and hierarchy which tackles the conflict through regulatory or controlling measures. The interaction between officials and other stakeholders is based on communication, but the main focus is to conduct negotiations on regulatory instruments like policies, laws, and technology, which define the borders of possible individual decision-making. Applying a regulatory approach to conflict situations, official bodies often limit the direct input and involvement of the public, since decisions are made through administrative power. This approach focuses on containing and mitigating the effects of conflicts for officials. The public may be consulted, but their involvement is often limited to the possibility of responding to the suggestions made by the officials. Some scholars argue that the public ought to be consulted for pragmatic reasons, otherwise the regulatory approach becomes less effective (see e.g. Calcott, 2008; Hiedanpää, 2005). This inefficiency is dependent on the limitations intended by officials for this methodology. Regulations in this method can create a framework that does not support a flexible environment which welcomes input by the affected interest group. Interest groups outside of the set framework can be alienated by how decisions within the inner group are made. The alienation of stakeholders can emerge either as a result of the exclusion of expert groups and the formal environment of the decision-making process, or be intentional by officials.

Hiedanpää (2005) cites a case in Finland as an example of how stakeholders were alienated by a regulatory approach. Finnish national park and forest managers were introduced to new regulations in which only a limited amount of the participants (mainly national level interest groups and officials) were included in the decision-making. Regional and local stakeholders remained absent and the public in general was not involved. New regulations for a new conservation scheme were enforced by an outside directive but had to be "integrated into national legislations" (Hiedanpää, 2005, p.486). This enforcement from outside without the integration on a national level caused irritation among local stakeholders, although it was intended to serve conservation issues, but led to conflicts rather than solving already existing issues.

Lee *et al.* (2007) present another example of a regulatory approach to decision-making vis-à-vis conflict resolution for an often rather less informed participant. They describe an *a priori ordering protocol* as a tool suitable to deal with collective decision-making situations that are "highly dependent on matters of perspective, values and opinion" (Lee, *et al.*, 2007, p. 3129). It refers to a decision-making process based on the provision of a template of possible decisions for stakeholders. Because of that, their technique can be used to *impose* a decision-making process from outside, thereby avoiding the extensive informing of the participants prior to the decision-making process. This technique still collects each stakeholder's preferences for decision alternatives, but uses this information in order to combine these alternatives in some "reasonable manner" (*op. cit.*, p. 3130). The result of this protocol is used in the decision-making process to "determine which alternative is to be given what level of importance during the consensus-building exercise" (*op. cit.*). It therefore aims to support consensus building by limiting the choice of possible decision alternatives and by avoiding direct participation of the stakeholder

2.4.2 Participatory Approach

The participatory approach to conflict management uses a more open and flexible model by including as many stakeholders as possible in the conflict situation. This approach can also be called a basic democratic approach, because it provides an opportunity for different stakeholders to express their opinion about their values and interests. A participatory approach incorporates the need of the stakeholders to participate and communicate their interests; it does so by using different communication channels and communication methods in the decision-making process. Due to the open involvement of participants in the decision-making of the conflict management process, the results this method are rather seen as a joint result by all participants. The results describe a joint effort of the stakeholders, which makes it easier for the participants concerned to commit themselves to the jointly formulated regulations or agreement. Various techniques which use a participatory approach, using communication, were been found during the literature review conducted for this thesis. Research in conflict management includes tools such as: public meetings, public participation, workshops, community dinners, collaborative decision-making processes, mediation, or transactive planning.

Even though participation is essential in these methods, Walker and Daniels (1997) point out that public participation "has been broadly criticized as ineffective" (Walker & Daniels, 1997, p. 29). Despite this critique, it is widely acknowledged that conflict management and consensus building in protected areas could rely on stakeholders' dialogue in order to achieve a durable agreement (see e.g. Walker & Daniels, 1997; Phillips, 2003). Such agreements can have many goals and may range from exchanging information and advancing a shared vision to resolving conflicts (Jeurissen, 2004, p. 95). Walker and Daniels (1997) mention that it is very important for mediators, facilitators, and decision-makers in conflict situations to be aware that minority groups often take the representative role for the non-vocal interests groups in the process of public participation. The participation process can run into the trouble that one stakeholder might dominate in this method, or that the process may leave out other possible options to reach mutual understanding, and, as Tam (2006) argues, leave out the silent stakeholder. If this method accounts for this weaknesses, scholars suggest public participation is the best means to achieve mutual understanding and to improve conflict situations (e.g. Hiedanpää, 2005; Hjortsø, 2004; Halvorsen, 2001, 2003; Marshall, *et al.*, 2007).

In order to improve the decision-making processes and to create transparency among the interests of stakeholders, it is important to encourage the participants to work and communicate with each other. Using communication and participation in conflict situations can only increase the likelihood that consensus will be reached and the conflict ameliorated (Hiedanpää, 2005; Marshall*, et al.*, 2007). By focusing on the social perspective of conflict situations and offering participation to the stakeholders concerned, it is possible to step beyond existing value conflicts towards a compromise, even with the possible help of the intervention by a neutral third party (Andrew, 2003; Striegnitz, 2006; Marshall*, et al.*, 2007). Apropos of using a mediator as a third party, it is particularly essential to *invent* options for the resolution of the conflict and promotion of consensus (Striegnitz, 2006).

As a means of dealing with conflict situations, Hiedanpää recommends the transactive planning approach (Hiedanpää, 2005, p. 494). Transactive planning is a participatory approach that makes "active use of organized collective action and its rules" (*op. cit.*). It relies on the active participation of all interest groups, and on the freedom of social interaction, stakeholder cooperation and self-organization. Hiedanpää advances the thesis

that building consensus with regards to development policy can only be achieved through the process of transactive planning, which takes place through three interdependent levels: collective assemblage of all interest groups, problem-orientated working group and workshops for the public. The results of this work process are then used in a final collective meeting to make decisions on the possible means to improve the conflict situation in an open, acceptable and reasonable manner (*op. cit.*, pp. 495-496).

All of the participatory approaches to conflict management conclude that a supportive and comfortable environment, one that includes trust, confidence, and the intention to participate, have to exist if there going to be any hope of resolving the conflict in a manner that is fair and satisfactory to all participants (see e.g. Halvorsen, 2003; Höppner*, et al.*, 2007). In a comfortable setting, public participation can even help to transform participants' beliefs. As Halvorsen states, the public meeting itself can have a positive influence on the participants' beliefs towards themselves and the conflict at issue (Halvorsen, 2003, p. 540). Her study indicates that the success of a public meeting can also be subjective and free of objective evaluation due to different objectives and expectations held by stakeholders, and may have short-term and long-term effects on them. Over the long run, the exposure to some meetings may make participants more tolerant of disagreements among those attending the meetings and can do more to change key beliefs and influence the mindset of participants. This research suggests that the exchange of information and experience via a communicative process can help to formulate consensus and foster trust among involved stakeholders.

As highlighted earlier in the chapter, trust is very important in bringing participants together to negotiate and build consensus. The term 'trust' is commonly used as a synonym for 'confidence'; however, for Höppner *et al.*, 'trust' and 'confidence' belong to a "different class of objects" (Höppner*, et al.*, 2007, p. 197). Trust is used for objects, as in the trust placed in an organization or a person, whereas confidence usually refers to "the subjective evaluation of impersonal objects" (*op. cit.*), rather than being objective about them. In terms of social interaction, Höppner *et al.* furthermore state that "communication and interaction can either initiate, avoid, intensify, or destroy trust" (*op. cit.*, p. 198). Trust within the participatory process has three major conceptual aspects according to Höppner *et al*: dimension of trust (e.g. competence, reliability), object of trust (e.g. persons, institutions), and the developmental stage of trust (initial trust versus knowledge-based trust). All these factors have to exist to sustain or expand the trust within the participatory process; otherwise trust can be damaged and the conflict situations escalate.

2.5 Nature Conservation in Iceland

The focus of this chapter is nature conservation in Iceland. It will first discuss the connection of the human and non-human environment and the view of nature in Iceland: how do Icelanders see nature; what is their relationship with nature; and where does their understanding of nature come from? The discussion about perceptions of nature is important, since, over time, human beings' interaction with their natural environment is certain to have shaped their image of and regard for nature and perhaps also their interaction with each other as well. Following this, the section will go on to discuss an example of an actual protected area by focusing on the structure and organization of the VNP in Iceland. It will conclude with a brief description of existing conflicts around the Vatnajökull NP.

2.5.1 Views of Nature in Iceland

Iceland is one of the countries in Europe with the lowest population density (3,1 inhabitants per km^2 – see STATICE, 2009b) and which still has large areas of wilderness unique in their environmental and geological features (e.g. vast inland wilderness, and several large glaciers and waterfalls).

Iceland is believed to be relatively recently settled. Vikings from western Scandinavia began settling the island around AD 871 (Ogilvie & Pálsson, 2003). Since the time of the settlements, Icelanders have gone through different historical phases, with each phase marking significant developments in the governmental structure of the nation and showing how a variety of cultural influences can have influenced Icelanders' perception of nature. These historical phases can be divided into four main chronological segments (list similar to Árnason, 2005, p. 14): (1) the settlement period from around AD 871-930; (2) the Christianization period at AD 1000, during which Icelanders adopted the Christian religion whilst continuing practicing certain original pagan customs in private; (3) the period of occupation by Norwegian and Danish colonial powers and the ensuing retardation of economic development; and (4) the period of Home Rule independence from Denmark beginning in 1918 and complete political independence beginning in 1944. The industrial developments around the middle of the 20th century until the time of writing this thesis can be associated with the last period (Eyjolfsdóttir & Smith, 1996, p. 62). All of these four periods brought with them fundamental changes, e.g. in laws and governance; changes which in turn had a significant impact on how people interacted with each other and how the perceived nature.

This section will mainly focus on the period of Iceland's development in the beginning of the 20th century until the time of this thesis. The focus of this section will be first on farming and fishing, secondly on the interaction of Icelanders, followed by thirdly the general discussion about the utilization of natural resources.

Farming and Fishing

Life in Iceland was a struggle for survival for its inhabitants from the time of the settlement to independence during World War II. Volcanoes, avalanches, storms, and long cold seasons marked the hostile living environment of many Icelanders. And yet Iceland is blessed with many natural resources such as extensive fishing grounds, birds and geothermal energy. Árnason (2005) points out that the first settlers' perception of nature was very different than modern Icelanders' (Árnason, 2005). One of the differences refers to the changed biota in Iceland (e.g. the great absence of forests, drainage of wetlands). He bases his analysis of the perception of nature among Icelanders from medieval Icelandic and Nordic literature, and old photography from the 19th and early 20th century. Centuries ago, Icelanders saw nature as evil and deadly, whilst foreigners were more prone to admire the landscape when they visited the island (*op. cit.*, pp. 68, 74 and 87). Admiration for nature is, nowadays, very evident among tourists visiting Iceland (Ólafsdóttir & Runnström, 2009), modern Icelanders share the admiration for nature, but attach different values to it, as Benediktsson (2007) highlights.

Tourism is an important economic sector with a growing amount of visitors every year (Ólafsdóttir & Runnström, 2009, pp. 22 ff.), nevertheless, farmers and fishermen created the basis for the survival and wealth of the Icelandic population today. As some would argue, modern Icelanders seem to have a negative attitude towards fishermen, farmers and

workers in the fishing industry, despite its value from a historical perspective. This notion appears similar, as Abt (1989) puts forth the case of farmers in rural areas in Switzerland, where farmers have been seen by urban people as the "underdog of society" and no longer the "nurturer of society" (*op. cit.*, p. 29).

For Árnason the feelings among Icelanders about the beauty of nature are often more visible in the tourism industry; in fact the majority of tourists visit Iceland due to the admiration of nature (Ólafsdóttir & Runnström, 2009, p. 22). Nature has yet become just the embodiment or symbol of beauty for tourism (e.g. used in advertisements for tourism or Icelandic food products). There are many Icelanders with strong feelings towards the beauty and uniqueness of the island's landscape, however, these feelings are quite mixed (Árnason, 20059. The use of nature for tourism and in terms of food production is more detached from the traditional beliefs attached to the land, deeper meaning, and spirit. The use of nature by individuals is often just the image of what nature mend historically. Nowadays the use of the land is without its deeper spiritual meaning just as Abt has argued similarly for the rural areas in Switzerland (Abt, 1989, pp. 14 and 90).

Interactions of Humans

While the relationship between man and nature is an all-important one, the relationship among humans is no less important. The interaction of individuals in Iceland, sketchily discussed in earlier, calls for further discussion here. Eyjolfsdóttir & Smith (1996), even though mainly discussing the business and management culture, also focus briefly on the aspects of the relationship of human beings and nature in Iceland. They argue that the relationship of a society with nature depends on whether or not the members of that society believe a person can and should be in control of the environment and is responsible for his or her own destiny (*op. cit.*, p. 63). In terms of Icelandic society, they argue that Icelanders, because of the natural environment in which they live, are more used to uncertainty than most other Western nations. This relationship to uncertainty of the environment might, over centuries of exposure, have been the driving force behind Icelandic activism and short-termism, or as Eyjolfsdóttir and Smith (1996) collectively term these: the 'fisherman mentality'. The fisherman mentality refers to the connection between the dependency of man on natural forces to be able to survive. However, even if the term fisherman mentality suggests that the relationship of Icelanders to the natural forces is primarily shaped by short opportunity seeking (i.e. catching the fish while they are still there to be caught), it can be also argued that this description should also indicate the responsibility Icelanders have to take for their livelihoods. For Eyjolfsdóttir and Smith, Icelanders are still inclined to live in a "world of illusion" (*op. cit.*, p. 69), blind to reality and curious about what is new, preferring to take risks than take the cautious road. Swatos (1984) argues in a similar way that modern Icelanders "despite all their cultural achievements are children of nature" (Swatos, 1984, p. 39). Still, the reference to youth suggests that the interaction of humans is in the transition to a mature form. Both the above-mentioned descriptions of predominant cultural traits among Icelanders also reveal that out of the dependency of natural resources emerges the responsibility to care more about their natural environment. In this context, the relationship of human beings with nature can be understood as part of a positive process, in which further development and progress in environmental consciousness lies ahead of the Icelanders, one might think if they are willing to think things to their logical end.

Utilization of Natural Resources

During World War II Iceland was provided with the opportunity to foster economic progress on much larger scale than ever before (Eyjolfsdóttir & Smith, 1996). Iceland gained independence and began utilizing its renewable energy in the early 20th century. Part of this progress is due to the utilization of Iceland's energy resources. Renewable energy is referred to as 'clean' energy on account of its low CO_2 emissions (Orkustofnun, 2006b, pp. 8 and 33), which is generally used for heavy industries. In 2005 energy intensive industries on the island consumed up to 65% of electricity produced in Iceland (*op. cit.*, p. 24), whereas in 2008 this share rose up to roughly 83,7% of the electricity produced by *Landsvirkjun*, the nation's largest electricity provider, in 2008 (Landsvirkjun, N.A., p. 19). Due to its environmental impact and its use for mainly one single branch of industry, the utilization of this energy potential sparked a great deal of criticism and debate (see e.g. chapter 2.5.3 for further details about disagreements around the Vatnajökull NP).

Even though the non-human environment creates the source for tremendous income in Iceland, still, the development of society and Icelanders' perceptions of nature as being the provider of the wealth did not change much towards the positive. It can be argued that the view of nature is nowadays often still driven by the notion that nature is *hostile* and *ugly*, even though some would still hanging onto it as *'pristine'* wilderness (Árnason, 2005, pp. 24-25). The increased utilization of natural resource utilization puts ever greater pressure on Iceland's nature. However, the perception of nature in Iceland has started to change in recent years, as can e.g. be seen by increased environmental concern and activism (see e.g. Árnason, 2005, pp. 125-144). After the arrival and shooting of two polar bears (Latin: *Ursus maritimus*) in Iceland (Robert, 2008), Icelanders argued to save this vulnerable animals (IUCN, 2009b, p. 61) from being shot. Icelandic environmental culture, at the time of writing this thesis, is still very much shaped by the establishment of large scale hydroelectric projects such as the dam at *Kárahnjúkar* (Jóhannesson, 2000; Orkustofnun, 2006b), whaling and by the criticism of these issues from both Icelanders and foreigners (Árnason, 2005, pp. 109-110). However, the collapse of the banking system in end of 2008 and the economic problems that came in its wake have not only influenced the governmental system, but have also opened the possibility for new ways of thinking about the relationship between human beings and nature, and about public participation. New keywords such as: sustainability, transparency and the responsible use of natural resources are indications of these new ways of thinking among Icelanders. It can thus even be argued that the current situation in Iceland, even if negative in economic terms, is more conducive than before to the improvement of social wellbeing through greater concern for the environment.

Besides the direct use of natural resources, tourism is of great importance for the Icelandic economy as one of the major sources of foreign currency income. In 2008, approximately 472,000 tourists flew to Iceland (STATICE, 2009a), a figure that increased to almost 502,0000 in 2009 (Ferðamálastofa, 2009). Tourism is, compared to Iceland's population of 319,000 (STATICE, 2009b), very large in scale. In recent years, the pressure placed on the environment as a source of economic subsistence has grown. The economic utilization of the environment is visible in the rapid growth in the number of tourists visiting the island (Ólafsdóttir & Runnström, 2009, pp. 22 ff.). As a result of its growing importance, the way in which tourists perceive nature might begin and has began to influence and shape the way in which Icelanders perceive nature, despite indications from previous studies that Icelanders' perception of wilderness is strongly dependent on socio-economic variables like property rights (see Lienhoop & MacMillan, 2007).

2.5.2 National Parks in Iceland

As indicated earlier, the history of nature conservation in Iceland dates back to 1928 with the establishment of the Þingvellir protected area. The area was then changed in 1930 into a national park with a view to becoming "a protected national shrine of all Icelanders" (TNP, 2009). Since the establishment of the *Thingvellir National Park*, more national parks have been established on the island, including the *Skaftafell National Park* in 1967, *Jökulsárgljúfur National Park* in 1973 and the *Snæfellsjökull National Park* in 2001 (UST, 2009). With the merger of Skaftafell NP and Jökulsárgljúfur NP with the Vatnajökull NP, the VNP extended to a size of 12,000 km^2, making the Vatnajökull NP the largest national park in Europe (*UST, 2010*). All together, the three NPs in Iceland cover an area of about 12% of Iceland. The VNP, as the largest national park in Iceland, is managed by the board of directors under the Ministry for the Environment (MFE, 2007; VNP, 2009), whereas the Snæfellsjökull NP is controlled by the Environment Agency of Iceland (UST, 2009). The Thingvellir NP belongs to the agencies under the Prime Minister of Iceland and is managed by the Thingvellir Committee (Government, 2009; UST, 2009). The management of the three national parks in Iceland lies, then, in the hands of three different agencies. Despite its different form of management, the Thingvellir NP and Snæfellsjökull NP are included on the map of protected areas by the Environment Agency of Iceland (see *Figure 4* – bigger version in Appendix A).

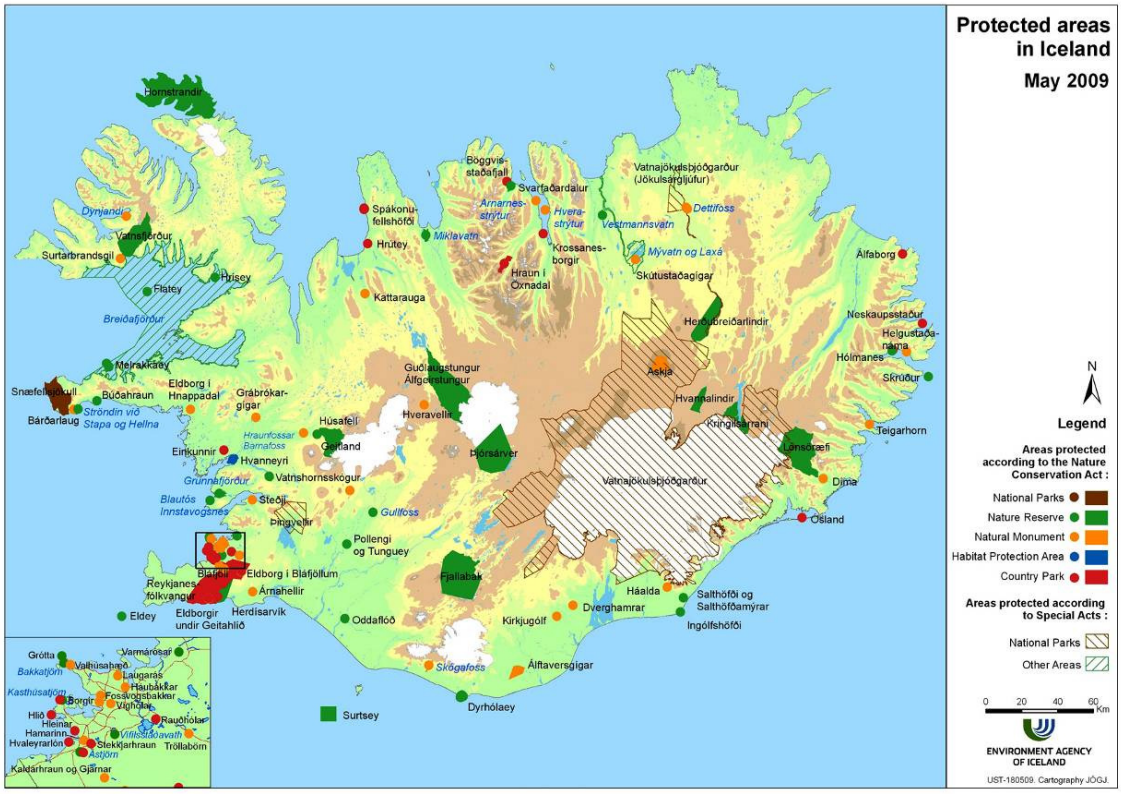
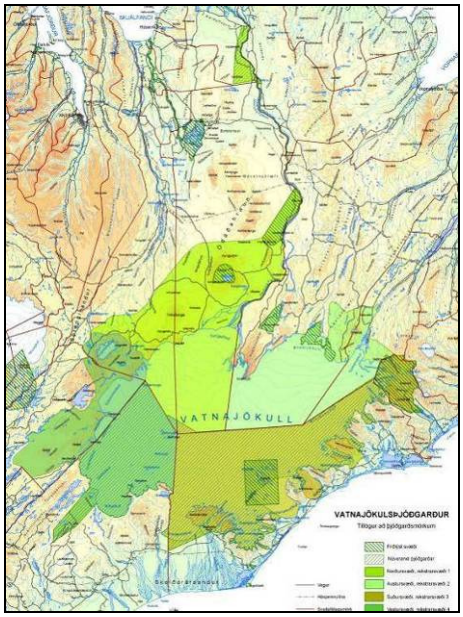


Figure 4: Overview of Protected Areas in Iceland published by the Environment Agency of Iceland (UST, 2009)

Though the Vatnajökull NP is planned as a single coherent NP, because of its large size the park was divided into four operating areas each of which is assigned a so called 'regional committee' (or area council). Due to various uncertainties during the establishment of the park, the final boundaries and therefore the size of the park are not yet exactly clear. The four regional committees represent the four operating areas (see *Figure 5* b), which are

managed as independent operating units under the responsibility of the national park managers, one in each area, who work in concert with their respective regional committee (MFE, 2007). The park as a whole is furthermore represented and managed by the 'Board of the Vatnajökull NP' *Figure 5 (a)* displays the suggested size and area of the Vatnajökull NP as this was initially proposed in a report presented in November 2006 to the Ministry for the Environment which formed the basis for the Act on VNP that was passed by *Alþingi* in 2007 (MFE, 2008a, 2008b). Since then, the borders of VNP have twice been changed, when the first park regulation was issued in June 2008, following which the park was formally established, and then again in April 2009 when a new regulation was issued. After this later change, the size of VNP increased by ca. 2000 km^2. *(b)* shows the approximate actual size of the park as it was opened in June 2008 (MFE, 2008b;). Notice *Figure 5*b in contrast to *Figure 4*, which shows the area of *Askja* (according to *Figure 4* a natural monument) and *Heiðubreiðarlindir* (according to *Figure 4* a nature reserve) as a possible part of the Vatnajökull NP. Due to the ongoing negotiations with landowners, the boarders of the Vatnajökull NP are not fully clear yet, still, *Figure 4* provides the most recent boundaries of the national park.

(a) 

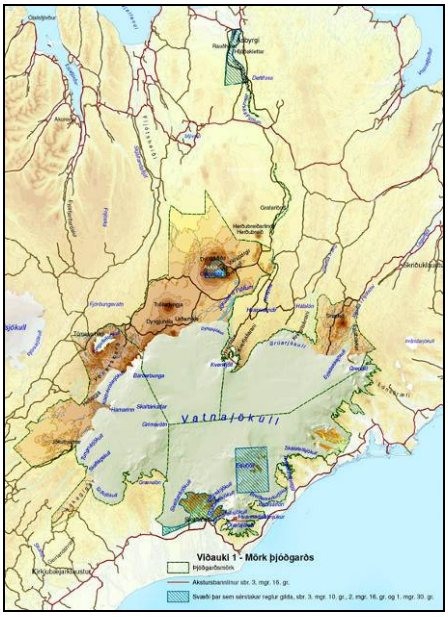
(b) 

Figure 5: (a) Suggested Boundaries (MFE, 2008b) and (b) approximate Size of VNP at opening (Stjórnartíðinda, 2010))

The VNP management structure is prescribed by the Act on Vatnajökull National Park (Alþingi, 2007; MFE, 2007). The board consists of seven members, who, according to article 4 of the Act, are "the chairmen of all area councils of the national park, one representative appointed by environmental organizations and two representatives delegated by the minister without appointment, i.e. the chairman and the vice-chairman" (Alþingi, 2007). According to article 7, the four operating areas shall "be operated as independent operating units at the responsibility of the national-park wardens" (*op. cit.*). "Each operating area shall have an area council appointed by the minister for the environment for a four-year term" (*op. cit.*), whereas the area council consists of "three representatives appointed by the municipal councils of the municipalities at the relevant operating area" (*op. cit.*). Article 7 also stipulates that the chairman and vice chairman are to be elected from among the municipal council members by the area councils themselves (*op. cit.*). The structure of the VNP management thus reflects the size and acknowledges the diversity of the interests attached to its areas (*Figure 6*).

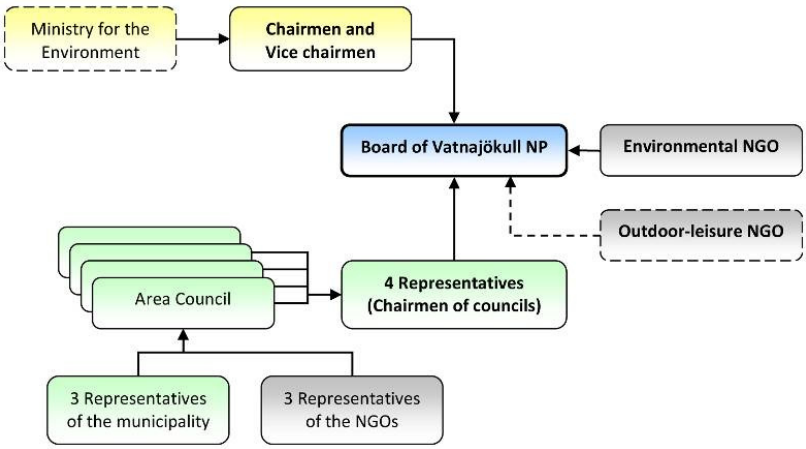


Figure 6: Organigram of the Vatnajökull National Park Management (own)

The establishment of the Vatnajökull NP marked a new approach in Iceland (see also Phillips, 2003) to the involvement of public stakeholders in the decision making process. The management structure of the VNP incorporates the involvement of local stakeholders at the management level (MFE, 2007). As a result, the management of the Vatnajökull NP is designed to support the involvement of local stakeholders and hence open up the decision-making process for the participation of individuals through the engagement in Non Governmental Organizations (NGOs). Although the decision-making process represents a significant paradigm shift in protected area management in Iceland, the decision-making power still lies mainly in the hands of official representatives and not in the hands of the public such as (a further discussion about the management of the VNP can be found in chapter 4).

2.5.3 Conflicts Faced by the Vatnajökull NP Management

As a result its location on a *hot spot* in the Atlantic Ridge, Iceland enjoys a remarkable abundance of geothermal energy (see *Figure 7*).

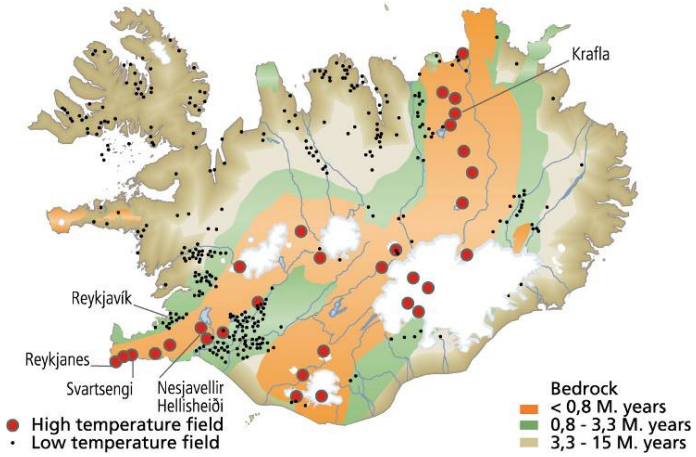


Figure 7: Bedrock Formation in Iceland and the Abundance of Geothermal active Regions (see "figure 2" in Orkustofnun, 2006a:6)

The island also boasts many glacial rivers ideal for the production of hydropower energy (Orkustofnun, 2006b; Thórhallsdóttir, 2007b). As a result, about four fifths of the island's electricity is produced by hydropower, with the remaining one fifths generated by geothermal resources (Orkustofnun, 2006b, p. 21). Many of the possible areas for new geothermal and hydro-power plants are either located in the vicinity of Vatnajökull glacier,

and some even within the Vatnajökull NP (see *Figure 7* for geothermal active areas and *Figure 8* for possible geothermal and hydropower plants).

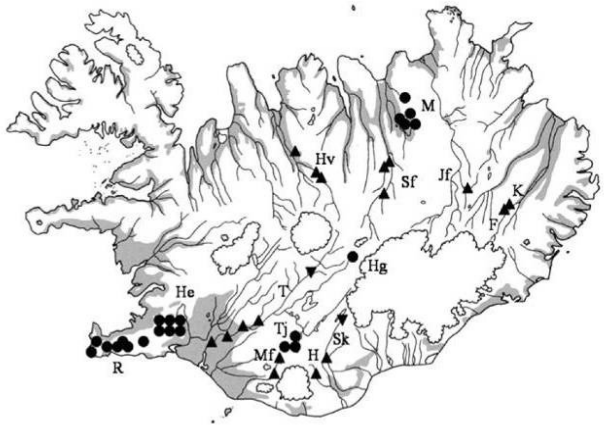


Figure 8: Geographical Distribution of Energy Project Sites of the Icelandic Framework Plan for Energy (see "figure 1" in Thórhallsdóttir, 2007b:524); the map indicates ● = geothermal plant, ▲ = hydroelectric power plant, ▼ = river diversion

Electricity produced in Iceland is mainly used for energy-intensive industries (Orkustofnun, 2006b, p. 24; Landsvirkjun, N.A., p. 19), mainly aluminium smelters (Thórhallsdóttir, 2007a). Landsvirkjun, the national operator of several power plants, produced approximately 76% of the total electricity in Iceland in 2008 (Landsvirkjun, N.A., p. 19). The use of electricity for aluminium smelters is intimately linked to the issue of conservation and rural development. Though the production of electricity in the 1990's was promoted as being '*clean and inexpensive'* (MIL, 1995), the utilization of natural resources has come under scrutiny as a result of its abundance and the questionable benefit for the public. Large-scale hydropower schemes such as the Kárahnjúkar power plant (marked with "K" in *Figure 8*) and the establishment of a aluminium smelter in Reyðarfjörður are examples of rural development projects that created a lot of controversy in Iceland (Thórhallsdóttir, 2007a; Benediktsson, 2007).

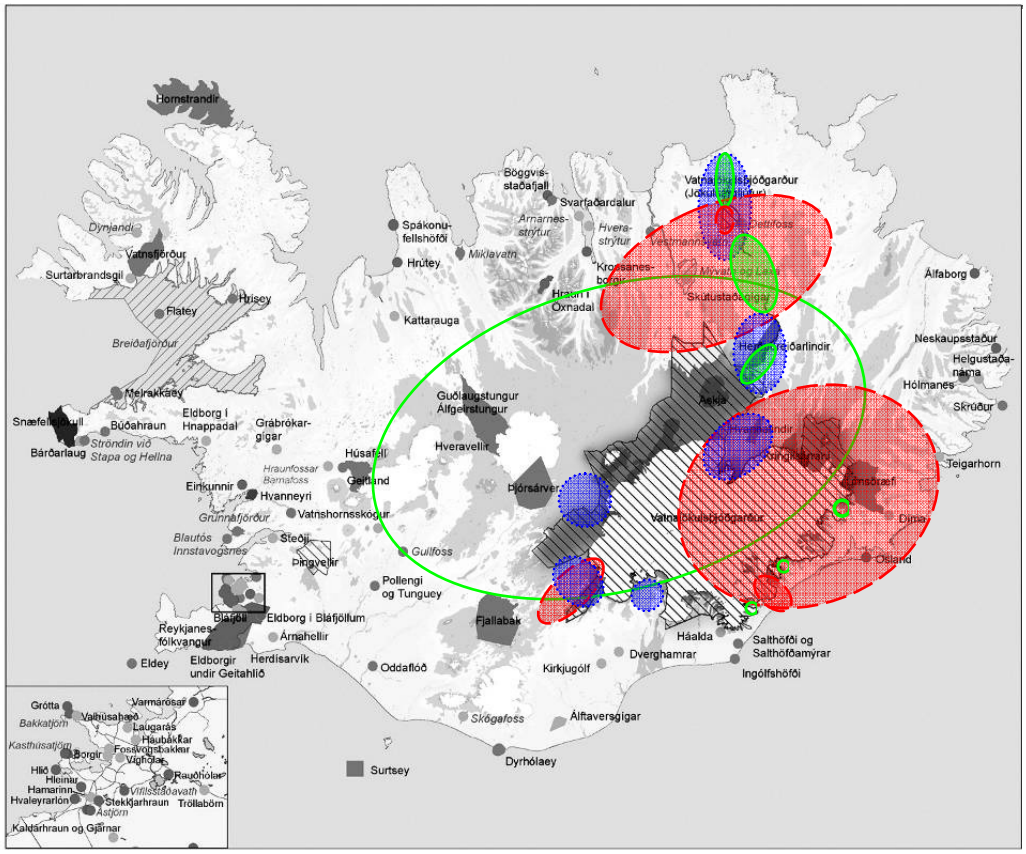
In addition to the differences in opinion over use of natural resources in the production and use of electricity, there have been recent debates on and legal disputes over issues regarding land ownership and user rights of the Central Highlands and certain areas around the Vatnajökull NP (see OECD, 2001, p. 33). The OECD states in their report *Environmental Performance Reviews: Iceland* (*op. cit.*) that "all lands for which private ownership cannot be proven will become state owned and placed under the supervision of the Prime Minister by 2007. The designation of land as public land, however, will not cancel traditional user rights (…)" (*op. cit.*). Currently, the Public Lands Act (Icelandic: *Lög um þjóðlendur og ákvörðun marka eignarlanda, þjóðlendna og afrétta*) (Alþingi, 1998) is the act for the process of transforming these parts of the Highlands into state owned land. The process of resolving these issues is still ongoing and since this land may lie within the suggested boarder of the VNP, the process of resolving these issues can have an effect on the ongoing negotiations with landowners. At current, the Act on Vatnajökull National Park (Alþingi, 2007) allows farmers who have legal ownership over the land to decide to put their land under the regulation of the Vatnajökull NP but still remain the landowner. This has so far happened in two small areas within the VNP.

Many areas around the Vatnajökull and within the Highlands are traditionally used for grazing, hunting, and fishing. This use is not prohibited so long as it is done in adherence

to existing regulations and in a sustainable way (OECD, 2001, p. 33 and p. 62), but can create conflicts. One example of the possibility of conflicts over interest in land-related issues, besides the mentioned generation and use of electricity, is reindeer hunting and natural barriers. Mainly rivers in the area serve as barriers against the spread of diseases in the south of Vatnajökull, close to Jökulsárlón. Representatives from the Ministry for the Environment stated that farmers are concerned about the spread of reindeers into their area. They are concerned that their flock may become infected with diseases. But also the issue of the natural barrier in the south of Vatnajökull represents a conflict where the dimensions of land use, commercial interests and the protection of wildlife collide.

Often conflicts are related to one another, as an example, development projects in Iceland tend to utilize the existing natural resources to promote employment projects and social development. The project of the aluminium smelter in Reyðarfjörður (in the east of Iceland) is one of the most prominently debated projects where rural development, energy utilization, landownership, land use and environmental conservation define the dimensions of a highly complex conflict.

Nevertheless, the conflicts around and within the Vatnajökull NP can be characterized as having three dimensions: 1) land use and development, 2) energy production, and 3) land ownership. The following map gives a brief overview of the conflicts, the area they are rooted in and the area they cover (see *Figure 9*).



Legend:

● (red):

– Regional development

– Seep grazing

– Hunting of predators and wild animals

● (blue):

– Energy production

– Future energy production

● (green):

– Unclear land ownership around VNP

– Highland: land claim

– Private owned land (o)

Figure 9: Map of Iceland and the Vatnajökull NP Including Different Conflict Areas (the detailed map, drawn during a meeting with a contact of the MFE, with additional description can be found in Appendix A; own)

Even though it appears that the conflict areas are distributed over the whole area of the VNP, there are considerable regional differences. Keeping the four areas of the Vatnajökull

NP (see *Figure 5 b*) in mind, it becomes evident that different regions of the park face different types of conflicts. As indicated in *Figure 9*, the region south of Vatnajökull faces conflicts with regards to land use and land ownership, which is different to the region in the north or west of Vatnajökull. In these later regions, the conflicts are mainly related to the possible energy utilization and land use. One of the biggest conflict issues in the Vatnajökull areas is the issue of unclear land-ownership addressed by the Public Lands Act (Alþingi, 1998). Although the ongoing legal dispute is mainly concerns the west, north, and east areas of the Vatnajökull NP, it also has an impact on the area to the south. How officials will make the decision with regards to public land will have an effect on the negotiations between the Vatnajökull NP, farmers and landowners in the area to the south of VNP.

Future conflicts can emerge out of the existing conflicts or as a result of unresolved issues related to the three conflict dimensions already mentioned (see *Figure 9*). The Ministry for the Environment published a new environmental report *Umhverfi og Auðlindir* (2009) (English: Environment and Resources) in which the ministry presents the plans for the next expansion of protected areas in Iceland (see *Figure 10*), as part of the revised Nature Conservation Strategy (Icelandic: *Náttúruverndaráætlun*). In this report, the ministry announces its intention to expand the protected areas within Vatnajökull NP, as well as to create new PAs. A future expansion with regards to the protection of plants (Icelandic: *plöntur*), geological formations (Icelandic: *jarðminjar*), and habitat types (Icelandic: *vistgerdir*), may cause future pressure on conflicts.

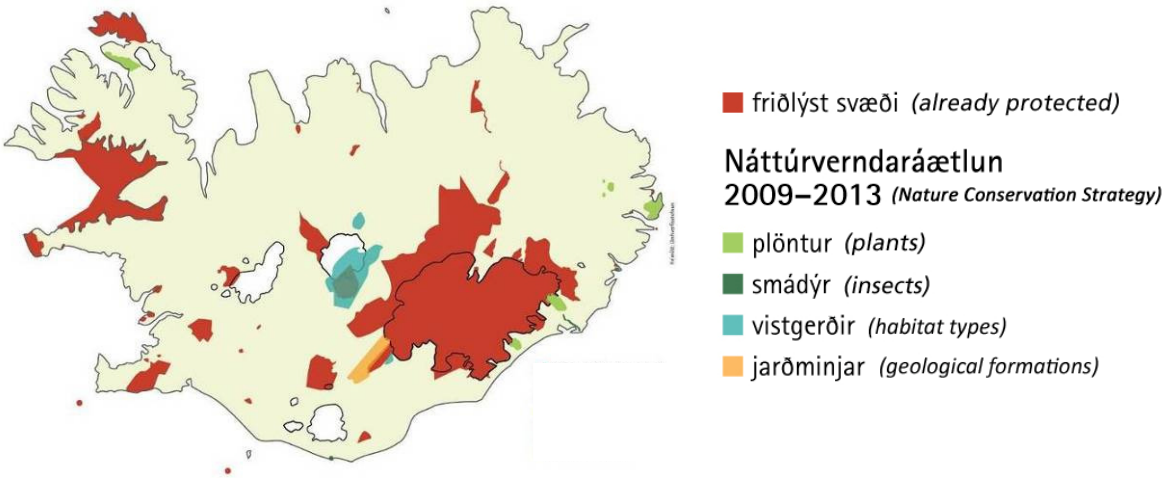


Figure 10: Protected Areas in Iceland in Red: Present Protected Area, other Colours: Future Expansion (MFE, 2009, p. 16; translation from Icelandic into English: own)

One additional aspect for the possibility and effects of conflicts is the population and the population density of the areas around Vatnajökull (see Appendix B). Conflicts are driven by different interests and opinions of individuals, therefore more conflicts may be expected in higher populated areas. In general, it can be speculated that the more people live in an area the higher the chances are that there will be more participants in any one conflict due to shared interests, which can also have an impact on the scale and intensity of conflicts. Nevertheless, a very low population density can also support extensive conflicts as well. In areas of low population density, neighbours are living further away from each other, which can reduce the possibility for meeting venues. It can be speculated that this factor can result in a higher alienation of neighbours, because of less interaction and need of concerning others interest and visions.

Besides the aspects of population density and land-use, it is noteworthy that various primary and secondary roads already provide access to the Vatnajökull NP. Some of the gravel roads through the highlands cross the national park (for a full map, see Appendix B). The discussion about reaping economic benefits from the National Park broaches the issue of a mooted increase in the accessibility of the area for tourists and farmers. The wish to have better access is especially important for certain stakeholders in the northern region of the Vatnajökull, but is one which is highly criticized by environmentalists.

2.6 Nature Conservation in Japan

This chapter will focus on nature conservation in Japan. To increase the comparability of nature conservation in Iceland and Japan, this chapter will follow a similar structure as in the previous chapter about Iceland. The following section will describe the perception of nature in Japan and define the perception of nature. This section will deal with the spiritual background, the social implication, and the historical explanation of this perception of nature. It will try to give insight into the understanding of nature conservation in Japan. Then the follows a section presenting a broad explanation of the national park system in Japan, and conclude by discussing the existing problems in the field of Japanese nature conservation in general and in relation to the Daisetsuzan National Park (大雪山国立公園) at Hokkaido in particular.

2.6.1 Views of Nature in Japan

The belief systems of many Eastern polytheistic religions such as Buddhism, Hinduism and Shintoism are often connected with nature and the landscape. Japan represents an example of where a strong spiritual relationship between humans and the surrounding non-human environment is evident. The "relationship between Japanese people and *shinzen* [English: the natural environment]" (Thomas, 2001, p. 22; emphasis own) is common for strong emotional bonds (*ibid*). Thomas (2001) describes how concepts of nature in Japan arose around the end of 19th century from Buddhism and Shintoism (*ibid*, p. 20), and found their place in the now existing view of nature in Japan (*ibid*). Different views of the reality of nature emerged from Buddhism, with its sense of the infinity of the cosmos and the illusory nature of the world. Shinto offered its practical concerns for ceremonies that marked the agrarian calendar and the natural cycle of birth and death in human families. According to Shinto belief, natural spirits or gods live in old trees or on the tops of mountains. Mountains, like Mount Fuji, are seen as very holy places and are consequently almost untouched by mining or tourism. Shinto priests in Japan perform ceremonies to thank natural spirits for a good rice harvest or to calm the spirits of a mountain affected by individuals and tourism (personal communication: Toma, 2009).

The more traditional understanding of nature in Japan emerges from the days of hunting and farming when the ancient Japanese religion, which transformed in the 5th or 6th century into Shintoism. But even then the understanding of nature was entailed the worship of nature and the part of it, the worship of spirits of prey (e.g. the bear dance of the Ainu in Hokkaido, Japan). Due to the ruling thought of animism (lat. 'anima' = eng. 'soul', see Abt, 1989), the soul was the vital principle of organic development; natural objects were therefore endowed with a soul (Oyadomari, 1989, p. 23). Religious natural objects included not only matter, but also sceneries like forests, caves, hot springs (Japanese: *onsen*), and waterfalls. Animals were also worshipped on account of their shape, actions or essence (Oyadomari, 1989, p. 23). The introduction of natural philosophy from China in

around the 6th century and later on the combination with the early forms of religion strengthened the concept of human dependency on nature (*ibid*). Another important influence came with the arrival of Buddhism in Japan around the same time. Buddhism advocated enlightenment practices in isolated natural places and strengthened the relationship of nature and people as inseparable (*ibid*; personal communication: Toma, 2009). A part of the interaction with nature was the production of food. 2000 years ago, when rice production became prominent (Oyadomari, 1989), natural objects and religion became strongly related to the schedule of rice production and its harvest. In order to increase production, individuals started to work together in order to set the rice field and plant the rice seedlings at a specific time (*ibid*Oyadomari, 1989). The rice production, and the fact that Japan was dependent on fishing around its coast, might have led to a strong notion of *Uchi-Soto* or 'inner-group' (Japanese *uchi*) and 'outer-group' (Japanese *soto*) vis-à-vis interaction with individuals not local or native (Takata, 2003, p. 543; personal communication: Toshiki Toma, 2009).

Though modern Japanese culture still displays a strong connection with nature, Western influences are more and more in evidence, especially since the second half of the twentieth century. Thomas (2001) describes this transition in Japanese culture and Western influence, and argues that Japan is "trapped in the cage of nature" (Thomas, 2001, p. 16). Until the early 20th century, "nature was defined as Japanese culture and Japanese culture as nature" (*ibid*, p. 17). After World War II, "reason (…) triumphed over nature" (*ibid*, p. 18) and man was finally able to master nature. Despite, as Thomas argues, Japan's strong cultural linkage with nature, it has still not overcome the glitch of the Western and pre-existing Japanese concept in many ways. In the early 20th century in Japan, nature was "the enemy in at least three ways" (*ibid*, p. 19): (1) nature was seen as the past which Japan needed to transcend to become modern; (2) nature was a mode of speaking about the differences between Europe and Japan; and (3) nature was perceived as "the formation of an autonomous political subject" (*ibid*). During and after the World War II, Japan radically began to change its understanding of values and progress. The values of 'The West' were understood as a role model of 'development and mechanisms of modernization' adapted from the experience of Western Europe. In contrast, norms from 'the East' were understood as forms of stagnation, backward-looking, and regression. This change in norms in combination with the driving force for mastery and perfection led to Japan's difference from 'the West' by radically overcoming traditional notions towards becoming a western society (*ibid*, p. 27).

2.6.2 National Parks in Japan

Overview of National Park System

The main landmass of Japan is composed of four volcanic islands: Kyushu, Shikoku, Honshu, and Hokkaido. Its interior mainland (name of volcanic island on which interior mainland it to be found) is mostly rugged and mountainous. The population is concentrated mainly on the low flat lands around the islands' coasts. The development of national parks in Japan has followed the examples from the Western world and repeated their concept of national parks. Even though Japan already performed a strong transition towards a western influenced concept of nature, still "concepts of nature and nature protection in East Asia are still linked to ancient religious philosophies and religious practices." (IUCN, 2001, p. 12) Because of this main difference, the conditions for the establishment of a national park are different than those in Western countries. In most cases, the management of the national parks is mainly concerned with issues related to forestry, recreational values and

the appreciation of landscape by visitors (*ibid*, p. 12). At the time of writing this thesis approximately 20.869 km^2 or 5,5% of the Japan's total area (MOE, 2009d) is covered by 29 national parks (*MOE, 2008a;* see map of Japan including the 28 national parks, missing the Oze National Park *Figure 11*). Other protected areas consist of 55 quasi-national parks and over 300 prefectural natural parks (Hiwasaki, 2006, p. 676). The total coverage of protected areas (including national parks, quasi-national parks, and prefectural natural parks) is 54,092 km^2 or approximately 14% of the total land and sea area of Japan (MOE, 2009d).

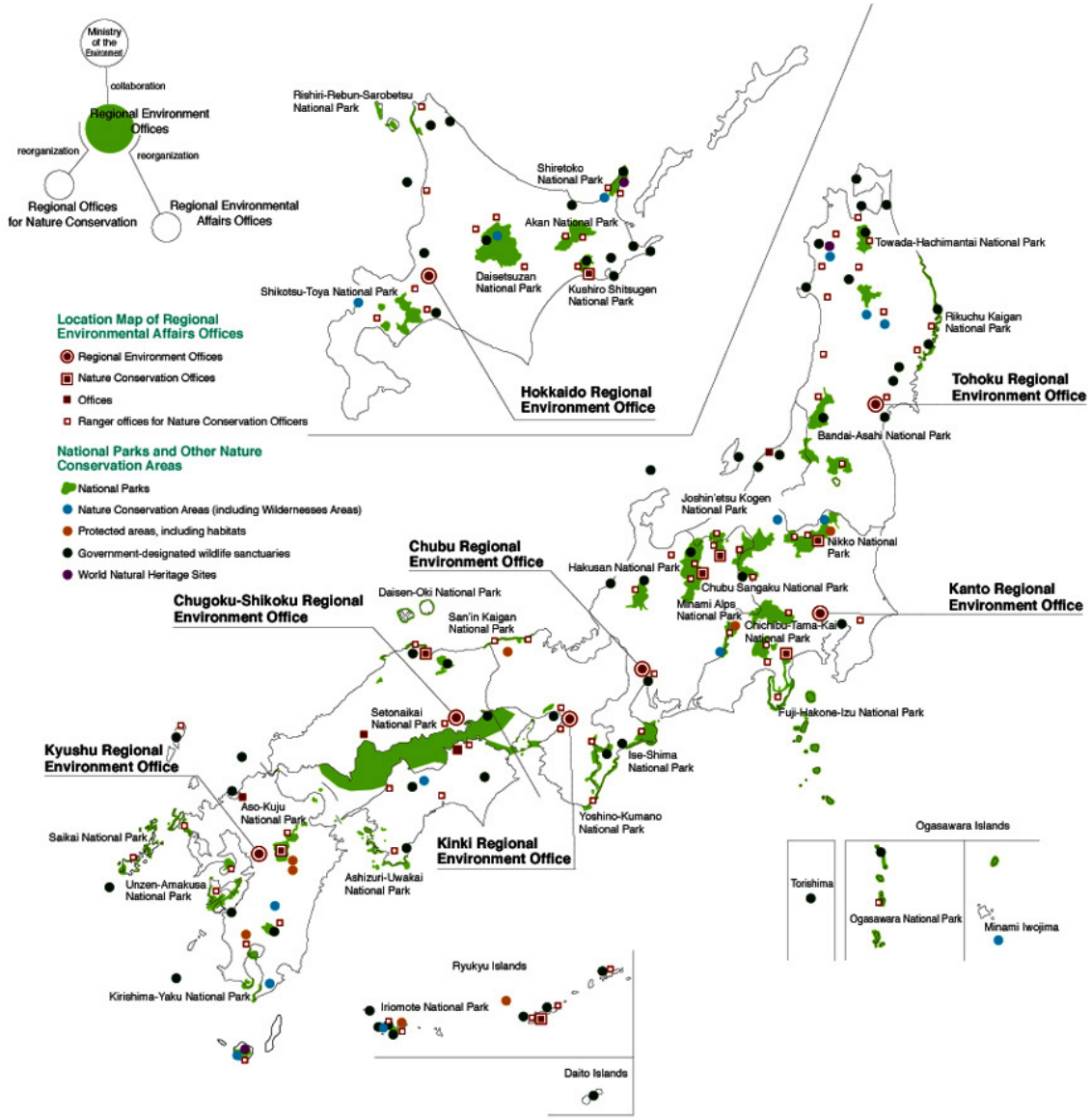


Figure 11: Location Map of Regional Environmental Affairs Offices, National Parks, etc. (MOE, 2009a)

The fact that 25,8% of the national park land is privately owned (MOE, 2007, 2008a, 2009e) has led to the development of a management approach which includes private landowners in the national park decision making processes (IUCN, 2001; Hiwasaki, 2005). In the case of the Daisetsuzan NP, the national government owns the majority of the land; only a small fraction is owned by the prefectural government (Tawara, 2004, p. 9), which is comprised mainly of Forestry Agency. Established in 1934, the Daisetsuzan NP is one of the first national parks in Japan (MOE, 2008b, p. 46; Ito, 1996; Shiratori & Ito, 2001). Its forests have been used for timber production over a long time, but its vegetation has

remained mainly in its natural state (Tawara, 2004), which may be explained by its difficult accessibility. The Japanese national park system management (‘*chiiki-sei*’ in Japanese) followed IUCN concepts (IUCN, 2001, 2008; Phillips, 2003), and uses an approach of ‘park management by zoning and regulation or multiple-use parks’, whilst the land is not set aside for conservation (Hiwasaki, 2005, 2006). The national park management by multiple-use parks marks a difference from the Western concept of NP and PA in the past, where the establishment of these areas was mainly seen as a “fortress conservation” (Brown, 2002, p. 6-7). In addition to using national park areas for forestry (Ito, 1996, p. 85), PA were mainly used for tourism (Hiwasaki, 2006).

National Park Management

As mentioned in the previous subsection, NP management in Japan is characterized by stakeholder inclusiveness. For the Ministry of Environment, the Partnership among the government, the municipality, and local individuals is essential for successful NP management (MOE, 2007, p. 15). Ownership of land decides who is to be involved in national park management. Owners can be divided into three groups: private landowners (25,8% of landownership in all NP in Japan), local municipalities (12,3% of landownership), and national government (61,9% of landownership). National government representation is divided among different ministries that own land within specific NPs. NP management can involve the Ministry of Environment (in charge of nature conservation and protection), the Ministry for Transportation (in charge of roads, rivers, and lake shorelines), the Ministry for Agriculture and Fishery (in charge of forest management), and sometimes even the Ministry of Treasury (small parts of the land within national parks – mainly due to donations or historical reasons). The majority of the land in the NP is managed by the Ministry of Environment, which is the “[p]arty responsible for administrative management” (MOE, 2009c, p. 1), even though the Ministry of Agriculture and Fishery through its Forestry Agency and regional agencies have the most share of the land. As a result, these two agencies (Forestry Agency and Ministry of Environment) are responsible for sharing the management of the majority of national parks in Japan. NP management in Japan is therefore a complex system of multi-stakeholder ownership and responsibility in which management power within the national park has to be distributed among the respective participants (see *Figure 12*).

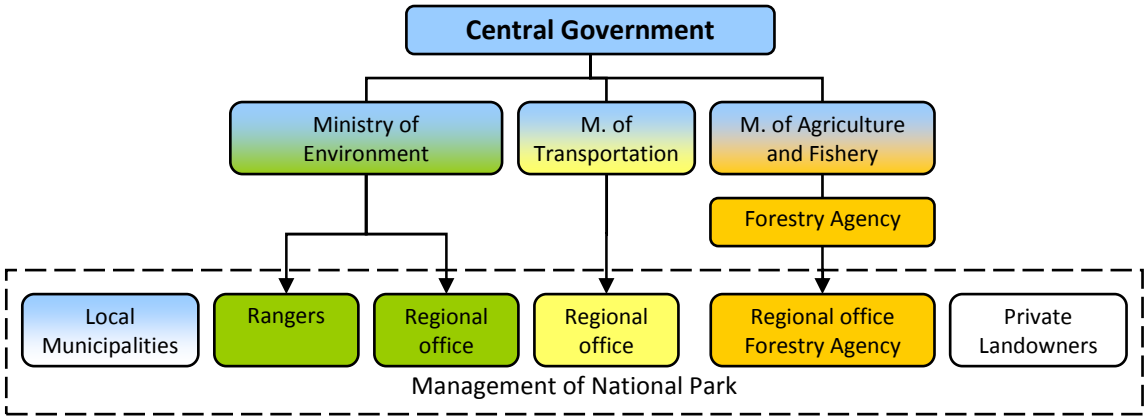


Figure 12: Management System of National Parks in Japan (adapted from Japan, 1957, 2002; own)

Examining the history of NP management in Japan, the purpose of a national park was usually the maintenance and sustainable use of the forest within the NP (Ito, 1996, p. 85). For this reason, the Forestry Agency has been, and often still is, the main owner and

manager of national parks in Japan. With the emergence of the Environment Agency as a small coordinating and regulatory agency, the responsibilities changes in 1971. As the members of this agency have been appointed from 12 different ministries, the agency has been rather weak and divided (Oyadomari, 1989, p. 29). From 1971 to 2001, the Environmental Agency was an organ of the General Administrative Agency of the Cabinet (MOE, 2008b, p. 224); it became the Ministry of the Environment in 2001 (MOE, 2008b, p. 224; MOE, 2009b). Because of the transformation of the Environmental Agency into the Ministry of the Environment, conservation and biodiversity became more important in NP management. As forestry was the driving force behind the NP policy in Japan (Ito, 1996, p. 85), the zoning issues of NPs adheres to the framework designed and integrated by the Forestry Agency, Forestry as a driving force is a relict of the beginning of NP management (Aikoh & Yamaki, 2009; Ito, 1996). The Forestry Agency owns the majority of NP land and has been the most powerful agency within national park management in historical terms, a fact which may have an impact on today's management practices. Active stakeholder involvement in NP management is a new development, especially with regard to the involvement of those stakeholders who do not have ownership rights over land in a NP. The establishment of the Shiretoko NP and its acknowledgment as a UNESCO World Natural Heritage site increased the demand for the stakeholder involvement in the decision-making process. Although this process was designed in accordance with UNESCO demands, a stronger involvement of private stakeholders in other national parks, such as Oze National Park (the majority of the land is owned there by the Tokyo Electric Power Company), can be examined in only few cases in Japan. Still, the growing involvement of stakeholders in the decision-making process at NP is in line with policies for restoration and conservation (Japan, 2002; MOE, 2004).

2.6.3 Conflicts faced by National Park Management

It has been established that national parks in Japan have to include many stakeholders in the decision making process because NP land in Japan is either privately owned or is a national forest under the jurisdiction of the Forestry Agency and owned publically by local governments. More than six different main stakeholder groups have to be considered then: the Ministry of Environment, the Forestry Agency, local governments, The Fisheries Agency, the Agency of Cultural Affairs, industries, private owners and others (Hiwasaki, 2005). Due to its complexity, the management system of national parks in Japan has certain advantages and disadvantages.

As advantages, Hiwasaki (2005) mentions that the Ministry of the Environment does not need to acquire ownership of the land and therefore the small amount of funding as one advantage (*ibid*). Also use of land for sustainable activities by the local people, Hiwasaki mentions as an advantage. In addition to this, new regulations concerning land use and zoning were easily accepted or even welcomed in Japan, which Hiwasaki suggests as advantageous (*ibid*). This notion might become apparent from the fact that on the one hand the prevailing cultural concept of hierarchy and subordination in Japan has its origin in tradition. On the other hand, landowners with a stake in the park would like to know exactly their rights and duties. In addition to these advantages, the management's funding is only relatively small; ergo regulation is a way to govern/control the land usage without spending money on doing so.

In contrast to these advantages, Hiwasaki (2005) also mentioned three weaknesses (*ibid*). The most notable weakness of this system is what Hiwasaki calls "lack of authority". Such lack comes as a result of the necessary involvement of numerous stakeholders in the

decision-making process. This weakness hinders the decision-making process because it makes the decision-making process more complicated and forces the Ministry of the Environment to "push conservation aside while pro-development interest of more powerful government stakeholders took precedence" (*ibid*, p. 759). Also Ito mentions the lack of authority as a weakness in NP management (Ito, 1996, p. 94). In addition to this he also points out that this weakness influenced management guidelines, because "guidelines could be modified without public notice, and secretly changed" (*ibid*). In addition to the lack of authority, Hiwasaki (2005) mentions insufficient attention to biodiversity due to the focus of the preservation of scenery and landscape, and the lack of appropriate resources as an important role in weakening the management of NP in Japan.

"The ultimate test of a moral society is the kind of world that it leaves to its children."
Dietrich Bonhoeffer

3 Methods

The data sources for this thesis's research are fourfold: (1) the literature review, (2) questionnaire surveys in Iceland, (3) a public meeting with stakeholders of a protected area (Iceland) and (4) face to face interviews combined with a survey in Japan.

For the purposes of this thesis, mainly electronic articles and books were consulted. The literature was chosen to increase the researcher's knowledge and review work conducted on a communicative approach to conflict management. As a result, the books consulted were selected according to the following key words: conflict management, communication and the human perspective of conflicts. In addition to these, the theoretical background to this thesis was mainly based on scientific articles published online. The articles were found mainly through the online search engine *ISI Web of Knowledge* (www.isiknowledge.com). Other search engines such as *ScienceDirect* (www.sciencedirect.com) or *Hvar* (www.hvar.is) were also consulted. The search for articles was concentrated less on ScienceDirect and Hvar since their search results had a lower rate of articles with abstracts or articles which were not available with full text.

In order to answer my research question concerning a communicative approach to conflict management, the following keywords were used in the initial stage of the online search: conflict, conflict management, protected area, and national park. Articles without abstract or full text were, in general, excluded. In a few cases the online search online was extended to articles not available in full text, if the text could be found through the *TDNet Resolver* service of the National and University Library of Iceland (www.bok.hi.is) and its forwarding links. The initial stage was focused on articles about conflict management related to protected area management and that excluded other settings of conflict management (e.g. conflicts between nations, partnership, parenting, health care, engineering, or policies). Apropos of protected area management, my search focused on articles on cases in Europe, North America, and Japan. The examples of conflict management in protected areas and national parks from Europe and North America were chosen as such areas have existed for the longest time, and where management of PAs has received the most scholarly attention. Japan was chosen due to the comparative potential of its geological, environmental, and proposed social-cultural similarities with Iceland.

This initial stage was followed by the search for articles with keywords that emerged from the articles of the initial stage. Keywords used for this search included culture, society, natural resources, communication, and development. Again, articles without abstract or full text were excluded. In a few cases, the online search was extended to articles not available in full text, if the text was found through the *TDNet Resolver* service of the National Library of Iceland (www.bok.hi.is) and its forwarding links. This stage also included articles referred to in articles from the initial stage, which were not available through the search engines mentioned or were referred as links to institutions and their online publication (e.g. references to IUCN, UN, and WCD).

In an attempt to define suggestions for conflict management and consensus building in protected areas in Iceland, the beliefs and visions of Icelanders related to the environmental, economic, and social aspects of protected areas were identified. By

executing a questionnaire, the researcher surveyed individuals from Iceland who are living in the vicinity of protected areas and who thus have a [potential] stake in such areas, such as the Vatnajökull NP. This questionnaire was focused on [such] stakeholders of the Vatnajökull NP, and the *Hornstrandir* Nature Reserve. Due to financial constraints, the questionnaire was sent out in electronic form, which meant that only stakeholders with access to online mail were included in the survey. The selection of the target group of individuals for the questionnaire and interviews was meant to reflect the situation of stakeholders around the Vatnajökull NP in Iceland and included a minimum of 40 individuals, based on a stakeholder analysis incorporating the stakeholders identification and classification according to Mitchell *et al.* (Mitchell*, et al.*, 1997), Murray Webster and Simon (Murray-Webster & Simon, 2008), and the management structure of the Vatnajökull NP (Alþingi, 2007).

The results of the survey in Iceland were combined with the observation of a public meeting. The public meeting was conducted as an open meeting and included representatives of interest groups who work in the vicinity of a protected area. The meeting took place outside the Vatnajökull NP area in order to execute a study on with a control group with as little interference possible from the conflicts at Vatnajökull NP. The *Hornstrandir* Nature Reserve in Iceland was selected as the focus area for this control group, and as a source for the first seminar to test a communicative environment for dealing with conflicts. The stakeholders selected for the seminar in Hornstrandir included groups of stakeholders similar to the ones involved in the regional committees and the Board of the Vatnajökull NP. The selection of stakeholders similar to the ones at the Vatnajökull NP ensured that [all] relevant interest groups had the opportunity to participate and that the outcome of the public meeting will not be limited to a biased opinion of a limited number of groups. The participants were asked during an open discussion to express their opinions, values and vision for the protected area.

The selection of interviewees in Japan mirrored the selection of interviewees in Iceland since it followed a similar selection of stakeholder groups, and used the contacts of the researcher at Hokkaido University. The list of interviewees included stakeholders concerned with the management of the Daisetsuzan NP and stakeholders concerned with environmental issues. The limited time spent by the researcher at Hokkaido University made it necessary to adjust the dissemination and collection of the written survey, and limit the amount of interviews possible in Japan. The survey took the place as a questionnaire sent out and collected via post, the interviews were conducted as face to face interviews with stakeholders of the Daisetsuzan NP. The questionnaire in Japan used the same statements as the questionnaire in Iceland and based its target group upon the stakeholders found by the researcher's advisor at Hokkaido University. The same framework for the stakeholder analysis as for the Vatnajökull NP is used in this questionnaire and focus on minimum 50-100 individuals, to increase the compatibility of results from Japan for a comparison with the results from Iceland.

It has to be noted that the methods will be limited to research published primarily in English. The survey in Iceland will be conducted in English, Japanese in Japan, and focus on stakeholders representing interests groups at the focus area and not the general public. The interviews will only involve stakeholder representing interests groups and not include the general public.

"Choose well, your choice is brief and yet endless."
Goethe

4 Benefits of Including the Public in PA Management in Iceland

Vatnajökull NP is seen by many officials and stakeholders as the new *'flagship'* of nature conservation in Iceland. They see the management structure of the VNP as at the forefront of a new approach to PA management in Iceland, both because the initial plans for the park were influenced by stakeholders and because the park's management structure takes public participation [PP] at least partially into account. Within conflict situations, the possibility for PP is essential since PP provides the foundation for collaborative consensus building. This chapter explores the perception of PP in the regulation of PA management in Iceland through the lens of international legislation and IUCN guidelines; it also comments on current developments due to the establishment of the VNP. In reference to the *'new paradigm'* discussed by Phillips (2003), the chapter also tries to evaluate the management approach to integrate the public into decision making process, as exemplified by the VNP. In order to do so, this chapter will first review PP in nature conservation as laid out in the literature review, and start with a brief historical discussion about PP from the perspective of international guidelines and Icelandic regulations. This section is followed by a discussion on the public participation process at the Vatnajökull NP and is intended to discuss what has been agreed on with regard to PP on one hand and what has actually been implemented on the other.

4.1 Public Participation through Regulations

4.1.1 Public Participation in International Guidelines

In the late 1960's, Arnstein (1969) pointed out that there is a ladder of involvement of the public in the decision-making process of officials (Arnstein, 1969). Phillips (2003) mentions that it was not until the late 20th century that the public was started to be regarded by governments and officials as having a role to play in decisions concerning the management of protected areas (Phillips, 2003). Around the time of Arnstein's article, the prevailing view of stakeholder involvement in PA management was that "governments knew best, and the public opinion was something for officials to help shape, not to be influenced by" (*op. cit.*, p. 12). Phillips claims that in conservation the public was not regarded as important in the management of protected areas. As an example, he cites the 1968 Africa Convention on Nature and Natural Resources, which "encouraged the creation of protected areas from which local people would be excluded, though tourists (…) would be welcome" (*op. cit.*, p. 11).

Four years after the Africa Convention on Nature and Natural Resources, the Stockholm Conference in 1972 marked the first milestone for moving the agenda of PA management, and of international environmental politics, forward towards integrating local communities and stakeholders into the decision-making process (Phillips, 2003, p. 17). Others conferences followed (e.g. World Conservation Strategy in 1980), however, the most important with regard to PP in environmental management was the Rio Declaration on Environment and Development in 1992 (*ibid*, p. 18), followed by the Aarhus Convention in 1998. The Rio Declaration was the first international agreement in which it was

internationally acknowledged that PP plays a vital role in decision-making processes apropos of environmental issues. The Rio Declaration states:

> *"Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided." (see Principle 10 in UN, 1992a)*

The *UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters*, usually referred to as the Aarhus Convention, that turned "the 1992 Rio Declaration's vague commitments to the principles of access to information into specific legal obligations" (IUCN, 2004, p. 96). The Aarhus Convention entered force in 2001 (*op. cit.*). Iceland signed the Aarhus Convention in 1998, but has not ratified it, at the time of writing this thesis (UNECE, 2010). This Convention recognizes the basic right of present and future individuals to a healthy environment (UN, 1998; IUCN, 2004, p. 96) and can be seen as carrying the importance of the individual set in the report of the Brundtland Commission (WCED, 1987). The Aarhus Convention also specifies "how the authorities (…) will provide fair and transparent decision-making process, access to information, and access to redress" (IUCN, 2004, p. 96, or UNECE, 2010). Even though international guidelines and conventions acknowledge the importance of the public in decision-making, the question still remains whether the same importance is reflected in national regulations concerning conservation.

4.1.2 IUCN Guidelines: Protected Area Management and Participation

In 1994, the IUCN Guidelines for Protected Area Management Categories still specified management responsibility as being the government's "fundamental responsibility, which they cannot abdicate, for the existence and well-being of national system of protected areas" (IUCN, 1994, p. 12). Despite this it was acknowledged that the responsibility for the management of individual protected areas may rest also with other players (e.g. NGOs, private sector, local communities, etc.) (*ibid*).

At the beginning of the 21st century, the IUCN started to incorporate the public as an integrative part of their PA management guidelines. The 2003 IUCN Guidelines for Management Planning of Protected Areas point out that "it is now widely recognised that many protected areas also have important social and economic functions" (IUCN, 2003, p. 3). The IUCN requested in 2002 that the "entire decision-making process must be designed for stakeholder involvement throughout, not just added on to the process, after the fact" (IUCN, 2002, p. 49), and argues in 2003 for strong public involvement in the decision-making process (IUCN, 2003). In these guidelines, the IUCN states that it is "now standard good practice to include people with an interest or a 'stake' in a protected area in the management planning process" (*ibid*, p. 55).

This move towards a stronger involvement and encouragement of all interested stakeholders also marks a transition in the general opinion about representation of local

people and power relations from the 1960's from conservation excluding local people (see Phillips, 2003; Brown, 2002) towards "modern paradigms for protected areas" (Phillips, 2003, p. 19). For Phillips, the modern paradigm involves the governance of PA by many partners, and therefore requires the acknowledgment and empowerment of stakeholders (*ibid*, pp. 18-19). The IUCN guidelines specify different ways and levels of involving stakeholders in PA management. In 2003, the IUCN specified the following five levels of stakeholder participation (with a increasing level of integration into the decision-making process): 1) informing, 2) consulting, 3) deciding together, 4) acting together, and 5) supporting independent community interests (IUCN, 2003, p. 57). In 2008, IUCN recognized four broad types of governance of PA, each with a different level of local community engagement and empowerment: A) governance by governments, B) shared governance, C) private governance, D) governance by indigenous peoples and local communities (IUCN, 2008, p. 26).

According to the IUCN, stakeholder involvement in the decision-making and management processes of PA has both advantages and disadvantages for successful PP. To insure a sound public involvement, it is important to select the "key individuals" (IUCN, 2003, p. 56) into the decision-making process, because they are the drivers of successful management. For the IUCN, such key individuals, or stakeholders (see Mitchell, et al., 1997), include the following: ministers and directors of authorities, local leaders of communities and action groups, landowners, farmers, business managers, PA planners, representative of tourism groups, and researchers (IUCN, 2003, p. 56). Incorporating key individuals into the decision-making process can be a challenge, but may also create great benefits such as: 1) sense of park ownership, 2) greater support for the protection of the area, 3) greater public involvement in the decision-making process in consequence of increased awareness of management direction, 4) stronger link and synergy of planning and development of area, and 5) an improved mechanism of communication that can lead to identification and resolution of problems and greater understanding and support for the protected area (IUCN, 2003, p. 55). But Phillips (2003) also points out some difficulties that might occur when the public is involved in the decision-making process. In his opinion, stakeholder participation and community involvement may be essential, but they can also place great demands on the resources (staff, time, and money) available in the PA management budget. The inclusion of stakeholder may also involve the need for a stakeholder assessment prior to the integration of stakeholders to avoid the non-willingness of locals to support conservation efforts (Phillips, 2003, p. 23).

To achieve a positive and beneficial process for all participating parties, 'good governance', according to the IUCN (2008), has to follow nine principles: 1) legitimacy and voice ("social dialogue and collective agreements on PA management objectives on the basis of freedom of speech"); 2) subsidiary ("attributing management authority and responsibility to the institutions closest to the resources at stake"); 3) fairness ("sharing equitably the costs and benefits"); 4) 'do no harm' ("the costs of establishing and managing [PA] do not create or aggravate poverty and vulnerability"); 5) direction ("fostering and maintaining an inspiring and consistent long-term vision for the [PA] and its objectives"); 6) performance ("effectively conserving biodiversity whilst responding to the concerns of stakeholders and making wise use of resources"); 7) accountability ("clearly demarcated lines of responsibility and ensuring adequate reporting and answerability from all stakeholders"); 8) transparency ("ensuring that all relevant information is available to all stakeholders"); 9) human rights ("respecting human rights in the context of PA governance, including the rights of future generations") (see IUCN, 2008, p. 28).

4.1.3 Iceland's Approach to PP-based Governance

With the establishment of the Vatnajökull NP, Iceland translated its commitment to international agreements into PP regulations on PA decision-making processes. As the Ministry for the Environment mentions, the Ministry's initiatives "are prepared at the administrative level closest to the local population and it should therefore be possible to get the general public to participate" (MFE, 2002, p. 19). Creating the management structure of the VNP in such a way that it includes the public can be seen as a result in support of the implementation of Local Agenda 21 (UN, 1992b). Still, its initiatives are focused more on the importance of keeping the public well informed on the daily decision-making processes (MFE, 2002, p. 20) than on making direct stakeholder involvement in decision-making processes on an administrative level a reality.

As previously mentioned, the 2007 Act on the Vatnajökull NP defines how the management of the national park is to be organized, and how the public is to be represented. According to Article 4 of the Act, the "Vatnajökull National Park is a state institution and the chief authority in matters regarding the national park is held by the minister for the environment. A special board appointed by the minister for the environment manages the institution and supervises the park's operation" (Alþingi, 2007). For further details concerning the structure of the VNP, see chapter 2.5.2. As a part of the conservation and management work of the Vatnajökull NP, a management plan has to be drawn up and made public. According to Article 12, the "proposal [author: for the management plan] shall be advertised publicly and the general public shall be enabled to present comments before the final proposal is sent to the minister" (*ibid*). As the reader will observe, nothing is said here about the direct involvement of local communities and stakeholders in the decision-making process. The regulations regarding conservation do not appear to be very precise about the actual involvement of the public into the decision-making process. The following section will go into more detail about of public participation in the management of the Vatnajökull NP and start to critically analyse the actual situation.

4.2 Public Participation and Vatnajökull NP

Looking critically at the management structure of the Vatnajökull NP in the light of the previous section, it has to be said that the management approach of the Vatnajökull NP is not necessarily one which puts great store in public participation. The management approach might seem new and progressive in Iceland when compared to the other two Icelandic NPs that are managed, in Phillips's view, along more classical lines (Phillips, 2003). But the question whether the management of the VNP is really so much different to its counterparts is not an unfair one. From the author's personal perspective it could said it is not.

This judgment is based mainly on the following three reasons: 1) though the management of the VNP involves management of areas and has a certain independence from government-led decision-making, it still lacks a true commitment to involve the stakeholders living in the area, as three representatives out of six in the regional committees are appointed by participating municipality council (these seats have been mainly filled by majors or community leaders and in result represent only the majority of voters, not all individuals in the municipality); 2) the fact that the board of the VNP is comprised of the chairpersons of the regional committees (which are selected among the

members appointed by the participating municipality council), along with two members (i.e. the chairman and vice-chairman) appointed by the minister suggests a strong government and political led decision-making. Only one full member of the seven-person board is appointed by an environmental organization, with one representation of outdoor organizations having observer status ; and 3) it also appears that the management structure of the VNP does not provide the possibility for direct involvement of individuals and stakeholders, outside the ones already involved in the decision-making, as described above.

This criticism is in need of further elaboration. that the involvement of local municipalities in the decision-making process carried out by regional committees and board of directors of the Vatnajökull NP is an encouraging step towards acknowledging the importance of decision-making on a local level, as stipulated by international agreements and guidelines (see chapter 4.1.1 and 4.1.2). Still, it can be argued that the involvement of the municipalities can be only an intermediate step, since true participation of local stakeholders would not merely rely on politicians, as it does at the moment. In this connection, it should also be noted that the involvement of an environmental, and an outdoor leisure and travel organization in the VPN board and the area council ought not to be construed as fully incorporating the views of different stakeholders into the decision-making process. Other organizations (e.g. social and religious) are lacking, even though their direct involvement might be beneficial to the decision-making in consensus with local communities (McKenna, 2008).

The fact that the majority of the board of directors consists for the most part of members appointed by administrative bodies (i.e. the chairmen of the regional committees and the chairman and vice chairman) may suggest, that the government, responsible for protecting the Icelandic environment and taking care of the rural development, was not fully willing to place the governance of a PA such as VNP into the hands of the local community. This factor is of great importance, especially since the local community will have to deal with the consequences of any decisions made. Thus, although the VNP seem on the surface to fit into the Type B government of PAs (see IUCN, 2008, p. 26), it could be argued that the management of the VNP should rather be described as Type A, according to the definition of management types by the IUCN (2008). That Iceland signed but not ratified the Aarhus Convention and acknowledges the Agenda 21 might lead one to characterize the Icelandic government as being open to public participation in PA management. But by analysing the management structure of the VNP, it appears that there is still a strong emphasis on keeping the decision-making process in the hands of well-educated and suitable experts appointed by the central government. The lack of giving the decision-making into the hands of the public could be influenced by Icelandic culture of PP (e.g. low interest in involving the public, notion of 'government knows best', lack of awareness of absolute influencing power of public). Recent Icelandic studies have indicated that the implementation of public participation [in EIA?] and the adoption of the local Agenda 21 as a part of local decision-making with the participation of the public has inherent difficulties and, as a result of hindrances to implementation and the short-termism of the parties involved, have not necessarily been successful (see Ögmundarson, 2009; Ágústsdóttir, 2009).

One way of having a meaningful and beneficial PP process for stakeholders, local communities, and their administrators in the VNP, would be the establishment of an advisory board made up of stakeholders for the management of the VNP. This advisory board would consist of many different stakeholder groups and could be asked to make suggestions to the management policies of the regional committes and the board of

directors of the VNP. In general, the establishment of an advisory board as a second body alongside the official management of a PA could also assist in answering concerns about the role of the public in the decision-making process and help in the exchange of information from both ends in an open and constructive way. In addition to this function, the advisory board could function as a 'watchdog' of the management's decision-making process, if the advisory board has the opportunity to reflect by its membership the variety of stakeholders. It could also promote grassroots democracy from both sides (e.g. the advisory board and the management of the Vatnajökull NP), and help in consensus formation.

If no additional measures are taken to incorporate all stakeholders into the decision-making process of Vatnajökull NP, the existing management structure of the VNP will be 'modern' in name only. In reality, it will continue to act in accordance with the 'classical' principles of PA management (see Phillips, 2003), even as it pays lip-service to recent shifts in management paradigms and the commitments of the Icelandic government to local participation.

"The way to do is to be."
Lao-Tse

5 Results

The data for this thesis was collected through several questionnaires and one seminar. The survey and seminar yielded data on stakeholder valuation of nature in protected areas, and their opinions about conflicts and PP in the decision-making process.

In the preparation phase of the main questionnaires, one questionnaire was conducted as a pilot with students in the Master of Project Management (MPM) programme at the University of Iceland. The aim for this pilot questionnaire was to assess the functionality of the layout of the questionnaire itself and to adjust the statements used in future questionnaires. The results of this pilot will be briefly discussed in chapter 6.1, but not presented in this chapter (the full questionnaire and results can be found in Appendix C).

As the Vatnajökull NP and the Daisetsuzan NP were selected as the focus areas for this thesis, one questionnaire was conducted in Iceland and in Japan. But given that the aim of this thesis was to provide a framework for conflict management that is applicable to protected areas in general, it was necessary to include stakeholders outside the focus areas in this research. Consequently, a seminar and questionnaire was conducted prior to the research at the Vatnajökull NP and the Daisetsuzan NP. The goal of including PA stakeholders from Ísafjörður in the research was threefold: (1) such inclusion provided the opportunity to examine the opinion of PA stakeholders outside the influence zone of a NP; (2) it enabled the researcher to test some of the conflict management techniques, discussed in theory in the literature research, in a real live situation in Iceland with stakeholders living close to a PA; and (3) it provided the opportunity to gather a baseline of information and results with which the results of the questionnaires of the selected NPs could be compared. The results of the seminar and questionnaire can be found in chapter 5.1. The results of the main questionnaires for the Vatnajökull NP can be found in chapter 5.2; those for the Daisetsuzan NP can be found in chapter 5.3.

In all cases the data represents the opinion of those who participated in the research. If participants provided traceable information, the data was made anonymous.

5.1 Results of Seminar and Questionnaire – Ísafjörður

To access stakeholder opinion and valuation of a protected area other than that of a national park in Iceland, a meeting was arranged in the North West of Iceland on the 14th of August 2009. The meeting focused on stakeholders of the PA Hornstrandir and was hosted by the University Centre in Ísafjörður (*Háskólasetur Vestfjarða).* The stakeholders invited were supposed to be representative of the stakeholders currently involved in the Area Councils and the Board of the Vatnajökull NP, but they did not include any of them. The meeting took place as a seminar on the topic "Economic and Social Valuation of Protected Areas by Various Stakeholder Groups." The seminar focused on the four different dimensions of PA valuation by individuals. The dimensions derived from Jónasson (2005) and incorporated techniques used in workshops and open discussions over stakeholder interests in PA (see e.g. Höppner*, et al.*, 2007; Halvorsen, 2003). The outcome

of this seminar aimed to support both the adjustment of the questionnaire for the stakeholders of the two other NPs and the development of methods for a communicative approach to conflict management for the management of PAs.

5.1.1 Sample Group

For the seminar, 17 participants were invited, all of which were representatives of environmental, economic and social stakeholders in the protected area of Hornstrandir, close to Ísafjörður, in the North West of Iceland. In addition to these 17 invited guests, seven students from the Environment and Natural Resources programme at the University of Iceland (*Háskóli Íslands*) and six students from the Costal and Marine Management programme at the University Centre in Ísafjörður (*Háskólasetur Vestfjarða*) participated.

5.1.2 Layout of Seminar and Questionnaire

Seminar

The seminar was divided into three main parts. The initial agenda for the seminar aimed for an open and flexible space where people would have the opportunity to express their values and visions, and then focus on their collaborative visions and values. After the first introduction, however, the agenda of the seminar had to be changed to adapt to participants' needs, to facilitate a livelier and more engaging discussion, and to ensure that the quality of the outcome for the participants and the research (see agenda of the seminar in *Table 2*) was of the highest possible standard.

Table 2: Actual Agenda for the Seminar in Ísafjörður

Actual Agenda – Seminar 14th August 2009	
12:00 – 12:15	Welcome and Introduction by moderator
12:15 – 12:45	Introduction of every participant
12:45 – 13:20	Discussion on individuals' values
13:20 – 13:40	Short break
13:40 – 14:30	Introduction to vision for protected areas and how to achieve that vision
14:30 – 14:50	Short break
14:50 – 15:30	Long coffee break and get together
15:30 – 16:15	National Park Café Topic: "How to bring harmony to the human-nature relationship"
	Group A: Should a protected area consist only of state owned land?
	Group B: Should we manage natural processes in protected areas?
	Group C: How deeply involved should people (NGO, experts, locals, tourists) be in PA decision-making processes?
16:15 – 16:45	Group presentation and conclusion of seminar

The first section of the seminar was concerned with the personal introduction of the participants, their individual valuation of PAs in general and Hornstrandir in particular, and was intended as an ice-breaker for subsequent discussions. The second part of the seminar aimed to generate an open discussion. Participants were asked to express their visions concerning PA as well as to suggest possible means to achieve those visions in a given time frame. Providing every participant with the opportunity to express his or her vision and suggest possible means to achieve it meant that group members also had the opportunity to gather information on each others' respective visions. This is important, when dealing with others, in order to learn about individuals' values. Finally, the seminar

concluded with an open round of discussion on three questions formulated in collaboration with some of the participants and in keeping with the main topic of the third part ("How to bring harmony to the human-nature relationship?"). The group was divided into three teams; each discussed one of the following questions: "Should a PA consist only of state-owned land?"; "Should we manage natural processes in PA?"; and "How deeply involved should people (NGO, experts, locals, tourists) be in PA decision-making processes?"

Questionnaire

In addition to the seminar, a questionnaire was conducted to access the opinions of the participants in the seminar. The questionnaire in Ísafjörður followed the layout of the pilot questionnaire, but some statements were changed in accordance with the suggested adjustment of the pilot questionnaire. The first part dealt with personal information of the participant; the second part was a closed-format questionnaire with a list of 20 statements. Each statement provided the participant with the option of selecting an answer on a five-point scale of disagreement-agreement. For this questionnaire a Likert scale or rating scale was used (see White*, et al.*, 2005). The ranking scale of disagreement-agreement varied from "strongly disagree" (-2) and "disagree" (-1) to "agree" (1) and "strongly agree" (2) with the option of "no opinion" (0). The layout and the numerical value were chosen to make the questionnaire easy to understand for the participants, as well as to make it suitable for later electronic evaluation (empty or insufficient answers were counted as '9'). The statements covered the content of the seminar in terms of connection with PA land, PA management, and aspects of PP in PA management (the questionnaire and the results can be found in Appendix D).

5.1.3 Results of Seminar and Questionnaire

Statistics on Participants of the Seminar and Questionnaire

Stakeholders in the area around Ísafjörður were invited to participate in the seminar. Six out of the 17 individuals invited attended (response rate: 35,3%). There were also seven students from the Environment and Natural Resources programme the University of Iceland (*Háskóli Íslands*), six students from the Costal and Marine Management programme at the University Centre in Ísafjörður (*Háskólasetur Vestfjarða*), and six individuals outside the invited stakeholder group joined for the seminar. 64% of (N=25) participants (see Table 3) were male (n=16) and 36% were female (n=9). Further statistics deal with the background of the participants.

As a result of their involvement in more than one organization, some participants evidenced a combination of different backgrounds, (e.g. if a participant ran a company but also held in governmental position). That fact meant to count people, belonging partly to more than one group, into split groups. The background of the participants revealed that the majority (70% or n=17,5) were students or researchers from University, 8% (n=2) were associated with the economic sector, 10% (n=2,5) with the environmental sector, and 12% (n=3) with the social/governmental sector. 60% (n=15) of the participants were from Iceland and 40% (n=9) from abroad. The majority of foreigners came (20% or n=5) from the USA, two came from Germany (8%) and one from Belgium, Italy and Finland (each 4% respectively).

Table 3: Statistics on Participants of the Seminar in Ísafjörður

	Percentage (%)		Percentage (%)
Gender:		**Nationality:**	
Male	64%	Iceland	60%
Female	36%	USA	20%
		Germany	8%
Background / Sector:		Belgium	4%
Students / Research	70%	Italy	4%
Economy	8%	Finland	4%
Environment	10%		
Social / Governmental	12%	**Participants:**	**25**

The questionnaire was sent after the seminar to all except three participants. The questionnaire was not sent to the moderator (author of this thesis) and two participants who did not provide their contact information. Of the 22 seminar participants that received the questionnaire, a total of twelve participants (N=12) took part (see Table 4), yielding a response rate of 55%.

58% of questionnaire participants were male (n=7) and 42% (n=5) were female. The participants were grouped into different sectors (e.g. economic, environmental, and social sector), whereas participants have been grouped again into more than one sector. The majority (n=5,5 or 46%) were students or researchers from the University, 21% (n=2,5) came from the economic sector, 8% (n=1) from the environmental sector, and 25% (n=3) came from the social/governmental sector. Half of the participants (n=6 or 50%) were from Iceland, and the other half of the participants included three members from the USA (n=3 or 25%), one member from Belgium, Italy and Finland (each 8% respectively).

Table 4: Statistics on the Participants of the Questionnaire of the Seminar

	Percentage (%)		Percentage (%)
Gender:		**Nationality:**	
Male	58%	Iceland	50%
Female	42%	USA	25%
		Germany	0%
Background / Sector:		Belgium	8%
Students / Research	46%	Italy	8%
Economy	21%	Finland	8%
Environment	8%		
Social / Governmental	25%	**Participants:**	**12**

The questionnaire also yielded information about participants' education. According to the information provided by the participants, the majority (n=11 or 92%) held a university degree and only 8% (n=1) held a Junior College certificate. All males in the sample had a university degree, females had different backgrounds. On average, participants answered that they had spent 13 years in the area of the questionnaire. This mainly applied to participants originating in Iceland. The majority of participants were between 25 and 35 years old (25-30 years: n=4 or 33%, and 30-35 years: n=4 or 33%). Two participants (17%) were between 21 and 25 years old. The remaining two members were in the group of 40-49 (n=1 or 8%) and 50-59 (n=1 or 8%).

Results of Seminar

In general, the participants of the seminar expressed that they see it as important for the local communities to play a vital role in the decision-making process of PA management. The participation of individuals involved in conflict situations with regard to PA is seen as important in order to resolve conflicts related to PA management. The participants also expressed that a communicative approach that employs public meetings, open discussion rounds, hot-pot meetings, as well as written amendments, is an indispensible tool for dealing with conflicts and the mitigation of the effects of conflicts on communities. As a result of a communicative approach, the understanding of others' interests and values increases. It was mentioned by several participants that it would reduce the risk of negative effects resulting from misunderstandings and mismanagement of PA, if local communities and their interests would be included more in the decision-making process by the PA management. A communicative approach to conflicts could therefore help participants reach consensus. Using a communicative approach was seen by participants as a natural answer to the question whether the public should participate in the process of dealing with conflicting interests. It would also be possible to understand the answer in that way that an intervention from outside the community is not seen as a better approach to conflict management within protected areas (the summary of the seminar can be found in Appendix D).

Participants' Answers – Questionnaire

Less than 1% of all statements made on or commented by the participants were either insufficient or left blank (counted in the statistics with "9"). The researcher thus considered the results of the questionnaire as sufficient for the analysis that follows (statistics and answers of this questionnaire can be found in Appendix D).

All participants said that they either agree (n=2 or 17%) or strongly agree (n=10 or 83%) that they enjoy the wilderness around their living area (statement *2-1*). The majority (n=7 or 58%) of the participants strongly agreed that the establishment of a protected area is important (*2-3*); only two participants disagreed or did not have an opinion (each 8%) on this statement. Slightly more participants (n=5 or 42%) did not want to move away in order to increase their job opportunities, while 33% (n=4) considered such a move as an option (statement *2-2*). All participants mentioned that in addition to enjoying the wilderness around them, they were also interested in new people visiting their area (n=9 or 75% agreed and n=3 or 25% strongly agreed – statement *2-8*).

Focusing on the community (see *Figure 13*), more participants agreed than disagreed with the statement (*2-5*) that their community is active and engaging (agreed n=5 or 42%, and strongly agreed n=5 or 42%, compared to disagreed and strongly disagreed, each n=2 or 8% respectively). One half of the participants (n=6 or 50%) strongly agreed with the statement (*2-6*) that having an active community is important for their quality of life. Collating the participants of a the community and the PA management in a statement together, it can be seen that 67% (n=8) of the participants strongly agreed that it is important to include local communities in the process of creating a protected area, even though opinion among the participants as to whether the community is strong enough to solve problems themselves was not clear (statement *2-7*) The results about the statement "Our community is strong enough to resolve problems themselves" are interesting, if it is analyzed with regard to participants' background. The data shows that established residents saw their community as strong enough (n=2 agreed and n=2 strongly agreed or each 25% respectively), whereas people who have lived for a short while in that community were

rather negative (n=4 or 33% disagreed), and people new to the community tended to stay neutral (n=4 or 33% no option).

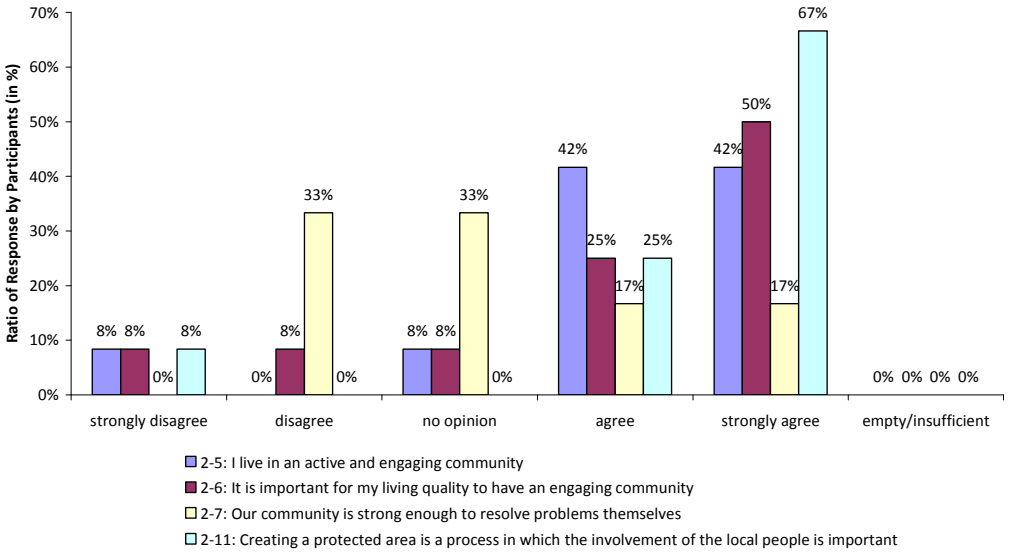


Figure 13: Participants' View of Local Communities and of the Importance of Integrating Local Stakeholders in the Process of PA Creation

Coming to the human-nature relationship, the results of the survey shoed that the majority of the participants saw nature as sacred ground (n=6 or 50% agreed and n=5 or 42% strongly agreed – statement *2-18*). When examining this statement with respect to the other statements in the questionnaire, it appears that the valuation of nature was strongly anthropocentric, as many of the participants saw nature as a gift for human enjoyment and pleasure (n=5 or 42% agreed – statement *2-14*). The majority of the participants (n=5 or 42% agreed and n=2 or 17% strongly agreed – statement *2-9*) saw it as important to utilize nature for the best of human interests. A minority (n=3 or 25%) disagreed with the last statement and saw nature as something of more value than as a resource for human interests (see *Figure 14*).

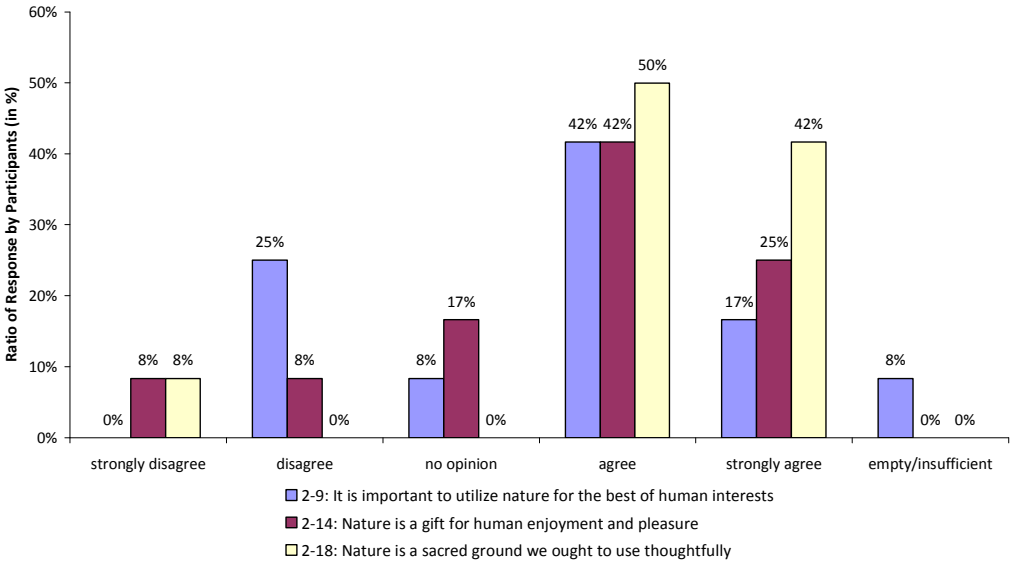


Figure 14: Valuation and Utilization of Nature

The view that nature is there to serve human interests raises the question of the responsibility of the individual to protect nature. On one hand, the majority of the participants saw the protection of nature as their personal duty (n=10 or 83% strongly agreed with this statement *2-15*) and viewed it as a personal responsibility to restrict their impact on nature as much as possible (n=9 or 75% strongly agreed with statement *2-16*). On the other hand, the majority (n=8 or 67%) also saw it as the responsibility of a community to respect nature (statement *2-17* – see *Figure 15*).

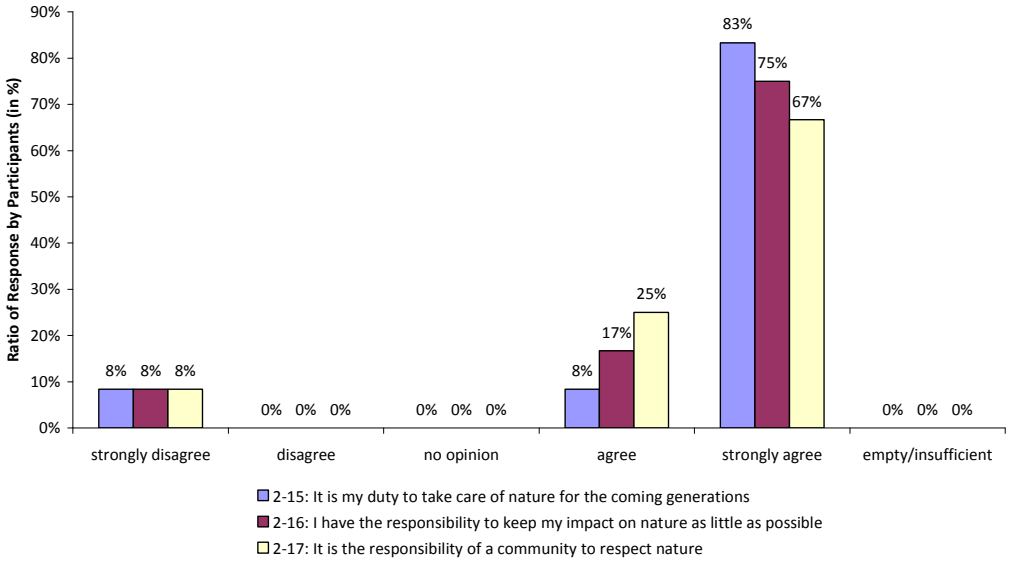


Figure 15: Responsibility of the Individual and Community to Protect Nature

Analyzing the data with regard to PA creation and the involvement of governments or local communities, it can be observed that participants did not clearly state if they see the government as a strong partner in taking care of conservation (n=6 or 50% agreed with this statement *2-10*) or not (n=5 or 42% disagreed). The participants were clearer that the management of protected areas should be in the hands of local people (n=8 or 67% agreed with statement *2-12*) and that the local population plays an important role in the establishment of protected areas, as mentioned earlier (n=7 or 67% strongly agreed with statement *2-11* – see *Figure 16*). The participants saw that it is important to engage their elected representatives actively in order to get them to work in their interests (n=5 or 42% agreed and n=3 or 25% strongly agreed with statement *2-13*).

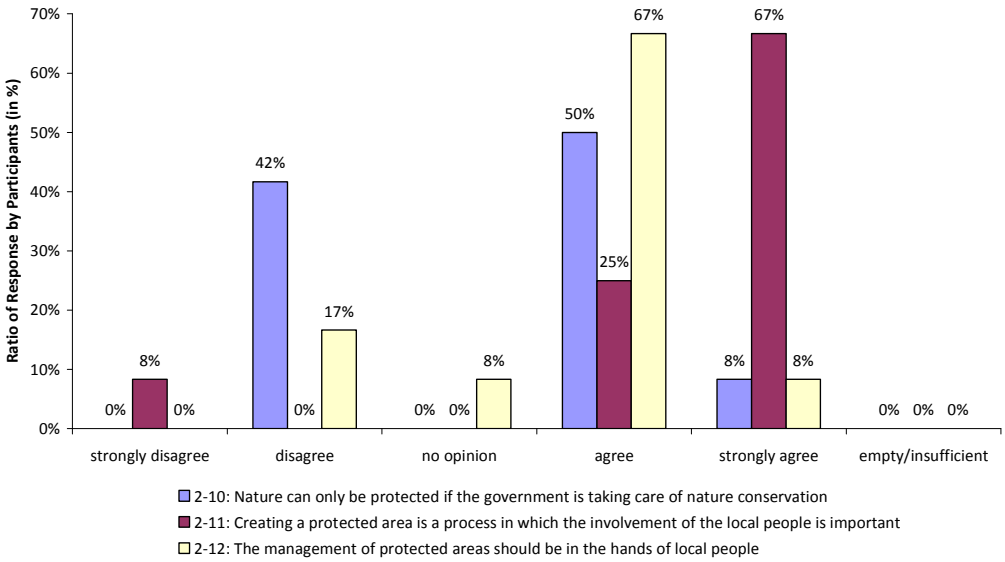


Figure 16: The Protection of Nature in the Hands of the Government vs. Local People

Finally, the participants were asked to state if their understanding of others' intentions and values increased after such a public meeting. The majority of the participants (n=6 or 50% agreed and n=1 or 8% strongly agreed with statement *2-20*) mentioned an increase in understanding of others' interests after having the opportunity to participate in a public meeting. A minority (n=4 or 33%) did not testify to experiencing any change in understanding since commencement of the seminar; only one participant disagreed with this statement.

5.2 Results of Questionnaire – Vatnajökull National Park, Iceland

The intention of the questionnaire was to acquire a broad overview of the different attitudes of individuals towards protected area management in general and Vatnajökull NP in particular. The questionnaire was also intended to get as many, if not all, stakeholders of the national park to participate in the survey.

5.2.1 Layout of Questionnaire

The questionnaire was built upon the pilot questionnaire executed with the graduate students at Háskóli Íslands (see Appendix C) and the questionnaire with participants of the seminar in Ísafjörður (see chapter 5.1). The questionnaire was comprised of the three main components of conflict management relevant for this thesis: conflict, communication, and consensus (3C's). These components were brought together with the four dimensions adopted from Jónasson (Jónasson, 2005). The questionnaire's focus was on blending Jónasson's approach with the three components as a way of assessing individuals' values vis-à-vis the management of the Vatnajökull NP.

The questionnaire was designed as a closed-format questionnaire with 37 statements. Each statement provided the participant with the option of selecting an answer on a five-point scale of disagreement-agreement. For this questionnaire a Likert scale or rating scale was used (see White*, et al.*, 2005). The ranking scale of disagreement-agreement varied from "strongly disagree" (-2) and "disagree" (-1) to "agree" (1) and "strongly agree" (2) with the option of "no opinion" (0). The layout and the numerical value was chosen to make the

questionnaire easy to understand for the participants, as well as to make it easy for electronic evaluation (empty or insufficient answers have been counted as '9'). The questionnaire was broken down into three parts. The first part dealt with statistics and questions about the participants. The second part provided a definition of basic ideas or terms used (e.g. Vatnajökull NP, stakeholders, local community, etc.). The third part was broken down into three major parts to address the three components: conflict, communication, and consensus. In each of these three parts, the statements were designed to make use of the four dimensional approach developed by Jónasson's (2005) as a way of assessing the different dimensions of the human relationship with its environment (the questionnaire and the results can be found in Appendix E).

5.2.2 Target Group

The target group for this questionnaire aimed to provide a sample of all stakeholders involved in the management of the VNP (e.g. municipalities, environmental NGOs, business NGOs), and to provide a board overview of every individual and every organization that might have an interest in the decision-making process of the VNP management. By using the assessment of the existing conflicting interests around the VNP (see chapter 2.5.3), the researcher could identify different stakeholders who represent the questionnaire's target group.

The stakeholder analysis for the target group of the VNP addressed environmental groups (e.g. organizations that deal with conservation research and restoration), economic groups (e.g. tourism, farming, hunting organizations, etc.), social groups, and governmental and administrative bodies. Social groups are important because the management of an NP addresses peoples' interests and manages the utilization of the natural environment by individuals (e.g. the mountaineer rescue team is affected by a change in tourists in that area who might need assistance). Due to the set up of rules, regulations and licenses, it was also important to include governmental or administrative bodies in the list of stakeholders. The intention analysis of the target group was therefore chosen to reconstruct a list of VNP stakeholders according to the concept of sustainability (UN, 2002). This was done so that environmental, economic, and social groups, combined with the governmental body, were covered in the target group.

5.2.3 Results

Statistics on Participants

The stakeholder assessment for this questionnaire resulted in a list of 44 independent organizations and 51 individuals that were identified as possible stakeholders in the Vatnajökull NP. On the 7th of October 2009, the questionnaire was sent to all individuals of the stakeholder analysis via email. Over all, 26 individuals responded to the questionnaire, which was open for participation until the 1st of November 2009. Of those that responded, 7 individuals (27%) did not want to participate and 19 individuals (73%) participated (N=19) in the questionnaire (see *Table 5*). The overall positive response rate in this questionnaire was 39% (19 positive responses out of 51 individuals).

58% of participants were male (n=11) and 42% were female (n=8). 21% of the participants (n=4) identified themselves as belonging to the governmental sector, 16% (n=3) as belonging to the service, business, and tourism sectors respectively, 5% (n=1) identified themselves as belonging to science or farming, and 16% (n=3) identified themselves as

belonging to none of the categories mentioned. The majority of participants (n=18 or 95%) were born in Iceland; only one member (5%) was born in Canada.

Table 5: Statistics on the Participants of the Questionnaire for the Stakeholders of the VNP

	Percentage (%)		Percentage (%)
Gender:		**Nationality:**	
Male	58%	Iceland	95%
Female	42%	Canada	5%
Background / Sector:		**Age Distribution:**	
Farming	5%	25-30	5%
Service	16%	31-35	26%
Business	16%	36-40	5%
Government	21%	40-49	26%
Tourism	16%	50-59	21%
Science	5%	60+	11%
Other	16%		
		Participants:	**19**

In addition to the above information about the participants, the questionnaire also provided information about the education and the age of the participants. According to data, the majority of the participants (n=18 or 95%) held a university degree; one participant held a high school certificate only (n=1 or 5%). Evaluating age distribution, it can be seen that most of the participants were either between 31-35 or 40-49 years old (each n=5 or 26% respectively); 4 participants (21%) were between 50-59 years old; two participants were older than 60 years (11%); one participant was between 25-30 years old (5%); and one participant was between 36-40 years (5%). Most of the female participants were in the age group between 25-35 years; most males belonged to the age group between 40-59 years. The average time the participants spent in the area was 9,6 years (the list of statements and the statistics can be found in Appendix E).

Answers of Participants

As 1,5% of all statements made or commented by the participants were either insufficient or left blank (for statistical purposes counted with "9"), the results of the questionnaire can be still considered to be sufficient for the ensuing examination.

The first part of the statements dealt with conflicts concerning the management of the Vatnajökull NP, individuals' visions for nature, and the possibility of and reason for conflicts concerning Vatnajökull NP. In the intrapersonal dimension, the majority of the participants (n=14 or 74%) saw that the future of the management of the Vatnajökull NP does involve conflicts (statement *3-1*). Nine participants (47%) agreed, while six (32%) disagreed that the future use of the natural resources within the Vatnajökull NP will provoke conflicts (*3-2*). And yet most of the participants still saw scope for conflict in the future management of the VNP in anticipation of their personal interests being dismissed (n=8 or 42% agreed and n=4 or 21% strongly disagreed with the statement) (*3-3*). When asked about their own values with respect to the values of other stakeholders, participants were not completely clear (statement *3-4*). The majority of the participants (n=10 or 53%) agreed with the statement (*3-4*) that other stakeholders are in conflict with them because other stakeholders think differently about what matters to the stakeholders. It has to be taken into consideration that in the case of this statement, especially participants not located in the area of the VNP answered with 'no-opinion' to the statement (n=5 or 26%).

Observing the interpersonal dimension apropos of statements related to conflicts, it can be seen that only slightly more participants disagreed (n=5 or 26%) than agreed (n=4 or 21%) with the statement (*3-5*) that it is likely conflicts arise due to conflicting interests among members of the local community. Most of the participants (n=6 or 32%) indicated having no opinion. Almost half of the participants (n=9 or 47%) saw conflicts as a part of their daily life (*3-6*), which is interesting when collated with the answers to statements *3-1* and *3-2* (see *Figure 17*). On the final point related to the interpersonal dimension, more participants disagreed (n= 6 or 32%) or strongly disagreed (n= 6 or 32%) than disagreed with the statement (*3-7*) that conflicts reduce their living quality. This last result begs the question whether a disconnection exists between conflicts over natural resources and the role of people in the utilization of them.

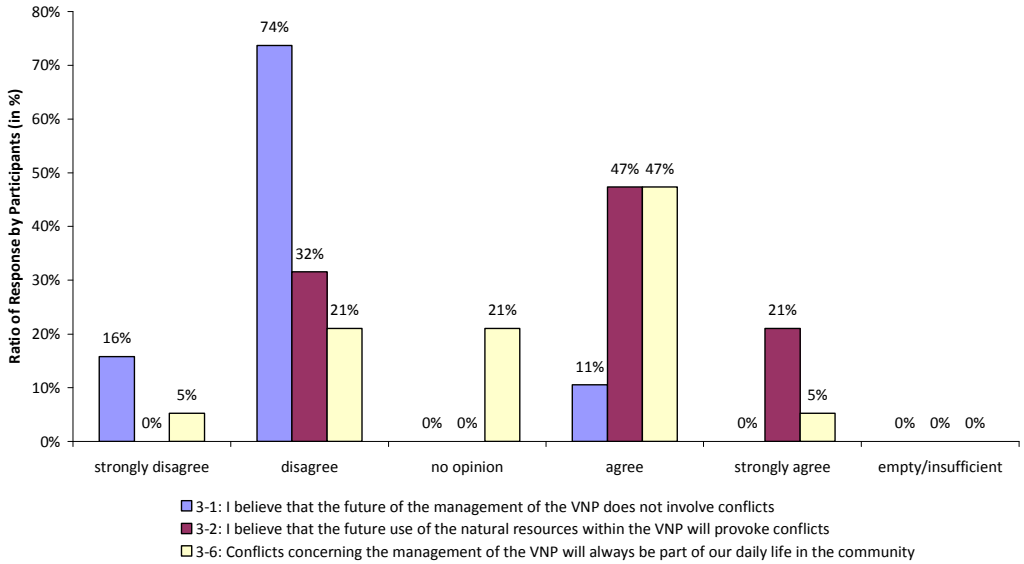


Figure 17: Conflicts are an Important Part of Future Management and in Participants' Lives (VNP)

Most participants disagreed (n=7 or 37%) or strongly disagreed (n=2 or 11%) with the statement (*3-8*) that nature is endowed with rights of its own and that the interests of the community are potentially in conflict with the interests of nature. Here, three participants (16%) used the 'no opinion' comment and four participants (21%) agreed with this statement. Most participants (n=9 or 47%) disagreed with the statement (*3-9*) that no conflicts between nature and the needs of the community exist as nature within the VNP is there for them to exploit; only a smaller group of participants agreed with (n=3 or 16%) or had no opinion (n=1 or 5%) on the statement. On the final point connected to the suprapersonal dimension, it can be seen that most participants coincide (n=6 or 32% agreed and n=3 or 16% strongly agreed) with the statement (*3-10*) that the conflicts regarding the VNP reminded them that the VNP is there to restrict us from destroying nature.

In the transpersonal dimension of conflicts, it can be seen that more participants agreed (n=8 or 42%) or strongly agreed (n=1 or 5%) than disagreed (n=2 or 11%) or strongly disagreed (n=4 or 21%) with the statement (*3-11*) that conflicts can arise because not all understand that the VNP is sacred ground. Looking into the question of who ought to own the land of the VNP, it can be observed that nine participants (47%) agreed with the statement (*3-12*) that conflicts arise due to the fact that the majority of the land does not belong to the local community, but to the Icelandic nation. In addition to this statement, eight participants (42%) saw conflicts arising from to the fact that the resources within the VNP do not belong to the local community, but to humanity at large (*3-13*). Collating the

data from the statements about the rights of nature, the destruction of nature, about land ownership, it can be said that a connection between the responsibility of the nation to protect nature and the intrinsic value (a value “in itself" or "for its own sake”) of nature exists (see *Figure 18*).

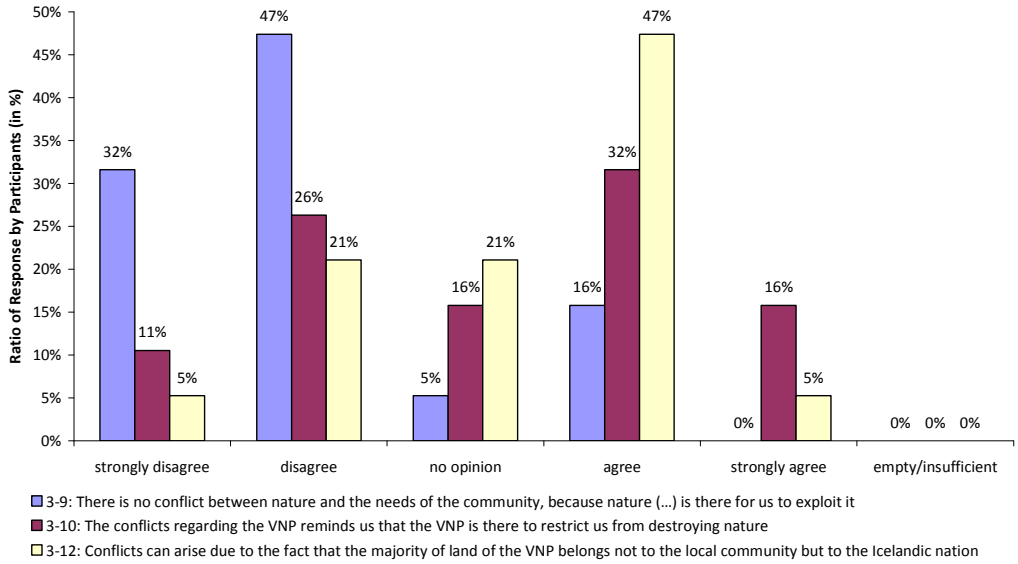


Figure 18: Valuation of Nature, its Value in Itself, and the Ownership of Land as Source for Conflicts (VNP)

The next part of the list of statements dealt with communication and its importance in the management of the Vatnajökull NP for the participants. In the intrapersonal dimension, the majority of the participants expressed (n=12 or 63%) that they have a clear visions for the future management of the VNP (*3-14*). The majority of participants (n=14 or 74%) agreed with the statements (*3-15*) that it is easy for them to communicate their visions for the future management of VNP to others and that their visions of the future management of the VNP form better if they communicate them with others (n=13 or 68% agreed with the statement *3-16*).

It was difficult to assess statement (*3-17*) in the interpersonal dimension. One point of interest was that stakeholders of the VNP do openly communicate their interests to one another (n=5 or 26% disagreed, n=7 or 37% agreed, and n=5 or 26% used the no opinion option in that statement *3-17*). Most of the participants who used the ‘no opinion’ option came from organizations not located in the area of the VNP. Looking at the statements related to communication as a beacon for increasing mutual understanding, it can be established that the majority of the participants (n=14 or 74%) agreed with the statement (*3-18*) that it helps stakeholders to understand their interests vis-à-vis the future management of the VNP when they communicate with one another. The majority of the participants agreed (n=11 or 58%) or strongly agreed (n=6 or 32%) with the statement (*3-19*) that venues should be created where the stakeholders can communicate their interests regarding the future management of the VNP (see *Figure 19*).

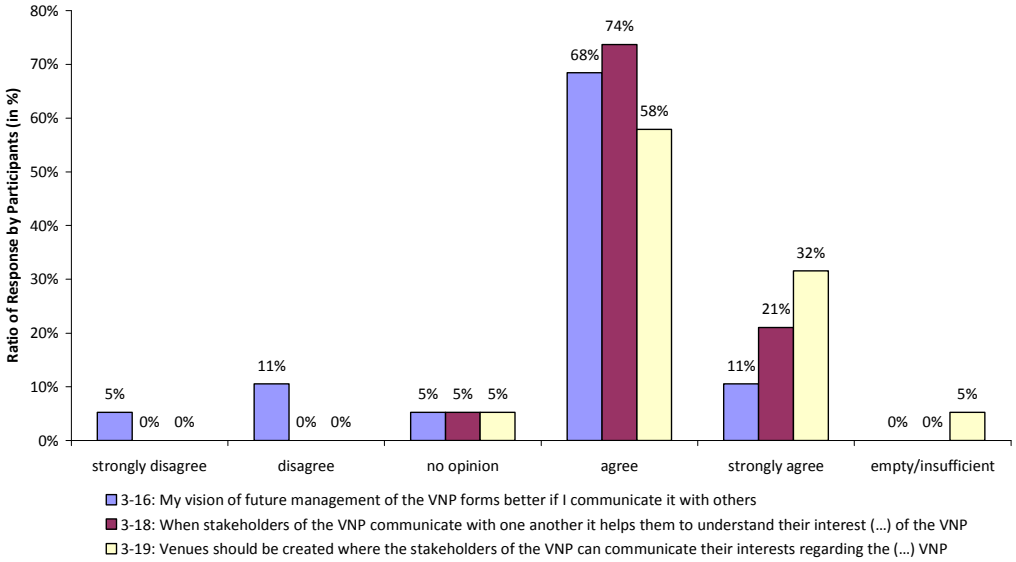


Figure 19: Communication as a Beacon for Mutual Understanding in VNP Management

The participants were asked to assess statements concerning the relation between the self and the supra-personal dimension. Most of the participants (n=8 or 42% agreed, n=3 or 16% strongly agreed) stated that legislative and regulatory agencies should define the future management of the VNP and communicate it to the stakeholders (*3-20*). All participants agreed (n=10 or 53%) or strongly agreed (n=9 or 47%) with the statement (*3-21*) that it is important that local stakeholders communicate their interests in order to make an impact on the decision-making process regulating the management of the VNP. The majority of the participants (n=10 or 53%) strongly agreed with the statement (*3-22*) that it is their democratic right to communicate their interests and participate in decision-making that affects their quality of life.

Though it appeared that there was strong support for imposing rules and regulations from an agency on the management of the VNP, stakeholders nevertheless saw themselves as an integral part of the decision-making and regulatory process. In the section on the transpersonal dimension (*3-23*), it was important for the majority of the participants (n=8 or 42% agreed, n=9 or 47% strongly agreed) that this involvement and communication process is to be based on mutual understanding of all stakeholders (see *Figure 20*). However, the results do not clearly indicate participants' opinion on the statement (*3-24*) that the future of the management of the VNP should be founded on open communication where all stakeholders have equal status (n=6 or 32% had no opinion, n=5 or 26% disagreed, and each n=4 or 21% agreed or strongly agreed). Still, the majority of the participants (n=9 or 47% agreed and n=8 or 42% strongly agreed) saw themselves as stewards of nature (*3-25*), where they are obligated to communicate their feelings to one another so as better to fulfil their duty of taking care of nature for future generations.

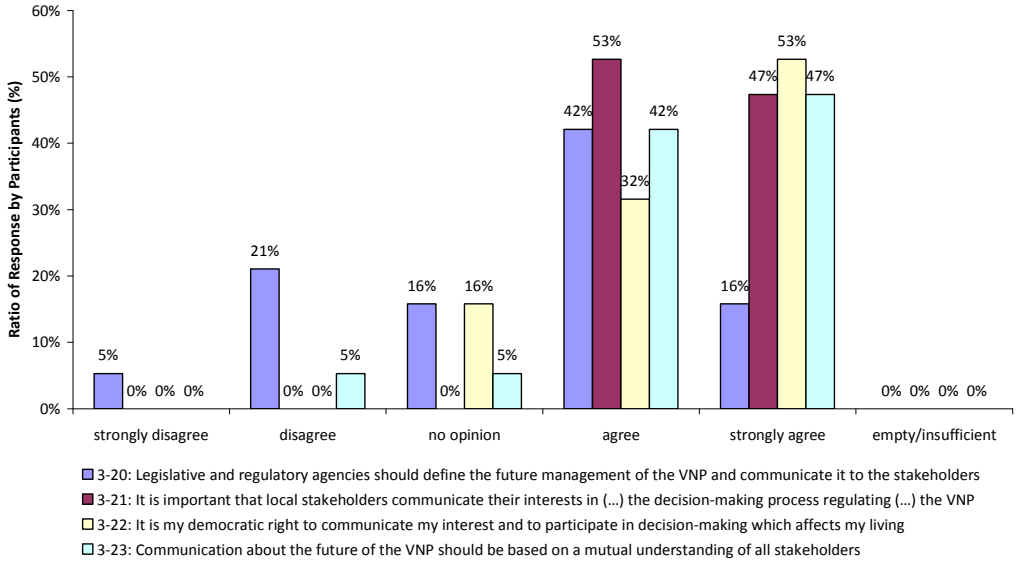


Figure 20: Local Involvement and Communication in the Regulatory Decision-Making Process (VNP)

The final part of the list of statements was concerned with the various aspects of consensus. Examining the intrapersonal dimension, it can be seen that the majority of the participants (n=10 or 53%) agreed with the statement (*3-26*) that they think of consensus when they think about the future management of the VNP. The data on the participants is less conclusive when it comes to the statement (*3-27*) that their feelings about the future management of the VNP are in agreement with the feelings of other stakeholders (n=8 or 42% had no opinion, n=6 or 32% disagreed and n=5 or 26% agreed with the statement). Still, most of the participants agreed (n=6 or 32%) or strongly agreed (n=6 or 32%) with the statement (*3-28*) that they sense inner harmony or consensus when they enjoy having untouched wilderness and nature around them.

The results do not indicate a clear picture of the stakeholders' willingness to reach consensus in their decision-making with regards to the VNP. Almost half of the participants (n=8 or 42%) did not have an opinion about the willingness to reach consensus, whereas the second largest group (n=6 or 32%) agreed with this statement (*3-29*). It appears that participants that may not have had a close relationship with the region made use of the 'no opinion' for this statement. Participants rather answer statements on the consensus within the local community with regard to the interpersonal dimension. The majority of the participants (n=11 or 58%) agreed that consensus building vis-à-vis the VNP is what the stakeholders should be aiming for within the local community (*3-30*). When this statement is extended to include the protection of nature (*3-31*), the majority of participants (n=7 or 37% agreed and n=4 or 21% strongly agreed) found it correct that the local community of the VNP can only protect nature within the VNP if they build consensus among all its members. It can be understood that the participants want to reach a consensus based on the meaningful inclusion of the local community (see *Figure 21*).

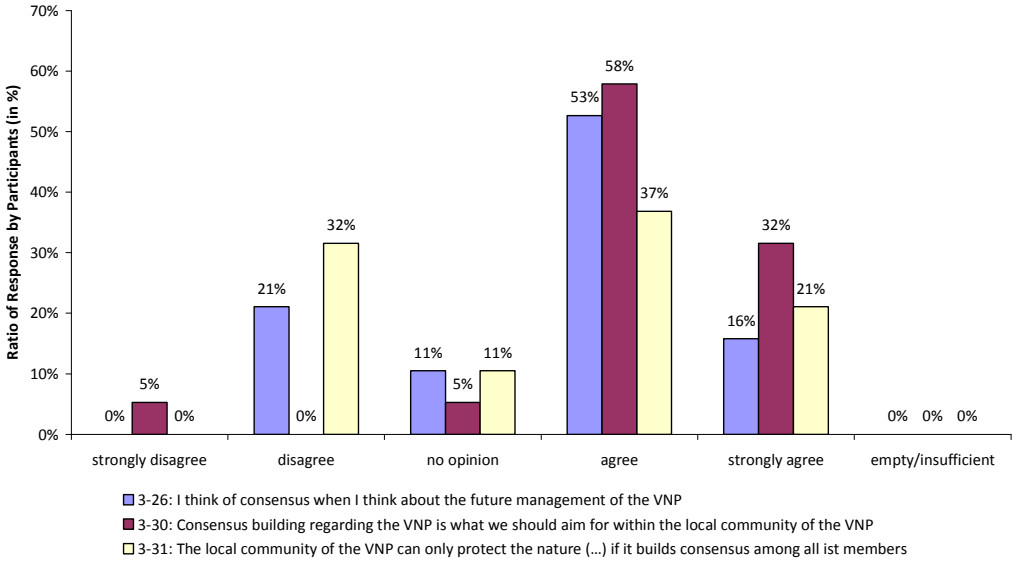


Figure 21: Local Community Has to Form Consensus for the VNP

The suprapersonal dimension of consensus is the next area of focus in the questionnaire. The questionnaire asked for the participants' opinions on statements related to regulations made by agencies or through local involvement in order to foster consensus building. Many of the participants stated that they disagreed (n=9 or 47%) or strongly disagreed (n=2 or 11%) with the statement (*3-32*) that nature within the VNP can best be protected not through local consensus building, but by laws on conservation by the government. Still, six participants (32%) did agree with this statement. It is significant that especially the participants from stakeholders of the local community disagreed with this statement and wished to see more local involvement in the management process of the VNP. In addition to this statement, the majority of the participants (n=13 or 68%) agreed with the statement (*3-33*) that consensus within the community of stakeholders is the best way to formulate better regulations for the VNP. This is a result worth underscoring since the majority (n=10 or 53%) also agreed with the statement (*3-34*) that laws and regulations about the VNP are important because they will lead to consensus building among stakeholders.

In order to include the transpersonal dimension in the process of reaching consensus, there is strong support by the participants for the statement (*3-35*) that as nature is at stake within the VNP, stakeholders must reach a consensus (n=8 or 42% agreed and n=6 or 32% strongly agreed with this statement). The majority of the participants (n=8 or 42%) agreed or strongly agreed (n=3 or 16%) with the statement (*3-36*) that the consensus formation process must include all other opinions (see *Figure 22*). Finally, in response to the statement (*3-37*) that in order to achieve consensus the process has to include all stakeholders in a relationship of mutual respect and care, the majority agreed (n=9 or 47%) or strongly agreed (n=5 or 26%) with this statement.

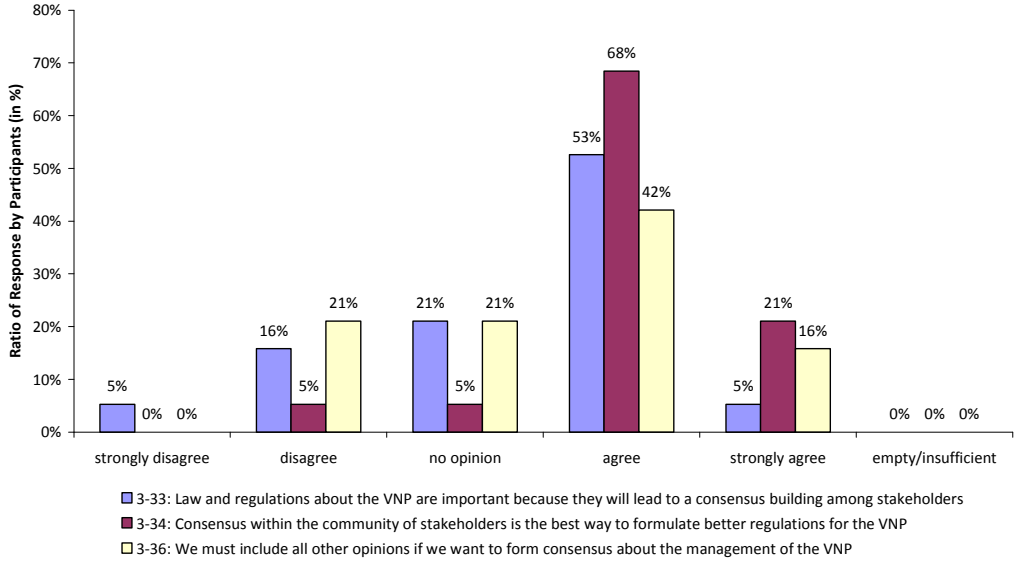


Figure 22: Focus on Regulations and Consensus Building on a Local Community Base (VNP)

5.3 Results of Interviews and Questionnaire Daisetsuzan National Park, Japan

During the research exchange between the University of Iceland (*Háskóli Íslands*) and the Hokkaido University (北海道大学) in November 2009, the researcher was afforded the opportunity to extend the scope of the study by exploring PA management in Japan on the example of the Daisetsuzan National Park. The theoretical research in Japan was aligned with interviews and questionnaire with stakeholders of the Daisetsuzan NP. The aim of the interviews and questionnaire was to gain a better understanding of the PA management in Japan and its implication for stakeholders, to hear the opinions of different stakeholders of the Daisetsuzan NP on PA management, and to assess stakeholders' values. The research in Japan aimed not only to learn about the Japanese approach on conflict management but also to provide the ground for comparison of the results in Iceland. Compared with the research in Iceland, the research in Japan was intended to lay out the basis for the suggestion of conflict management in PA management, later (see chapter 7 ff. and 8 ff.).

5.3.1 Target Group for Interviews

As mentioned in chapter 2.6.2, national parks in Japan are managed usually by more than just one agency, which explains the necessity of including a variety of organizational stakeholders in the decision-making process. In the case of the Daisetsuzan NP, six individuals were selected for an interview. The interviewees were representatives of the management agencies as well as stakeholders of the NP. As land ownership in the Daisetsuzan NP is divided among the national and prefectural government (see chapter 2.6.2), the interviewees included representatives of the regional branch of the Ministry of the Environment, the head ranger of the Daisetsuzan NP, and the Hokkaido Government. Representatives of organizations outside the management of the Daisetsuzan NP completed the group of interviewees.

5.3.2 Layout of Interviews

Since the intention with the interviews was to deepen knowledge of the role of the organizations within the management of the Daisetsuzan NP and their relationship with the NP, the interviews were kept open and flexible. At the same time, the interviews also tried to capture interviewees' valuation of nature, their opinions on current management, and their visions for the future management of the Daisetsuzan NP in particular and PA in general. Along with this initial focus, it was also the intention to assess how individuals see conflicts and PP related to the components of PA management in general. It also tried to assess the reason and possible solution for conflicts, as well as what is their personal valuation of the Daisetsuzan NP with regards to their background.

5.3.3 Results of Interviews

Specification of Interviewees

For this part of the research six interviews were conducted. Three out of the six interviewees were directly involved in the management of the Daisetsuzan NP; they represented the regional branch of the Ministry of the Environment, the rangers of the Daisetsuzan NP, and the Hokkaido Government. The data from these interviews were brought together with the data from two interviews with representatives of local organizations and one scholar conducting research on the Daisetsuzan NP. One interviewee was a member of a local mountain guiding organization and a NGO concerned about toilette facilities within the national park. The other interviewee worked for an organization concerned with educating hikers about bears in the area, an organization responsible for trail maintenance, and executing research on snow depth in winter. The scholar was conducting research from Hokkaido University concerning the relationship between bears and hikers and conflict management with regard to the local bear population.

Main Statements of the Interviewees

Though the data from the interviews have been extensive and diverse, the information from the interviewees focused on two main aspects: 1) existing conflicts, and 2) suggestions for future management of the Daisetsuzan NP.

1) Existing Conflicts

Although financial support, and the lack of staff is named often among all interviewees, it should not be forgotten that the majority of the present management of the NP is performed by agencies belonging to the Ministry of the Environment, which, as already stated (cross reference?), does not own the biggest share of the land within the Daisetsuzan NP. In addition to these two factors, one of the major problems pointed out by the participants is that there is still a strong emphasis on the economic value of the NP for stakeholders. Since NPs in Japan are supposed to support conservational, economic and recreational interests (also indicated in: Japan, 1957), different stakeholders express different, and often opposing, values that are in alignment with these interests (e.g. the Forest Agency utilizes the forests within the NP, the Ministry of the Environment is concerned about biodiversity, and tourists are interested in recreation). This divergence in values can lead to conflicting opinions about the management of NP. In the case of the Daisetsuzan NP, the lack of interest on the part of municipalities in the management of NPs has to do with the fact that either their share of land in the NP is very little or the

economic gain from of the NP is not significant. Though the municipalities are responsible for the land of the NP which is in their boarders, they do not actively participate in the management and the maintenance of the facilities within their share of the park, as some interviewees pointed out.

In addition to these points, the interviewees expressed that communication among different stakeholders is lacking and not supported by the management structure of NPs. Especially the NGO interviewees mentioned this lack of communication and support as one of the most frustrating factors that hampers the quality of their work in the Daisetsuzan NP. An example of this is the outsourcing of trail maintenance by the management of the DNP, and the lack of cross reporting among different agencies and NGOs, which in turn is leading to different interpretation and layout of trail maintenance. NGO interviewees also expressed problems with the decision-making and policy making of the management of the NP. The lack of involvement of non-management stakeholders promotes a centralized and less participatory process and is seen as a less engaging management process as a consequence. This situation seemed to escalate by the fact that management decisions and proposals by officials are often communicated behind 'closed doors' first. So the concept of *nemawashi* (see chapter 2.2.2) is used for seeking consensus only in a non-public process among officials involved in management. *Nemawashi* appeared to be used in this context to find out whether a proposal would gain enough support by the officials before the public is informed about the already-agreed-upon decision. As a result, only proposals already supported through a disclosed process surface to the public, making it harder for the public to have an impact on the decision-making process. *Nemawashi* as a concept is negatively perceived by the interviewees since it involves only a select group of stakeholders.

The strong linkage between involvement in the management of the NP and the landownership of a stakeholder was often mentioned by the interviewees as a source for conflicts. Since the management of the NP traditionally only involves stakeholders who hold ownership rights over land in the NP, the interests of local stakeholders and organizations without ownership rights have been seen of less importance. Interviewees mentioned that only the application to the UNESCO to acknowledge the Shiretoko NP as a World Natural Heritage Site brought some change to this situation. Since the UNESCO request for a stronger participation by locals and non-management stakeholders in the decision-making process, the management structure of the Shiretoko NP has opened up for local participation. Nevertheless, as interviewees stressed, the public is not necessarily entitled to participate in the decision-making of NPs.

2) Suggestions for Future Management

All interviewees mentioned that an increase in funding would ease problems regarding research and staff. Non-management interviewees expressed the need to change the management structure, in that way to make it similar to the one given by officials. For many, the problem with unclear guidelines, legislations, and authority could be solved, depending on the agency involved, by changing the situation of ownership of land within the NP and purpose of a NP. In fact, as interviewees attested, both officials and organizations would like to see an abolition of land ownership in NPs by the Forestry Agency and the Ministry of the Environment, as conservation would thereby become more important than forestry in economic and social terms. Moreover, some interviewees expressed that this change would improve the situation for NPOs and NGOs, as dealing with two influential agencies with different agendas leads to increased work and costs.

Especially interviewees of NGOs expressed that it would be beneficial for the management of the NP as well as important, if the local stakeholders would have the opportunity to take part in the decision making process. The example of the Shiretoko NP provided an example, where officials saw PP not only as a means to recognize the importance of including public opinion in the decision-making process, but also as a way of acknowledging the fact that stakeholders without an ownership right have a right to participate. The interviewees mentioned that the increase of the participation in the management of NP by the public and stakeholders would help to find better solutions for existing problems and would help to mitigate the effects of conflicts.

The interviewees mentioned that public participation is an important tool to empower the public and organizations, which are usually outside the management of a NP. PP is also important to acknowledge their right to take part in the decision making. But when it comes to PP the form of communication is gaining more importance. Interviewees spoke of how important it is for them, as part of the solution-finding process, to communicate about existing conflicts and express their problems to the management of the NP. One official mentioned that a collaborative process in the management of the NP would help them to distribute the work and responsibility for the NP on more 'shoulders'. However, official agencies use *nemawashi* to formulate proposals for the public, is not seen as a supportive activity by several interviewees. NGO interviewees stated that they would like to have more open communication on issues related to the national park, as *nemawashi* enforces the existing power structure within the management of the NP and leads to an impervious communication style. The ability to discuss existing problems and the values of different stakeholders is seen as an effective tool in the furtherance of mutual understanding and in the mitigation of conflicts.

5.3.4 Target Group of Questionnaire

The stakeholder list for this questionnaire was provided by Dr. Aikoh, a researcher at Hokkaido University, which had been in contact with the stakeholders for a previous research project. Stakeholders for this questionnaire were mainly selected among the management of the Daisetsuzan NP, as well as organizations (NPOs, NGOs, and enterprises) promoting and utilizing natural resources within the NP. As the DNP is mainly utilized for tourism, the target group used for the questionnaire reflects the tourist utilization of the DNP. In addition to this target group, also scholars, environmental NGOs, and the local police stations were selected as part of the target group for this questionnaire. Following the example of the target group for the questionnaire at the Vatnajökull NP, the target group in Japan represented a selection of stakeholders covering the concept of sustainability in terms of identified organizations. Nevertheless, the variety of stakeholders were less representative of organizations working with social aspects than the target group in Iceland was of equivalent organizations.

5.3.5 Layout of Questionnaire

The survey in Japan focused on stakeholders around the Daisetsuzan NP, and followed the example of the questionnaire for the Vatnajökull NP, since both results are going to be compared. It thus used the same statements and layout with a view to increasing the quality of the results and the compatibility of both questionnaires. Due to cultural differences between Japan and Iceland in respect of how a researcher should approach officials and assess personal values and visions in Japan, it was suggested by Dr. Aikoh to adjust the wording of the statements from the questionnaire in Iceland. The questionnaire in Iceland

used very open and direct statements in order to point towards the values of the individual. To ask in similar open statements is not possible to the same extent in Japan. As it was necessary to adjust the statements to a level comfortable for the stakeholder in Japan, the wording of the statements is slightly different to the wording of the questionnaire in Iceland. Nevertheless, careful discussion with the researcher in Japan ensured that the meaning of the question was not significantly changed through the process of translation and adaptation.

As mentioned in earlier (see chapter 5.2.1), the questionnaire brought together the three main components of conflict management and the four dimensional view of the self. By doing so, it aimed to access individuals' opinions and visions for the future of PA management. The questionnaire was designed as a closed-format questionnaire with a list of 37 individual statements with multiple-choice answers. Each statement provided the participant with the option of selecting an answer on a five-point scale of disagreement-agreement. For this questionnaire a Likert scale or rating scale was used. The ranking scale of disagreement-agreement varied from "strongly disagree" (-2) and "disagree" (-1) to "agree" (1) and "strongly agree" (2) with the option of "no opinion" (0). The layout and the numerical value were chosen to make the questionnaire easy to understand for the participants, as well as to make participants' answers easier to assess for electronic evaluation (empty or insufficient answers were counted as '9'). As indicated, the questionnaire for the stakeholders in Japan was a translation and adaptation of the questionnaire for the Vatnajökull NP in Iceland, and was broken down into three main parts. The first part dealt with statistics on and questions about the participants. The second part dealt with the definition of basic ideas or terms used in the questionnaire (e.g. the Daisetsuzan National Park, stakeholders, local community, etc.). The third part was divided into three parts to address the three components: conflict, communication, and consensus. In each of these three parts, the statements were designed to use the four dimensional approach to assess issues related to one of the three components (the final version of this questionnaire and the statistics of the results can be found in Appendix F).

5.3.6 Results of Questionnaire

Statistics on Participants

The list of stakeholders provided an overview of several organizations involved in, affiliated with it, or affected by the decision-making of the Daisetsuzan NP management. In order to increase participants' response rate, to avoid irritations and problems by the usage of electronic documents, the questionnaire was distributed as a hard copy via post. This procedure also gave the addressee the opportunity to forward the questionnaire to other participants or to work together with others within the organization on answering the questionnaire.

On November 24th 2009, the questionnaire was sent to 101 individuals from 100 different organizations. The individuals selected were given approximately two weeks to respond to the questionnaire. On December 12th, the collection of the answers was completed, with 53 individuals (N=53; response rate 52%) having participated in the questionnaire (see *Table 6*). The total number of participants would have been higher at that point, but 12 individuals refused to participate in the questionnaire. Of those who participated, 87% were male (n=46), 11% female (n=6), and one participant did not specify his/her gender (n=1 or 2%). All of the participants came from Japan. Compared to the questionnaire for the Vatnajökull NP, the definition of 'background / sector' was adjusted to reflect the

involvement of different official representatives in the management of the Daisetsuzan NP. Out of all the participants, 20 individuals defined themselves as belonging to the governmental sector. The majority (n=11 or 21%) defined themselves as National Governmental Officials, five as Municipality Officials (n=5 or 9%), and only four (n=4 or 8%) defined themselves as Hokkaido Governmental Officials. Two participants identified themselves as scholars (n=2 or 4%), seven participants were from the tourism industry (n=7 or 13%), two from a hiking club (n=2 or 4%), and nine were mountain guides (n=9 or 17%). Ten participants identified themselves as belonging to an NGO or NPO (n=10 or 19%). Three participants did not identify their background / sector (n=3 or 6%).

Table 6: Statistics about the Participants of the Questionnaire of the Daisetsuzan NP

	Percentage (%)
Gender:	
Male	87%
Female	11%
Background / Sector:	
National Government	21%
Hokkaido Government	8%
Municipality Official	9%
Scholar	4%
Tourism Industry	13%
NGO or NPO	19%
Hiking Club	4%
Mountain Guide	17%
Empty	6%

	Percentage (%)
Nationality:	
Japan	100%
Age Distribution:	
16-24	2%
25-30	11%
31-35	8%
36-40	8%
40-49	11%
50-59	28%
60+	23%
Participants:	**53**

In addition to the above information on the participants, the questionnaire also provided information about the education and the age of the participants. According to the collected data, the majority of the participants (n=30 or 57%) held a university degree, 19 participants held a high school certificate (n=19 or 36%), and four participants held any other educational certificate (n=4 or 8%). The age distribution revealed that the many of the participants were between 50-59 (n=15 or 28%), some were older than 60 years (n=12 or 23%), eleven participants (n=11 or 21%) were between 40-49 years, four participants were between 31-35 and 36-39 years old (each n=4 or 8%) respectively, six participants were between 25-30 years old (n=6 or 11%) and only one participant was between 16-24 years (n=1 or 2%). The participants also answered a question on the years they spent at their current position. The average time spent at the position was 16 years (for statistics see Appendix F).

Answers of Participants

In total 3% of all answers from the participants were counted as either insufficient or blank. Two participants did not answer the questionnaire completely, which influenced this number significantly. If their insufficient answers had been neglected, the number of insufficient or blank (counted at the statistics with “9”) answers would have gone down. In fact, the result would have been left with a share of 1% of insufficient of all answers, which makes the questionnaire sufficient for the presented limitation. Though for the following presentation of results, the original data set, including the answers of the two participants will be used (the list of statements and statistics on the answers of this questionnaire can be found in Appendix F).

In the first section, the majority of the participants disagreed (n=28 or 57%) or strongly disagreed (n=10 or 20%) with the statement (statement *3-1*) that the future management of the Daisetsuzan NP will not involve conflicts. More than half of the participants (n=27 or 55%) agreed with the statement (*3-2*) that the future use of the natural resources within the Daisetsuzan NP will provoke conflicts. The participants rather disagreed (n=15 or 31%) than agreed (n=13 or 27%) with the statement (*3-3*) that conflicts will emerge within the management of the national park as a result of a possible dismissal of their personal interests. It is to be noted that 12 participants used the no-opinion option (n=12 or 24%) and five participants gave insufficient answers (n=5 or 10%). When asked about their personal values in relation to others' values, more participants (n=21 or 43%) agreed than disagreed (n=12 or 24%) with the statement (*3-4*) that conflicts exist because other stakeholders think differently about what matters to them.

The answers to the statements in the interpersonal dimension on conflicts among stakeholders in the community were very close to each other. Though 17 participants (n=17 or 35%) agreed with the statement (*3-5*) that conflicts aren't likely to arise because there are no conflicting interests among stakeholders, almost the same amount of participants disagreed with the statement (n=15 or 31%). When asked about conflicts as part of their daily life, most participants agreed (n=23 or 47%) with this statement (*3-6*); only 13 participants disagreed with it (n=13 or 27%). This result is significant when collated with results of the first and second statements in this section (see *Figure 23*), since it shows the personal attachment in conflicts over the NP. Lastly, with regards to the interpersonal dimension, the majority of the participants (n=32 or 65%) disagreed that conflicts concerning nature within the Daisetsuzan NP reduce their quality of life (*3-7*), although seven participants (14%) used the no-opinion option and three participants (6%) left the answer blank or insufficient. This statement would open up the question, if there is a disconnection between conflicts concerning natural resources and their use, and the role of people in the same regards.

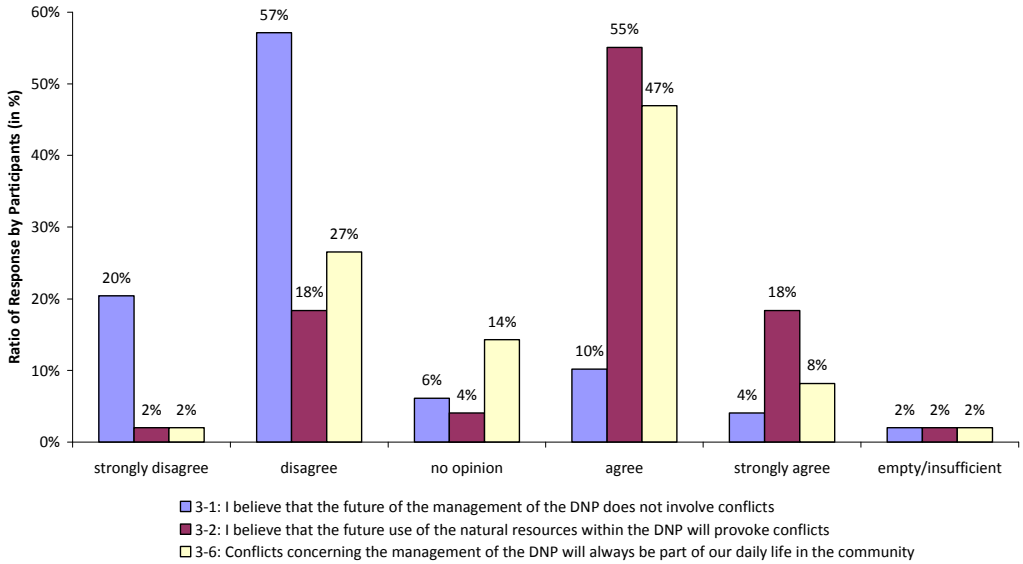


Figure 23: Conflicts are an Important Part of Future Management and Participants' Lives (DNP)

Moving on to those statements related to the suprapersonal dimension, most of the participants (n=21 or 43%) agreed or strongly agreed (n=2 or 4%) with the statement (*3-8*) that nature is endowed with rights of its own and that the interests of the community are potentially in conflict with the interests of nature. At this statement eight participants

(16%) used the “no opinion” option and 14 participants (29%) disagreed or strongly disagreed (n=3 or 6%). The majority of the participants (n=34 or 69%) disagreed with the statement (*3-9*) that there are no conflicts between nature and the needs of the community, because nature within the Daisetsuzan NP is there for the community to exploit. On the last statement related to the suprapersonal dimension of conflicts, more participants agreed (n=22 or 45%) than disagreed (n=12 or 24%) with the statement (*3-10*) that conflicts regarding the DNP reminds them that the NP is there to restrict them from destroying nature. Here, eleven participants (22%) choose to state “no opinion”.

In the transpersonal dimension of conflicts, the participants rather agreed (n=22 or 45%) than disagreed (n=14 or 29%) with the statement (*3-11*) that conflicts can arise because not everyone understands that the Daisetsuzan NP is sacred ground. Looking into the issue of landownership, it can be seen that almost half of all participants (n=24 or 49%) agreed that conflicts arise due to the fact that the land of the national park belongs to the nation and not to members of the local community. In addition to this statement (*3-12*), a majority of 31 participants (63%) agreed with the statement (*3-13*) that conflicts might arise due to the fact that the resources within the DNP do not belong to the local community but to humanity at large. Collating these last statements with the statement on the destruction of nature, it can be seen that there is a connection between the responsibility of the nation and the self to protect nature due to its intrinsic values (a value “in itself" or "for its own sake”) (see *Figure 24*).

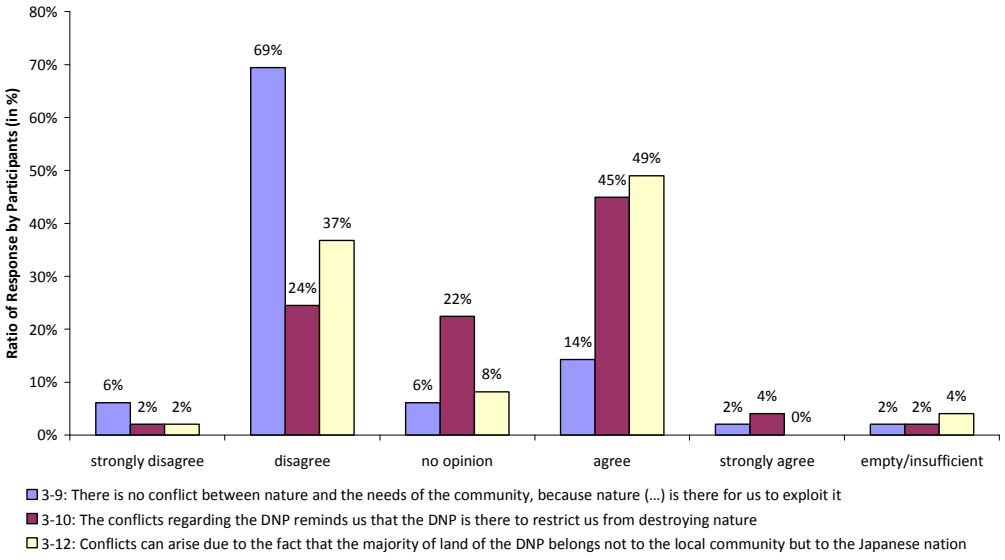


Figure 24: Valuation of Nature, the Value of Nature in Itself, and Land Ownership as a Source for Conflicts (DNP)

The next part of the questionnaire dealt with communication and its importance in the management of the Daisetsuzan NP for the participants. The majority of the participants (n=23 or 47%) agreed or strongly agreed (n=5 or 10%) with the statement (*3-14*) that they have a clear vision for the future management of the DNP. Participants have been confronted with the statement (*3-15*) that it is easy for them to communicate their vision for the future management of the NP to others. The answers do not support only one side, in fact it present a tie (each n=19 or 39% respectively) between participants who agreed and disagreed with this statement. Comparing the answers overall, the participants were almost split: 45% of the participants agreed or strongly agreed, whereas 47% disagreed or strongly disagreed with the statement. However, the majority of the participants (n=31 or

63%) agreed with the statement (*3-16*) that their visions for the future management of the DNP form better if they communicate them with others.

It was difficult to assess the statements related to the interpersonal dimension, since the answers asked about very personal statements, which is rather unusual in Japan. When confronted with the statement (*3-17*) that stakeholders of the Daisetsuzan NP do openly communicate their interests to one another, the majority (n=30 or 61%) said that they disagreed with the statement. On the statement related to communication as a means for increasing mutual understanding, it can be seen that the majority of the participants (n=35 or 71%) agreed with the statement (*3-18*) that it helps stakeholders to understand their interests vis-à-vis the future management of the Daisetsuzan NP when they can communicate them with one another. The majority of the participants (n=34 or 69%) also expressed their agreement with the statement (*3-19*) that venues should be created where the stakeholders can communicate their interests regarding the future management of the DNP (see *Figure 25*).

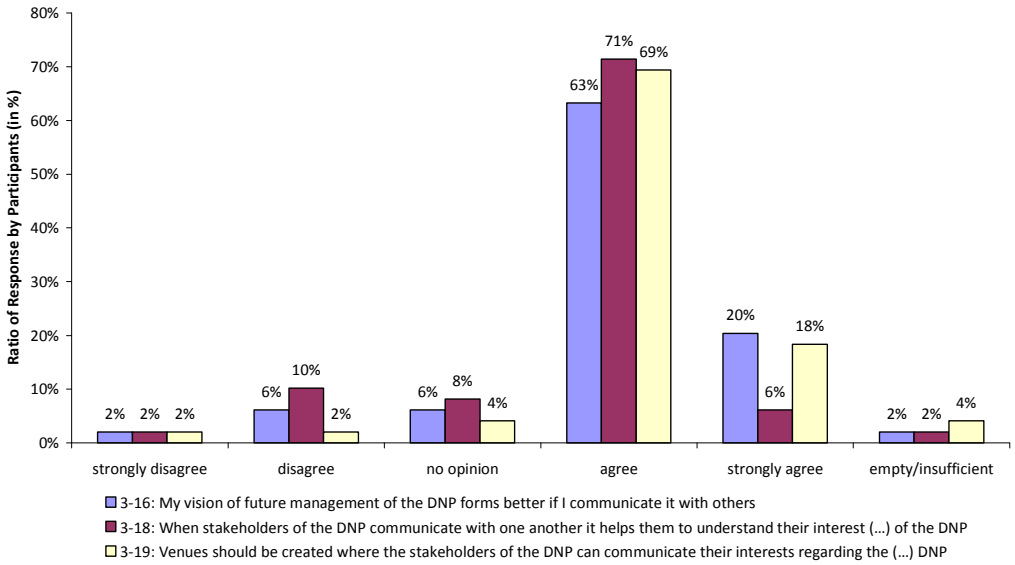


Figure 25: Communication as a Beacon for Mutual Understanding Regarding Management of the DNP

In the next segment, participants were asked to assess statements concerning the relation between the individual and the suprapersonal as determined by regulations and the connection to the non-human environment. The majority of the participants (n=25 or 51%) agreed with the statement (*3-20*) that legislative and regulatory agencies should determine the future management of the Daisetsuzan NP and communicate it to the stakeholders. Still, for more than half of the participants (n=32 or 65% agreed or n=11 or 22% strongly agreed), it was important that local stakeholders communicate their interest in order to make an impact on the decision-making process regulating the management of the Daisetsuzan NP (*3-21*). This statement is interesting, as the majority of the participants (n=26 or 53%) agreed with the statement (*3-22*). Therefore, participants understand it as their democratic right to communicate their interests and participate in decision-making that affects their living.

Despite the appearance of there being strong support for rules and regulations formulated by agencies or governmental bodies, the stakeholders of the Daisetsuzan NP saw themselves as a part of the decision-making and regulatory process. In relation to the transpersonal segment, participants (n=22 or 45%) agreed or strongly agreed (n=6 or 12%)

(*3-23*) with the statement that their involvement and the communicative process has to be based on mutual understanding of all stakeholders (see *Figure 26*). However, in responding to the statement (*3-24*) that the future management of the Daisetsuzan NP should be founded on open communication where all stakeholders have equal status, more participants expressed their agreement (n=21 or 43%) than disagreement (n=16 or 33%). Nonetheless, the majority of the participants (n=25 or 51%) saw themselves as stewards of nature, where they feel obligated to communicate their feelings to one another so that they can better fulfil their duty to take care of nature for future generations (*3-25*).

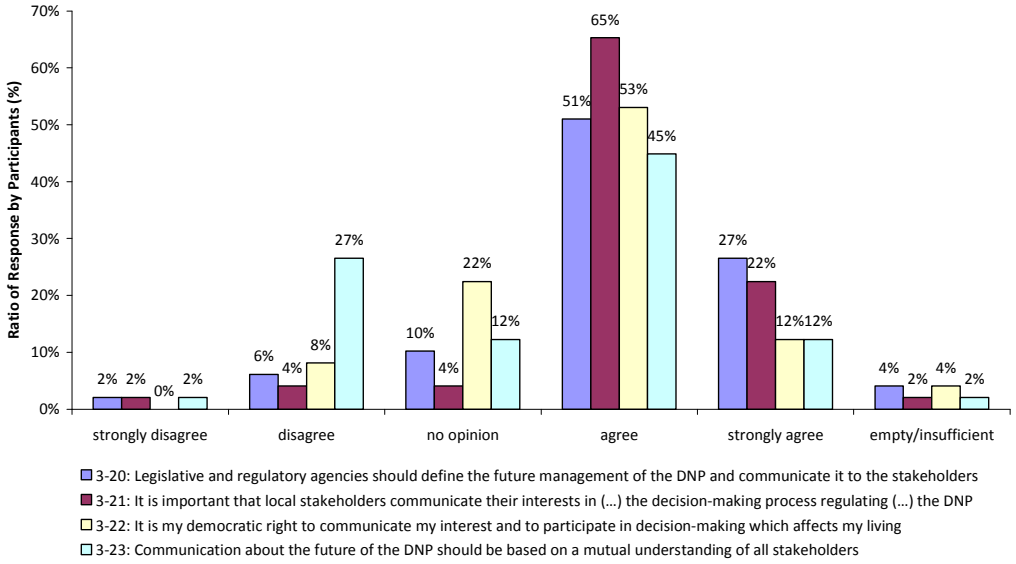


Figure 26: Local Involvement and Communication in the Regulatory Decision-Making Process (DNP)

The final group of statements was concerned with the topic of consensus. Examining the intrapersonal dimension with regards to consensus, it can be observed that the majority of the participants (n=27 or 55%) agreed with the statement (*3-26*) that they think of consensus when then think about the future management of the Daisetsuzan NP. The answers were less conclusive when it comes to the statement (*3-27*) that the participants' feeling about the future management of the DNP are in harmony with the feelings of other stakeholders: seven participants (14%) had no opinion, 19 participants (39%) agreed and 17 (35%) disagreed with the statement. Even so, the majority of the participants agreed (n=22 or 45%) or strongly agreed (n=17 or 35%) with the statement (*3-28*) that they sense inner harmony or consensus when they enjoy having untouched wilderness and nature around them.

The results do not indicate a clear picture of the stakeholders' willingness to reach consensus in their decision-making with regards to the Daisetsuzan NP. Although the majority of the participants (n=26 or 53%) agreed with statement (*3-29*), a smaller group (n=15 or 31%) did disagree with it. Taking the results of statement (3-29), where more participants agreed than disagreed, into consideration the actual consensus building should aim for almost half of the participants (n=24 or 49% agreed with statement *3-30*) within the local community. Responding to an extension of this statement (*3-31*) to the protection of nature, almost half of the participants (n=24 or 49%) found it a serviceable prospect that the local community of the DNP would protect nature within the national park only if they build consensus among all its members. As the participants stated, they want to reach a consensus based on the meaningful inclusion of the local community (see *Figure 27*).

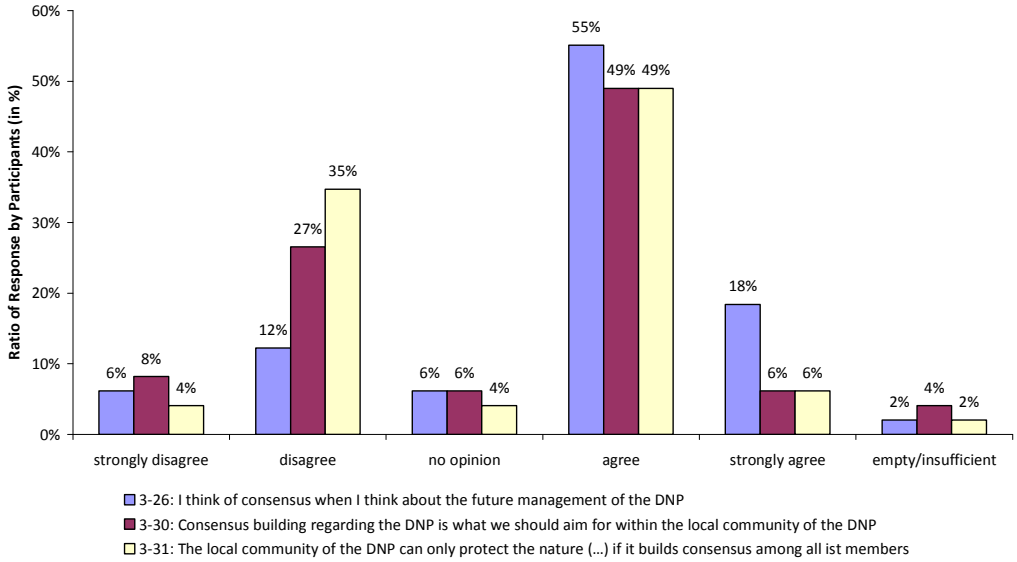


Figure 27: Local Community Has to Form Consensus for the Daisetsuzan NP

The next area of focus in the questionnaire was the suprapersonal dimension of consensus. The questionnaire asked for the participants' opinions on statements if regulations designed by agencies are better than local involvement in order to reach consensus. Almost half of the participants stated that they disagreed (n=24 or 49%) with the statement (*3-32*) that nature within the Daisetsuzan NP can best be protected not through local consensus building, but by laws on conservation passed by the government. Still, 12 participants (24%) agreed with this statement. In addition to the answers in last statement, it has to be mentioned that a high number (n=4 or 8%) did not give a conclusive answer or an answer at all. The majority of participants (n=31 or 63%) showed much clearer agreement in response to the statement (*3-33*) that laws and regulations on the DNP are important because they will lead to consensus building among stakeholders. Which is interesting, since the majority of participants (n=29 or 59%) agreed with the statement (*3-34*) that consensus within the community of stakeholders is the best way to formulate better regulations for the NP.

Apropos of the transpersonal dimension of consensus building (*3-35*), the majority of participants (n=25 or 51%) agreed that since nature is at stake within the Daisetsuzan NP, stakeholders must reach a consensus (see *Figure 28*). In response to the remaining statements on the process of reaching consensus, the participants were more in agreement than disagreement (n=19 or 39% - compared to n=16 or 33% disagreed) that the process must include all opinions (*3-36*) and that consensus on the management of the DNP has to include all stakeholders in a relationship of mutual respect and care (*3-37*) (n=25 or 51% agreed, n=8 or 16% strongly agreed).

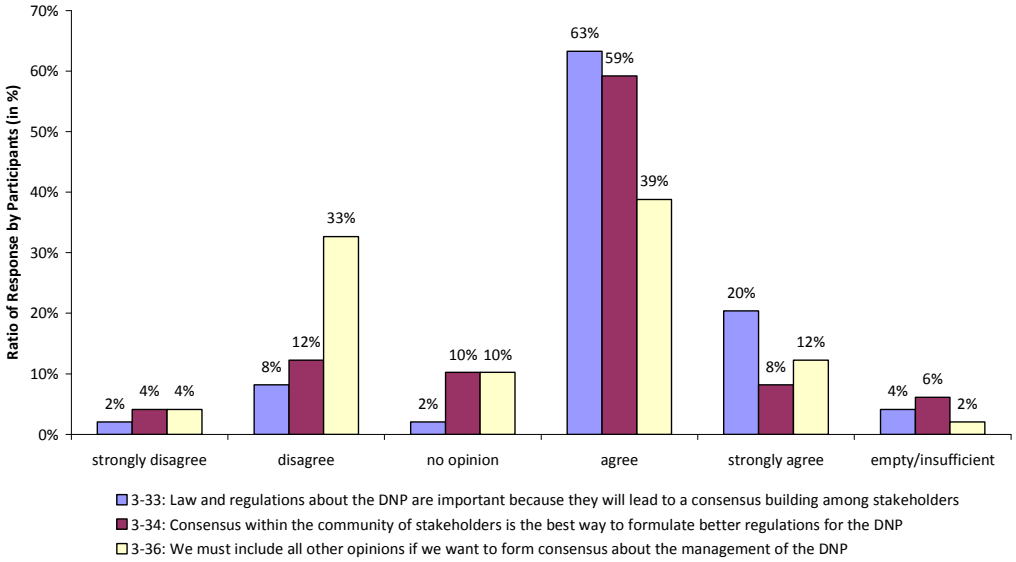


Figure 28: Focus on Formulate Regulations and Consensus Building on a Local Community Base (DNP)

"Re-examine all you have been told... Dismiss what insults your soul"
Walt Whitman

6 Discussion

The results presented in the previous chapter will serve as the basis for this discussion. This chapter will first discuss and then compare the results of each country. Each country section is divided into a subsection discussing the results themselves and then provides a subsection with an additional discussion about further results. This chapter will do so in order to draw conclusions about the values of stakeholders of PA and their opinion about the importance of communication to form consensus. This chapter will provide a discussion about these topics and form a basis for the application of a communicative approach at the management of PAs in general and the selected NPs in particular.

It is the hypothesis of this thesis that a communicative approach to conflict management can assist in consensus building among stakeholders in PAs. The previous chapter presented the results build upon a survey that propped the values, beliefs, and motives of the individual. Specifically the survey at the Vatnajökull NP and Daisetsuzan NP used a four dimensional structure proposed within each main subject of conflict management: conflict, communication and consensus.

6.1 Iceland

Questionnaires and Seminar

The pilot questionnaire, the two questionnaires and the one seminar yielded important data, though the results did also indicate some weaknesses of both the seminar and the survey. These weaknesses included the limited number of participants and the fact that the seminar and questionnaire were all conducted in the one language, that is in English. These limitations make it difficult to rely on the results as completely objective indicators. Still, the seminar and survey give important quantitative indication of the participants' opinions, important for a qualitative interpretation. The interpretation and discussion of the data is threefold.

First, this subsection discusses the pilot with the students in the Master of Project Management at the University of Iceland (for results and questionnaire see Appendix C). The questionnaire gave a first impression of what ought to be considered for the questionnaires that followed. The execution of a short working group session also gave indications of what should be considered for the seminar in Ísafjörður. Besides that, the answers of the participants indicated that especially the stakeholder involvement in and the information flow about the decision-making process of the management of the VNP is very important for them (statement *2-10* to *2-12* and *2-14*, see Appendix C). The motivation to take part in public meetings and to communicate the interests of stakeholders was rated as very important to protecting nature (statements *2-17* and *2-19*, see Appendix C).

Secondly, this subsection discusses the results of the seminar in Ísafjörður (for results and questionnaire see chapter 5.1 and Appendix D). The survey relied on a larger group of participants, and the results were influenced by the circumstance that a larger proportion of the participants came from countries other than the focus area. The fact that many of the participants were students involved in environmental studies also influences the results and

in result how the results can be interpreted. Due to this influence, the answers and statements are open for a biased interpretation of the topic of the seminar by the researcher. In addition to this, the fact that most of the participants in the seminar were already working in the field of PAs or were interested in the topic of PA management also influences the results of the survey. Their input could be seen as biased for this reason as well. In addition to this influence it is important to mention that since several participants dropped out at the beginning of the second round of the seminar weakened the diversity of the participants. The weakening of diversity could be seen as strengthening the criticism of later proceedings by researchers. Although the results indicate weaknesses, the seminar was important for this study for two main reasons: (1) the seminar provided reason for the study's hypothesis as the participants expressed that communication is a valuable tool in the consensus building process, and (2) it gave, through the seminar, the opportunity to examine the application of techniques described in literature for conflict management in Iceland. During the seminar, it was of importance to see that, overall, participants mentioned that their understanding of others' intentions and values increased after a public meeting. The results of the seminar can be construed that the creation and management of protected areas has to include local people. This inclusion would be based on the active participation of stakeholders and in result support the argumentation for a communicative approach and empowerment of the individual in order to reach consensus.

Thirdly, the result of the questionnaire with stakeholders around the VNP has to be seen as an indication of the participants' values, because the response rate of participants in this questionnaire was rather low (response rate 39%). The fact that the questionnaire was conducted in English to a mainly Icelandic audience might have also had an influence (e.g. disqualified participants with low English skills, or survey was regarded as not valid) on the quality of the participation and the results. This questionnaire was also open for participation for only one month and since only 51 individuals were asked to participate, might have made the possible sample smaller. Nevertheless, the selection of stakeholders for this questionnaire tried to involve as many different views as possible and offers a broad overview of stakeholders with different interests at the VNP. Unfortunately, it is not clear if only vocal stakeholders or stakeholders with high values did participate in the questionnaire. If this limitation was the case, concerns related to 'non-vocal' stakeholders might be warranted.

For the latter discussion only the results of the survey at the VNP will be used. As indicated in the results section (see chapter 5.2 ff.) the survey focuses on the three main positions (3Cs: conflict, communication, and consensus) and bring them together with the 4 dimensional view (intrapersonal, interpersonal, suprapersonal, and transpersonal), building upon Jónasson's model (2005). The following discussion is because of the 3Cs threefold and covers all four dimensions. (1) The participants see conflicts as an inevitable part of managing the VNP, their personal life in the community, as well as a reminder that nature has a value in itself (see *Figure 29*).

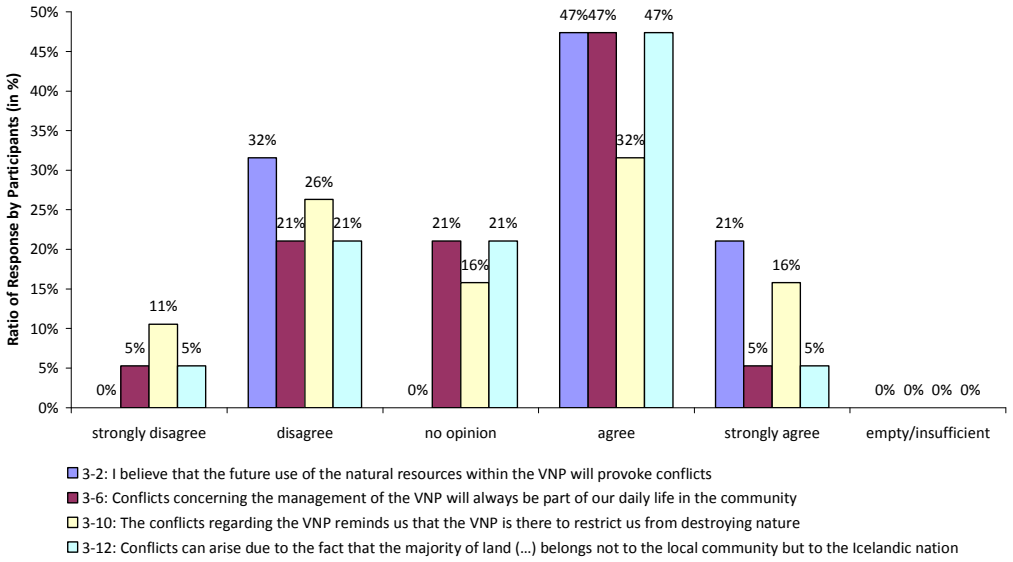


Figure 29: The 4-Dimensional View of Conflicts at the Vatnajökull NP

The results also suggest that (2) communication is a useful tool within management of PA to increase mutual understanding in conflict situations, and could be used as a beacon to increase the success rate of transforming conflict into consensus. Communication is seen by participants as very valuable in the formation of consensus, which can be suggested especially because of the high rate of agreement on statements with a clear focus on communication as a tool to increase understanding, the importance of venues, the use of communication as a part of active participation in the decision-making process, and the statement on stewardship (see *Figure 30*).

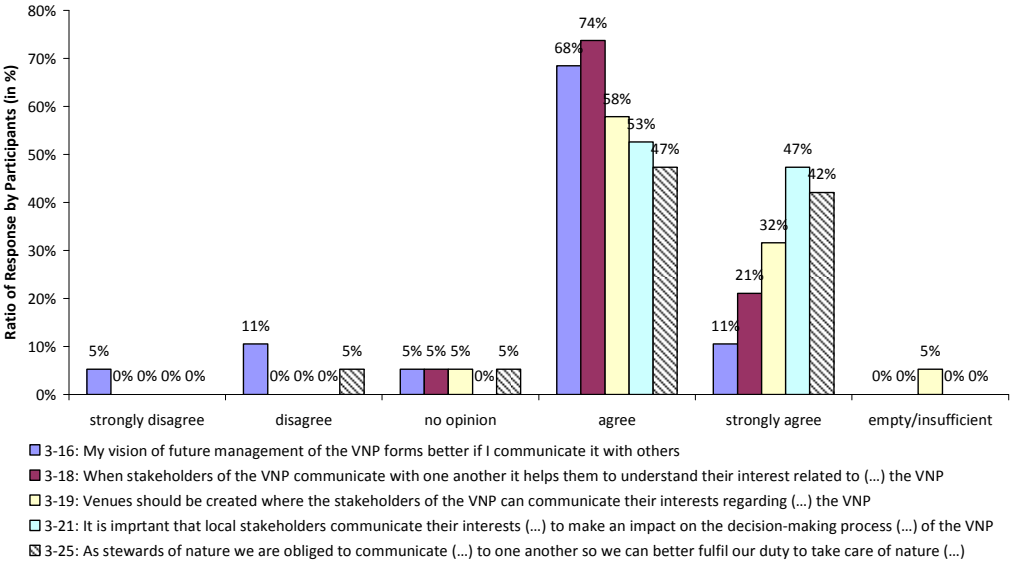


Figure 30: The 4-Dimensional View on Communication at the Vatnajökull NP

Furthermore, the results suggest that (3) consensus ought to be based within the local community directly affected by the decision-making concerning the VNP and is important in order to protect nature. According to the data, participants strongly value wilderness and nature. Whereas when it comes to conservation for them, the local community plays a more important role than the government, since the participants see nature as protected best

by local consensus building, in which every stakeholder has to be included and respected (see *Figure 31*).

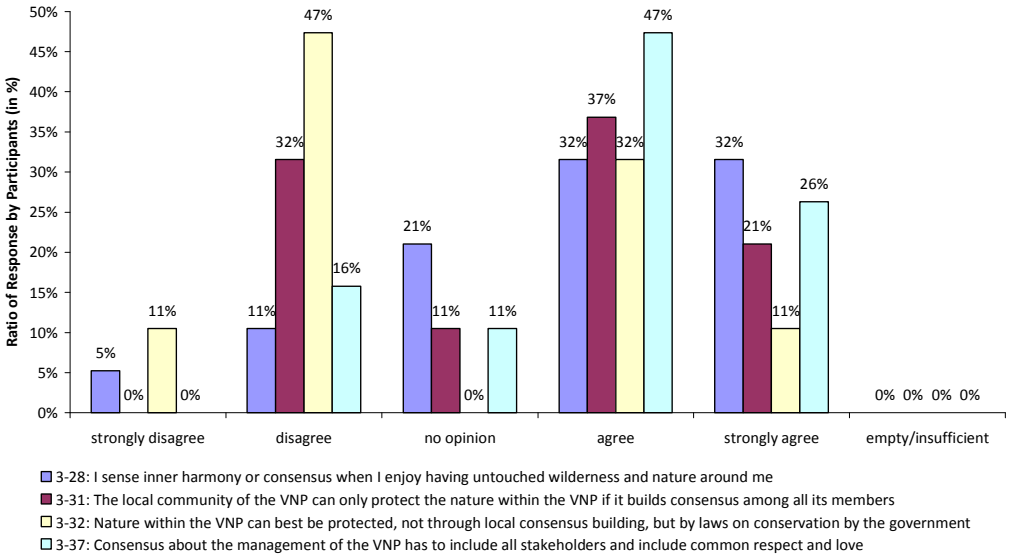


Figure 31: The 4-Dimensional View on Consensus at the Vatnajökull NP

Additional Comments and Discussion

The researcher's experience of preparing and executing the questionnaires and the seminar was an insightful one. This was because it involved an analysis of the different stakeholders and the decision whom not to leave out of the process. It provided the researcher with valuable insight in the connections between stakeholders, their involvement in the establishment of the VNP, and how different individuals deal with conflicts, or participants' willingness to be associated with conflicts.

For the purpose of completeness of this discussion, the following information is not covered in the results section of this thesis because they have been provided during additional interviews outside of the research setting or survey. Though the information was acquired outside the survey, they highlight aspects of conflict management encountered during the execution of the survey and can illustrate working with conflict situations. This section will be divided into the discussion about the interviews in preparation for the questionnaire, and the execution of the questionnaire.

The preparation of the questionnaire and the seminar involved talking with different individuals who are working in the field of PA management. The majority of the comments and discussions deepened the researcher's knowledge and understanding of the facets of managing PAs such as Vatnajökull NP, because they provided a personal insight from the interviewee. Still, there were some facts in the interview that presented a concerned view of conflicts with regards to the VNP. When asked to state his view on conflicting interests or situations concerning the VNP, one participant expressed that there are no conflicts in that particular area and project. With regards to that comment, it can be speculated that in some cases individuals do not want to become associated with conflicts, as they either do not want to become involved in 'dirty business' or want to keep up objectivism in the matter of conflict. Others stated that in their experience of PA management, it was most helpful to communicate with stakeholders in order to arrive at a better understanding of the others' positions and accelerate the formation of consensus. Another noted that the way the management structure of the VNP was designed was very

supportive, as from the beginning it had tried to integrate various stakeholders into the decision making process and give stakeholders the opportunity to communicate their opinions with each other. It was the intension of officials to provide stakeholders the opportunity to take an active role in the process of creating the management structure, but can be also seen as a way of mitigating future disagreements over the management through the distribution of responsibility among stakeholders.

During the phase of distributing and executing the questionnaire, one individual found it impossible to answer the questionnaire as doing so would have meant stating a personal viewpoint, which in turn would compromise the professional integrity of that individual's position. Others did not want to participate because they didn't see value in the project or saw the focus on conflicts and communication from an individual point as "nonsense" (direct quote). Overall, participants responded positively to discussing the aspects of conflicts. Many of the individuals who were contacted and asked for an informal meeting where very open to expressing their views on conflicts over the VNP (e.g. the context of Icelandic culture in public participation). Some even mentioned, from their personal experience, in support of a communicative approach to conflicts as a very helpful tool in reaching consensus among stakeholders.

6.2 Japan

The possibility to visit Japan and conduct research in cooperation with the Hokkaido University provided the researcher with new and important insights about the system of PA management in Japan, the conduct of communication, and the interaction among stakeholders. The interviews and questionnaire in Japan made it possible for the researcher to examine the values of stakeholders at the Daisetsuzan NP. The survey was helpful to reflect the findings in Iceland and provide additional suggestion for PA management in a more general way.

This section will first state the discussion about the interviews in Japan, before turning to the discussion about the survey at the Daisetsuzan NP. This section will close with a subsection about additional comments and discussion.

Interviews

Several interviewees were selected for the research in Japan, which should reflect key stakeholders of the DNP (see chapter 5.3.1). Due to the limitation of a short stay in Japan, the number of interviews was not great. Nevertheless, the six interviews gave the opportunity to get an overview of the management framework of the Daisetsuzan NP and the involvement of organizations outside of park management. For the quality of results and the understanding of the interviews, it was an advantage to have a researcher of the Hokkaido University organizing and orchestrating the interviews as well as translating the answers from Japanese to English and vice versa. The language barrier can be seen as one of the major influences on the interviews. The influence is mainly due to the fact that the questions were posed in English and in some cases with a later translation into Japanese, whereas the answers mainly have been given in Japanese. It might have influenced the quality of questions, since the survey was translated by the Japanese researcher from Japanese to English, but it definitely influenced also the quality and extent of answers collected for this research. Besides the weakening influence of the language barrier, the interviews provided valuable detailed information, in the context of stakeholders at the DNP, in order to develop a clear picture of the current PA management. The interviews

also presented insight into conflict potential and the problems especially organizations outside the management of the Daisetsuzan NP have to deal with. These conflicts and problems referred mainly to organizational and management situations that did not support or assist the involvement of organizations outside the actual management (see chapter 2.6.2 ff. and 5.3.3 about the actual organizational structure and results).

Questionnaire

The questionnaire yielded valuable information from the participants in Japan. The extent of the survey in Japan and the selection of statements, still, can raise concerns about the quality of participants' answers. As also mentioned in the result section, the fact that the questionnaire was initially designed to access the individuals' values and vision for the Vatnajökull NP brought some difficulties to adapt it to the customs in Japan. First, the questionnaire had to be translated from English into Japanese. It was out of the hands of the researcher to translate the survey from English into Japanese. The process of translation involved the risk of changing the meaning of the questions, as well as weakening the researcher's ability to 'probe' the intended information due to a slight changed meaning of the statements. Second, the questionnaire was designed to make statements that would access the personal opinion and valuation of the participant. As the phrasing of the questions was attuned for the Icelandic audience, it did not serve the Japanese customs in the beginning. The statements of the survey had to be adjusted due to this customs to cover the Japanese custom of communication. This adjustment could have influenced the answers of the participants. This adjustment was important as officials from governmental agencies were a part of the list of stakeholders and it was symptomatic of Japanese culture that it was almost impossible for them to state their individual opinion. Third, the selection of the target group was dependent on the suggestion by Dr. Aikoh the Hokkaido University, because executing an own stakeholder analysis for this questionnaire would have been difficult, as information about organizations was mainly in Japanese and communication in English was difficult. Because of these language difficulties, it was an advantage that the stakeholder list provided by Dr. Aikoh at the Hokkaido University was already used for prior research as the questionnaire was sent to individuals and organizations already accustomed to written questionnaires from the Hokkaido University.

The stakeholder list for this questionnaire consisted of 101 participants from 100 organizations, and provided a rather large group of variation for the questionnaire. The fact that the response rate of 52% and the number of participants for the questionnaire in Japan was much higher than in Iceland suggests a much solider basis for drawing conclusions for a qualitative research from it. Nevertheless the number was too low for a solid statistical analysis; the number of participants provided enough data for a qualitative analysis. Given that all participants provided information on their origin (question *1-5*) in Japanese only, it was not possible to distinguish where the participants were from, and also some participants gave additional comments, which have also been provided in Japanese only. As a result, both sources of additional information were not been accessible for additional analysis. Even thought the mentioned limitation, the data did, nevertheless, provide valuable insight into the personal valuation of the participants. In order to provide a comparable discussion of the data the same analysis is used as in the discussion of the results in Iceland (see chapter 6.1).

Again, this discussion will focus on the three main positions (conflict, communication, and consensus) and bring them together with the 4 dimensional view (intrapersonal, interpersonal, supra-personal, and transpersonal), building upon Jónasson's model (2005).

Examining the data of the interviews and questionnaire presented in chapter 5.3 (ff.), three main conclusions in line with the 3Cs can be seen. (1) Conflicts are an unavoidable part of participants' daily life and the management of the Daisetsuzan NP, as well as a reminder that nature is of value in itself (see *Figure 32*). As a Western researcher conducting research on an Asian culture, it did not come as surprise that more of participants in the questionnaire agreed than disagreed with the statement *3-8* that nature is endowed with its own rights, a statistic which reflects the more traditional values among the Japanese as, Oyadomari states, "nature-loving people" (Oyadomari, 1989, p.23). It could be argued if Oyadomari's view is only employed to by Japanese, since other cultures have a similar nature-loving state of mind. Still the statements of the participants appear to indicate that in terms of conflict situations, it is not as important for the participants that the land of the Daisetsuzan NP belongs to the Japanese nation (statement *3-12*). This is rather interesting, that in the case of Iceland, the conflict situations often have a strong attachment to the land ownership.

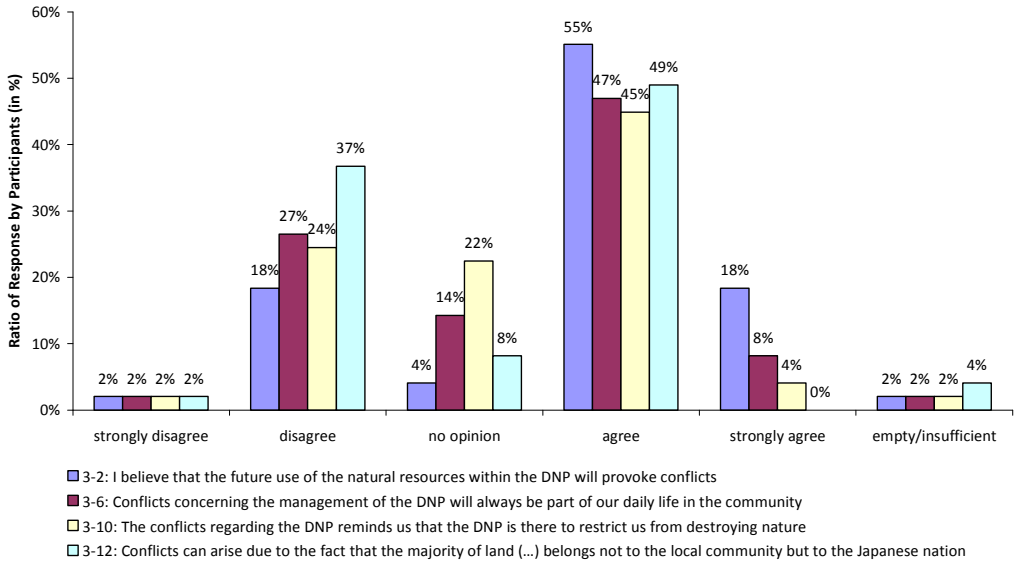


Figure 32: The 4-Dimensional View of Conflicts at the Daisetsuzan NP

The results also suggest that (2) participants see communication as a useful tool to increase mutual understanding among stakeholders. The data points out that those participants think a communicative approach could be used as a beacon to promote the transformation of conflicts into consensus. The high rate of agreement on statements which clearly focus on communication as a tool to increase understanding, the importance of venues, and the use of communication as a part of active participation in the decision-making process, support this hypothesis. Moreover, the high rate of participant agreement on the statement that they are stewards of nature and are therefore obliged to communicate in order to reach consensus and protect nature for coming generations undergirds the hypothesis that communication is important in the mitigation of conflicts and the formation of consensus (see *Figure 33*).

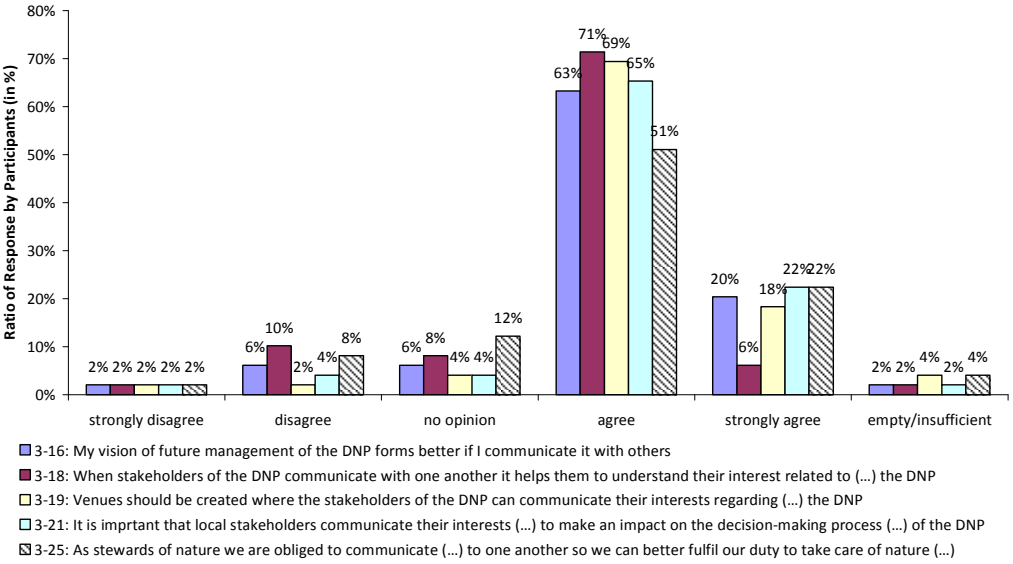


Figure 33: The 4-Dimensional view of Communication at the Daisetsuzan NP

In addition, the results suggest that (3) consensus is seen by the participants to be based within the local community around the DNP that is directly affected by the decision-making pertaining to the Daisetsuzan NP. Also for the participants, consensus is very important for the protection of nature. According to the data, there is a strong value of wilderness and nature among the participants. Though this valuation is very strong, whereas when it comes to conservation, participants state that the local community is seen as playing a more important role than the government, due to the opinion by the participants that nature can be protected best by local consensus building, in which every stakeholder has to be included and respected (see *Figure 34*).

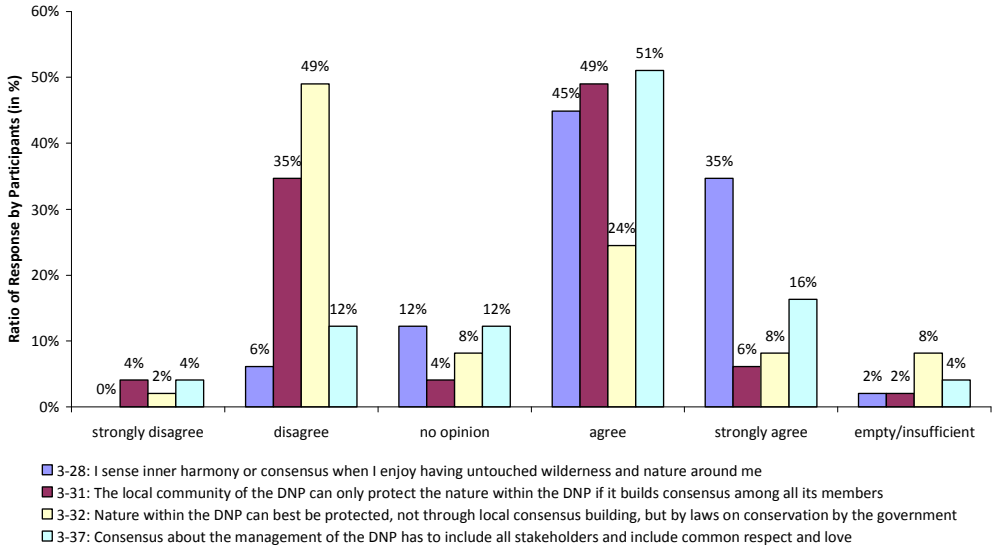


Figure 34: The 4-Dimensional View of Consensus at the Daisetsuzan NP

Additional Comments and Discussion

As part of the criticism of stakeholders as pointed out in the result chapter (see chapter 5.3 ff.), *nemawashi* (see chapter 2.2.2) is used at the Daisetsuzan NP for seeking consensus within the management of the NP. However, in this context, *nemawashi* is usually refers to a meeting of officials only behind closed doors which takes place before the actual meeting

of officials with key stakeholders. Officials and key stakeholders use the opportunity to reveal and discuss their proposals for the upcoming meetings, before they make them known for public discussion. If their proposal is accepted within this circle, they will present it at an actual meeting later on. If the proposal fails to get consensus in this process, they will adjust their proposal accordingly, or present it during a later meeting. The participants and interviewees mentioned that there is a growing demand by stakeholders outside the management of the national park to involve their opinion directly in the decision-making process, using *nemawashi* to form consensus is highly criticized by participants. The criticism by stakeholders outside the management derives mainly from the fact that *nemawashi* does not involve the opinion of public stakeholders and enforces the 'closed door' decision-making process among a limited group of stakeholders. Even thought *nemawashi* is interesting as a concept to form consensus, the criticism bears the question if it can be used in a positive manner at PA management, to form consensus.

Besides this comments about forming consensus, also the importance of conservation and stakeholders values at PA management is interesting. According to Dr. Aikoh, one individual from the Ministry of the Environment once stated that the "national park system in Japan is like carrying *mikoshi*" (*mikoshi* is a portable Shinto shrine carried by people during a religious festival, to carry the presence of the spirits into the streets). The person continued to emphasize that "since the shrine gets bigger, the more shoulders have to carry it". The expression and combination of religion and the national park system is interesting because it brings together the spiritual valuation of nature as being a beacon of Japanese tradition with the understanding that it is important to involve more stakeholders in the decision-making process where more organizations and individuals have interests at stake.

6.3 Summary and Comparison

The last chapters 6.1 and 6.2 discussed the results form the selected PAs in Iceland and Japan separately. This chapter will now focus on the comparison of the results form the questionnaire and lay out the similarities and differences of both questionnaires. The comparison will focus on the questionnaire concerning the Vatnajökull NP in Iceland (see results in chapter 5.2.3) and the last questionnaire for stakeholders of the Daisetsuzan NP in Japan (see results in chapter 5.3.6). The comparison shall take the knowledge excavated, combine the results, and provide in the foundation for future research about conflict management at PA. For a more immediate response this research has the possibility to influence the management of conflicts at PA in the focus areas.

When comparing the answers of the participants in Japan with the answers from Iceland, a pattern of answers can be seen to emerge (see *Table 7*). The following table breaks down the whole questionnaire into the three main parts (conflict, communication, and consensus) and the four dimensions (intra-, inter-, supra-, and transpersonal), as discussed in the section about the layout of the questionnaire (see section 5.1.2, 5.2.1, and 5.3.5). The coloured markers show (1) where the majority of the participants gave their answers, and (2) what kind of overlap between the answers from Iceland and Japan occurred. Because of the cultural differences between Iceland as a Western culture and Japan as an Asian culture, one could assume that there would be a stronger difference in the answers of stakeholders in both countries, though, 31 out of 37 statements (84% of all statements) show that the answers from Iceland and Japan were the same. Nevertheless, this similarity would open up the discussion that those participants of the survey in the selected focus

area share similar values when it comes to PA management and the involvement of stakeholders in the decision-making process.

Interestingly, the majority of the answers in both countries are similar (indicated by green markers in the table). Still, there are some interesting differences. As indicated by a different colouring, in the case of six the majority of the participants' answers from Iceland (yellow marker) are different from the majority of the answers from Japan (blue marker). It has to be mentioned that since the questionnaire in Iceland was answered by less participants than the questionnaire in Japan, the variations in answers are not always very significant, however interesting. Combining each two possible answers for disagreement and agreement together, it can be observed that there are some statements that yield different answers. Comparing the data (see result table in Appendix E and F), it can be seen that the participants from Japan tend to put a stronger emphasis on their agreement or disagreement with the statements given in the survey, whereas the participants from Iceland tend to use the 'no-opinion' option.

Table 7: List of Answers in Questionnaire - Comparison between Answers from Japan and Iceland (yellow: maximum answer from Iceland, blue: maximum answer from Japan, and green: both maximum)

		Intrapersonal				Interpersonal			Supra-personal			Transpersonal		
	Statement	***3-1***	***3-2***	***3-3***	***3-4***	***3-5***	***3-6***	***3-7***	***3-8***	***3-9***	***3-10***	***3-11***	***3-12***	***3-13***
CONF	disagree	*B*		*B*				*B*	*ICE*	*B*				
	no-opinion					*ICE*								
	agree		*B*		*B*	*JPN*	*B*		*JPN*		*B*	*B*	*B*	*B*
	Statement		***3-14***	***3-15***	***3-16***	***3-17***	***3-18***	***3-19***	***3-20***	***3-21***	***3-22***	***3-23***	***3-24***	***3-25***
COM	disagree			*JPN*		*B*								
	no-opinion													
	agree		*B*	*B*	*B*	*ICE*	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
	Statement		***3-26***	***3-27***	***3-28***	***3-29***	***3-30***	***3-31***	***3-32***	***3-33***	***3-34***	***3-35***	***3-36***	***3-37***
CONS	disagree			*JPN*					*B*					
	no-opinion			*ICE*		*ICE*								
	agree		*B*		*B*	*JPN*	*B*	*B*		*B*	*B*	*B*	*B*	*B*

The results state that the participants from Japan express a stronger agreement to the statements *3-5, 3-27* and *3-29* than the participants from Iceland, which suggests that the Japanese participants have a stronger connection to their local community and have a better overview of the different stakeholders and their interests. The weaker connection in Iceland might appear due to the limitations mentioned in the result section (see chapter 5.2.3).

According to the answers to statement *3-8*, it appears that there is a very strong difference between the answers of the stakeholders in both countries in their valuation of nature, since the answers of the participants are diametric. This result would suggest that there is a less emphasis on the anthropocentric valuation of nature in Japan than in Iceland. Nevertheless, it is important to analyze that the answers from Iceland were influenced by the selection and participation of stakeholders. The selection of stakeholders and participants has the possibility to exclude groups which would complete and balance the results.

Examining the statements *3-15* and *3-17*, it can be observed that communication is a difficult issue. On the one hand, the Japanese participants express mainly that it is hard for them to communicate their vision of the future management of the national park to others;

on the other hand, they believe that stakeholders do not openly communicate their interests to one another. In this context, the participants from Iceland neither only agree nor disagree with these statements. As mentioned in earlier sections, it might not be surprising that the Japanese participants highlight difficulties in communicating openly with others, but the results to these statements also show that Icelanders share similar concerns. Nevertheless, it would be speculative, if the results on these statements could be counted as a similarity between participants from both countries, since the data is not extensive enough. And yet the data could still indicate that Icelanders are as well rather closed in communications, rather than vocal.

"Great minds have purposes, others have wishes."
Washington Irving

7 Communicative Approach to Conflict Management

The survey in Iceland and Japan has shown that the involvement of stakeholders into the decision-making process is important and that the participants of the survey value communication as a tool to form a better understanding among stakeholders in conflict situations. Also the literature review pointed out that modern management of PA is build upon a communicative approach to conflict management.

This chapter will provide in the following sections the 3C's model as a tool for managers of conflicts to promote the transformation from conflict to consensus, the process of applying this model, and the description how to apply it at the management of PAs.

7.1 Conflict to Consensus – the "3C's" Model

Managers of PA dealing with conflicting interests among stakeholders often find themselves at a critical stage at which the application of conflict management techniques is at a tipping point. Anyone assigned on the task to manage such a conflict will have to solve a demanding task.

As mentioned in chapter 2.4, conflict management techniques can be categorized either by employing a regulatory or participatory approach to conflicts. Different levels of regulatory and participatory aspects might be present in either approach: a regulatory approach can include a certain form of participation; a communicative approach can also rely on regulation. How, then, should the PA manager work with a conflict situation in order to promote the transition from conflicts to formulate of consensus (see *Figure 35*)?

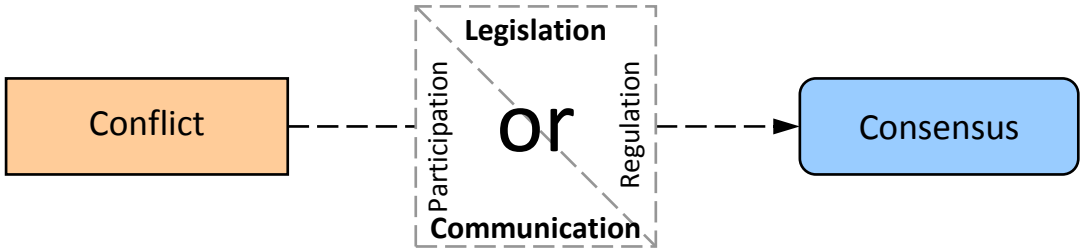


Figure 35: From Conflict to Consensus - Options for Conflict Management Techniques (own)

Here conflict management is understood as a process of moving from a conflict situation towards consensus. In order to select the most suitable technique to help transform conflicting interests into consensus, it is necessary to carefully assess the situation. Habermas (1979) and scholars in field conflict management of protected area management (see e.g. Daniels & Walker, 1997; Kyllönen*, et al.*, 2006; Phillips, 2003) emphasize that individuals mainly rely on communication as a social action to form consensus. Habermas also argues that it is easier for humans to form consensus by using communication (see Habermas, 1979, p. 209). Besides communication as mean to form consensus, the role of the individual within the social environment of conflicts plays a vital role in the formation of consensus (see e.g. Hiedanpää, 2005; Kyllönen*, et al.*, 2006; Phillips, 2003). Even

though the scholars do not specify the differences of their argument in Iceland and Japan, the survey in Japan would suggest that the role of the individuals is important when dealing with conflicts. The responses to the surveys introduced in the previous chapters suggest communication as their preferred way to allow for the transformation from conflict to consensus (see *Figure 36*).

Figure 36: Communication as the Transformative Agent: Conflict to Consensus (own)

For this model three steps from conflict to communication to consensus ("3C's") are essential. The comments of the participants in the survey suggest that the 3C's form the ideal sequence that will now be the model of conflict management proposed for PA management. My "3C's model" hasn't been tested and is hardly a silver bullet, since its existence has never been tested, but the 3C's model is intended to provide a framework in which different conflict situations at PA can be addressed by the PA management. The three steps in the 3C's has already found its application in the previous survey, by sequencing the questionnaire in the survey accordingly. The application of the 3C's is suggested to take place at the selected PA in Iceland and Japan first. A checklist for all three stages of the 3C's model can be found in the appendix to this thesis (see Appendix G), which will guide the managers of PA through the stages of applying the 3C's model.

7.2 Process of Applying the 3C's Model

In order to apply the 3C's model, successfully, it is important to acknowledge that representatives of different interest groups or organizations are not impersonal entities that only represent institutions, but rather individuals with their own interests and attitudes. In the light of the research in Iceland and Japan, this is a crucial characteristic, because in the 3C's model, the individual is taken as embodying the values of the interest group, though the individual may express his or her own form of behaviour and may seem as a hybrid between the shared values of the group and the individual self.

In order to apply the 3C's model to conflicts regarding PA management and incorporating the stakeholders into the view of conflict management, it is suggested to break down the structure of the process. The 3C's model suggests a process applied by three steps in order to build consensus within conflicts by using a communicative approach. As an initial step, it is advisable to assess the existing conflict environment (1). After that assessment and with a clearer image of the conflict situation in mind, stakeholders can start exploring a shared vision among all participants. In order to formulate that vision, the use of a communicative approach is advised by this model (2). Finally, at this stage of the transformation process, the stakeholders will then have to define the desired form of consensus (3) (see *Figure 37*). In the context of this model, the usage of the term "consensus" should, therefore, incorporate the shared vision of the participants and reflect the assessment of the desired agreement expressed by the participants (see also step 2).

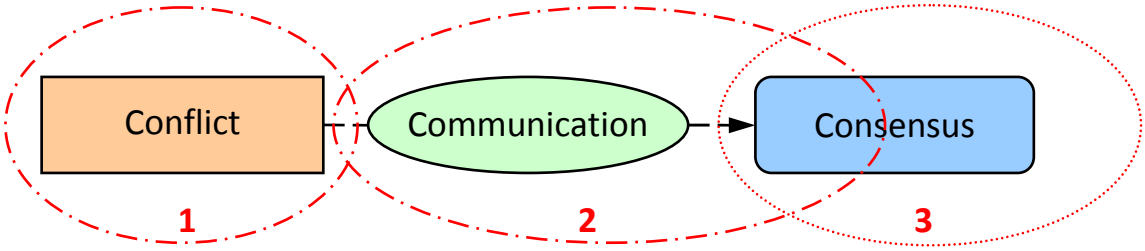


Figure 37: Break-down of Structure of the 3C's Model: Conflict Assessment (1), Communicative Process (2), and Formulated Consensus (3) (own)

7.2.1 Conflict Assessment

Conflicts can be seen as an environment in which stakeholders with different visions, beliefs, and motives, influenced by the cultural background, join and share information. Conflicts can also be seen as a system where input factors define conflicts and output factors reach outwards and influence the lives of stakeholders. The output of the conflict can create a feedback into the input of the conflict again or into a new or modified conflict (see *Figure 38*), especially due to the effect of the output factors on stakeholders,. Hence, the conflict system has, due to this feedback loop, a dynamic component, which makes it more difficult to assess the conflict situation as a whole without considering the feedback loop from the output side of the system. As a result of the conflict assessment, a clear identification of all input and output factors is crucial for the assessment of conflicts.

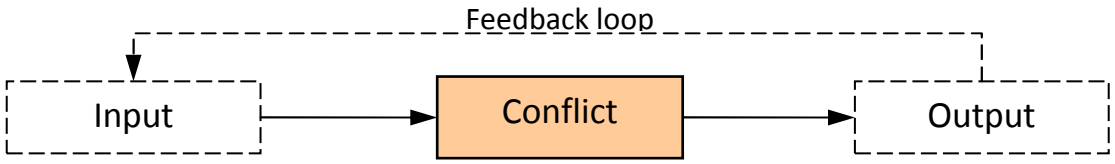


Figure 38: Conflicts as a System with Input and Output Factors (own)

For the conflict assessment, "conflicts" should be viewed as a dynamic process, where participants influence the input and output of the conflict, and as a result to keep the conflict active or not. Stakeholder behaviour and emotion influences the information shared. In the context of conflict management, it is also helpful to think of conflicts as a catalytic process in which the information, emotion, and behaviour participants are transformed (see *Figure 39*).

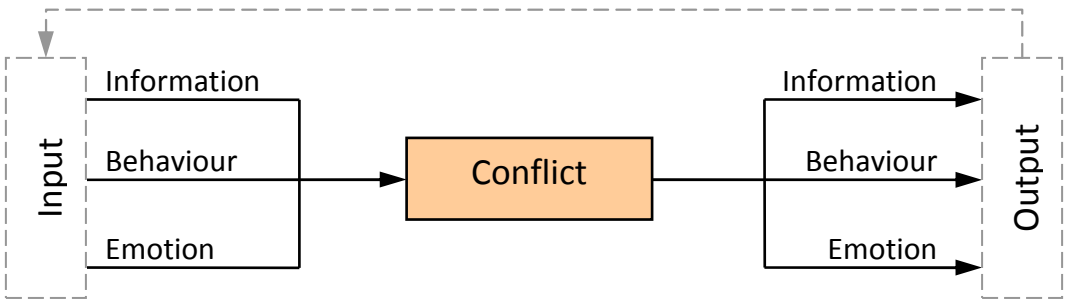


Figure 39: Definition of Input and Output Factors of Conflicts (own)

Conflict assessment sets out to analyze the information, behaviour, and emotion as factors influencing conflict situations. Information is the more objective foundation for agreements as well as possible conflicts; it comes from the stakeholders themselves (e.g.

data, material, and the object the conflict is concerned about or related to). Behaviour refers to how stakeholders bring themselves into the conflict and the form of interaction with each other (e.g. does the participant allow other participants to interrupt his/her argument, or what kind of verbal and non-verbal communication does the participant use). Emotions can be seen as the subjective factor triggering the interaction among stakeholders (e.g. mindset of the stakeholders, historical background of the interaction, their behaviour, attachment to the conflict object, values and visions the individuals associate with). These three factors need a close analysis, since their feedback can feed conflict situations or bear the foundation for its resolution.

In addition to the input and output factors, it necessary to point out that those conflicts can be also influenced by intra-personal and inter-personal influences. These influences reflect similar influences as the input and output factors, but are weaker then these factors. In conflict situations, the individual itself (intra-personal) and the interaction between individuals (inter-personal) are of great importance in how information is perceived and taken into consideration. As a part of the intra- and inter-personal influences, emotions are of significance as they play a vital role in conflicts. In addition to emotions, also the environment in which the conflict takes place and what kind of techniques are used in order to express or deal with conflicts are factors that influence conflicts. The emotional, environmental, and technique based factors within and between individuals can be described as intrapersonal and interpersonal influences (see *Figure 40*).

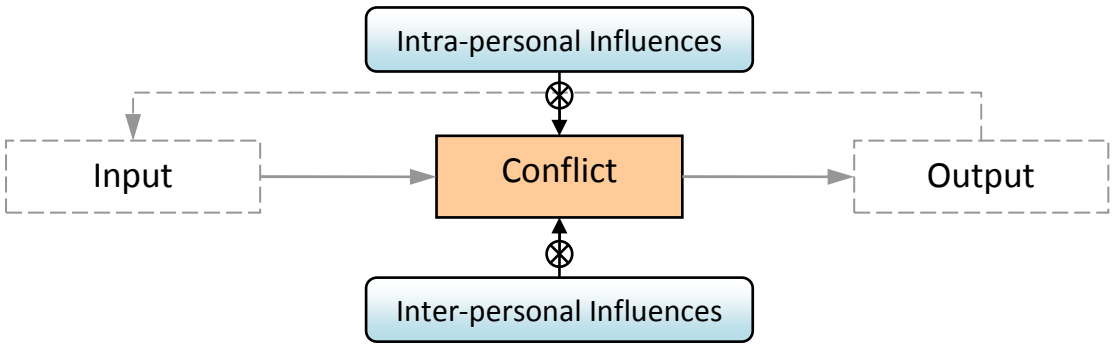


Figure 40: Factors Influencing Conflicts (own)

The previous introduced factors influencing conflicts have to be defined more specifically. Intra-personal influences in conflicts reflect the determining factors embodied within each stakeholder (e.g. vision, interests, mindset), whereas the inter-personal influences describe factors expressed within the interaction of participants and construct the environment which influences the conflict situation (e.g. the formal set-up of the discussion; how are discussions conducted; who is going to be involved, who excluded). It is important to identify the intra-personal and inter-personal factors as well as the extent to which these factors influence the conflict, because the intensity of the influencing factor directs the conflict in such a way that the factor can either escalate or de-escalate.

An extensive assessment of the conflict situations is advisable, since it will provide the conflict manager with a better overview of the conflict situation, the influencing factors, and show where possible leverage points to shape conflict into consensus are.

7.2.2 Communicative Process of Shaping Conflict into Consensus

After assessing the conflict situation, stakeholders have to be given the possibility to communicate their values and interests in order to promote mutual understanding and to

build a foundation of trust for consensus. The management of PA has not only to consider the input and output sides of a conflict; it also has to deal with dynamic influences that come from the interaction of individuals. This dynamic influence has been identified as intra-personal and interpersonal influences. The following set of tools will offer, in most cases, suitable methods to tackle these issues within the conflict situation, and will focus on the aspects of addressing the conflict itself as well as the influences through communication. The next sections will present the most prominent tools, described by Kennedy (1998), Borisoff and Victor (1998), and others, also in the literature research.

Methodology for Influencing the Input of Conflicts

The work by Borisoff and Victor (1998) and Kennedy (1998) are very helpful in conflict situations, because their work tries to tackle conflict situations from a broad, communicative perspective. Their transdisciplinary and interactive approach to conflicts recommends that their techniques can be also used in conflict management in PAs. As mentioned in the literature review, the work by Kennedy (1998) focuses on negotiations, whereas Borisoff and Victor (1998) describe a communicative approach to conflict management. Borisoff and Victor describe the source for conflicts and the input of communication into conflict situations. Kennedy lays out how to tackle conflicts via negotiations. In the light of both scholars and the use of their work on conflict management it can be suggested that on the one hand Borisoff and Victor prepare for the reasons behind conflict situations and presents the knowledge for a mindset which is able to cope with conflicts in a constructive form. On the other hand, Kennedy focuses on situations dealing with disagreement or conflict within the formal setting of negotiations.

Both scholars worked to engage in conflicts from different ends (Kennedy on the formal aspect of conflict, Borisoff and Victor on the input factors). Only if their work is combined with the work of other scholars (see chapter 2.1 ff.) it is possible to create a powerful set of tools designed to reduce the negative output of the conflict situation. In order to tackle the outcome of conflicts, it is advisable to work with the input and influencing factors of conflicts, because changing these factors will manipulate the outcome as well. Kennedy's work can be seen as best suited to tackling the interpersonal influences and information input, as his approach in negotiations lays out a suggestion for the interaction between stakeholders to form agreements. Borisoff and Victor's deep analysis of the reason behind conflicts and their suggestions appear most appropriate in dealing with the behavioural and emotional input to conflicts; it also provides the knowledge to transform the intrapersonal influences. It can be suggested that conflicts manifest themselves in different stages of escalation. Techniques which tackle the intrapersonal influences deal with these different levels of escalation. In grouping the techniques suggested by other scholars, four different stages have been identified (see *Figure 41*). With the '4-Stages-Apporach', the author combines the work of several scholars, working in the field of conflict management with regards to protected areas. This approach brings together the successful approaches to conflict management, and makes them applicable to conflict situations (the four stages are discussed in the next subsection – see page 94). For more information on the application of this conflict management model at PA, see section 7.3.

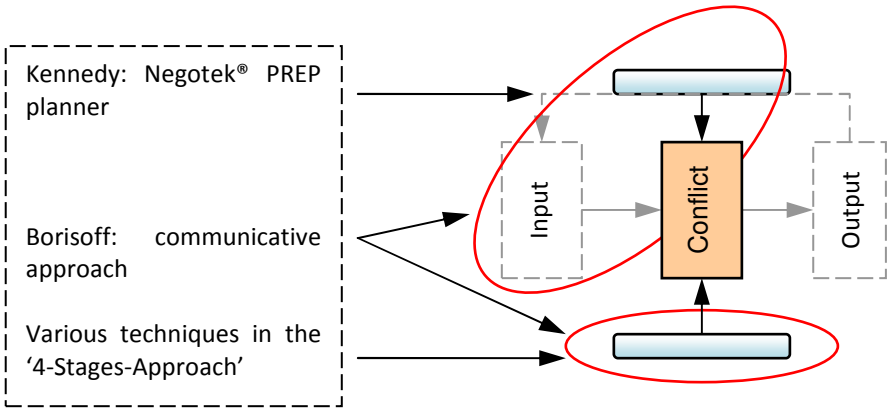


Figure 41: Conflict Management Model and Tools for Tackling Different Influences vis-à-vis Disagreements (own)

Information and Emotion: Kennedy's Negotek ® PREP planner

Kennedy's book (1998) provides an interesting approach to the preparation phase of negotiations that is also applicable to conflict situations. Negotiations are a form for stakeholders to communicate their interests and, by doing so, to enhance the possibility of creating mutual understanding among each other. Because of the ability to communicate stakeholders' interests, negotiations are most suitable to address conflicts, in order to enhance mutual understanding.

Negotiations can serve as a tool to lay out the foundation for building consensus. For negotiations, it is as Kennedy argues, important to prepare for them in order to avoid uncertainties and reduce the impact of unexpected situations. For this preparation, he proposes to use his tool called 'Negotek® PREP planner'. Kennedy's tool is designed to prepare participants for negotiations and provide the participants with the ability to address the uncertain aspects of conflict situations. His tool helps not only identify the own interests and motives, but also to get a better understanding of the opponents' interests and motives (see *Figure 42)*. The Negotek® PREP planner enhances the ability of the participants to get gather information about the input situation of a conflict situation as well as the intrapersonal influences of conflicts. This ability in a simple from suggests using the Negotek® PREP planner to open up the information flow of conflicts and to explore possible aspects influencing the conflict situation.

Our Interests are:			
What is the strategic objective?			
What are the tactical imperatives?			
What is my stance?			
Negotiable Issues	Priority ranking	Negotiation ranges	
		Entry	Exit
	High Medium Low		
What are my justifications?	What are the likely counters?	What are my responses?	

Figure 42: Negotek® PREP planner (Kennedy, 1998, p. 79)

Emotion, Behaviour and Environment: Borisoff's Communicative Approach

Though the Negotek® PREP planner is a helpful tool to assess the input of conflicts, it lacks the ability due to its formalized form to access both dynamic influences of conflicts: the intrapersonal dimensions, as well as the behavioural and emotional input of conflicts. The influences on conflicts from the human environment or human dynamics (behaviour and emotion of the stakeholder) of a conflict are very important but hard to tackle with Kennedy's tool for preparation, as allows the participants to separate the person from the conflict issue. His tool is an attempt to eradicate emotions from negotiations, even though they are an important factor when dealing with conflicts. Nevertheless emotions have to be addressed and acknowledged; they have to be dealt with by techniques capable to guide the stakeholders in a supportive manner through the conflict management process. To deal with the human dynamics of a conflict situation and to focus on the emotions and behaviour of the conflict participants, the results of the survey suggest that a communicative approach is necessary. Borisoff and Victor (1998) proffer information and guidelines for just such an approach. Their book presents reasons why conflicts emerge and furnishes guidelines on what is important to consider in conflict situations in order to reduce their impact and can support conflict managers understand why conflicts exist and how interpersonal influences can be tackled. It is helpful because it gives grounds for the interpersonal influences of conflicts (e.g. mindset towards other's vision, own vision and interests, gender differences, cross-cultural awareness), and it also provides a set of helpful tools in order to manipulate the input factors of conflicts (e.g. use of verbal and non-verbal communication, influence of writing style on conflicts).

The book by Borisoff and Victor (1998) provides very helpful information when dealing with the human dynamics of conflicts. Still, their work does not tackle every aspect of the environmental influences of conflicts, which makes it necessary to complete the set of tools with other scholars. In that case, the environmental influences of conflicts will be discussed in the 4-Stages-Approach.

Conflict Environment: The 4-Stages-Approach

Though Kennedy, and Borisoff and Victor offer important approaches to conflict management, an additional strategy is necessary to complete influencing the input side of conflicts to change the output of conflicts. To influence conflicts, it is necessary to address also the escalation level of conflicts, since conflicts can emerge in different escalation levels. In order to deal with the intrapersonal influences of conflict situations, it is necessary to consider a wide range of techniques. In the literature review, the work of scholars presented different techniques which are applicable in PA management. The proposed 4-Stages-Approach combines these techniques and provides a framework for a communicative approach to conflicts at each stage of escalation. The application of this approach can vary among the different protected areas in response to the varying requirements of each conflict (see chapter 7.3).

The four stages of the 4-Stages-Approach represent the four different levels of escalation of conflicts. Thought the stages ought to be seen as individual stages, conflicts can still go through stages and follow a certain development cycle (e.g. establishment, growth, peak, and decline). Conflicts might sometimes follow one stage after another, similar to following a life cycle. Still, it can be suggested that conflict situations may not always express all stages of conflicts (e.g. especially with the assistance of conflict management at early stages of conflicts, an escalation is not present). In this 4-Stages-Approach, the

following stages have been identified: (1) conflict emerging, (2) conflict situation as constructive argument, (3) conflict situation as destructive argument, and (4) possible consensus after conflict resolution. In the following figure (see *Figure 43*), the four stages are represented as bars with different heights that indicate the different levels of escalation and possible negative impact on the participants. The dashed arrow indicates the flow through the stages, the conflict participants can undergo during the conflict management process. As indicated by the figure below, in all four stages an information and involvement policy is vital in order to sustain a constant flow of information from the participants to the management of the management of protected areas and vice versa. This is essential in order to keep the *status quo* of the conflict and to help resolving or managing the conflict situation.

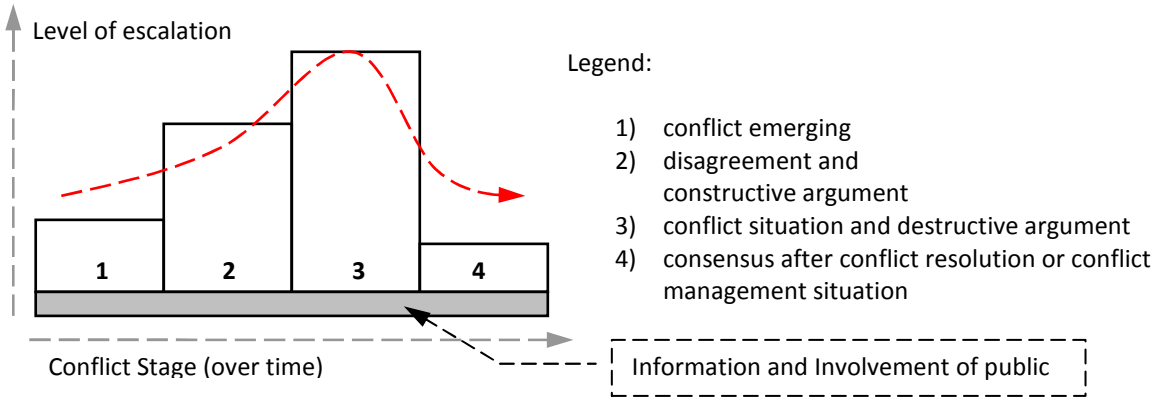


Figure 43: The '4-Stages-Approach' for Personal Influences of Conflicts (own)

The 4-Stages-Approach indicates a hierarchical and continuous construct of the different conflict stages; each stage represents a separate escalation level. A conflict may escalate and therefore "start" on a different level, the stage of emerging conflicts (consensus and quasi-consensus), a conflict does not have to follow all four stages as suggested by the model especially if the conflict management techniques are effective and the conflict is resolved. For further detailed information about the different stages of the 4-Stages-Approach and the suggested techniques in this approach, see Appendix H. It is advisable to keep the 4-Stages-Aproach and the different escalation levels of conflicts in mind, when choosing different conflict management techniques. The 4-Stages-Approach was designed to enables the user to select from a variety of different communicative techniques discussed in the literature, depending on the environment and needs of the conflict situation and the involved stakeholders at each level of escalation.

7.2.3 The Formulated Consensus

The conflict assessment and the communicative approach, in which the stakeholders had the opportunity to express what is important for them, might have yielded valuable information about the foundation of the conflict, and gave the stakeholders the opportunity to share information with each other. This collaborative and sharing experience might have enabled the stakeholders to formulate consensus among them. At this stage the active participation of every stakeholder in the conflict is essential, because the collaborative creation of a future consensus scenario can create an endpoint for the conflict management process, which is the formulated consensus.

In order to have a long term effect of the reached consensus for the stakeholders it is necessary to give the consensus a form, all stakeholders can rely on and hold each other

accountable against. Therefore, is suggested to create, besides the vocal agreement, a written form of the vision and the collaborative agreed outcome of the conflict management process, in addition to describing the formulated consensus, the assessment has to include also goals or targets to aim for. It is important to state clearly what is the mutually agreed outcome of the communicative process of conflict management (e.g. shall the state of conflict continue, shall the conflict be resolved, or to which extend shall the conflict improve). The consensus agreement should also define who is going to be involved in the next steps to incorporate the consensus into the life of each stakeholder (e.g. decision-making by: only expert groups, elected representatives, or public). But most important is to define who and what is going to left out of the process in order to bring life to the possible consensus (e.g. are there any stakeholders which will not take part in the process, or are there goals which are not going to be considered). Finally, it is also important to define which objectives have to be achieved with which techniques, and in which timeframe the conflict is going to be managed.

After finishing this final commitment stage, the participants should have a clear target to aim for in order to realize the consensus, discussed and formulated in the previous process. Evaluating the future of the disagreement through the lens of defining a "consensus project" makes it possible to define clearly the boundaries of the conflict management process and create a bumper for implementing the consensus agreement or safety zone for future emerging disagreements.

7.3 The 3C's in Protected Area Management

It can be suggested that techniques of conflict management described in the literature review (see chapter 2 ff.) are because of their universal applicability also suitable in PAs. Before employing them in PA management, the results of the research in Iceland and Japan call for some adjustment to the techniques to meet the need of stakeholders (e.g. different conduct of language in conflict situations, 'openness' of participants, etc.).

7.3.1 Factors Limiting Conflict Management Techniques

Factors limiting the use the presented conflict management techniques include factors such as vast land area of the PA, and low population density around the park. Before selecting an applicable conflict management technique, it is important to take also the different conflict objectives and stakeholders into consideration, since they can be described as limiting factors. These limitations suggest categorizing the techniques to the needs of the stakeholders of the PA.

Examining these limiting factors closely, three main differentiating factors can be identified: (1) human, (2) non-human environment, and (3) time. The three factors also influence the possibility to for consensus in conflict situations, and the use of communication to do so. On the grounds of the results in this research, these three factors appear to be universal to the selected focus area and represent different impacts on the conflict and applicable conflict management techniques (see Table 8). It should be noted, however, that these factors overlap to an extent, as a clear cut distinction between humans, the non-human environment, and their impact on the environment is not fully possible because of their interaction with another (see chapter 2.2.1 and chapter 2.2.2 – with respect to the view of nature in Iceland chapter 2.5.1 and Japan chapter 2.6.1).

Table 8 Differentiation Factors Limiting Application of Conflict Management Techniques

	Definition	Example
Human	Human factors represent factors which derive form the human environment, are shaped by human interaction, as well as the limitations humans create	Population, income, impact of conflict on social group, emotions, behaviours, social norms, legislations, etc.
Environment	Environmental factors refer to all factors related to the natural environment as well as features associated with nature	Population density, distribution of population, abundance natural resources, etc.
Time	Factors related to time are concerned with the impact of historical factors, as well as the urgency of decision-making.	Cultural history, family history, urgency of decision, connections between families, etc

7.3.2 Suggested Techniques for Conflict Management

The last section focused on the limiting factors for conflict management techniques, which have to be taken into consideration when suggesting them in PA management. Though cultural differences exist between Iceland and Japan, the surveys have shown that stakeholders value communication as a means to building consensus in conflict situations. When using communicative techniques to tackle conflicts in PAs, it would do well to take the limiting factors for conflict management techniques into consideration, since otherwise the limitations can hinder the success. Grounding the selection of the techniques only on successful examples of implementation and which sound in phase with the communication and interaction customs of the stakeholders of the protected area would help a positive conflict management process.

In order to support the management of PA to select conflict management techniques, this thesis will include a list of suggested techniques employed at foreign examples (see Appendix H). These techniques rather focus on the individual and the individual's need for communication and participation, while providing the management of PA with the opportunity to deal with conflict situations in way appropriate for each level of escalation, described earlier as the 4-Stages-Approach (see section 7.2.2). Most of the techniques selected for this list incorporate the possibility for communication among stakeholders in the form of open meetings. The pre-selection of techniques according to their communicative approach, appears to be most successful for PA management, since participants in this research expressed their preference for a communicative and participatory approach to consensus building. With regards to the Vatnajökull NP, it has to be said that the vast land area creates problems for meetings. As a result, techniques have been selected that do not require the physical presence of stakeholders.

*"People should not consider so much what they are to **do**, as what they **are**."*
Master Eckhart

8 Conclusion

This thesis has discussed various techniques on the field of conflict management, the application of communication in consensus building, and also touched upon issues influencing these techniques. The research focused on the interaction of individuals and the influences in it by human and non-human environmental factors; it determined the human dimension of conflicts, with regards to the four dimensions of the self and its environment, in order to answer the research question. This chapter is going to conclude the results and discussion emerging from the three main parts of this research project (literature review, survey, 3C's model). It will reflect on the research question by highlighting the response to it through the literature research, the survey in Iceland, and the survey in Japan.

8.1 Response to the Research Question

8.1.1 Response from Literature Review

As laid out on many occasions and in many examples in the literature on conflict management at PA and public participation at PA management, it can be seen that the acknowledgment and involvement of stakeholders and the local community in the management of protected areas has gained gaining more momentum within the last few decades (e.g. for environmental projects: the Earth Summit, Aarhus Convention). Communication is seen as an important tool, not only as a way to promote the participation of stakeholders, but also as a way to give stakeholders the means to deal with conflict situations. The literature review presented several examples of conflict management techniques that focus on a regulatory or technological approach to conflicts, in order to reduce and mitigate the effects of conflicts, and to limit the complexity of the disagreement. The more recent literature (especially with the beginning 1990s) suggests conflict management techniques focusing on a participatory, communicative approach as a means to transform disagreements into possible consensus. In particular the literature on protected area management suggests a communicative approach which incorporates the individuals into the decision-making process (see also chapter 4). The communicative approach provides the benefit for mutual gain among all participants; the communicative approach in particular appears to be the more successful technique.

8.1.2 Summary of Stakeholder Surveys in Iceland

The survey of the participants in Iceland revealed that stakeholders of protected areas are concerned about the decision-making processes related to the PA and the possibility for their participation. Arising out of survey, there are concerns of some stakeholders about the information policy of the Vatnajökull NP management, and the role of the government and agencies within the management of the national park. Some stakeholders mention their concern about the low information flow from the management of the VNP towards them. The participants are worried about the conflict which exists at the moment and about the conflicts which might arise in the future. Still, several participants in the questionnaires, the seminar, and other discussions expressed that they appreciate if their rights to communicate would be considered in the decision-making process. The fact that stakeholders would like to express their vision of and feeling about the management of

protected areas appears obvious when taking into consideration that those stakeholder would like to be acknowledged in decision-making process at protected areas. Still the process of public participation and mutual learning appears difficult to incorporate in the management of protected areas and regulations associated with it, in Iceland and beyond. This research project has reason to influence the consideration of conflict managers in Iceland, and beyond, to incorporate communicative process of building consensus among conflict partners. From the perspective of stakeholders, it can be said that they are more welcoming of communicative conflict management techniques if the management of the protected area acknowledges the importance of stakeholders for the management process and if stakeholders get the opportunity to share their knowledge and express their opinions. It also can be said that the stakeholders find a communicative approach to conflict management better to form consensus, since it provides them the opportunity to interact with each other to create a mutual understanding of the conflict situation.

8.1.3 Summary of Stakeholder Survey in Japan

In terms of conflict management at the Daisetsuzan NP, it is important to acknowledge that the situation in Japan is different to the one in Iceland. The differences manifest themselves not only in a different management structure of the national park system, but also in the forms of social interaction. As an Asian language, Japanese expresses a different way of conducting communication, than a western researcher expect, which became prominent, after translating the questionnaire, used in Iceland, from English into Japanese. It became clear that the same set of statements was not applicable to the Japanese custom of answering personal statements, without addressing the language and language use difference. In addition to the language issue, the participants expressed that until now the management of the protected area did not necessarily include the relevant stakeholders in the decision-making process. The participants articulated in the interviews and questionnaire that they want to play a stronger part in the management of the protected areas since their interests and stakes are dependent on the decision-making process. The participants mentioned that although there is a different culture of communication in Japan, the more open way of expressing their opinion and values toward each other and the management is of importance for them. Also the system of national parks in Japan brought some interesting insights to the researcher's attention, since it gave the researcher the opportunity to explore a system of multiple land ownership and hence the difficulties the management of a PA in Japan would typically have to deal with

8.1.4 Summary of Survey and Literature Review

As mentioned in the previous section, it is important to take the differences in communication between stakeholders in Japan and Iceland into consideration, but it is worth acknowledging that there are similarities, as pointed out in the literature and discussion section among the two countries and cultures. As the results have shown, the participants from Iceland and Japan express similar values in answering the statements in the questionnaire (see chapter 6.3). Nature as a source for income, wellbeing, and cultural values is important for all participants and many of the participants see it as their duty to protect the environment, for themselves and future generations. From the discussion with several participants in Iceland and Japan, it can be argued that stakeholders perceive consensus as a state of fruitful interaction and positive equilibrium of interests among stakeholders. For the participants in this study, consensus is associated with a positive attitude and is dependent on communication among stakeholders. Whereas conflict is often understood as a state of interaction in which there is an absence of agreement, mutual

understanding, or a constructive attitude towards the opinion of others. Out of the comparison of the results and the participants' definition of conflict, communication, and consensus, it can be suggested that techniques which form consensus by integrating a communicative approach towards conflict are commonly accepted.

It can be said in general that many participants in this research expressed that they see communication as an important tool to transform conflict into consensus. They also expressed that communication is one of the most important ways for them to take an active part in the decision-making process, especially in the environment of PA management.

In order to answer the research question, judging from the present result and when taking the discussed limitation of the data selection into consideration, it is evident for the researcher that a communicative approach to conflict management helps to form consensus among stakeholders of a multi-stakeholder project.

8.2 Additional Conclusions

It is not the intension of this conclusion to suggest a change in the actual management system of protected areas in Iceland or Japan. But as the data presented and discussed by this study points out this section will conclude with several suggestions for improvement of the interaction of the management of protected areas in Iceland with its stakeholders, with the possibility for suggestions for Japan. The response of the participants in the survey and the presented theory suggest the implementation of the 3C's model as a framework for conflict management at protected areas, such as the Vatnajökull NP in Iceland. According to this background it is also important to acknowledge the different views and values by encouraging the participation of stakeholders.

To encourage the involvement of stakeholders in the decision-making process of the Vatnajökull NP, the proactive participation could be done through the implementation of an advisory board alongside the existing management. The advisory board would consist of many different stakeholder groups (dependent on the results of a stakeholder analysis of that area) and would be asked to make suggestions to the management of the area councils and the board of the Vatnajökull NP. In general, the establishment of an advisory board alongside the management of protected areas could also assist in answering concerns about the role of the public in the decision-making process and help in the exchange of information from both ends in an open and constructive way. In addition to these benefits, if the advisory board has the opportunity to represents the range of stakeholders interested in the VNP and would be grounded in grassroots-democracy from both sides, i.e. the advisory board and the management of the VNP, the advisory board could function as a watchdog for the decision-making process of the management.

When looking at the information on the management structure of the Vatnajökull NP and comparing it with information on that of the Daisetsuzan NP, the results suggest that a single agency managing a protected area could lead to less conflict of interests among involved stakeholders. In the case of national parks in Japan at least two or more agencies, all with different main objectives and obligations, own parts of the land leads also to a different approach on how to manage the protected area and how regulations has to be formed in consensus with the other agencies. As a result, the involvement of different agencies with ownership of the land in the protected area can create confusion among stakeholders working with regulations by the management of the national park (e.g. NGOs restoring hiking trails within the national park).

As indicated in section 2.6.2, the example of the Daisetsuzan NP in Japan would suggest that the ownership of the land of the protected area by one or a limited amount of stakeholders reduces the potential for possible conflicting opinions on the management of the protected area due to a clearer division of management responsibility. Simplifying out the ownership of the land in Iceland would reduce the complexity of the management of the protected area easier. But in the case of Vatnajökull NP, it can be seen that, in terms of stakeholder involvement, the management objectives would not necessarily become easier due to the requirement of the national park (e.g. land cover of national park, different objectives, and features of park in the areas). Coming back to communication as the carrier of conflicts, it can be speculated that in the Japanese example, fewer conflict situations for the management emerge due to the different culture of communication and conflict management. It is interesting that the use of *nemawashi* as a concept of consensus building among stakeholders is seen as controversial by those stakeholders not involved in the management of the park. This controversy would suggest that the management of a national park in general ought to involve all stakeholders in an open participation process, with the possibility for open communication of interests and values, and the need for trust among them in the credibility of the management and its decision-making process. The result in the survey also suggests that the management of a PA has to acknowledge the individuals with its values and beliefs, emerging out of its relationship with the four dimensions (the for dimensions are: intrapersonal, interpersonal, suprapersonal, and transpersonal – see section 1.2.2)

„Wer glaubt etwas zu sein, hat aufgehört etwas zu werden."
Philip Rosenthal

9 Future Studies

Many ideas and suggestions for future research came across my mind, during the research and composition phase of this thesis. Many of which can not be included in this thesis, since they would exceed the aim and scope of this thesis, and the given timeframe. Some of the issues that surfaced during the process of working on this thesis have not been discussed due to these limitations. Such issues concern stakeholders, participants and the implementation of conflict management in protected areas. As these issues may influence the success of conflict management in protected areas in Iceland, Japan, and beyond, I would like to recommend them for future studies.

9.1 Stakeholder

First, this study focused on stakeholders, their views and beliefs. In order to increase the understanding of the stakeholders' perspective it would be important to carry out extensive research on the different stakeholders of protected areas in Iceland in general, and of the Vatnajökull NP in particular. This thesis worked with a list of stakeholders that represented the main group of stakeholders of protected areas at Hornstrandir and the Vatnajökull NP, was only executed in English by a foreign student. This could have limited the depth of information available, not having direct access to the indigenous culture and of getting participants to conduct a survey in a language that is not there own, and might have left important stakeholders out as a result. It would be interesting to see if further research would indicate what and how many stakeholders not identified in this study.

The stakeholder analysis can lay out the foundation for a further study about the interaction of individuals. Secondly it would be interesting to research the interaction among stakeholders, since there are usually interactions and relationship influencing the perception of stakeholders and the individuals' interest. Doing so is important as greater knowledge of such connections would help for the stakeholder identification and classification (see Grimble & Wellard, 1997; Mitchell*, et al.*, 1997; Murray-Webster & Simon, 2008). I would suggest executing a system dynamics study on stakeholders of protected areas in Iceland and the Vatnajökull NP in particular as a means of carrying out such research.

Thirdly, this study revealed some interesting data concerning the values and beliefs of the surveyed stakeholders around protected areas (e.g. the VNP and DNP in particular). But as it only focused on a very limited examination of values in terms of conflict, communication and consensus, it would be interesting to conduct research on stakeholder values beyond the scope of the study's hypothesis. Further research could yield data on stakeholders' economic, environmental, and social-cultural values vis-à-vis the natural and human environment of the Vatnajökull National Park.

9.2 Participation

Other research in Iceland has focused on public participation with regards to environmental projects (see Árnadóttir, 2002; Ögmundarson, 2009). It would be interesting to see how these results could be used in Iceland for the management of protected areas in order to

improve the situation for stakeholders caused by conflicts. The outreach of the results in this research towards Japan would be open for another research project.

Research on the values of stakeholders presented in this thesis also suggests that further research needs to be done on how to improve public participation. Though the human aspect of conflicts was this study's primary focus, it did not focus in depth on participation as a means to reduce conflicts. It would be also interesting, therefore, to see how the motivation to participate among stakeholders could be increased. Venues and communication among stakeholders, as a part of participation in conflict management of PA are in general important tools to resolve conflicts. The establishment of an advisory board as an assembly of stakeholders for the management of protected areas (see chapter 8.2) could help in this regard.

As this study only touched upon stakeholder analysis and public participation, it would be interesting to conduct research focusing on the influence culture has on communication and its forms, on the exchange of information and on participation in Iceland, and preferably also Japan. Such research would be interesting as preparation for public meetings in both countries. Conducting research on public meetings is valuable, since Harrington (2008) suggests a stakeholder analysis focusing on the influence of community and Sauer (2008) describes beliefs, interests, and resources of stakeholders as important in conflicts. The literature on these aspects of stakeholder interaction in Iceland is very limited or not available as an English online publication for this research. The literature on the similar aspects with regards to protected areas in Japan had similar limitations.

Since the literature was limited on stakeholder participation in both countries, but due to the fact many NGOs and NPOs have been very active, especially at the Daisetsuzan NP, it would also be very interesting to conduct research on grassroots movements in Iceland and their role in the management of protected areas and in rural communities, as well as on the influence of tourism on stakeholders of PAs.

9.3 Management of Protected Areas

This study did implement the results of the literature research, but did not actually put the learning of the literature and survey into and adaption of the management process or the conservation plan of the PA in Japan and Iceland. It would be still interesting to conduct a study on the process of implementing the 3C's model in the management of a particular protected area such as the Vatnajökull NP. It would also be of scientific interest to follow the implementation of conflict management techniques and execute a future assessment of the process at sites in Iceland and Japan to validate the findings.

The focus of this thesis was to compare the management of protected areas by using, for the most part, the examples of the Vatnajökull NP in Iceland and the Daisetsuzan NP in Japan. The results from that comparison indicated some basic differences in the approach to the management of a national park, especially in terms of ownership of the land (in terms of an individual and society), the perception of self, public participation, and communication. It could be of interest to examine other examples of national parks in Japan to confirm the similarity or difference to the management of selected PA in Iceland and to examine other cross-learning possibilities in these countries, especially with respect to conflict, communication and consensus. Such research could lead to improvements within the management of protected areas in Iceland and Japan alike.

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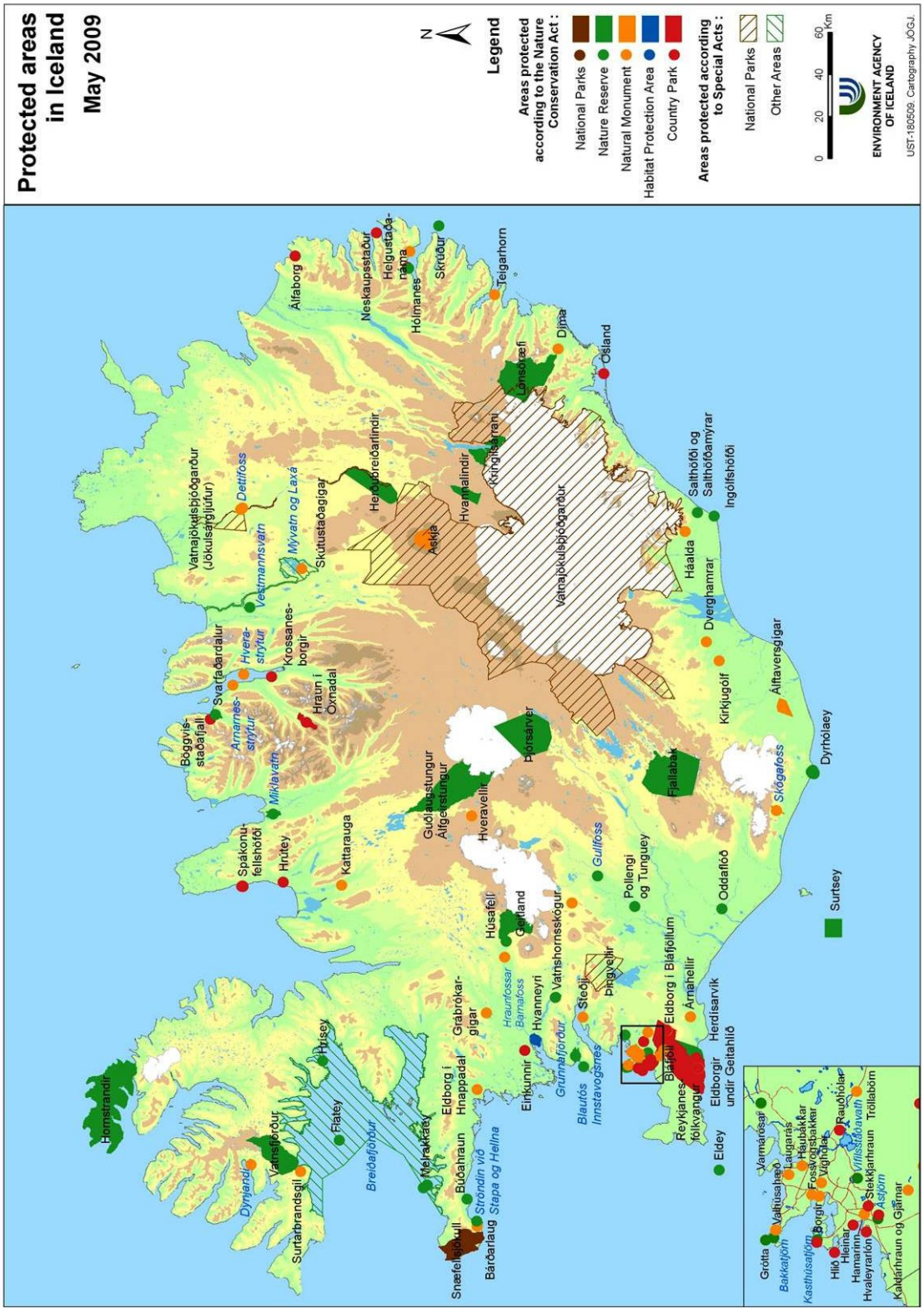
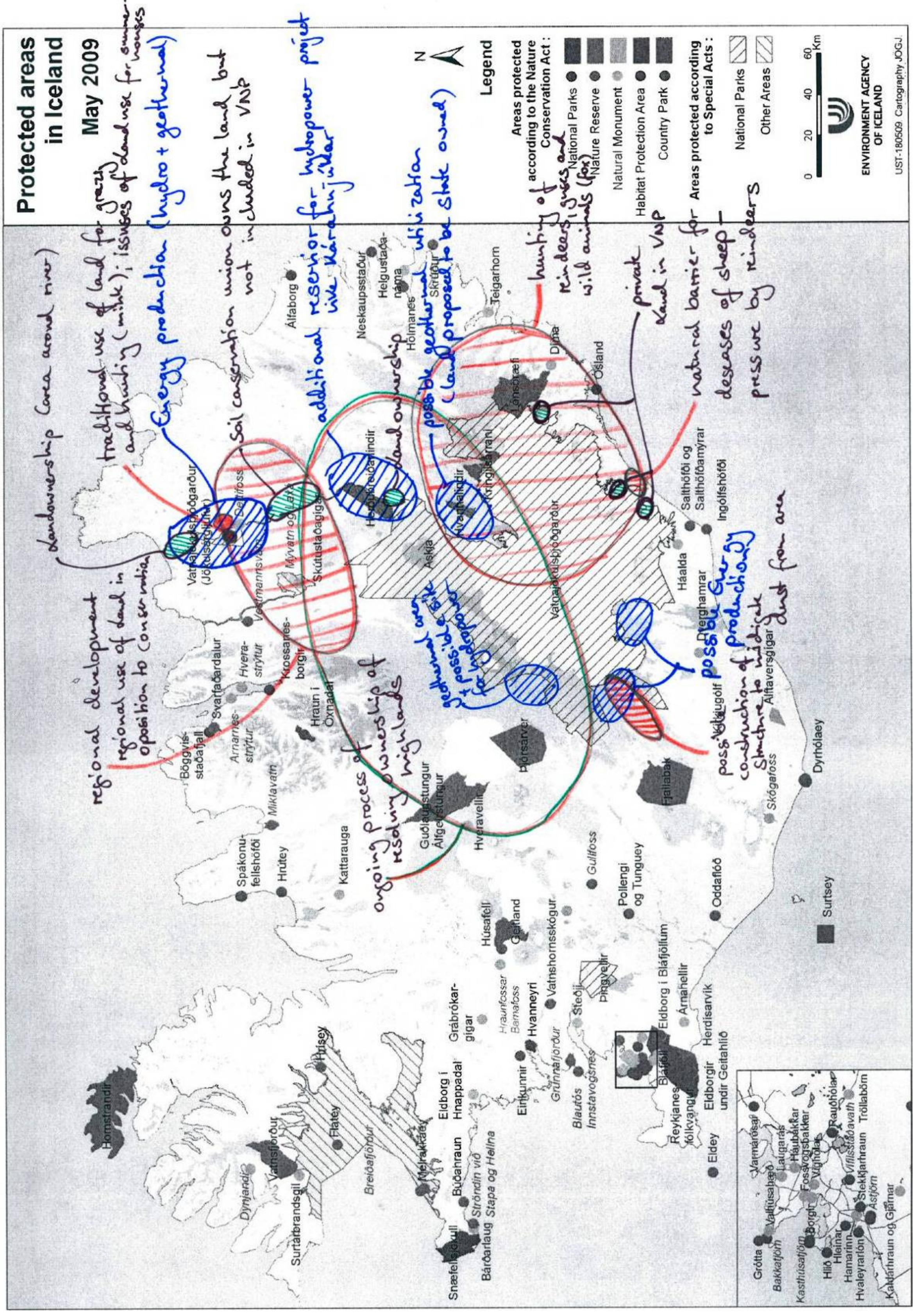
Appendix A

Map of Protected Areas in Iceland

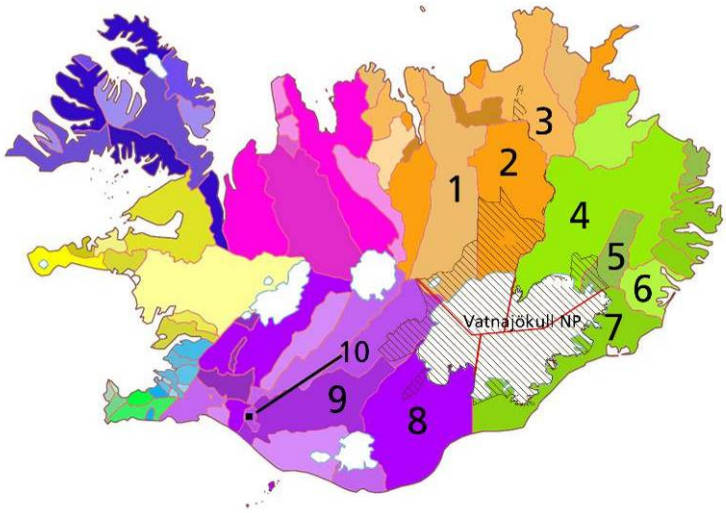


Map of possible Conflict Situation around the Vatnajökull NP



Appendix B

Population and Population Density in Icelandic Municipalities around the Vatnajökull NP



Map of Icelandic municipalities - Including borders of the Vatnajökull NP and indicating the borders of the four areas of the Vatnajökull NP (based on Landmælingar Íslands, adaption own; LMÍ, 2008)

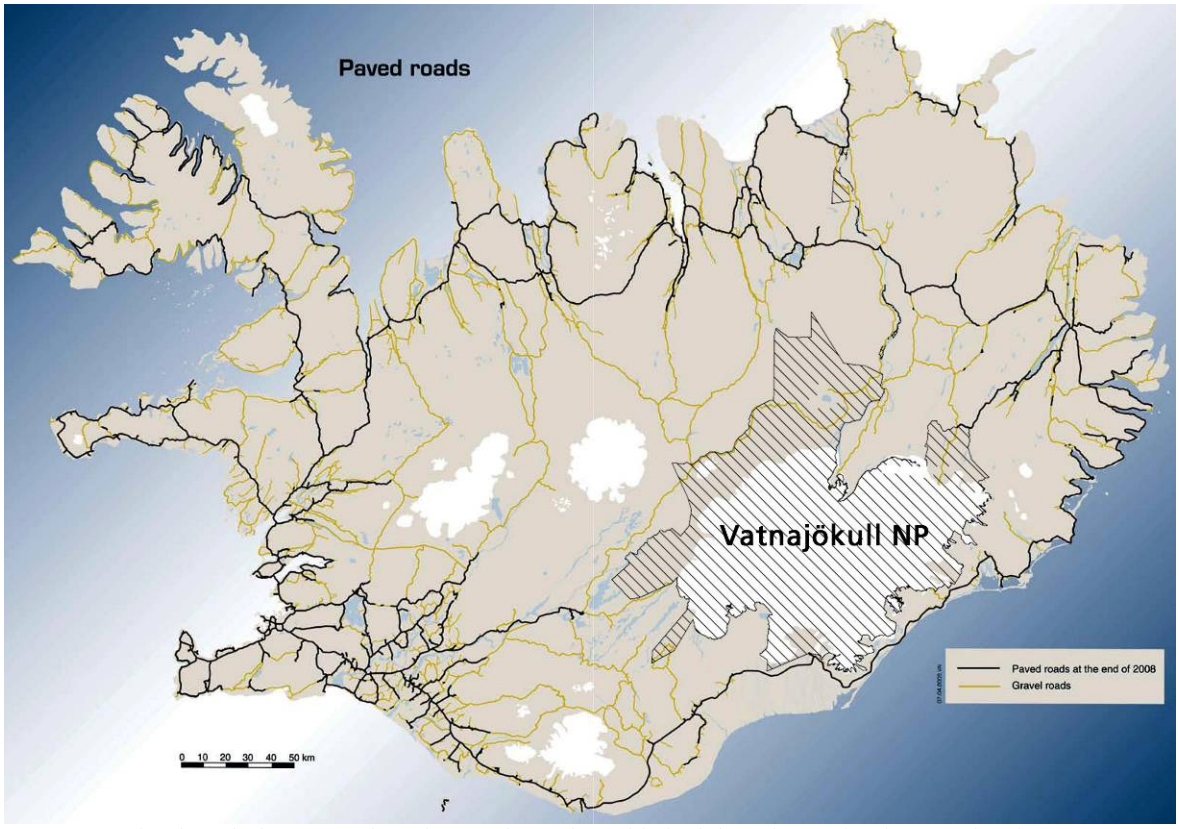
It seems important to take *Djúpavogshreppur* and *Rangárþing ytra* into account, because even though parts of that municipality are not included in the Vatnajökull NP, the population of these municipalities does have an interest in the decision-making process, as indicated in the conflict map (see *Figure 9*).

Municipalities Surrounding the Vatnajökull NP including Population, Size and Population Density Information (Data by 2008; LMÍ, 2008)

Nr:	Municipality	Population	Size [km2]	Density [p/km2]
1	Þingeyjarsveit	945	6.004,7	0,16
2	Skútustaðahreppur	388	6.034,3	0,06
3	Norðurþing	2.998	3.754,9	0,80
4	Fljótsdalshérað	3.707	8.916,6	0,42
5	Fljótsdalshreppur	143	1.528,5	0,09
6	Djúpavogshreppur	456	1.153,2	0,40
7	Hornafjörður	2.110	6.317,0	0,33
8	Skaftárhreppur	467	6.905,4	0,07
9	Rangárþing ytra	1.610	3.177,0	0,51
10	Ásahreppur	182	2.965,9	0,06
	North area of the Vatnajökull NP (municipality nr. 1-3)	4.331	15.793,9	0,27
	East area of the Vatnajökull NP (municipality nr. 4-5)	3.850	10.445,1	0,37
	South area of the Vatnajökull NP (municipality nr. 6-7)	2.566	7.470,2	0,34
	West area of the Vatnajökull NP (municipality nr. 8-10)	2.259	13.048,3	0,17
	Reykjavikurborg	117.721	277,1	424,83

As indicated in table above, all four areas of the Vatnajökull NP have almost the same low population density, compared to the capital area. Still they vary in their population density significantly from each other. In general, it can be said that many of the mentioned municipalities suffer from a loss of population due to migration to other areas of the country, because of lack of future income opportunities. This increases the pressure on rural development schemes and therefore on the environment, which in result may cause conflicts.

Road System in Iceland (Primary and Secondary Roads)



Map of Iceland including paved and gravel roads published by The Icelandic Road Administration – boarders of the Vatnajökull NP: own (Vegagerðin, 2009)

Appendix C

Questionnaire – Graduate Students Háskóli Íslands

Questionnaire

This questionnaire is divided into two major parts. Please answer these questions as precise as possible. If there are multiple answers possible, it will be mentioned! Please answer the open questions as precise and short as possible. Thank you!

1. Personal questions

¤ Female ¤ Male Date of questionnaire:

1-1 Age

¤	16 – 24	¤	31 – 35	¤	40 – 49		
¤	25 – 30	¤	36 – 39	¤	50 – 59	¤	60 and older

1-2 Education (highest)

¤	University	¤	Junior College	¤	High-school	¤	other

1-3 Profession (current)

¤	Farmer	¤	Business	¤	Tourism	¤	Student
¤	Service	¤	Government	¤	Science	¤	other

1-4 For how long have you lived in this area?

1-5 Nation of birth

2.

2-1 I don't feel very much related to my neighbours and the people in my municipality.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-2 I feel strongly related to the landscape in the area where I live at the moment.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-3 The land surrounding me is a resource to earn income for me and the future generations.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-4 My children should have the opportunity to live in this area and earn their income here.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-5 The beauty and uniqueness of nature is a primary reason for foreign tourists to visit my area.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-6 *Energy intensive industries are a much more profitable way of using the natural resources of my area than tourism.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-7 *Energy intensive industry is helping my municipality and me to sustain my living here.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-8 *I have very important knowledge that would help developing the business of the area for the benefit of my children.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-9 *I don't accept that protecting the nature has to create stricter regulations for businesses and me.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-10 *I am afraid that the board of the national park is not making decisions in the interest of local business and people.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-11 *I am well informed about the important decisions made by the management of the national park.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-12 *My opinion is not represented by the members of the regional boards.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-13 *My interests are only represented if I take an active role in the decision making of the Vatnajökull NP (for example by participating in public meetings).*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-14 *It is important that I take part in the decision making of the Vatnajökull NP*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-15 *Everybody in Iceland should be asked to participate in the decision making of the Vatnajökull NP.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-16 *I avoid taking part in public meetings because I feel that my opinions are not taken seriously.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-17 *Public meeting are useful in order to make my opinion on and ideas for the development of the Vatnajökull NP heard.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-18 *I don't take part in public meetings because I feel that my ideas are not important enough.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-19 *Open discussions in a public meeting help me understand other people's position and solve differences we have with each other.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-20 *It is important that only people from my municipality collaborate to solve problems related with the national park we have in our area.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-21 *I would be happy if national and international NGOs would be more active in helping to protect the nature in the area I am living and working.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-22 *It is very important for Iceland as a nation to have a well recognized national park like the Vatnajökull NP.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-23 *I think that the management of the national park should mainly focus on protecting the nature.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-24 *Nature can only be protected if the government is taking care of nature conservation.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-25 *It is my spiritual obligation to help protecting nature from destruction.*

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

Additional comments?

Thank you!

Results of Questionaire

question 1-1 til 1-3 are counted from 1 til 8 — questions 2-1 til 2-25 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

Date	03.04.2009				-2	4	0	0	0	0	9	4	0	0	0	6	0	1	0	3	1	0	6	0	1	0	2	0	4	2
Results	female				-1	13	0	2	0	0	13	10	3	3	2	10	7	4	2	11	17	5	18	2	10	5	2	9	4	0
	17	5	1	5	0	1	0	1	0	0	2	5	5	5	2	5	5	1	1	2	3	1	1	0	5	5	1	2	4	6
	male				1	10	10	18	12	10	4	9	17	16	15	9	14	18	15	8	5	17	5	22	14	17	16	13	12	11
	14	3	1	5	2	3	21	10	19	21	3	3	6	6	11	1	5	6	13	7	5	8	0	7	1	4	10	7	6	12
					9	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0

Participant	Female/Male	1-1	1-2	1-3	1-4	1-5	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25
1	f	5	1	7	30	Iceland	-1	2	2	1	2	-2	0	1	0	1	-2	2	2	2	1	1	1	-2	1	-1	1	2	1	1	2
2	f	5	1	2			2	2	-1	2	2	-1	-1	0	-1	-1	-1	0	2	2	-1	-1	2	-1	2	1	2	2	1	2	2
3	f	4	1	6	36	Iceland	2	1	1	2	2	-1	1	-1	0	0	-2	-1	-1	1	1	1	-1	1	1	1	2	1	1	1	1
4	f	6	1	3	50	Iceland	1	2	2	1	2	-1	-1	1	1	-1	1	-1	-1	1	-1	-1	1	-1	1	0	1	1	1	0	1
5	f	3	1	3	10	Iceland	-1	2	2	2	1	2	2	2	1	2	2	-1	1	2	-1	2	1	-1	1	1	0	-1	0	0	0
6	m	5	1	6			-1	1	1	1	2	1	1	-1	1	1	1	2	1	2	2	2	-1	1	1	-1	-1	1	1	1	1
7	f	2	1	3	9	Iceland	-2	2	-1	2	2	2	2	2	1	1	-1	1	2	2	1	-1	1	-1	1	1	1	1	-1	-1	1
8	f	3	1	6	32	Iceland	2	2	1	1	2	0	0	0	1	1	0	1	1	1	2	-1	1	-1	2	0	1	1	2	0	0
9	f	6	1	7	10		-1	2	2	2	2	-1	-1	2	0	1	1	-1	1	1	-1	-1	2	-1	1	1	0	1	1	1	1
10	m	6	3	1		Iceland	1	2	2	2	1	1	1	1	2	2	-1	1	0	0	-2	2	-1	-2	-1	1	1	-2	-1	-2	0
11	f	5	1	8	30	Iceland	-1	2	1	1	2	-2	1	1	2	9	-1	2	2	1	-2	2	2	0	1	-1	2	2	2	2	0
12	m	5	1	8		Iceland	1	2	2	2	2	-1	-1	1	2	2	-1	1	1	1	-1	-1	2	-1	1	1	-1	-2	1	2	1
13	m	5	1	6		Iceland	1	1	2	2	2	-1	1	1	1	1	1	1	1	1	-1	-1	1	-1	1	-1	1	1	-1	9	1
14	f	5	1	3	16	Iceland	-1	2	1	2	2	-2	-2	2	1	2	-1	1	1	1	1	-1	1	-1	1	1	1	1	1	-1	1
15	m	2	1	6	3	Iceland	-1	2	1	1	1	-1	-1	2	2	1	-2	1	1	1	1	-1	-1	-1	-1	1	1	2	-1	1	2
16	f	5	1	3			-1	2	2	2	2	-1	-1	2	2	2	1	1	1	2	1	-1	2	-1	2	1	1	2	2	2	2
17	f	5	1	4		Iceland	-1	2	2	2	1	-2	-2	1	1	1	-1	1	2	2	-1	1	1	-2	1	2	2	1	2	1	2
18	f	3	1	8		Iceland	1	2	1	1	1	-1	-1	1	1	1	-1	-1	1	1	-1	-1	1	-1	1	1	1	-1	-1	1	1
19	f	5	1	6	30	Iceland	1	1	1	1	2	-2	-2	0	1	0	0	0	1	-1	-1	-1	2	-1	2	1	1	1	2	2	2
20	f	3	1	3	3	Iceland	-2	2	1	2	2	-2	-2	0	-1	2	-2	-1	-1	2	0	1	1	-2	1	0	1	2	1	1	2
21	f	3	1	7	10	Iceland	-1	2	1	2	2	-2	-1	1	0	2	0	1	1	1	0	-1	1	-1	1	0	1	2	1	2	2
22	m	3	1	7	4	Iceland	0	1	1	1	2	1	2	1	2	2	-1	0	1	1	2	0	0	-2	1	1	1	1	-1	-1	1
23	m	2	1		20	Luxembourg	1	2	1	2	1	-1	-1	1	1	2	1	-1	9	2	2	-1	1	9	1	1	1	1	2	1	2
24	f	2	1	8			-1	2	1	1	1	0	0	0	0	1	1	1	1	2	-1	0	1	-1	1	0	1	1	0	0	0
25	m	5	1	2		Iceland	-2	1	1	1	1	-1	-1	1	1	1	0	0	1	2	2	1	2	-1	2	-1	-1	2	-1	-1	2
26	m	3	1	6			1	1	1	1	1	1	1	-1	1	1	1	0	1	1	2	-1	1	1	1	-1	1	1	1	1	1
27	m	3	1	8	30	Iceland	1	1	1	2	2	-2	0	1	-1	1	0	2	2	-1	-2	-2	2	-2	1	-2	0	1	-1	-2	2
28	m	3	1	3	10	Iceland	1	2	0	2	2	2	1	1	1	2	-2	1	1	2	1	2	1	1	2	-1	0	0	2	-2	0
29	m	3	1	3		Iceland	-1	1	1	2	1	-1	0	1	1	2	-1	1	-2	1	1	0	1	-1	1	-1	0	1	1	1	2
30	m	3	1	3	35	Iceland	-2	2	1	2	2	-1	1	1	1	1	-2	2	-1	2	2	-1	-1	-1	2	-1	-1	2	-1	-2	-2
31	m	4	1	3	39	Iceland	-1	1	2	2	2	-2	1	1	9	1	1	1	1	1	-1	-1	1	1	1	-1	-1	2	1	1	-2

Statistics of Questionaire

question 1-1 til 1-3 are counted from 1 til 8 questions 2-1 til 2-25 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

	Female/Male	1-1	1-2	1-3	1-4	1-5	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20	2-21	2-22	2-23	2-24	2-25		
Date	03.04.2009					-2	4	0	0	0	0	9	4	0	0	0	6	0	1	0	3	1	0	6	0	1	0	2	0	4	2	43	5,5%
Results	female					-1	13	0	2	0	0	13	10	3	3	2	10	7	4	2	11	17	5	18	2	10	5	2	9	4	0	152	19,6%
	17	5	1	5		0	1	0	1	0	0	2	5	5	5	2	5	5	1	1	2	3	1	1	0	5	5	1	2	4	6	63	8,1%
	55%					1	10	10	18	12	10	4	9	17	16	15	9	14	18	15	8	5	17	5	22	14	17	16	13	12	11	317	40,9%
	male					2	3	21	10	19	21	3	3	6	6	11	1	5	6	13	7	5	8	0	7	1	4	10	7	6	12	195	25,2%
	14	3	1	5		9	0	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	0	1	0	0	0	0	0	1	0	5	0,6%
	45%																															775	
1	16-24	0	0%		stror	-2	13%	0%	0%	0%	0%	29%	13%	0%	0%	0%	19%	0%	3%	0%	10%	3%	0%	19%	0%	3%	0%	6%	0%	13%	6%		
2	25-30	4	13%		disa	-1	42%	0%	6%	0%	0%	42%	32%	10%	10%	6%	32%	23%	13%	6%	35%	55%	16%	58%	6%	32%	16%	6%	29%	13%	0%		
3	31-35	11	35%		no o	0	3%	0%	3%	0%	0%	6%	16%	16%	16%	6%	16%	16%	3%	3%	6%	10%	3%	3%	0%	16%	16%	3%	6%	13%	19%		
4	36-39	2	6%		agre	1	32%	32%	58%	39%	32%	13%	29%	55%	52%	48%	29%	45%	58%	48%	26%	16%	55%	16%	71%	45%	55%	52%	42%	39%	35%		
5	40-49	11	35%		stror	2	10%	68%	32%	61%	68%	10%	10%	19%	19%	35%	3%	16%	19%	42%	23%	16%	26%	0%	23%	3%	13%	32%	23%	19%	39%		
6	50-59	3	10%		empt	9	0%	0%	0%	0%	0%	0%	0%	0%	**3%**	**3%**	0%	0%	**3%**	0%	0%	0%	0%	**3%**	0%	0%	0%	0%	0%	**3%**	0%		
7	60+	0	0%			sum	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31		
							100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
1	University		30																														
2	Junior College		0			-1	**55%**	0%	6%	0%	0%	**71%**	**45%**	10%	10%	6%	**52%**	23%	16%	6%	45%	**58%**	16%	**77%**	6%	35%	16%	13%	29%	26%	6%		
3	High-school		0			0	3%	0%	3%	0%	0%	6%	16%	16%	16%	6%	16%	16%	3%	3%	6%	10%	3%	3%	0%	16%	16%	3%	6%	13%	19%		
4	other		1			1	42%	**100%**	**90%**	**100%**	**100%**	23%	39%	**74%**	**71%**	**84%**	32%	**61%**	**77%**	**90%**	**48%**	32%	**81%**	16%	**94%**	**48%**	**68%**	**84%**	**65%**	**58%**	**74%**		
1	Farmer			1																													
2	Service			2																													
3	Business			10																													
4	Government			1																													
5	Tourism			0																													
6	Science			7																													
7	Student			4																													
8	other			5																													
	empty			1																													
	time in area (average) - years				21																												
	empty				12																												
	Iceland					24																											
	Luxemburg					1																											
	empty					6																											

Appendix D

Seminar Ísafjörður

Applying a 4-dimensional model like described in Jónasson's PhD thesis (Jónasson, 2005), it is possible to access more information of the participants with regards to conflicts, communication, and consensus:

Intrapersonal dimension (within oneself): For the participants, the ownership of land is a very important issue. The freedom to do what they want on their own land plays a vital role in their living close to or within a protected area. They are strongly anchored in the land they are living in and the participants feel a strong relationship to nature. Nature tells them a lot about the history, their way of living, and what ought to be done in order to keep the environment at its present stage. The income from utilizing nature is regarded as not that important as preserving nature.

Interpersonal dimension (relationship to others): Participants expressed their sense for community and the importance of working together for a greater good, even thought they also valued non-interfering by others with their own interests. For example, nobody is forbidden to go on the shoreline even though it is privately owned (no fences are allowed and the shoreline has a quasi-common status), trespassing and camping for one night is allowed, whereas charging by third parties for on ones private land is forbidden. Tourists are welcome, but the participants are concerned about the vision of tourists and their intentions to visit the area.

Suprapersonal dimension (relation to governance): The participants expressed that it is important for them to have a protected area. The protected area has to have a high standard of regulation and ought to be highly recognized by others. They do not see regulations as a limiting factor, but rather an encouragement for a concerned use of the area. Some participants indicated that in a small, close community, individuals can represent different interests, depending on their involvement in interest groups. Preserving the area of Hornstrandir as a national park (as planed by the municipality and The Environmental Agency of Iceland – *Umhverfisstofnun*) is understood as a positive approach, because it would give more importance to the area and help preserving the northern Westfjords area. The participants from the Westfjords also indicated that their area ought not to be forgotten in terms of development planning.

Transpersonal dimension (spiritual relationship / significance of heritage): For the participants of the seminar, the land in the north of the Westfjords is seen as important historically area which opens the opportunity to tell the history form ancestors to preserve it for coming generations. This valuation of the area might arise from an historical perspective for the local community, since the residents from the Hornstrandir area abandoned farming and fishing there around the 1950's. Preserving the environment is not only important for the livelihood of the landowners and inhabitants, but also for the future generations. Nature is understood as untouched nature, worth keeping at the status as found. Still natural events are considered with a strong anthropocentric view. Nature is a servant for human interests.

Questionnaire Ísafjörður

Questionnaire

Please answer all questions as precise as possible. If there are multiple answers possible, it will be mentioned! Please answer the open questions as precise and short as possible. Thank you!

1. Personal questions

¤ Female ¤ Male Date of questionnaire:

1-1 Age

¤ 16 – 24 ¤ 31 – 35 ¤ 40 – 49
¤ 25 – 30 ¤ 36 – 39 ¤ 50 – 59 ¤ 60 and older

1-2 Education (highest)

¤ University ¤ Junior College ¤ High-school ¤ Other:

1-3 Profession (current)

¤ Farmer ¤ Business ¤ Tourism ¤ Student
¤ Service ¤ Government ¤ Science ¤ Other:

1-4 How many years are you living in this area?

1-5 Nation of birth

2.

2-1 I enjoy having wilderness and nature around my living area.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-2 I would like to move away in order to have a better job opportunity.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-3 The establishment of a protected area is important for me.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-4 If you agree with the statement 3 please specify what is important for you, if disagree, why is it not important?

2-5 I live in an active and engaging community.

¤ strongly disagree ¤ Disagree ¤ agree ¤ strongly agree ¤ no opinion

2-6 It is important for my living quality to have an engaging community.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-7 Our community is strong enough to resolve problems themselves.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-8 I am interested in new people visiting my area.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-9 It is important to utilize nature for the best of human interests.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-10 Nature can only be protected if the government is taking care of nature conservation.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-11 Creating a protected area is a process in which the involvement of the local people is important.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-12 The management of protected areas should be in the hands of local people.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-13 As a citizen it is important to actively engage the elected representatives to work in my interest.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-14 Nature is a gift for human enjoyment and pleasure.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-15 It is my duty to take care of nature for the coming generations.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-16 I have the responsibility to keep my impact on nature as little as possible.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-17 It is the responsibility of a community to respect nature.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-18 Nature is a sacred ground we ought to use thoughtfully.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

2-19 Additional comments:

2-20 My understanding of others intentions and values increased after a public meeting.

¤ strongly disagree ¤ disagree ¤ agree ¤ strongly agree ¤ no opinion

Thank you!

Result of Questionnaire – Seminar Ísafjörður

Answers

Results of Questionaire

question 1-1 til 1-3 are counted from 1 til 8 — questions 2-1 til 2-25 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answ

Response Results																														
	55%					-2	0	1	0		1	1	0	0	0	0	1	0	1	1	1	1	1		0
	female					-1	0	5	1		0	1	4	0	3	5	0	2	2	1	0	0	0		1
	5	2	1	7		0	0	2	1		1	1	4	0	1	0	0	1	1	2	0	0	0		4
	male					1	2	4	3		5	3	2	9	5	6	3	8	5	5	1	2	3	6	6
	7	3	1	6,1		2	10	0	7		5	6	2	3	2	1	8	1	3	3	10	9	8	5	1
						9	0	0	0		0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
							12	12	12		12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Participant	Female/Male	1-1	1-2	1-3	1-4	1-5	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
1	m	3	1	7	1	USA	2	-1	2		2	2	-1	1	9	-1	1	-1	1	-2	2	2	2	2	-1
2	m	6	1	5	47	Iceland	2	-1	2		2	2	2	2	2	1	2	1	2	2	2	2	2	2	1
3	f	2	1	7	2	Finland	2	-2	2		1	2	-1	2	-1	-1	2	1	-1	1	2	2	1	1	1
4	m	1	1	7	0	USA	2	0	1		-2	-2	0	1	1	1	-2	1	-2	0	-2	-2	-2	-2	0
5	f	2	2	2	30	Iceland	2	-1	1		2	2	1	1	1	1	1	1	1	1	2	2	1	1	1
6	f	2	1	3	0	Beligan	2	1	2		1	2	0	1	0	1	2	1	1	2	2	2	2	2	2
7	m	3	1	8	2	Iceland	1	-1	2		1	1	-1	1	-1	2	1	1	1	-1	1	1	2	1	0
8	m	5	1	4	40	Iceland	2	1	-1		2	-1	2	1	1	-1	2	2	-1	1	2	1	1	1	0
9	m	u	1	6	3	Italy	2	-1	2		1	1	-1	2	2	-1	2	1	2	2	2	2	2	2	1
10	f	3	1	4	1	Iceland	2	1	2		0	0	0	1	-1	1	2	1	0	1	2	2	2	1	1
11	m	2	1	6	24	Iceland	2	0	0		2	2	1	1	1	1	2	-1	2	0	2	2	2	2	1
12	f	1	1	7	1	USA	1	1	1		1	1	0	1	1	-1	2	0	1	1	2	2	2	1	0
13																									
14																									
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22																									

Statistics of Questionaire

question 1-1 til 1-3 are counted from 1 til 8 questions 2-1 til 2-25 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

	Female/Male	1-1	1-2	1-3	1-4	1-5	2-1	2-2	2-3	2-4	2-5	2-6	2-7	2-8	2-9	2-10	2-11	2-12	2-13	2-14	2-15	2-16	2-17	2-18	2-19	2-20
Respons	55%					-2	0	1	0		1	1	0	0	0	0	1	0	1	1	1	1	1	1		0
Results	female					-1	0	5	1		0	1	4	0	3	5	0	2	2	1	0	0	0	0		1
	5	2	1	7		0	0	2	1		1	1	4	0	1	0	0	1	1	2	0	0	0	0		4
	42%					1	2	4	3		5	3	2	9	5	6	3	8	5	5	1	2	3	6		6
	male					2	10	0	7		5	6	2	3	2	1	8	1	3	3	10	9	8	5		1
	7	3	1	6,14		9	0	0	0		0	0	0	0	1	0	0	0	0	0	0	0	0	0		0
	58%																									
1	16-24	2	17%		stron	-2	0%	8%	0%		8%	8%	0%	0%	0%	0%	8%	0%	8%	8%	8%	8%	8%	8%		0%
2	25-30	4	33%		disag	-1	0%	**42%**	8%		0%	8%	**33%**	0%	25%	42%	0%	17%	17%	8%	0%	0%	0%	0%		8%
3	31-35	4	33%		no op	0	0%	17%	8%		8%	8%	**33%**	0%	8%	0%	0%	8%	8%	17%	0%	0%	0%	0%		33%
4	36-39	0	0%		agree	1	17%	33%	25%		**42%**	25%	17%	**75%**	**42%**	**50%**	25%	**67%**	**42%**	**42%**	8%	17%	25%	**50%**		**50%**
5	40-49	1	8%		stron	2	**83%**	0%	**58%**		**42%**	**50%**	17%	25%	17%	8%	**67%**	8%	25%	25%	**83%**	**75%**	**67%**	42%		8%
6	50-59	1	8%		empt	9	0%	0%	0%		0%	0%	0%	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%
7	60+	0	0%			sum	12	12	12		12	12	12	12	12	12	12	12	12	12	12	12	12	12		12
							100%	100%	100%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%
1	University		11	92%																						
2	Junior College		1	8%		-1	0%	**50%**	8%		8%	17%	**33%**	0%	25%	42%	8%	17%	25%	17%	8%	8%	8%	8%		8%
3	High-school		0	0%		0	0%	17%	8%		8%	8%	**33%**	0%	8%	0%	0%	8%	8%	17%	0%	0%	0%	0%		33%
4	other		0	0%		1	**100%**	33%	**83%**		**83%**	**75%**	**33%**	**100%**	**58%**	**58%**	**92%**	**75%**	**67%**	**67%**	**92%**	**92%**	**92%**	**92%**		**58%**

1	Farmer	0	
2	Service	1	
3	Business	1	
4	Government	1	
5	Tourism	1	
6	Science	2	
7	Student	4	
8	other	2	
	empty	0	
	time in area (average) - years	13	
	empty	0	
	Iceland		6
	Belgium		1
	USA		3
	Finland		1
	Italy		1

Appendix E

Questionnaire – Stakeholders of the Vatnajökull NP

Questionnaire

This questionnaire is specifically designed for Iceland in order to assess your personal thoughts about the area of the Vatnajökull National Park. The questions try to access what is important for you individually in terms of conflicts, communication and consensus building, with regards to the management of the national park and the land of the national park.

The results of this questionnaire shall help to develop better suggestions within my master thesis for the management of the Vatnajökull National Park and for other national parks and protected areas around the globe. All information provided by the participants will be handled confidential and anonymous!

Please indicate your stand point to the statements as precise as possible. There are no multiple statements possible! Keep in mind that you would have been asked to participate in a workshop because ***you as an individual represent your organizations***. Therefore, make your statements in the questionnaire as ***directly and personal*** as possible.

1. Personal questions

¤ Female ¤ Male

Date of questionnaire:
Name of Organization:

1-1 Age

¤ 16 – 24	¤ 31 – 35	¤ 40 – 49	
¤ 25 – 30	¤ 36 – 39	¤ 50 – 59	¤ 60 and older

1-2 Education (highest)

¤ University	¤ Junior College	¤ High-school	¤ Other:

1-3 Profession (current)

¤ Farmer	¤ Business	¤ Tourism	¤ Student
¤ Service	¤ Government	¤ Science	¤ Other:

1-4 How many years do you live at the current place?

1-5 Nation of birth

2. Definition of used terms

- ***VNP =*** abbreviation of Vatnajökull National Park; it is the land (including natural resources, fauna and flora as well as the landscape itself) of the Vatnajökull National Park
- ***Management of the VNP =*** are the people and parties (NGO's, municipalities and agencies) involved in managing and decision-making for the VNP
- ***Stakeholder =*** are people, organizations, and agencies which have a direct interest in a particular area, **and** have something at stake due to decision-making over that area.
- ***Community =*** is a groups of individuals, families, and organizations which share a strong belonging feeling towards each other and the area of living (e.g. the people living in the Westfjords, the Icelandic nation, the scientific community).
- ***Local community =*** are the individuals and families which share the same area of living close by the VNP and have a strong belonging feeling towards each other and the area of living close by the VNP (e.g. the people living in the city of Höfn or around the lake Mývatn).

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3. Questions

Nr.	***Conflict*** *"Conflicts are a form of disagreement and can be described as situations opposite or divergent opinions, values, and interests can have different formal expressions (e.g. armed conflict, diplomatic conflict, legal conflict, conflict within a relationship, or interpersonal conflict)"*	*strongly disagree*	*disagree*	*agree*	*strongly agree*	*no opinion*
3-1	*I believe that the future of the management of the VNP does not involve conflicts*	¤	¤	¤	¤	¤
3-2	*I believe that the future use of the natural resources within the VNP will provoke conflicts*	¤	¤	¤	¤	¤
3-3	*I see conflict in the future management of the VNP because my personal interests are likely to be dismissed*	¤	¤	¤	¤	¤
3-4	*There are stakeholders that are in conflict with me because they think differently about what matters to me regarding the VNP*	¤	¤	¤	¤	¤
3-5	*It is very likely that a conflict arises regarding the management of the VNP within my community because there are conflicting interests among us*	¤	¤	¤	¤	¤
3-6	*Conflicts concerning the management of the VNP will always be part of our daily life in the community*	¤	¤	¤	¤	¤
3-7	*The conflicts concerning nature within the VNP reduce my living quality*	¤	¤	¤	¤	¤
3-8	*Nature within the VNP has a right in its own, therefore, the interests of the community are in conflict with the interest of nature*	¤	¤	¤	¤	¤
3-9	*There is no conflict between nature and the needs of the community, because nature within the VNP is there for us to exploit it*	¤	¤	¤	¤	¤
3-10	*The conflicts regarding the VNP reminds us that the VNP is there to restrict us from destroying nature*	¤	¤	¤	¤	¤
3-11	*Conflicts can arise regarding the VNP because not all understand that the VNP is a sacred ground*	¤	¤	¤	¤	¤
3-12	*Conflicts can arise due to the fact that the majority of land of the VNP belongs not to the local community but to the Icelandic nation*	¤	¤	¤	¤	¤
3-13	*Conflicts can arise due to the fact that the resources within the VNP do not belong to the local community but to humanity at large*	¤	¤	¤	¤	¤

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Communication

	"Communication includes all form of interaction (verbal = spoke communication and non-verbal = written communication, facial expression and acting) among individuals."	*strongly disagree*	*disagree*	*agree*	*strongly agree*	*no opinion*
3-14	*I do have a clear vision about the future managing of the VNP*	¤	¤	¤	¤	¤
3-15	*It is easy for me to communicate my vision of the future management of VNP to others*	¤	¤	¤	¤	¤
3-16	*My vision of future management of the VNP forms better if I communicate it with others*	¤	¤	¤	¤	¤
3-17	*Stakeholders of the VNP do openly communicate their interests to one another*	¤	¤	¤	¤	¤
3-18	*When stakeholders of the VNP communicate with one another it helps them to understand their interest related to the future management of the VNP*	¤	¤	¤	¤	¤
3-19	*Venues should be created where the stakeholders of the VNP can communicate their interests regarding the future management of the VNP*	¤	¤	¤	¤	¤
3-20	*Legislative and regulatory agencies should define the future management of the VNP and communicate it to the stakeholders*	¤	¤	¤	¤	¤
3-21	*It is important that local stakeholders communicate their interests in order to make an impact on the decision-making process regulating the management of the VNP*	¤	¤	¤	¤	¤
3-22	*It is my democratic right to communicate my interest and to participate in decision-making which affects my living*	¤	¤	¤	¤	¤
3-23	*Communication about the future of the VNP should be based on a mutual understanding of all stakeholders*	¤	¤	¤	¤	¤
3-24	*The future of the management of the VNP should be founded on open communication where all stakeholders have equal status*	¤	¤	¤	¤	¤
3-25	*As stewards of nature we are obliged to communicate our feelings to one another so we can better fulfil our duty to take care of nature for the coming generations*	¤	¤	¤	¤	¤

Consensus

	"Consensus is a form of agreement among participants of negotiations or discussions. It can be seen as an expression of a common understanding or the formation of a mutual agreement on aspects of the conflict situation."	*strongly disagree*	*disagree*	*agree*	*strongly agree*	*no opinion*
3-26	*I think of consensus when I think about the future management of the VNP*	¤	¤	¤	¤	¤
3-27	*My feelings about the future management of the VNP are in consensus in the feelings of other stakeholders*	¤	¤	¤	¤	¤
3-28	*I sense inner harmony or consensus when I enjoy having untouched wilderness and nature around me*	¤	¤	¤	¤	¤
3-29	*Stakeholders living close by the VNP are willing reach consensus in their decision making*	¤	¤	¤	¤	¤
3-30	*Consensus building regarding the VNP is what we should aim for within the local community of the VNP*	¤	¤	¤	¤	¤
3-31	*The local community of the VNP can only protect the nature within the VNP if it builds consensus among all its members*	¤	¤	¤	¤	¤
3-32	*Nature within the VNP can best be protected, not through local consensus building, but by laws on conservation by the government*	¤	¤	¤	¤	¤
3-33	*Law and regulations about the VNP are important because they will lead to a consensus building among stakeholders*	¤	¤	¤	¤	¤
3-34	*Consensus within the community of stakeholders is the best way to formulate better regulations for the VNP*	¤	¤	¤	¤	¤
3-35	*As nature is at stake within the VNP, we must reach a consensus.*	¤	¤	¤	¤	¤
3-36	*We must include all other opinions if we want to form consensus about the management of the VNP*	¤	¤	¤	¤	¤
3-37	*Consensus about the management of the VNP has to include all stakeholders and include common respect and love*	¤	¤	¤	¤	¤

Thank you!

Final Comments:

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Result of Questionnaire – Stakeholders of the Vatnajökull NP

Answers

Results of Questionaire

question 1-1 til 1-3 are counted from 1 til 8 questions 3-1 til 3-37 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

Respor	41%						-2	3	0	4	0	2	1	6	2	6	2	4	1	1	0	0	1	2	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	1	0	1	0	0	42	6%	
Results	female						-1	15	6	8	4	5	5	6	7	9	5	2	4	5	3	1	2	5	0	0	4	0	0	1	5	1	4	6	2	3	0	6	9	3	1	2	4	3	146	20%	
	8	42%	4,6	1	5		0	0	0	5	6	7	4	3	4	2	4	5	5	5	2	3	2	6	2	2	4	0	3	1	7	2	3	9	5	9	1	3	1	5	2	3	5	3	133	18%	
	male						1	2	10	3	10	4	9	3	4	3	6	8	9	8	12	14	13	7	14	11	8	11	7	9	4	9	10	5	6	6	12	7	6	10	13	8	8	9	298	40%	
	11	58%	4,9	1	4		2	0	4	0	0	2	1	1	3	0	3	1	1	1	3	2	2	0	4	6	3	9	10	9	4	8	3	0	6	2	6	4	2	1	4	6	3	5	119	16%	
							9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0%	
								20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	740		
Questi	**f/m**		**1-1**	**1-2**	**1-3**	**1-4**	**1-5**	**3-1**	**3-2**	**3-3**	**3-4**	**3-5**	**3-6**	**3-7**	**3-8**	**3-9**	**3-10**	**3-11**	**3-12**	**3-13**	**3-14**	**3-15**	**3-16**	**3-17**	**3-18**	**3-19**	**3-20**	**3-21**	**3-22**	**3-23**	**3-24**	**3-25**	**3-26**	**3-27**	**3-28**	**3-29**	**3-30**	**3-31**	**3-32**	**3-33**	**3-34**	**3-35**	**3-36**	**3-37**	**mi**	**ma**	**av**
1	m		3	1	6	4	Iceland	-2	2	0	0	0	2	2	1	-2	-1	0	0	0	1	1	1	-2	1	2	2	2	2	2	0	2	-1	0	0	2	2	2	2	2	2	2	1	2	-2	2	1
2	m		3	1	5	1	Iceland	-1	-1	-1	1	0	0	-1	-1	-1	-1	1	1	1	1	1	1	-1	1	1	1	1	1	2	-1	1	1	-1	1	1	1	1	-1	1	1	1	1	1	-1	2	0
3	m		6	1	3	11	Iceland	-1	1	-1	1	-1	-1	-2	-2	-2	-2	-2	-2	-2	0	1	-2	1	1	1	1	1	1	1	-1	-1	0	0	-1	0	1	-1	1	0	1	-1	1	-1	-2	1	-0
4	f		7	1	2	0	Iceland	-1	1	-1	-1	0	0	1	2	-1	-1	-1	1	1	1	1	1	0	2	1	-2	1	2	1	0	1	1	0	-2	0	-2	0	-1	0	1	-2	0	0	-2	2	0
5	f		5	1	5	1	Iceland	-1	1	0	1	1	-2	0	0	-2	0	-2	0	0	1	1	1	-1	1	1	1	1	2	1	1	2	0	0	2	0	1	1	-1	-1	2	1	-1	1	-2	2	0
6	m		5	1	4	10	Iceland	1	-1	-1	1	-1	1	-1	-1	1	-1	1	1	1	1	1	1	-1	1	1	0	1	1	0	0	1	1	1	0	-1	1	1	-1	1	1	0	1	1	-1	1	0
7	m		6	1	4	16	Iceland	-1	1	-1	0	-1	1	-1	-1	-1	1	1	-1	-1	1	1	0	0	1	9	-1	1	1	-1	-1	1	1	-1	1	0	1	-1	1	1	-1	1	-1	-1	-1	9	0
8	m		5	1	4	4	Iceland	-1	-1	1	1	1	1	-2	-1	1	-2	-2	1	-1	1	1	-1	1	1	1	-1	1	0	2	-1	1	1	-1	-1	-1	1	-1	-2	-2	1	1	-1	1	-2	2	-0
9	m		7	X	2	27	Iceland	1	-1	-2	1	-2	-1	1	-1	-1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	1	2	1	1	2	1	2	2	-2	1	2	2	1	2	-2	2	1
10	m		3	1	4	24	Iceland	-2	-1	1	1	-1	1	-2	2	1	2	2	-1	-1	2	2	2	1	1	2	1	2	2	2	2	2	1	-1	2	2	1	-1	1	1	1	-1	0	-1	-2	2	1
11	f		3	1	8	5	Iceland	-1	1	-2	1	1	-1	1	1	-1	1	1	-1	-1	-1	1	-1	1	1	2	-1	2	2	1	1	1	-1	-1	1	1	2	-1	-1	1	1	1	-1	1	-2	2	0
12	f		6	1	8	12	Iceland	-1	2	-1	-1	0	0	-1	0	0	-1	0	0	0	-1	-1	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	-1	2	0
13	m		6	1	X	8	Iceland	-1	2	-2	1	0	0	9	-1	-2	2	0	1	1	1	1	1	-1	1	2	-1	2	2	2	2	1	1	1	1	-1	1	1	1	-1	1	2	2	2	-2	9	1
14	f		5	1	2	14	Iceland	-2	-1	1	1	1	1	-1	2	-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	2	2	-1	1	1	1	2	-1	1	1	2	0	1	-2	2	1
15	f		2	1	3	3	Iceland	-1	1	0	0	0	1	0	0	-1	0	0	0	0	1	0	1	0	1	0	1	1	1	1	1	1	-1	0	1	0	1	1	1	1	1	1	1	1	-1	1	0
16	f		3	1	8	11	Iceland	-1	2	0	0	-2	1	-2	1	-1	0	1	2	2	-1	0	1	0	2	2	1	2	0	2	0	2	-1	0	2	0	2	-1	2	0	0	2	2	1	-2	2	1
17	m		5	1	5	9	Canada	-1	1	-1	0	-1	1	-1	1	-2	1	-1	1	1	1	1	1	-2	2	1	1	2	2	2	2	2	2	1	2	1	1	1	-1	1	1	2	1	2	-2	2	1
18	f		6	1	3	4	Iceland	-1	1	-2	-1	2	1	-2	-2	-2	2	1	1	1	2	1	1	1	2	1	2	2	2	2	2	2	2	0	2	0	2	2	-1	1	2	1	2	2	-2	2	1
19	m		4	3	1	38	Iceland	-1	1	-1	-1	2	-1	-2	-1	-1	1	-2	-1	-1	2	2	2	-1	1	1	0	2	2	1	0	1	1	1	0	1	2	1	-1	-1	1	1	1	1	-2	2	0
20	m		4	1	2	3	Iceland	-1	1	0	0	0	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	-1	1	0

Statistics of Questionaire

question 1-1 til 1-3 are counted from 1 questions 2-1 til 2-25 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

Female/Ma	1-1	1-2	1-3	1-4	1-5	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	3-32	3-33	3-34	3-35	3-36	3-37
Respo 39%	19				-2	3	0	4	0	2	1	6	2	6	2	4	1	1	0	0	1	2	0	0	1	0	0	0	0	0	0	0	1	0	1	0	2	1	0	1	0	0
Result female					-1	14	6	8	4	5	4	6	7	9	5	2	4	5	3	1	2	5	0	0	4	0	0	1	5	1	4	6	2	3	0	6	9	3	1	2	4	3
8	5	1	5		0	0	0	4	5	6	4	2	3	1	3	4	4	4	1	2	1	5	1	1	3	0	3	1	6	1	2	8	4	8	1	2	0	4	1	2	4	2
42%					1	2	9	3	10	4	9	3	4	3	6	8	9	8	12	14	13	7	14	11	8	10	6	8	4	9	10	5	6	6	11	7	6	10	13	8	8	9
male					2	0	4	0	0	2	1	1	3	0	3	1	1	1	3	2	2	0	4	6	3	9	10	9	4	8	3	0	6	2	6	4	2	1	4	6	3	5
11	5	1	4		9	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58%																																										
1 16-24	0	0%		strong	-2	16%	0%	21%	0%	11%	5%	32%	11%	32%	11%	21%	5%	5%	0%	0%	5%	11%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	5%	0%	5%	0%	11%	5%	0%	5%	0%	0%
2 25-30	1	5%		disagr	-1	74%	32%	42%	21%	26%	21%	32%	37%	47%	26%	11%	21%	26%	16%	5%	11%	26%	0%	0%	21%	0%	0%	5%	26%	5%	21%	32%	11%	16%	0%	32%	47%	16%	5%	11%	21%	16%
3 31-35	5	26%		no op	0	0%	0%	21%	26%	32%	21%	11%	16%	5%	16%	21%	21%	21%	5%	11%	5%	26%	5%	5%	16%	0%	16%	5%	32%	5%	11%	42%	21%	42%	5%	11%	0%	21%	5%	11%	21%	11%
4 36-39	1	5%		agree	1	11%	47%	16%	53%	21%	47%	16%	21%	16%	32%	42%	47%	42%	63%	74%	68%	37%	74%	58%	42%	53%	32%	42%	21%	47%	53%	26%	32%	32%	58%	37%	32%	53%	68%	42%	42%	47%
5 40-49	5	26%		strong	2	0%	21%	0%	0%	11%	5%	5%	16%	0%	16%	5%	5%	5%	16%	11%	11%	0%	21%	32%	16%	47%	53%	47%	21%	42%	16%	0%	32%	11%	32%	21%	11%	5%	21%	32%	16%	26%
6 50-59	4	21%		empty	9	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7 60+	2	11%				19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
1 University	18	95%																																								
2 Junior College	0	0%			-1	89%	32%	63%	21%	37%	26%	63%	47%	79%	37%	32%	26%	32%	16%	5%	16%	37%	0%	0%	26%	0%	0%	5%	26%	5%	21%	32%	16%	16%	5%	32%	58%	21%	5%	16%	21%	16%
3 High-school	1	5%			0	0%	0%	21%	26%	32%	21%	11%	16%	5%	16%	21%	21%	21%	5%	11%	5%	26%	5%	5%	16%	0%	16%	5%	32%	5%	11%	42%	21%	42%	5%	11%	0%	21%	5%	11%	21%	11%
4 other	0	0%			1	11%	68%	16%	53%	32%	53%	21%	37%	16%	47%	47%	53%	47%	79%	84%	79%	37%	95%	89%	58%	100%	84%	89%	42%	89%	68%	26%	63%	42%	89%	58%	42%	58%	89%	74%	58%	74%
1 Farmer			1	5%																																						
2 Service			3	16%																																						
3 Business			3	16%																																						
4 Government			4	21%																																						
5 Tourism			3	16%																																						
6 Science			1	5%																																						
7 Student			0	0%																																						
8 other			3	16%																																						
empty			0	0%																																						
time in area (average) - ye				9,56																																						
empty				0																																						
Iceland					18	95%																																				
Canada					1	5%																																				

Appendix F

Questionnaire – Stakeholders of the Daisetsuzan NP

大雪山国立公園の管理に関する意識調査

このアンケートは、アイスランドのバトナ氷河国立公園地域において地域の関係者に行った調査と同じ内容で、大雪山国立公園の管理における合意形成のあり方について、みなさまのお考えをうかがうものです。アイスランドと日本の学術的な比較のために実施するものです。

大雪山国立公園の管理に関係のある団体や個人に送らせていただいております。回答される方の個人的なお考えに基づいてご回答ください。結果は学術論文及びアイスランド大学の修士論文としてまとめます。みなさんのお答えをそのまま公開することはありませんし、各機関・団体等を代表する意見として扱うこともいたしません。ご協力よろしくお願いします。

調査主体：アイスランド大学　修士課程　ハラルド・シャラー

調査協力：北海道大学大学院農学研究院　愛甲哲也

問い合わせ先：電話 011-706-2452　電子メール tetsu@res.agr.hokudai.ac.jp　（愛甲）

1. 個人的質問

¤ 男性　¤ 女性　　アンケート記入日:
機関名:

1-1 年齢

¤ 16 – 24　¤ 31 – 35　¤ 40 – 49
¤ 25 – 30　¤ 36 – 39　¤ 50 – 59　¤ 60 以上

1-2 最終学歴

¤ 大学・大学院　¤ 短期大学　¤ 高等学校　¤ その他:

1-3 大雪山国立公園との関わり

¤ 国の職員　¤ 道の職員　¤ 市町村の職員　¤ 研究者
¤ 観光事業者　¤ 市民団体　¤ 山岳会　¤ 山岳ガイド
その他（　　）

1-4 何年ぐらい現在のお仕事に携わっていますか?

1-5 出身地

2. 文中での用語の定義

- ***利害関係者*** = その地域から直接または間接的に利益を得たり、業務の上で関係している人々や団体、機関のこと
- ***コミュニティー***=住んでいる場所や、関心を持っている物事に対して、つながりの意識を持っている集まり
- ***地域のコミュニティー*** = ある一定の地域に住む個人や家族が、住んでいる場所や関心を持っていることで意識的につながっている集まり

3. 質問

	対立について *「対立」とは、意見や価値観に反対の意見や様々な意見があり、不一致が生じている状況のこと*	*全くそう思わない*	*そう思わない*	*そう思う*	*強くそう思う*	*意見なし*
3-1	*将来の大雪山国立公園の管理において、意見の対立が起こることはないと思う*	¤	¤	¤	¤	¤
3-2	*将来、大雪山国立公園での自然資源（動物･植物･景観など）の利用について、意見の対立が起こることがあると思う*	¤	¤	¤	¤	¤
3-3	*私が関心を持っている事が大雪山国立公園の管理において取り上げられることはないために、将来の管理について意見の対立があると思う*	¤	¤	¤	¤	¤
3-4	*大雪山国立公園に関して自分と関心のあることが異なるために、自分と意見が対立する利害関係者がいる*	¤	¤	¤	¤	¤
3-5	*地域のコミュニティーにおいて様々な関心事があるために、大雪山国立公園の管理に関して地域コミュニティーで意見の対立が生じやすい*	¤	¤	¤	¤	¤
3-6	*大雪山国立公園の管理に関しての意見の対立は、コミュニティーにおいては日常的におきることである*	¤	¤	¤	¤	¤
3-7	*大雪山国立公園内での自然資源（動物･植物･景観など）に関しての意見の対立は、自分の生活の質を落とすと思う*	¤	¤	¤	¤	¤
3-8	*大雪山国立公園内での自然資源（動物･植物･景観など）はそれ自身が権利をもっており、コミュニティーの関心事と対立を引き起こすことがあると思う*	¤	¤	¤	¤	¤
3-9	*大雪山国立公園内での自然資源（動物･植物･景観など）は活用するためにあるので、コミュニティーのニーズと自然との間には対立はない*	¤	¤	¤	¤	¤
3-10	*大雪山国立公園の管理において、意見の対立がおきると、大雪山国立公園のおかげで自然破壊が抑制され、制限されていると気づく*	¤	¤	¤	¤	¤
3-11	*大雪山国立公園に関する意見の対立がおきるのは、大雪山は聖なる土地であり敬意を払うべきだと必ずしも全員が思っていないためだ*	¤	¤	¤	¤	¤
3-12	*ほとんどの大雪山国立公園の土地は地域コミュニティーに属するのではなく、国や北海道のものであるため、その管理に対して意見の対立が生ずる可能性があると思う*	¤	¤	¤	¤	¤
3-13	*大雪山国立公園内の自然資源（動物･植物･景観など）は地域コミュニティーに属するものではなく、もっと広範な人類に寄与するものであるために、意見の対立が生ずる可能性がある。*	¤	¤	¤	¤	¤

コミュニケーション

「コミュニケーション」とは、個人や団体の間で口頭や書面で交わされる相互の意見や態度、価値観の交換のことをさします

		全くそう思わない	そう思わない	そう思う	強くそう思う	意見なし
3-14	私は、将来の大雪山国立公園の管理に関して、はっきりした目標をもっている	¤	¤	¤	¤	¤
3-15	自分の将来の大雪山国立公園の管理の目標を、簡単に他人に伝えることができる	¤	¤	¤	¤	¤
3-16	私の将来の大雪山国立公園の管理に対する目標は、他の人々や団体とコミュニケーションをとることで、より良くなると思う	¤	¤	¤	¤	¤
3-17	大雪山国立公園の利害関係者はお互いの利益について率直に、オープンにコミュニケーションをとっていると思う	¤	¤	¤	¤	¤
3-18	大雪山国立公園の利害関係者がコミュニケーションをとると、将来の管理に関する関心事について、お互いの理解を深めることができると思う	¤	¤	¤	¤	¤
3-19	大雪山国立公園の利害関係者が、将来の管理に関するお互いの関心事について話し合うときには、お互いの立場や意見は尊重されるべきである	¤	¤	¤	¤	¤
3-20	関係する行政機関は、将来の大雪山国立公園の管理目標を明示し、利害関係者と話し合いをもつべきである	¤	¤	¤	¤	¤
3-21	大雪山国立公園の管理について決定をする際には、地域の利害関係者がお互いの関心事について話し合うことが重要だと思う	¤	¤	¤	¤	¤
3-22	自身が関心をもつことを伝え、自身の生活に影響を及ぼす事項の決定に参加することは、私の民主主義上の権利である	¤	¤	¤	¤	¤
3-23	将来の大雪山国立公園についてのコミュニケーションは、すべての利害関係者の相互理解に基づいて行われるべきである	¤	¤	¤	¤	¤
3-24	将来の大雪山国立公園の管理は、すべての利害関係者が平等の立場で、オープンに行われたコミュニケーションの結果に基づくべきである	¤	¤	¤	¤	¤
3-25	大雪山国立公園の自然を次の世代に橋渡しする役をになうものとして、私たちの気持についてお互いに話し合う義務があり、その結果、次の世代のためにより良い自然を残す義務をはたすことができると思う	¤	¤	¤	¤	¤

合意（コンセンサス）

	「合意」とは、交渉またはディスカッションの参加者によって、意見が対立した場合に、共通の認識を得たり、意見の一致に至ることを意味します	*全くそう思わない*	*そう思わない*	*そう思う*	*強くそう思う*	*意見なし*
3-26	*将来の大雪山国立公園の管理には、利害関係者の合意が必要だと思う*	¤	¤	¤	¤	¤
3-27	*将来の大雪山国立公園の管理についての印象は、他の利害関係者が持っている印象と一致する必要があると思う*	¤	¤	¤	¤	¤
3-28	*手つかずの原生的な自然を楽しんでいると、私は心の調和を感じる*	¤	¤	¤	¤	¤
3-29	*大雪山国立公園の地域に住む利害関係者は、管理に関わる事項を決定する際に、合意をはかろうとすると思う*	¤	¤	¤	¤	¤
3-30	*大雪山国立公園についての合意形成は、大雪山国立公園の地域コミュニティーにおいて行われるべきである*	¤	¤	¤	¤	¤
3-31	*大雪山国立公園の地域コミュニティーは、すべてのメンバー間で合意形成ができてこそ、大雪山国立公園内の自然を守ることができると思う*	¤	¤	¤	¤	¤
3-32	*大雪山国立公園内の自然が一番よく守られる方法は、地元での合意形成ではなく、政府による法律にもとづいた管理によるものであると思う*	¤	¤	¤	¤	¤
3-33	*利害関係者間で合意形成に導くためには、大雪山国立公園についての法律や規制は重要であると思う*	¤	¤	¤	¤	¤
3-34	*利害関係者のコミュニティーでの合意は、大雪山国立公園の管理を行うための最も良い方法だと思う*	¤	¤	¤	¤	¤
3-35	*大雪山国立公園内では自然が危うい状況にあるため、私たちは合意形成をすすめる必要があると思う*	¤	¤	¤	¤	¤
3-36	*大雪山国立公園の管理について合意を形成したいならば、私たちは他のすべての意見も含めなければならない*	¤	¤	¤	¤	¤
3-37	*大雪山国立公園の管理についての合意は、すべての利害関係者を含んだ上で、敬意と愛情をもってすすめるべきだと思う*	¤	¤	¤	¤	¤

その他、ご意見などありましたら、お書き下さい。

お忙しいところ、ご協力ありがとうございました。返信用封筒でご返送ください。

Result of Questionnaire – Stakeholders of the Daisetsuzan NP

Answers

Results of Questionaire

question 1-1 til 1-3 are counted from 1 til 8

questions 3-1 til 3-37 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

Partici	f/m	1-1	1-2	1-3	1-4	1-5	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	3-32	3-33	3-34	3-35	3-36	3-37	C	mi	ma	av
Respoi	52%					-2	10	1	2	2	2	1	3	3	3	1	5	1	1	3	4	1	3	1	1	1	1	0	1	2	1	3	3	0	0	4	2	1	1	2	1	2	2	75	4%		
Results	female					-1	28	9	15	12	15	13	32	14	34	12	14	18	6	12	19	3	30	5	1	3	2	4	13	16	4	6	17	3	15	13	17	24	4	6	11	16	6	472	26%	ICE	
	6 11%	4,4	2	4		0	3	2	12	9	8	7	7	8	3	11	7	4	5	5	3	3	6	4	2	5	2	11	6	3	6	3	7	6	4	3	2	4	1	5	4	5	6	192	11%	JP	
	male					1	5	27	13	21	17	23	4	21	7	22	22	24	31	23	19	31	7	35	34	25	32	26	22	21	25	27	19	22	26	24	24	12	31	29	25	19	25	820	45%	both	
	46 87%	5,6	1	4		2	2	9	2	4	5	4	0	2	1	2	0	0	5	5	3	10	2	3	9	13	11	6	6	6	11	9	0	17	1	3	3	4	10	4	7	6	8	193	11%		
	1 2%					9	1	1	5	1	2	1	3	1	1	1	1	2	1	1	1	1	1	1	2	2	1	2	1	1	2	1	3	1	3	2	1	4	2	3	1	1	2	61	3%		
							49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	1813			
1	m	5	1	3	13		-1	1	-1	-1	1	1	-1	1	-1	1	-1	1	1	-1	-1	1	1	1	1	1	1	1	1	1	1	1	-1	1	1	1	1	-1	1	1	1	1	1	x	-1	1	0
2	m	6	1	7	36		-2	1	9	1	1	1	9	1	-1	-1	1	9	1	1	1	1	-1	1	1	1	1	1	1	1	1	1	9	1	-1	9	1	9	1	9	1	-2	9	x	-2	9	2
3	m	6	3	6	40		1	-1	1	1	-1	1	-1	-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	1	1	1	1	1		-1	1	1
4	m	5	1	5	5		-2	1	-1	1	-1	-1	-1	-2	-1	-1	-1	1	1	1	1	-1	-1	1	1	1	1	1	1	-1	-1	1	-1	0	-1	0	-1	0	1	-1	-1	1	0		-2	1	-0
5	m	7	3	6	10		-2	2	1	2	2	1	-1	2	-1	1	1	1	2	1	1	1	-1	1	9	1	2	2	1	1	2	1	9	2	-1	1	2	-1	1	1	2	2	2	x	-2	9	1
6	m	6	1	2	18		0	-1	-1	-1	-1	-1	-1	-1	-1	1	1	1	1	-2	-2	1	0	1	1	0	-1	1	1	1	0	1	-1	1	9	-1	-1	-1	1	-1	-1	1	1		-2	9	0
7	f	2	1	1	5		-1	1	-1	1	0	1	-1	1	-1	2	-1	1	1	-1	-1	2	-1	0	1	1	1	0	0	1	1	0	-1	1	-1	1	-1	9	-1	1	1	-1	0		-1	9	0
8	m	6	3	4	10		-2	2	-2	1	1	1	-1	1	-2	-1	-2	-1	-1	2	1	2	1	2	2	2	2	1	1	1	1	2	1	2	1	1	1	0	9	2	1	2	2		-2	9	1
9	f	4	1		9		-1	1	9	1	-1	-1	-1	1	-1	-1	1	1	1	1	1	1	-1	1	1	9	2	1	1	1	9	1	1	1	1	1	1	1	1	1	1	1	1		-1	9	1
10	m	7	1	5	17		-1	1	1	1	1	1	-1	2	-1	1	1	1	1	1	-1	-1	-1	1	1	1	1	1	1	-1	1	9	9	9	9	9	9	9	9	9	9	9	9		-1	9	3
11	m	5	4	3	1		-1	1	-1	-1	1	1	-1	1	-1	1	-1	-1	-1	-1	-1	1	-1	1	1	1	1	1	-1	-1	1	1	-1	1	-1	1	1	1	1	1	1	1	-1		-1	1	0
12	m	6	3	2	7		-1	0	0	-1	0	0	1	0	0	0	1	-1	0	1	1	2	-1	1	2	2	2	1	2	2	2	2	1	2	1	2	1	-1	1	1	2	2	2		-1	2	1
13	m	7	1	4	39		9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	2	1	2	-1	-1	1	-1	2	1	2	2	2		-1	9	6
14	m	3	1	1	1		1	-1	-1	1	-1	-1	-1	-1	1	-1	-1	-1	1	1	1	1	-1	1	2	-1	1	1	1	1	1	1	1	-1	-1	1	1	-1	-1	1	-1	1	1		-1	2	0
15	m	2	3	5	11		2	2	-1	-2	-2	-2	-1	1	-1	1	1	-1	2	1	-2	2	-1	1	2	2	2	0	2	2	2	-2	-2	2	-1	2	2	-1	-1	-2	1	2	2		-2	2	0
16	m	3	3	5	2		1	-1	-1	-1	-1	-1	-1	-1	1	1	-1	-1	-1	-1	-1	1	-1	1	1	1	1	-1	1	1	1	0	0	1	1	1	1	-1	1	1	1	1	1		-1	1	0
17	m	7	1	6	15		-1	1	0	-1	1	-1	-1	1	-1	1	1	1	1	0	-1	1	0	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	1	0	1	-1	1		-1	1	0
18	m	4	1	2	13		-2	2	-1	-1	-1	1	-1	-1	-2	-1	-2	-1	1	-1	-2	1	-1	1	1	1	1	1	1	-1	-1	-1	-1	1	-1	-1	-1	1	1	-1	1	1	-1		-2	2	-0
19	m	6	1	8	18		-1	1	1	-1	-1	-1	-1	-1	-1	1	-1	0	1	-1	-1	1	-1	1	1	1	1	1	-1	-1	1	1	1	1	1	-1	-1	1	-1	1	-1	1	1		-1	1	0
20	m	2	3	3	5		-1	1	-1	0	0	0	-1	0	-1	0	0	1	1	1	1	2	-1	0	2	0	1	0	0	0	1	2	0	1	2	1	1	1	2	1	1	0	0		-1	2	0
21	m	5	1	1	27		-2	2	0	1	1	1	-1	1	-1	-1	-1	-1	1	1	1	1	-1	1	1	1	1	2	1	1	1	1	-1	2	-1	-1	-1	-1	1	1	-1	-1	-1		-2	2	0
22	m	6	1	8	20		-1	-1	1	0	0	0	0	0	-1	0	0	1	1	2	2	2	2	1	1	1	1	1	1	1	1	1	0	1	-1	1	-1	-2	-2	1	1	-1	-1		-2	2	0
23	m	7	4	6	45		1	1	-1	-1	-1	-1	-2	-2	1	1	1	-1	1	-1	-1	1	-1	1	1	1	1	-1	1	1	1	1	-1	1	1	1	1	-1	1	2	1	-1	1		-2	2	0
24	m	5	1	2	22		-1	1	1	1	-1	1	1	1	-1	1	1	1	1	1	-1	1	-1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	-1	2	1	2	1	2		-1	2	1
25	m	7	3	6	30		-2	2	1	1	2	2	-1	1	-1	1	1	1	1	-1	-1	2	-2	-1	1	2	2	2	2	2	2	2	1	2	1	2	2	-1	1	2	2	-1	2		-2	2	1
26	f	4	4	6	4		-2	1	-1	-1	-1	1	-1	-1	-1	-2	-2	-1	1	1	1	1	-2	1	1	1	1	1	1	-1	1	2	1	1	-1	1	1	-1	1	1	-1	-1	1		-2	2	0
27	m	7	3	5	30		-1	1	9	1	2	2	-1	1	-1	-1	1	-1	1	1	1	2	-1	1	1	2	2	1	-1	-1	1	-1	-1	1	-1	-1	-1	2	2	-1	1	-1	1	x	-1	9	1
28	m	6	3	6	10		-1	1	1	1	1	-1	-1	1	-1	1	1	0	0	-1	-1	1	-1	-1	-1	-1	-1	1	2	2	-1	-1	-1	1	1	1	-1	1	1	1	1	1	-1		-1	2	0
29	m	5	1	8	20		-1	1	0	0	-1	1	-1	-1	1	1	-1	1	1	1	1	-1	1	1	1	1	1	-1	-1	-1	2	1	1	2	1	-1	-1	1	1	-1	-1	1	1	x	-1	2	0
30	m	5	1	8	10		-1	1	0	0	0	0	0	0	-1	0	0	1	1	-2	0	0	0	1	0	2	1	0	0	-2	0	-2	-2	-1	9	-2	-2	1	2	-2	-1	-1	-2		-2	9	-0
31	m	2	1	5	5		-1	-1	9	1	1	-1	9	1	-1	-1	-2	1	1	1	-1	1	-2	1	2	2	2	9	1	-1	1	1	1	2	1	1	-1	-1	2	9	1	-1	-1		-2	9	1
32	m	6	1	8	15		-1	2	1	1	1	1	1	1	-1	-1	1	1	1	-1	-1	1	-1	-1	1	1	1	0	-1	-1	1	1	1	2	-1	-1	1	1	1	1	1	-1	1		-1	2	0
33	m	1	3	5	1		-1	-1	0	0	-1	-1	-1	-1	-1	0	1	1	1	-2	-2	0	-1	-1	1	0	1	1	1	1	0	1	-1	0	1	1	1	-1	1	1	0	0	1		-2	1	0
34	m	7	4	8	20		-1	1	1	1	-1	-1	-1	-1	-1	1	1	-1	1	2	1	1	1	1	1	2	2	2	2	2	2	2	1	2	1	1	1	2	2	1	1	1	2		-1	2	1
35	m	7	1	6	21		-1	1	1	-1	1	1	-2	1	-2	2	1	1	-2	2	2	2	-1	2	2	2	2	2	-1	1	2	1	-1	2	1	-2	1	1	1	1	2	1	1		-2	2	1
36	m	4	1	1	14		-1	-1	-1	1	2	1	-1	-1	-1	-1	-1	1	1	1	1	1	-1	-1	1	1	1	1	-1	-1	1	-1	-1	1	1	-1	-1	9	1	-1	1	-1	1	x	-1	9	0
37	m	7	3	6	35		1	-1	-1	-1	9	-1	-1	-1	1	1	-1	-1	-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-1	1	1	-1	1	1	x	-1	9	1
38	m	5	1	7	20		-1	1	0	2	2	2	0	0	-1	0	1	-1	-1	1	1	1	-1	0	1	1	1	1	0	-1	2	-1	-1	2	1	-1	-1	2	2	0	1	-2	1	x	-2	2	0
39	m	5	1	3	8		-1	1	0	0	1	1	-1	0	-1	1	1	-1	1	0	-1	1	-1	1	1	0	0	0	0	1	0	1	0	1	0	0	0	0	1	1	0	0	0		-1	1	0
40	m	7	1	8	2		-1	1	1	1	1	1	-1	1	-1	1	1	1	1	-1	-1	1	-1	2	1	2	1	1	-1	-1	2	-1	-1	2	1	-1	1	-1	2	2	2	-1	1		-1	2	0
41	m	6	3	1	35		2	-2	-2	-2	-2	2	0	-2	2	1	-2	-2	0	2	2	-2	2	-2	-2	-2	-2	0	-2	-2	-2	-2	-2	0	0	-2	-2	2	2	0	-2	2	-2	x	-2	2	-1
42	m	6	3	1	1		-1	1	0	1	1	1	1	-1	-1	0	-1	-1	-1	1	0	1	-1	1	1	1	1	0	-1	0	0	1	0	1	1	1	1	-1	1	1	1	1	1		-1	1	0
43	m	3	1	1	6		-1	1	-1	0	0	0	0	0	-1	0	0	0	0	0	-1	1	0	1	1	1	1	0	-1	-1	1	1	1	2	0	1	-1	-1	1	1	-1	-1	1		-1	2	0
44	m	2	1	1	1		-2	2	2	1	0	0	0	1	0	1	1	-1	2	1	-1	2	-1	1	2	2	2	1	-1	-1	2	2	1	0	1	-1	-1	-1	1	0	0	1	1		-2	2	1
45	m	5	1		3		0	2	1	1	1	1	-2	1	-1	-1	0	1	1	-1	1	1	1	1	1	-1	1	-1	-1	-1	-1	1	-1	-1	1	1	1	-1	1	1	1	0	0		-2	2	0
46	m	6	3	1	30		-1	1	0	0	-1	1	-1	1	1	0	0	1	1	0	-1	1	0	1	1	1	1	0	1	1	1	1	1	1	1	1	1	-1	1	1	-1	1	1		-1	1	0
47	f	6	3	8	18		-1	1	2	2	1	1	-1	1	-1	1	-1	1	2	1	-1	1	-1	1	2	2	1	1	-1	1	1	1	-1	1	1	-1	-1	1	1	1	1	-1	1	x	-1	2	1
48	f	2	3	3	6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
49	m	5	1	1	21		-2	1	0	2	1	1	-1	-1	-1	0	-1	-1	2	1	1	1	-1	1	1	2	1	2	2	2	2	2	0	2	-1	-2	-1	-1	1	1	1	-1	1		-2	2	0
50	m	3	3	1			-1	-1	0	0	-1	-1	-2	0	-1	1	1	-1	1	1	1	1	-1	1	1	1	1	0	0	0	1	-1	0	0	1	0	0	0	1	0	-1	0	0		-2	1	0
51	m	7	1	6	33		-1	1	-2	-1	-1	-1	1	1	-2	0	-1	1	-1	1	1	2	-1	1	2	2	2	1	1	1	1	1	1	2	1	-1	1	-1	-1	1	0	0	1		-2	2	0
52	f	6	3	8	7		-2	1	-1	1	9	1	1	1	-2	9	1	1	1	-1	-1	1	-1	2	2	2	2	2	2	2	2	1	1	2	1	-1	1	-2	1	-1	1	1	2		-2	9	1
53	-	6	1		18		-2	2	-1	1	1	1	-1	1	-2	-1	-1	1	1	1	1	2	-1	2	1	2	2	2	2	2	2	1	1	2	1	-1	-1	-1	2	1	1	1	1	x	-2	2	1
54																																															

Statistics of Questionaire

question 1-1 til 1-3 are counted from 1 til 8 questions 2-1 til 2-25 are counted from strong disagree (-2) to strong agree (2), no opinion (0) and insufficient answer (9)

Female/Ma	1-1	1-2	1-3	1-4	1-5	3-1	3-2	3-3	3-4	3-5	3-6	3-7	3-8	3-9	3-10	3-11	3-12	3-13	3-14	3-15	3-16	3-17	3-18	3-19	3-20	3-21	3-22	3-23	3-24	3-25	3-26	3-27	3-28	3-29	3-30	3-31	3-32	3-33	3-34	3-35	3-36	3-37
Respo 52%	53				-2	10	1	2	2	2	1	3	3	3	1	5	1	1	3	4	1	3	1	1	1	1	0	1	2	1	3	3	0	0	4	2	1	1	2	1	2	2
Result female					-1	28	9	15	12	15	13	32	14	34	12	14	18	6	12	19	3	30	5	1	3	2	4	13	16	4	6	17	3	15	13	17	24	4	6	11	16	6
6	4	2	4		0	3	2	12	9	8	7	7	8	3	11	7	4	5	5	3	3	6	4	2	5	2	11	6	3	6	3	7	6	4	3	2	4	1	5	4	5	6
11%					1	5	27	13	21	17	23	4	21	7	22	22	24	31	23	19	31	7	35	34	25	32	26	22	21	25	27	19	22	26	24	24	12	31	29	25	19	25
male					2	2	9	2	4	5	4	0	2	1	2	0	0	5	5	3	10	2	3	9	13	11	6	6	6	11	9	0	17	1	3	3	4	10	4	7	6	8
46	6	1	4		9	1	1	5	1	2	1	3	1	1	1	1	2	1	1	1	1	1	1	2	2	1	2	1	1	2	1	3	1	3	2	1	4	2	3	1	1	2
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2 25-30	6	11%		disagre	-1	57%	18%	31%	24%	31%	27%	65%	29%	69%	24%	29%	37%	12%	24%	39%	6%	61%	10%	2%	6%	4%	8%	27%	33%	8%	12%	35%	6%	31%	27%	35%	49%	8%	12%	22%	33%	12%
3 31-35	4	8%		no opir	0	6%	4%	24%	18%	16%	14%	14%	16%	6%	22%	14%	8%	10%	10%	6%	6%	12%	8%	4%	10%	4%	22%	12%	6%	12%	6%	14%	12%	8%	6%	4%	8%	2%	10%	8%	10%	12%
4 36-39	4	8%		agree	1	10%	55%	27%	43%	35%	47%	8%	43%	14%	45%	45%	49%	63%	47%	39%	63%	14%	71%	69%	51%	65%	53%	45%	43%	51%	55%	39%	45%	53%	49%	49%	24%	63%	59%	51%	39%	51%
5 40-49	11	21%		strongl	2	4%	18%	4%	8%	10%	8%	0%	4%	2%	4%	0%	0%	10%	10%	6%	20%	4%	6%	18%	27%	22%	12%	12%	12%	22%	18%	0%	35%	2%	6%	6%	8%	20%	8%	14%	12%	16%
6 50-59	15	28%		empty/	9	2%	2%	10%	2%	4%	2%	6%	2%	2%	2%	2%	4%	2%	2%	2%	2%	2%	2%	4%	4%	2%	4%	2%	2%	4%	2%	6%	2%	6%	4%	2%	8%	4%	6%	2%	2%	4%
7 60+	12	23%				49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49	49
1 University anc	30	57%																																								
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3 Highschool	19	36%			0	6%	4%	24%	18%	16%	14%	14%	16%	6%	22%	14%	8%	10%	10%	6%	6%	12%	8%	4%	10%	4%	22%	12%	6%	12%	6%	14%	12%	8%	6%	4%	8%	2%	10%	8%	10%	12%
4 other	4	8%			1	14%	73%	31%	51%	45%	55%	8%	47%	16%	49%	45%	49%	73%	57%	45%	84%	18%	78%	88%	78%	88%	65%	57%	55%	73%	73%	39%	80%	55%	55%	55%	33%	84%	67%	65%	51%	67%
1 National Governmer	11	21%																																								
2 Hokkaido Governme	4	8%																																								
3 Municipality Official	5	9%																																								
4 Scholar	2	4%																																								
5 Tourism Industry	7	13%																																								
6 NGO or NPO	10	19%																																								
7 Hiking Club	2	4%																																								
8 Mountain Guide	9	17%																																								
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Appendix G

Checklist for 3C's Model

Stage 1 – Conflict Assessment

	Objective	Specifications
¤	What is the object of conflict?	*What is the conflict about, what is its target, and what is the conflict object?*
¤	What are the causes for the conflict?	*Source of the conflict can be e.g. legal rights, communication, written communication, culture (see Borisoff & Victor, 1998)*
¤	What is the history of conflict?	*When did the conflict start? What was the starting point? Since when did the argument escalate? Who dropped in and out as participant of the conflict?*
¤	How is the environment of conflict?	*Culture, family bounds, setting of conflict – what is the place or area of the conflict?*
¤	Who are the directly involved participants of conflict? Who tried to influence the conflict, or who is influenced by the conflict?	*Execute a stakeholder analysis (see Mitchell, et al., 1997; Murray-Webster & Simon, 2008; WCD, 2000,:279):* - *Influence of stakeholders* - *Amount of stakeholders* - *Power of stakeholder* - *Awareness of power by stakeholder* - *Linkages between stakeholders* - *Existing rights of stakeholders*
¤	How can the culture of participants and culture of conflict be described?	*What is important for the participants? Who do they interact with each other? Are rituals attached to the conflict? How are the ritual addressed and shared among participants? Are the participants aware of the culture of the conflict?*
¤	How are information shared?	*Existing way of communication and dissemination of information, related to conflicts. Do behavioral and communicative patters exist? Are these patterns shared or recognized among participants? Are the participants aware of these patterns?*
¤	Culture of Information dissemination and processing	*Is the process synchronized with time and place of communication sharing and conflict?*
¤	SWOT analysis	*Every participant and stakeholder executes a SWOT (Strenght-Weakness-Oportunity-Thread) analysis of themselves and the other participants. What is the status quo?*
¤	Time constraints of conflict management	*Is there an urgency to resolve and deal with the conflict situation?*

Stage 2 – Communicative Process of Shaping Conflict into Consensus

	Objective	Specifications
¤	Sharing among stakeholders – Future vision of possible consensus	*Out of the stakeholder analysis, the representation of stakeholders has to be checked. Is everybody represented? Are power imbalances addressed? Is adequate time allowed for each stakeholder? Is the process transparent? Are the information shared freely? (see WCD, 2000:279 ff)*
¤	Outlook into the future	*What is going to happen? What has to be achieved for every individual? Every stakeholder expressed their vision? Include story telling, painting, and other creative approaches into this process What are the interests which have to be achieved by the individual or by the group, participating in the conflict?*
¤	What is important / not important and why?	*Agree on the appropriate structures and processes for decision-making, the required mechanisms for dispute resolution. Agree that the interests at stake and legitimate community needs are clearly identified, in particular on the basis of relevant rights and risks. Ensure that the available alternatives, their relevant consequences and uncertainties are given full consideration. (see WCD, 2000:279 ff.) Share information about the possible impact of future decisions and who is going to bare them.*
¤	Formulate a common way of communication	*How is information going to be shared? Are special preparation for information required (language, layout, format)? How is the possible input and output of information to and of all participants?*
¤	Formulate collaboratively the conduct of discussion and decision-making	*How is going to be in charge of the meeting? Is an external mediator for the future process necessary? Can a free, prior and informed consent be achieved and supported? (see WCD, 2000:279 ff) How are disturbances going to be addressed?*
¤	Participants in the communication / negotiation process	*Who of the stakeholders takes part and who does not? Why do they take part or not?*
¤	How is going to be the process facilitated?	*Strong oppositions within the conflict:* - *Reduce the amount of participants* - *Elect representatives (see workers negotiations)* - *Select and vote on 3rd party who is going to be the decision-maker* *Wide spread conflict (area or amount of participants):* - *Is consensus through non-public participation necessary?* - *Are different sessions necessary?* - *Is it useful to break down the whole process into smaller sessions?*
¤	How can stakeholders participate in the process?	*Offer different ways of participation:* - *Personal participation* - *Representative participation (elected or voted representative – suggested representation)* - *Written participation* - *Online / Telecommunicate participation*

Stage 3 – Formulated Consensus

	Objective	Specifications
¤	Formulate a common way of future communication	*How is information going to be shared? Are special preparation for information required (language, layout, format)? How is the possible input and output of information to and of all participants? How are the information among stakeholders and the management of the VNP going to be shared?*
¤	How can stakeholders participate in the future with the management of the VNP?	*Offer different ways of participation:* - *Personal participation* - *Representative participation (elected or voted representative – suggested representation)* - *Written participation* - *Online / Telecommunicate participation* - *Official involvement into the management of the VNP – Advisory Board*
¤	What is included / excluded?	*What are the issues to be changed? How much and to which extend do they have to be changed?*
¤	Who is included / excluded?	*How are the key stakeholders? Who will be in charge of the change-process? Who could influence (positive or negative) the future process?*
¤	What have been the results and agreed objectives of the consensus?	*What was the outcome of the consensus formation? How has it to be written down? Is it possible to formulate a list of achievable objectives, for each participant and stakeholder to use? What can each participant take home as a learning experience?*
¤	Timeframe of the process	*When does the process have to end? What the urgency according to the conflict assessment? Collaborative discussion on possible timeframe. How can it be ensured that the timeframe is followed? How to handle with unforeseen? When should a next follow up meeting take pace? Is it important to have a process implemented, where follow up meetings have to be scheduled?*
¤	What was the personal development and learning?	*What did participants learn throughout the communications? Did it change their way of thinking? What would be the follow up objectives? Would it be necessary to have additional learning and teaching sessions, so that participants can handle conflicts on a more regular basis themselves? What did the participants learn in order to reduce the risk of escalating conflicts?*

Appendix H

The 4-Stages-Approach – Explanation of the Four Stages

Conflict Emerging

The initial stage or the stage of consensus and quasi-consensus can be described as a stage in which the participants do share a mutual understanding of the conflict situation and express no signs of conflict. Still, conflicts and disagreements may not be surfaced yet, even though aspects of the object or interest may be seen to a low level shared in the same way by all participants. This can then lead in a later stage and due to further input into this environment to a higher stage of escalation. Nevertheless this stage is categorized by a low level of open disagreement, the possibility for an honest and open discussion, as well as the aspect of constructive self organizing and managing of a conflicting situation.

Disagreement and Constructive Argument

The next escalation stage or the stage of disagreement and constructive argument is categorized by the aspects of open disagreement and argument about conflicting positions. Still the dispute is expressed in a constructive and open discussion and may therefore be seen as a modest form of discussion. Nevertheless this stage inherits already the possibility of further escalation, especially when no measures are taken to reduce the impact on individuals, environment as well as inputs to the conflict. Hence the disagreement can be managed with the team and does not necessarily reach from the inside-group of the conflict towards the outer environment. Still, this stage may also express the first indication of separation and isolation of interest groups and conflicting parties among the participants.

Conflict Situation and Destructive Argument

The highest form of escalation is defined by the aspects of sharp distinction of confronting parties among the participants as well as the fact that confronting parties do confront each other in a harmful tone. Often the resolution of the conflict is not seen as an option anymore rather the victory over the rivalling party is understood as the goal and end of the conflict. In this stage the used behavioural expressions and language is more aggressive. Often this stage of conflict has a long history and may build upon generations of conflicting parties. Nevertheless also recent objects and positions may escalate quickly into an openly conflicting and destructive argument, if appropriate tools for conflict resolving and de-escalation are not employed. An essential amount of energy and effort by the participants is flowing into the aspect of defending the own standpoint against the opponent. Often at this stage the conflicting parties are not able to deal with the situation themselves anymore.

Consensus after Conflict Resolution or Conflict Management Situation

Finally, this stage is different from the initial stage, even thought the level of escalation is the same as in the stage of consensus and quasi-consensus. This has to do on one hand with the fact that participants at this stage have been going through a stage of higher conflict

escalation and on the other hand that participants have been learning how to deal with conflict situation and how to resolve or manage them. Therefore at this stage the participants have a different background and went through a learning experience. This fact is influencing the possible outbreak of new conflicts and therefore different in what to expect than in the initial stage of conflicts.

Suggested Conflict Management Techniques for PA management

	Suggestion for conflict management technique *(including limitations of application)*	Reference / Scholar
Stage 1		
Conflict Emerging	- Public hearing *(amount of involved stakeholders; size of affected area)*	- Halvorsen, 2003
	- Community dinners *(limitation of participants, distance between participants, environment, location and amount of dinners)*	- Halvorsen, 2001, 2003
	- Collaborative learning *(limitation of participants, silent participants, question of legal bound of outcome for decision-makers and management)*	- Daniels & Walker, 1997; Tam, 2006
	- Online deliberation *(internet connection, skills of participants, and equipment)*	- Carpini, et al., 2004
Stage 2		
Disagreement and constructive argument	- Workshops *(selection of participants group, size of target area, selection of representatives, trust in effectiveness of workshop, legal power of decision-maker)*	- Höppner*, et al.*, 2007; Mitchell*, et al.*, 1997; Murray-Webster & Simon, 2008
	- Public hearings *(amount of participants, size of target area, trust among participants, power of stakeholders, silent or absent participants)*	- Halvorsen, 2001; Höppner*, et al.*, 2007; Tam, 2006
	- Negotiation *(limited participants, election of representatives, limitation of shared information)*	- Calcott, 2008; Kyllönen, et al., 2006
	- Steering committee *(size of stakeholder group, expertise of participants)*	- Kyllönen, et al., 2006
Stage 3		
Conflict situation and destructive argument	- Specialized workshop *(regimentation and limitation of participants, selection of participants)*	
	- Steering committee *(size of stakeholder group, expertise of participants)*	- Kyllönen, et al., 2006
	- Negotiation *(limited participants, election of representatives, limitation of flexibility and shared information, issue of power of participants, dominance of participants, silent participants)*	- Calcott, 2008; Finnegan, 2008; Mitchell, et al., 1997; Murray-Webster & Simon, 2008; Tam, 2006
	- Informative interviews *(bias of results, openness of participants, trust in interviewer, financial constraints)*	- Höppner, et al., 2007
	- Mediation *(election of representatives, vote on decision-maker or 3rd party, trust)*	- Höppner*, et al.*, 2007; Striegnitz, 2006

	Suggestion for conflict management technique *(including limitations of application)*	Reference / Scholar
Stage 4		
Consensus after conflict resolution or conflict management	- Public hearings *(size of stakeholders, size of affected area, bias of participants)*	- Halvorsen, 2003; Höppner, et al., 2007
	- Community dinners *(limitation of participants, distance between participants, environment, location and amount of dinners)*	- Halvorsen, 2001
	- Online deliberation *(internet connection, skills of participants, and equipment)*	- Carpini, et al., 2004
	- Partnership management *(limitation of stakeholders, shared knowledge, public democracy and shared power of government with local population)*	- Arnstein, 1969; Hiedanpää, 2005; Rutagarama & Martin, 2006