

## MANAGING CONFLICTING ATTITUDES: NATIONAL PARKS IN ICELAND AND JAPAN

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*For many protected areas, the inclusion of interested parties in decision-making processes has become both more important and common. The range of interests can lead to a variety of conflicts. Given the diversity of stakeholders, effective conflict management requires an integrated communicative approach that addresses this range interests. Yet the question remains: Are techniques developed for a specific case, and in one particular culture, applicable to other cases? To explore this question we compared the attitudes of stakeholders in Vatnajökull National Park in Iceland and Daisetsuzan National Park in Japan regarding conflict, communication and consensus. Despite the cultural and geographical distance between the two cases, the results show an 84% concurrence in stakeholder views, leading the authors to conclude that, despite minor differences, conflict management techniques can be applied across cultural borders provided that managers are sensitive to local understandings of how people relate to their social and natural environments.*

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JEL Classification: *L83, M1, O1*

### INTRODUCTION

Climate change, loss of biodiversity, and conflicts over the use of natural resources are topics of worldwide debate, and one tool increasingly used by governments to preserve natural environments for conservation and socio-economic ends are protected areas (PA). The



International Union for Conservation of Nature (IUCN) plays a leading role in defining what constitutes a protected area, as PAs these may have been established for different purposes. In the last few decades, a growing amount of land across the globe has been designated as PAs protected areas (Chape, Blyth, Fish, Fox, & Spalding, 2003; WDP, 2011), arguable because of the rapid disappearance of wilderness (Moran, 2006), yet largely driven by the introduction of new categories of PA (Locke & Dearden, 2005; Phillips, 2003). The increase in the number and size of protected areas can be seen as a positive trend as, from a biocentric point of view, it reflects the growing interest and importance of protecting the environment as part of sustainable development (WCED, 1987). But this expansion, through the establishment of new protected areas categories, has also been criticized. However, it is generally agreed that environmental protection is of worldwide significance; impacting sustainable development and resource use, and is important from both a local and global perspective (Saarinen, 2006), especially as global influence on protected areas is increasing (Dearden, Bennett, & Johnston, 2005; McCool, Nkhata, Breen, & Freimund, 2013). Protected areas management is increasingly becoming complex due to increased public participation (Harrington, Curtis, & Black, 2008; Lockwood, 2010), the more varied aims of those establishing protected areas (McCool *et al.*, 2013), and the question of how to balance conflicting interests among stakeholders (Schaller & Jónasson, 2011).

For many decades, environmental protection meant ‘fortress conservation’ (Brown, 2002), and input from the public was not regarded as important (Jordan, Vogt, Kruger, & Grewe, 2013; Phillips, 2003). But between the 1970s and 1990s several international conferences on conservation highlighted the importance of the public in PA decision making. Nowadays, including the public is seen as an integral part of PA management (Phillips, 2003; Thomas & Middleton, 2003) and good governance (Bosselmann, Engel, & Taylor, 2008; Pechlaner, Raich, & Kofink, 2011). Conflict is an integral a part to the management of protected areas (*cf.* Cole & McCool, 1997; Kyllönen *et al.*, 2006; Walker & Daniels, 1997). Even though public participation in the decision-making processes of PAs is important, it is by definition fraught, bringing the potential for conflict between stakeholders with different attitudes and objectives.

Yet protected areas, tied as they are to ideas of stewardship, “doing good”, and preventing man-made destruction, are certainly meaningful to the parties concerned. Ultimately, the agents involved in the decision-

making process are individuals whose values, beliefs and perceptions are important to take into consideration.

Given the range of such conflicts, it is critical to examine whether conflict techniques can be applied to different cases in non-Western and developing countries. When moving from a general blueprint to a specific case, from the global to the local, it is also important to identify which conflict management tools or strategies may require adaptation to a specific community's cultural characteristics (Axelrod, 1997; LeBaron, 2003; Mitchell-Banks, 1997).

This study, presented in parts in a conference paper (Schaller & Jónasson, 2011), attempts to examine such factors by surveying PA stakeholders viewed within the four realms of personal experience: interpersonal, intrapersonal, supra-personal and transpersonal. To do this, protected areas stakeholders from two different cultures were asked to identify their perception of conflict management tools that might be applied across cultures. The research focuses on two national parks, one in Iceland and one in Japan, to find out what similarities or differences exist between the two different cultural groups in terms of their perspectives on PA management. By doing so, the results of this study increase the impact beyond protected areas management and suggest a broader application of conflict management techniques in conservation and environmental management.

## **TWO CASE STUDIES – ICELAND AND JAPAN**

In an attempt to understand the underlying principles that need to be kept in mind when using a communicative approach to manage conflicts between stakeholders and build consensus among them, the Vatnajökull National Park (Icelandic: *Vatnajökulsþjóðgarður*) in Iceland, and the Daisetsuzan National Park (Japanese: 大雪山国立公園) in northern Japan, were selected as case studies. The two selected national parks share not only key geological features, but also evince a strong bond between local people and the land, especially in the case of Iceland (Helldén & Ólafsdóttir, 1999).

### **Iceland**

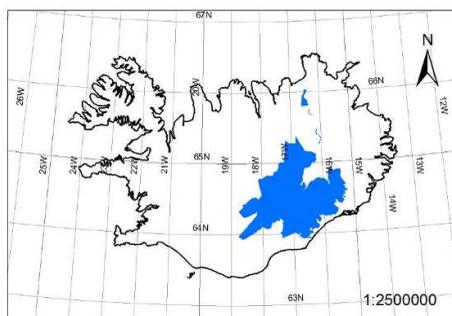
Iceland (approximately 103,000km<sup>2</sup>) is an island, lying just south of the Arctic Circle in the North Atlantic. Settled by Vikings from western Scandinavia around 871 (Ogilvie & Pálsson, 2003), Iceland has one of Europe's lowest population densities (about 3 inhabitants per km<sup>2</sup>).

Located on the Mid-Atlantic ridge, Iceland is known for its volcanic activity, as in the case of the recent eruptions of Eyjafjallajökull, early in 2010, and Grímsvötn in 2011. Iceland is one of the most volcanically active countries in the world, and is thus rich in diverse geological features. Volcanoes, avalanches, and long cold seasons mark the environment hostile, and yet Iceland is blessed with many natural resources, such as abundant fishing grounds, birds, and low- and high-temperature geothermal fields, widely utilized for energy production (Thórhallsdóttir, 2007).

For centuries, Icelanders have seen their natural environment as evil and deadly (Árnason, 2005). Nowadays a great admiration for nature is evident among tourists visiting Iceland (Ólafsdóttir & Runnström, 2009; Sæþórsdóttir, 2010), with modern Icelanders also sharing this admiration for nature, but attaching different values to it (Benediktsson, 2007). The natural environment has had an influence on Icelandic society too, and made Icelanders more used to uncertainty than most western societies (Eyjolfsson & Smith, 1996). The exposure of society over time to the harsh environmental factors in Iceland can be seen as the driving force behind Icelandic activism and short-termism (*ibid*), and Icelanders are “despite all their cultural achievements [...] children of nature” (Swatos, 1984, p. 39). Though Iceland adopted Christianity around the year 1000, old beliefs and practices were allowed in private, and still remain present in the stories about and belief in the *Huldufólk* (English: hidden people or elves), which can be seen as a projection of the mind upon the non-human environment (Jónasson, 2005, p. 207).

The Vatnajökull National Park (VNP), established in 2008 (Ministry for the Environment, 2008), is located mainly in the central highlands of Iceland, towards the east (see Figure 1), and covers about 13,000 km<sup>2</sup> (13% of the landmass of Iceland). The main feature of the VNP is the Vatnajökull glacier, which covers approximately 8,000 km<sup>2</sup>. The VNP consists mainly of state-owned land. At the time of writing, only a fraction of the land within the national park is privately owned and negotiations with landowners to expand the VNP are ongoing (Schaller, 2011). The management structure of the VNP is set out in the Act on Vatnajökull National Park (Alþingi, 2007; Ministry for the Environment, 2007), and consists of representatives of different stakeholders that include various interest groups, primarily, if not exclusively linked to political interests and administrative needs (Schaller, 2011).

**Figure 1.** Location and approximate size of the Vatnajökull National Park in Iceland (blue: Vatnajökull NP, including Vatnajökull glacier)



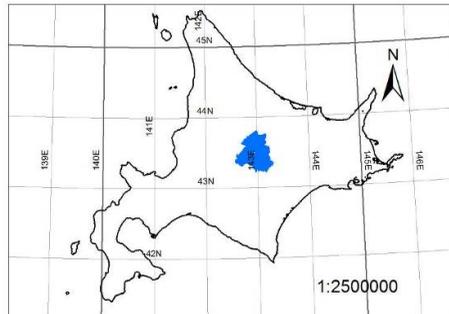
## Japan

Japan (approximately 378,000 km<sup>2</sup>) is a collection of various islands, of volcanic origin, on the Pacific coast of Asia. Its four main volcanic islands are Hokkaido, Honshu, Shikoku and Kyushu. Japan's interior mainland is mostly mountainous and covered with forest. The Japanese population (about 337 inhabitants per km<sup>2</sup>) lives mainly on the islands' low coastal flatlands. Japan's location on the Pacific 'Ring of Fire' means it experiences ongoing volcanic activity, such as the eruption of Shinmoedake, in the south of Kyushu, in January 2011. However, geological formations, continuous earthquakes (such as the major earthquake of March 2011), and the abundance of hot springs (Japanese: *onsen*) are other indications of volcanic activity in the region.

The Japanese people express a strong emotional bond with their natural environment (Japanese: *shizen*) (Thomas, 2001). The concepts of nature, which shape their view of nature today, can be seen to have emerged at the end of the 19th century (*ibid*) These concepts embody a strong spiritual relationship between humans and their natural environment, and are rooted in both Buddhism and Shintoism (*ibid*). Some attitudes can also be dated further back to ancient Japanese and indigenous religious concepts (e.g. the Ainu in Hokkaido), where not only animals were worshiped, but also natural features such as forests, caves, hot springs and waterfalls (Eagles, Bowman, & Tao, 2001; Oyadomari, 1989). Japan is also a nation with a rich tradition in fishing and rice harvesting, and a strong notion of *Uchi-Soto* or 'inner group' (Japanese:

*uchi*) and ‘outer group’ (Japanese: *soto*) - a difference that can be seen in interactions between local individuals, and with others who are not local or otherwise related (Takata, 2003, p. 543). Though modern Japanese culture still expresses strong links with nature, Western influences have begun to dominate since the second half of the 20<sup>th</sup> century (Thomas, 2001). In the beginning 20<sup>th</sup> century, the development of national parks in Japan has followed that in the Western world, and incorporates Western-influenced concepts of nature. Nevertheless, “concepts of nature and nature protection in East Asia are still linked to ancient religious philosophies and religious practices” (Eagles *et al.*, 2001, p. 12).

**Figure 2** Location and approximate size of the Daisetsuzan National Park in Hokkaido, northern Japan (blue: Daisetsuzan NP)



The Daisetsuzan National Park (DNP), established in 1934, was one of the first national parks in Japan (Ministry of the Environment, 2008b, p. 48; Aikoh, 2008; Ito, 1996; Shiratori & Ito, 2001). It is 2,267 km<sup>2</sup> (Tawara, 2004; Yoda & Watanabe, 2000) in size and sits in a mountainous area in the centre of Hokkaido (see Figure 2). Approximately 5.5% of Japan is covered by NPs (Ministry of the Environment, 2008a, 2009) and its national park system management (Japanese: *chiiki-sei*) follows standards laid out by the IUCN, consisting of a system of zoning regulations and multiple-use parklands, wherein land is not necessarily set aside for conservation (Hiwasaki, 2005, 2006). The management of NPs in Japan is shaped by the fact that many stakeholders are incorporated into the management system, due to their ownership of the land within the park boundaries. The DNP is typical of this ownership and management structure (Hiwasaki, 2005; Schaller, 2011).

## METHODS

### General overview of the data collection

The study examines the human perspective of stakeholders on issues related to the management of NPs to see how the values and attitudes of local stakeholders might influence decision-making processes. A survey was used to evaluate the opinions of stakeholder themes related to *conflict*, *communication*, and *consensus* (the ‘three Cs’) in NP management. The survey was carried out with stakeholders of the Vatnajökull NP and Daisetsuzan NP and build upon the ‘three Cs’ as a framework strategy in protected areas conflict management (Schaller, 2011).

Prior to the final survey, two pilot surveys were used to ensure the quality of the questions and, thereby, to optimize the quality of the results (White, Jennings, Renwick, & Barker, 2005). These two pilot surveys were carried out with students at the University of Iceland and stakeholders of a protected area in the north of Iceland.

### The layout and model used in the survey

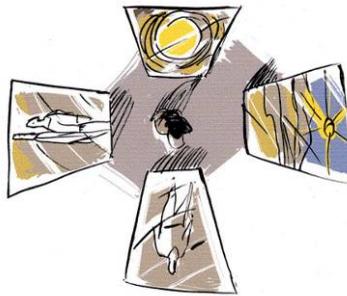
The questionnaire was closed-format, with 37 statements (the list of statements can be found in Schaller, 2011). Each statement provided the respondent with the option of selecting an answer on a five-point Likert rating scale of disagreement-agreement (White *et al.*, 2005). The scale ran from ‘strongly disagree’ and ‘disagree’ to ‘agree’ and ‘strongly agree’, with the neutral option of ‘no opinion.’

The questionnaire was divided into three segments: the first segment dealt with demographic questions; the second segment provided definitions of basic concepts or terms used (e.g. Vatnajökull National Park, stakeholder, local community); and the third segment was divided into three components addressing each of the ‘three Cs’ — *conflict*, *communication*, and *consensus*. In each of these three parts, the statements made use of the four-realm approach (Jónasson, 2005) to assess the different dimensions of human relationships with the environment. The questionnaire in Iceland was conducted in English, whereas the questionnaire in Japan was translated and conducted in Japanese.

The statements used in the final questionnaire are intended to examine the relationship of the ‘self’ and ‘life’ (Abt, 1989), and incorporate the four realms of the self: intrapersonal, interpersonal, supra-

personal and transpersonal (Jónasson, 2005), within the framework of the ‘three Cs’. The four realms framework is a simple way of describing the constant interaction between an individual’s inner subjective world and the external reality (*ibid*). Figure 3 illustrates the four dimensions.

**Figure 3** The relationship between the self and the four realms: the experiencing self is at the centre; in the “south” is the intrapersonal; in the “west” the interpersonal; in the “east” the supra-personal; and in the “north” the transpersonal (derived from Jónasson, 2005)



The way they are employed in the survey can be summarized as follows:

The **intrapersonal** is the dimension located in the “space between” the sensing self and the unconscious. People might not be aware, or fully aware, of the ways in which their life experience is processed at the unconscious level; but there are clues in the way the person reacts to other people and his or her environment; and this forms attitudes on which people construct their views. With regard to the intrapersonal realm, the questionnaire set out to gauge respondents’ assumptions in particular about their attitudes to the running of the NPs. The following statement (no. 3-4) offers an example of how this is addressed: *“There are stakeholders that are in conflict with me because they think differently about what matters to me regarding the VNP/DNP.”*

The **interpersonal** is the aspect of personal experience that takes place in the dynamic intermediate space located between the self and another human being. This is where interactions between people happen, as well as changes in self-perception and attitude, which are triggered by reflecting on one’s experience of others. Many of the questionnaire’s interpersonal statements concerned respondents’ views of the future management of the NPs, such as whether they have a clear vision about

the future (statement no. 3-5 is an example: “*It is very likely that a conflict arises regarding the management of the VNP/DNP within my community because there are conflicting interests among us*”).

In the **supra-personal** realm, it is human experience of the non-human environment that prevails: relations with nature (and other non-human entities less relevant to the topic at hand), particularly the way people either identify themselves with it or differentiate themselves from it. Statements covering this realm in the questionnaire concerned both the role of nature and who should decide the fate of nature in protected areas. Statement no. 3-9, for example, posits that “[...] *nature within the VNP/DNP is there for us to exploit it.*”

Finally, the **transpersonal** is experienced in the space in between the self and objects of sacred value: holy spaces, transformative symbols, and so forth. This experience is manifested in concepts such as ‘Mother Earth’, holy mountains, holy rivers, etc. Statements concerning the transpersonal in the questionnaire were designed to gather clues as to the sacred value or significance which respondents assign to nature, with correspondingly august terms: ‘*sacred ground*’ (no. 3-11), ‘*humanity at large*’ (no. 3-13), and ‘*common respect and love*’ (no. 3-37).

## Participants in the survey

Questionnaire respondents were selected to represent stakeholders involved in the management of the selected NP (e.g. representatives of governmental organizations, NGOs, landowners); and individuals and organizations that might have a stake in decision making of the respective NP. To select the stakeholders in the target group for this questionnaire, a stakeholder analysis was executed. The stakeholder analysis for each NP aimed to identify representatives of environmental, economic and social groups, as well as governmental and administrative bodies, as the concept of sustainability defined by the United Nations (UN, 2002).

In Iceland, the questionnaire was sent out via email to the stakeholders on 7 October 2009. Those invited to participate sent their responses to the questionnaire either via email or in printed form. The questionnaire was open for participation until 1 November 2009. In Japan, the questionnaire was sent out in printed form to the selected stakeholders on 24 November 2009. Participants returned the questionnaire in printed form. The questionnaire was open for participation until 12 December 2009.

## **Limitations in the survey**

This exploratory survey and its results are subject to certain limitations. First, it must be noted that the number of stakeholders in Iceland was not very extensive, due to the simple fact that very few people live in rural Iceland. Therefore, the number of participants in Iceland was lower than in Japan. Second, the survey in Iceland was conducted in English, which may have influenced the quality and number of responses. Although most Icelanders are proficient in English, not all are, as Icelandic is the native language. In Japan, the questionnaire was translated into Japanese, which may have benefitted the overall willingness and quality of participation. It should, however, be mentioned that, as with all translations, there may be some slight differences between the statements as rendered in English and Japanese. This may have an impact on the direct comparability of the statements and responses, although close collaboration and consultation with researchers at the Hokkaido University was intended to minimize any such differences. In the case of Japan, the authors relied upon the suggestions from the Japanese partner for the selection of the stakeholders of the target group.

## **RESULTS AND DISCUSSION**

### **Results**

In Iceland a total of 51 individuals (from 49 organizations) were asked to participate in the survey, and in Japan 101 individuals (from 100 organizations). In Iceland, 19 individuals participated, and in Japan 53 individuals participated. The response rate was 37% in Iceland, 52% in Japan, or 47% on average. Most participants were males, older than 36, with a university degree. The participants were asked to state their occupational sector, but since the survey in Iceland and Japan used a slightly different segmentation, the answers were grouped into the following sectors for comparison: economic, environmental, social, administrative, and other. Most of participants fell into one of the specific sectors, but a few identified themselves as ‘other’ or provided no response. Most of the participants in Iceland located themselves in the economic sector, whereas most of the participants in Japan identified themselves with the administrative sector (see Table 1).

**Table 1** Occupation and Sector of Participants of Survey in Iceland and Japan (total and percentage)

	Iceland	Japan	Total
Economic	9 (47%)	16 (30%)	25 (35%)
Environmental	1 (5%)	10 (19%)	11 (15%)
Social	1 (5%)	4 (8%)	5 (7%)
Administrative	4 (21%)	20 (38%)	24 (33%)
Other	3 (16%)		3 (4%)
Not specified	1 (5%)	3 (6%)	4 (6%)
Sum:	19	53	72

When the Japanese responses are compared to the Icelandic responses, a clear pattern of overall agreement emerges (see Table 2). The following table breaks down the questionnaire and presents data in a simple version providing only the count of response most frequently given. The data has been normalized (combining ‘strongly disagree’ and ‘disagree’ together, as well as ‘strongly agree’ and ‘agree’ to only a single count) in order to account for errors of not using the whole range of possible answers in the participants’ answers. The table presents the data in a matrix of the three main parts (conflict [CONF], communication [COM], and consensus [CONS]), and the four realms (interpersonal, intrapersonal, supra-personal, and transpersonal). The table shows (1) what most participants gave as their answer to each statement, and (2) the overlap between the answers from Iceland and Japan.

**Table 2** Answers to the Questionnaire – Comparison between Icelandic and Japanese Answers to the Statements of the Survey  
 (ICE: maximum answer from Iceland, JPN: maximum from Japan, B: maximum from both).

		Interpersonal			Intrapersonal			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>		<b>B</b>					<b>B</b>	<b>B</b>				
	no-opinion					ICE								
	agree		<b>B</b>		<b>B</b>	ICE/JPN	<b>B</b>		JPN		<b>B</b>	<b>B</b>	<b>B</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		ICE/JPN								
	no-opinion													
	agree		<b>B</b>	ICE/JPN	<b>B</b>	ICE	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>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>B</b>					
	no-opinion			ICE		ICE								
	agree		<b>B</b>		<b>B</b>	JPN	<b>B</b>	<b>B</b>		<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>	<b>B</b>

In most cases (31 out of 37 statements) participants from both countries answered the questionnaire similarly; the answers differed in only six statements.

## Discussion

A super majority (84%) of the responses in both countries are similar (marked with “B” in Table 2). This may come as a surprise, since one might assume that there would be a stronger divergence in responses in the light of cultural differences between the two countries. And indeed, below the overall similarities, it has to be noted that there are also significant differences. One is a pervasive qualitative distinction in tone. Participants in Japan tended to put stronger emphasis on their agreement or disagreement with the statements given, while participants from Iceland tended more frequently to use the neutral “no-opinion” option.

The results from the two countries differ in six instances, and in half of these the answers differ substantially. Participants from Japan express a stronger agreement with statements no. 3-5, 3-27 and 3-29 in the survey than participants from Iceland. These statements target the perception of the individual towards the community, which in turn would suggest that participants from Japan have a stronger *uchi* connection (positive emotional bond), or sense of obligation to their local community, and a better overview of the different stakeholders and their interests. Statement no. 3-8 (“*Nature within the VNP/DNP has a right in its own, therefore, the interests of the community are in conflict with the interest of nature*”) is of particular interest, since this statement probes the perception of the individual and his or her connection with the natural environment. The answers of the Icelandic and Japanese participants suggest that there is less of an emphasis on the anthropocentric valuation of nature in Japan than in Iceland. Responses to statements no. 3-15 (“*It is easy for me to communicate my vision of the future management of VNP/DNP to others*”) and no. 3-17 (“*Stakeholders of the VNP/DNP do openly communicate their interests to one another*”) point to communication as being a difficult issue for participants in both countries. On the one hand, there is almost total divergence among Japanese participants about whether they agree or disagree with the statement that it is “*easy for them to communicate their vision of the future management of the national park with others*” (statement no. 3-15); on the other hand, they believe that stakeholders “*do not openly communicate their interests to one another*” (statement no. 3-17). In this context, the participants from

Iceland mostly agree with 3-15, but there is no consensus for 3-17. As mentioned in earlier sections, it might not be surprising that the Japanese participants highlight difficulties in communicating openly with others, but the responses to these statements also show that Icelanders share similar concerns. The data also suggests that Icelanders, too, find communication difficult.

Responses to the statements designed to gauge what a protected area, or nature in general, means to people, affirm the positive relationship people feel to nature in general. For example, 80% of respondents overall agreed, or strongly agreed, with statement no. 3-28 (*"I sense inner harmony or consensus when I enjoy having untouched wilderness and nature around me"*). It is also interesting to note that of the four dimensions of interaction between people and the environment addressed in the survey, it is only in the transpersonal – which might be seen as the loftiest or most intangible of the realms – that there was complete overall consensus between respondents from Japan and Iceland.

However, as mentioned above, these results and comparisons must be taken as speculative rather than conclusive, given the small number of participants in Iceland and the potential impact on an over- or under-representation of certain types of stakeholders in comparison with those participating in Japan.

## CONCLUSION

International conservation agencies now consider it good practice to include stakeholders in PA decision making and management (Phillips, 2003; Thomas & Middleton, 2003). Conflict management techniques, however, that are designed to make use of such input do not often consider the 'deeper layers' of stakeholder attitudes, such as inner motives, cultural attitudes, and sacred beliefs. This study set out to explore such factors and the need to consider them when using a communicative approach to manage PA conflicts and build consensus between stakeholders.

Two cases from different cultures were used to find out whether the shared experience of living in or near a NP shaped similar perceptions among individuals who represent stakeholders in four different dimensions. The hope was that the similarities, as well as the differences, could help to identify some unifying principles to keep in mind when it comes to PA management and that may be applicable across cultures.

Of the six statements to which there were substantially different responses from participants from each country (Iceland and Japan), none

were in the transpersonal realm, and only one was from the supra-personal realm. On the other hand, there was a consistently high level of consensus for each of the ‘three Cs.’ Although more data would be required to verify this, it points to the possibility that variations in cross-cultural consensus will centre more on the human parameters and modalities specific to a particular culture, rather than on the elements of the ‘three Cs.’

The results of this study suggest that across the two different cultures that were investigated there are basic universal values and shared subjective perceptions of nature conservation. This indicates that similar, or even identical, conflict management techniques can be applied to build consensus among stakeholders within different cultural settings, on a wider scale than expected, although, due attention has to be paid to specific cultural contexts. This suggests that certain conflict management techniques are applicable to a larger range of regions and projects, to balance conflicting interests and help shape sustainable use of natural resources than previously considered

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## REFERENCES

- Abt, T. (1989). *Progress Without Loss of Soul: Toward a Wholistic Approach to Modernization Planning: Toward a Wholistic Approach to Modernization Planning* (B. L. Matthews, Trans.). Wilmette, Chiron Publ., U.S.
- Aikoh, T. (2008). Monitoring Trampling Impacts from the Disposal of Human Waste at Campsites. In D. Siegrist, C. Clivaz, M. Hunziker & S. Iten (Eds.), *Visitor Management in Nature-based Tourism - Strategies and Success Factors for Parks and Recreational Areas*. Rapperswil, Hochschule für Technik.
- Alþingi (2007). *Lög um Vatnajökulsþjóðgarð [ACT on Vatnajökull National Park]*. Reykjavik, Lagasafn.

- Árnason, T. (2005). *Views of Nature and Environmental Concern in Iceland*. PhD Doctoral Thesis, Linköpings Universitet, Linköping.
- Axelrod, R. (1997). The dissemination of culture - A model with local convergence and global polarization. *Journal of Conflict Resolution*, Vol. 41, No.2, pp.203-226
- Benediktsson, K. (2007). "Scenophobia", geography and the aesthetic politics of landscape. *Geografiska Annaler Series B-Human Geography*, Vol. 89B, No.3, pp.203-217
- Bosselmann, K., Engel, R. & Taylor, P. (2008). *Governance for Sustainability – Issues, Challenges, Successes*. Gland, Switzerland, IUCN.
- Brown, K. (2002). Innovations for conservation and development. *The Geographical Journal*, Vol. 168, No.1, pp.6-17
- Chape, S., Blyth, S., Fish, L., Fox, P. & Spalding, M. (2003). 2003 United Nations List of Protected Areas (pp. 44). Gland, Switzerland, IUCN.
- Cole, D.N. & McCool, S.F. (1997, May 20-22). Limits of Acceptable Change and Natural Resources Planning: When is LAC Useful, When is it Not? *Paper presented at the Proceedings - Limits of Acceptable Change and related planning processes: progress and future directions*, Missoula, MT.
- Dearden, P., Bennett, M., & Johnston, J. (2005). Trends in Global Protected Area Governance, 1992–2002. *Environmental Management*, Vol. 36, No.1, pp.89-100
- Eagles, P.F.J., Bowman, M.E. & Tao, T.C.-H. (2001). *Guidelines for tourism in parks and protected areas of East Asia*. Gland, Switzerland and Cambridge, UK, IUCN.
- Eyjolfsdóttir, H. M., & Smith, P. B. (1996). Icelandic Business and Management Culture. *International Studies of Management & Organization*, Vol. 26, No.3, pp.61-72
- Harrington, C., Curtis, A. & Black, R. (2008). Locating Communities in Natural Resource Management. *Journal of Environmental Policy & Planning*, Vol. 10, No.2, pp.199-215
- Helldén, U., & Ólafsdóttir, R. (1999). *Land degradation in NE Iceland: an assessment of extent, causes and consequences*. Lund, Department of Physical Geography, Lund University.
- Hiwasaki, L. (2005). Toward sustainable management of national parks in Japan: Securing local community and stakeholder participation. [Article]. *Environmental Management*, Vol. 35, No.6, pp.753-764
- Hiwasaki, L. (2006). Community-based tourism: A pathway to sustainability for Japan's protected areas. *Society & Natural Resources*, Vol. 19, No.8, pp.675-692
- Ito, T. (1996). Influence of Forestry on the Formation of National Park Policy in Japan. *Journal of Forest Planning*. Vol. 2, pp.85-95.
- Jónasson, H.I. (2005). *In a land of a living God: The healing imagination and the Icelandic heritage*. PhD Doctoral Thesis, Columbia University, New York.

- Jordan, E.J., Vogt, C.A., Kruger, L.E. & Grewe, N. (2013). The interplay of governance, power and citizen participation in community tourism planning. *Journal of Policy Research in Tourism, Leisure and Events*, Vol. 5, No.3, pp.270-288
- Kyllönen, S., Colpaert, A., Heikkinen, H., Jokinen, M., Kumpula, J., Marttunen, M., Muje, K. & Raitio, K. (2006). Conflict management as a means to the sustainable use of natural resources. *Silva Fennica*, Vol. 40, No.4, pp.687-728
- LeBaron, M. (2003). Culture-Based Negotiation Styles. In G. Burgess & H. Burgess (Eds.), *Beyond Intractability: Conflict Research Consortium*, University of Colorado, Boulder.
- Locke, H. & Dearden, P. (2005). Rethinking protected area categories and the new paradigm. *Environmental Conservation*, Vol. 32, No.1, pp.1-10
- Lockwood, M. (2010). Good governance for terrestrial protected areas: A framework, principles and performance outcomes. *Journal of Environmental Management*, Vol. 91, No.3, pp.754-766
- McCool, S.F., Nkhata, B., Breen, C. & Freimund, W. A. (2013). A heuristic framework for reflecting on protected areas and their stewardship in the 21st century. *Journal of Outdoor Recreation and Tourism*, Vol. 1-2, No.0, pp.9-17
- Ministry for the Environment (2007). *ACT on Vatnajökull National Park*. Reykjavik, Iceland.
- Ministry for the Environment (2008). Establishment of the Vatnajökull NP. <http://www.umhverfisraduneyti.is/frettir/nr/1277>. Accessed the 2 nd of December 2008.
- Ministry of the Environment. (2008a). National Parks of Japan *Outstanding Natural Beauty for Future Generations* (pp. Folder (p.9)), Ministry of the Environment - Japan.
- Ministry of the Environment (2008b). *National Parks of Japan & Japan's Strategy for a Sustainable Society*. Toyko, Ministry of the Environment.
- Ministry of the Environment (2009). Laws and Data - National Parks of Japan. <Http://www.env.go.jp/en/nature/nps/park/doc/index.html>. Accessed the 25 th of November 2009.
- Mitchell-Banks, P. (1997). Community, Culture and Conflict. In B. Solberg & S. Miina (Eds.), *Conflict Management and Public Participation in Land Management*. Joensuu, The European Forest Institute.
- Moran, E. F. (2006). *People and Nature: An Introduction to Human Ecological Relations*. Malden, Oxford, Victoria, Blackwell Publishing Ltd.
- Ogilvie, A.E.J. & Pálsson, G. (2003). Mood, Magic and Metaphor: Allusions to Weather and Climate in the Sagas of Icelanders. In S. Strauss & B. S. Orlove (Eds.), *Weather, Climate, Culture*.
- Ólafsdóttir, R. & Runnström, M.C. (2009). A GIS Approach to Evaluating Ecological Sensitivity for Tourism Development in Fragile Environments. A Case Study from SE Iceland. *Scandinavian Journal of Hospitality and Tourism*, Vol. 9, No.1, pp.22 - 38

- Oyadomari, M. (1989). The Rise and Fall of the Nature Conservation Movement in Japan in Relation of some Cultural-Values. *Environmental Management*, Vol. 13, No.1, pp.23-33
- Pechlaner, H., Raich, F. & Kofink, L. (2011). ELEMENTS OF CORPORATE GOVERNANCE IN TOURISM ORGANIZATIONS. *Tourismos : an International Multidisciplinary Journal of Tourism*, Vol. 6, No.3, pp.57-76
- Phillips, A. (2003). Turning Ideas on Their Head - The New Paradigm for Protected Areas. *The George Wright Forum*, Vol. 20, No.2, pp.24
- Saarinen, J. (2006). Traditions of sustainability in tourism studies. *Annals of Tourism Research*, Vol. 33, No.4, pp.1121-1140
- Sæþórsdóttir, A.D. (2010). Planning Nature Tourism in Iceland based on Tourist Attitudes. *Tourism Geographies*, Vol. 12, No.1, pp.25-52
- Schaller, H. (2011). *Dealing with Volcanic Terrains: Conflict Management at Protected Areas*. Saarbrücken, Germany, Lambert Academic Publishing.
- Schaller, H. & Jónasson, H.I. (2011, November 21-23). The question of a common ground: attitudes towards conflict management among stakeholders of protected areas in Iceland and Japan. *Paper presented at the Managing Alpine Future II - Inspire and drive sustainable mountain regions*, Innsbruck, Austria.
- Shiratori, K. & Ito, T. (2001). Motorized Access Control as a Wildland Recreation Management Tool: Access Changes and Visitor's Behavior at Daisetsuzan National Park. In T. Sievänen, C. C. Konjinendijk, L. Langner & K. Nilsson (Eds.), *Forest and Social Services - The Role of Research: The Finnish Forest Research Institute*.
- Swatos, W.H. (1984). The Relevance of Religion - Iceland and Secularization Theory. *Journal for the Scientific Study of Religion*, Vol. 23, No.1, pp.32-43.
- Takata, T. (2003). Self-enhancement and self-criticism in Japanese culture - An experimental analysis. *Journal of Cross-Cultural Psychology*, Vol. 34, No. 5, pp. 542-551.
- Tawara, H. (2004, 23-29 August 2004). Forests and National Parks of Hokkaido. *Paper presented at the Social Role of Forests for Urban Population*, Sapporo, Japan.
- Thomas, J.A. (2001). The cage of nature: Modernity's history in Japan. *History and Theory*, Vol. 40, No.1, pp.16-36
- Thomas, L. & Middleton, J. (2003). *Guidelines for Management Planning of Protected Areas*. Gland, Switzerland and Cambridge, UK, IUCN.
- Thórhallsdóttir, T.E. (2007). Environment and energy in Iceland: A comparative analysis of values and impacts. *Environmental Impact Assessment Review*, Vol. 27, No.6, pp.522-544
- UN (2002). *World Summit on Sustainable Development*. Johannesburg, United Nations.

- Walker, G.B. & Daniels, S.E. (1997). Foundations of Natural Resource Conflict: Conflict Theory and Public Policy. In B. Solberg & S. Miina (Eds.), *Conflict Management and Public Participation in Land Management*, Joensuu: The European Forest Institute.
- WCED (1987). *Our Common Future*. Oslo, World Commission on Environment and Development.
- WDPA (2011). Homepage of World Database on Protected Areas. [Http://www.wdpa.org](http://www.wdpa.org). Accessed the 8 th of February 2011.
- White, P.C.L., Jennings, N.V., Renwick, A.R. & Barker, N.H.L. (2005). Questionnaires in ecology: a review of past use and recommendations for best practice. *Journal of Applied Ecology*, Vol. 42, No.3, pp.421-430
- Yoda, A. & Watanabe, T. (2000, 1999 May 23–27). Erosion of mountain hiking trail over a seven-year period in Daisetsuzan National Park, central Hokkaido, Japan. *Paper presented at the Wilderness science in a time of change conference-Volume 5: Wilderness ecosystems, threats, and management*, Missoula, MT.

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