



Connecting Sustainable Land Use and Quality Management in Sheep Farming:

Effective Stakeholder Participation or Unwelcome Obligation?

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60 ECTS thesis submitted in partial fulfilment
of a *Magister Scientiarum* degree
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Abstract

A large portion of Iceland's soil and vegetation has been lost over the centuries, with the productivity of the land often being far below its full potential. In order to address this issue, farmers have become increasingly involved in sustainable land use and restoration efforts, for example through voluntary participation in Quality Management in Sheep Farming (QMS). This study explores the effectiveness of the scheme regarding land improvement measures and participation processes, based on farmers' experiences, views and expectations. Data was collected through qualitative interviews with farmers within a specific study area, who all participated in the QMS scheme and then analyzed using the methods of grounded theory.

There is evidence to suggest that carrying out reclamation projects influences environmental behavior to some extent. However, a gap seems to exist between the land use part of QMS and other aspects of the scheme, with the objectives of restoration and sustainable land use needing to be clarified, and subsidies better linked to restoration achievements. A consensus and consistency needs to be developed among the different actors, institutional and legal framework, when it comes to the priorities and methods used within the scheme. The scheme is more or less 'top-down' oriented, with farmers regarded as passive assistants for advancing a certain agenda rather than influential or valuable voices within the system. Thus, for the QMS to reach its potential, information flow and communication within and outside of the system needs to be enhanced with incentive and innovation enabled and encouraged.

Keywords: Quality Management, sheep farming, NE-Iceland, sustainability, land use, restoration, revegetation, participation, qualitative methods.

Ágrip

Stór hluti gróðurs og jarðvegs á Íslandi hefur glatast í gegnum aldirnar og er framleiðni landsins víðs vegar mun minni en það hefur burði til. Til að taka á þessum vanda hafa bændur í vaxandi mæli horft til sjálfbærari landnýtingar og uppgræðslu, meðal annars í gegnum þátttöku í gæðastýrðri sauðfjárrækt. Rannsókn þessari er ætlað að varpa ljósi á árangur og skilvirkni gæðastýringarinnar hvað varðar landbætur og þátttökuaðferðir útfrá upplifunum, viðhorfum og væntingum bænda. Í þessum tilgangi voru tekin eigindleg viðtöl við bændur á ákveðnu rannsóknasvæði sem síðan voru greind útfrá aðferðum grundaðrar kenningar.

Færa má rök fyrir því að landbótaaðgerðir hafi áhrif á umhverfisvitund og -hegðun bænda í einhverjum mæli. Vanta virðist þó upp á tengingu milli landnýtingarhluta gæðastýringar og annarra þátta kerfisins. Skýra mætti betur markmið landbóta og sjálfbærrar landnýtingar auk þess sem styrkveitingar ætti að tengja betur við árangur slíkra aðgerða. Samstöðu og samræmi þarf að gæta milli hagsmunaaðila, stofnana og lagaumhverfis hvað varðar forgangsroðun og aðferðir. Toppstjórnun virðist almennt ríkja innan gæðastýringarinnar þar sem bændur eru fremur álitnir hlutlaus verkfæri til að ná fram ákveðnum markmiðum fremur en uppspretta mikilvægra og gagnlegra upplýsinga og hugmynda. Því er nauðsynlegt að styrkja upplýsingaflæði og samskipti innan sem utan kerfisins og hvetja til aukins frumkvæðis og nýsköpunar ef gæðastýringin á að ná takmarki sínu á sviði sjálfbærrar landnýtingar.

Lykilorð: Gæðastýring, sauðfjárrækt, Norðausturland, sjálfbærni, landnýting, uppgræðsla, landbætur, þátttökuaðferðir, eigindlegar aðferðir.

In memory of my father

Thank you for inspiring me every day to become a better version of myself

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Abbreviations

AES	Agri-Environmental Scheme
FHL	Farmers Heal the Land
IAAC	Icelandic Agricultural Advisory Centre
IFVA	Icelandic Food and Veterinary Authority
QMS	Quality Management in Sheep Farming
SCSI	The Soil Conservation Service of Iceland
SES	Social-Ecological System

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1 Introduction

Soil and vegetation are vital resources and one cannot argue against the fact that without them the Earth would not be habitable. In Iceland however, a large portion of these resources has been lost over the centuries and in several parts of the country the productivity of the land is far below its full potential (Arnalds et al., 2001; Crofts, 2011; SCS, 2008). Iceland's ecosystems are very much shaped through the combination of unsustainable land use, dominant since the first settlement, and natural forces in a fragile environment (Arnalds, 2011). As a result, more than half of the country is now severely degraded, with large areas considered unsuitable for livestock grazing (Arnalds et al., 2001).

The Icelandic nation has long been aware of the critical state of the island's ecosystems, with organized soil conservation and restoration spanning more than a century. At the time, various stakeholders started working together towards the mutual goal of limiting land degradation and desertification to protect threatened farming communities (Arnalds, 2005; Crofts, 2011). As in many other countries, economic, political, and social changes have resulted in many farmers moving away from the focus on production value towards a growing commitment to responsible land stewardship (Arnalds, 2011). This shift is linked to the idea of post-productivism, which emphasizes quality over quantity (Goodman, 2003). Thus, environmental matters and animal welfare have become more prominent, and the importance of land utilization beyond conventional agricultural production is being emphasized. This emphasis on agriculture's multifunctionality is also in line with the century long vision of farmers' role as stewards of land and nurturers of nature (Júlíusdóttir, Karlsdóttir, Benediktsson, Vésteinsdóttir, & Steingrímsson, 2009). This responsibility has now been included in both legal and social requirements through political processes. The nature of economic incentives has also changed, in order to better incorporate the vision of increased sustainability and to stimulate ecological restoration (Arnalds, 2011). However, the competency of the existing Icelandic law and policy framework to address these issues properly has been questioned (Aradóttir, Pétursdóttir, Halldorsson, Svavarsdóttir, & Arnalds, 2013).

Natural resource management can often prove a difficult task since the various stakeholders involved often have different objectives. It is generally agreed that for an efficient resource management there is a need for collaboration between those stakeholders (e.g. Koontz & Thomas, 2006; Pretty, 1995; Reed, 2008a; Stringer et al., 2006). However, opinions as to how such collaboration is to be achieved and executed often vary.

Landowners in Iceland have become increasingly involved in revegetation efforts, especially after the launch of the Farmers Heal the Land (FHL) programme. Organized by the Soil Conservation Service (SCSI), FHL is a cost-share programme, which in 2010 covered around 150 km² of restoration areas (Pétursdóttir, 2011). With the programme's establishment, the SCSI hoped to emphasize the responsibility of farmers towards the land, increase their initiative and participation in the conservation process, and build mutual trust between farmers and the agency (Arnalds, 2005). In 2013, 597 farmers took part in the scheme by carrying out revegetation measures on degraded areas within the boundaries of their own land (SCSI, 2014). The SCSI then fulfils their part by providing subsidies for fertilizer, extension services and seed to some extent (Aradóttir et al., 2013).

Another scheme incorporating elements of sustainable land use and restoration, and claims the use of voluntary participation, is the Quality Management in Sheep Farming (QMS). The scheme was first introduced in the year 2000 as a landmark agreement between Icelandic sheep farmers and the government (Arnalds & Barkarson, 2003). With an introduction of a new regulation on January 1st 2014, an increased emphasis was put on moving sheep farming towards a more sustainable use of land resources. This is an understandable goal given that approximately a quarter of the land in Iceland is considered unsuitable for grazing (Arnalds et al., 2001). In a voluntary participation system, such as the QMS, active participation of farmers is crucial if the objectives of the scheme are to be reached (Falconer, 2000). This is especially relevant for Iceland where farmers have grazing rights in most of the country¹ and sheep are mostly free range during the summer. This makes sustainable use and land restoration at a national scale implausible without farmers' participation (Arnalds, 2011). To ensure that this becomes reality it is important to explore which factors facilitate and influence such participation.

The way participants perceive the QMS based on former experience, along with the expectations they have towards the new regulation, can provide an important indicator of which aspects of the system are working and which should be improved. Given that QMS has been implemented since 2003 (SCSI, 2014), careful examination of this scheme from the participants' point of view is long overdue. Through such an examination, this study is meant to increase and open up discussion on the QMS, as well as determine how the farmers themselves feel the system is affecting land use and land improvement practices. Through exploring farmers' perceptions of their influence or engagement in the various stages of the scheme, including the decision-making, implementation and monitoring processes, the effectiveness of the participation process can be evaluated.

¹ According to the Act on Rangelands no. 6/1986.

1.1 Project objectives and research questions

The purpose of this project was to explore the effectiveness of the QMS based on farmers' experiences, views and expectations towards the scheme. In light of the Regulation on QMS no. 1160/2013 and the changes it has brought about, emphasis was put on examining land use and re-vegetation projects, and how effectively participatory elements are incorporated within this agri-environmental scheme. The project intends to provide information on the different aspects of the QMS related to land use, how they are functioning and if some improvements should be made in order to better reach the scheme's goals of sustainability and responsible land use. This will especially be directed at the participatory element of the scheme.

The project is based on the following research questions:

- Has any attitudinal or operational change towards land use taken place among farmers, and to what extent has the QMS contributed to that?
- What are the experiences of farmers concerning their participation in the QMS scheme, and their views towards the recently introduced regulation in particular?
- How effective is the participatory process within the operationalization of the scheme, and how can effectiveness be ensured?

1.2 Thesis outline

The thesis begins by describing the theoretical framework that underpins this endeavour. This entails a short description of the concept of participation as well as the characteristics of social-ecological systems and agri-environmental schemes. Within the third chapter of this thesis the case background will be presented, including a short description of sheep farming in Iceland and how grazing is managed within that regime. Following this, the QMS scheme will be introduced and its relevance to sustainable land use. The final section of the chapter will define the study area. Chapter four describes the materials and methods used in this study, including the theoretical perspective, data collection and analysis as well as ethical considerations. Within the fifth chapter of this thesis the findings of the study, based on the interviews conducted, will be examined and discussed. This will be presented in the light of the three major themes revealed through the analysis performed. The sixth and final chapter aims at summarizing the findings and thus presenting the main conclusions of this study along with recommendations regarding possible improvements for the QMS.

2 Theoretical framework

This chapter aims at clarifying some of the key concepts relevant to this research project. Participation will be defined through some of its various meanings and levels as well as its role in environmental management. The components and functions of social-ecological systems and agri-environmental schemes will then be discussed, along with the concept of ecological restoration.

2.1 Defining participation

Most environmental problems have certain traits in common, including a complex and uncertain nature, often extending over large spatial and temporal scales. Furthermore, they have the potential of being hard to reverse. Thus it is generally agreed that environmental decision-making and management should take note of diverse views, knowledge and values, respond to changing circumstances, as well as encourage public responsibility and change in individual behaviour. It can be difficult to find solutions to extensive and complex environmental problems through technology or scientific expertise alone, and therefore active cooperation of different stakeholders is often needed. From such a perspective, participation can be seen as crucial to environmental decision-making and management (Richards, Blackstock, & Carter, 2004). For this reason, stakeholder participation in environmental decision-making and management has been increasingly sought after and embedded into national and international policy, with governments sometimes providing substantial resources to such efforts (Chandy, Mevis, & Walson, 1993; Koontz & Thomas, 2006; Reed, 2008).

Participation can be defined most simply as a process in which individuals, groups, organizations or institutions become actively involved in a certain project (Wilcox, 2003). It has for example been associated with greater efficiency, understanding and social solidarity, more cost-effective services, greater transparency and accountability, as well as increased capacity of people to learn and act. It can even be said that participation is an essential component of any learning system, since without stakeholder engagement and proper representation of their views and perspectives, it is unlikely that any change will truly be brought about (Pretty, 1995). Hence, participatory processes are beneficial when defining the challenges at hand, identifying the solution from a wide variety of viewpoints and increasing understanding of the interlinked nature of those same challenges (Richards et al., 2004).

2.1.1 Different aspects of participation

The increasing demand for participation reflects changing environmental conditions and social trends, particularly the quest for sustainable development. As a result, collaboration methods are now spread across the range of environmental issues, including habitat loss, land degradation, pollution control and aquatic resource management (Koontz & Thomas, 2006). Drivers can either come from global and national legislation (top-down), or from different groups within the society (bottom-up). People's involvement varies greatly, from citizens only being informed about a certain decision, to them being given full control of the project at hand. The difference between these levels is the relative balance of power and control between the participants and the projects' initiators (Richards et al., 2004).

Many theorists have tried to define and describe participation and its elements, leading to the development of different degrees and categories of participation. Most of these typologies are based on *normative* assumptions, where the different kinds of participation range from low to high quality (Cornwall, 2008). In normative participation the focus is on the participatory process and the fundamental right of people to take part from an ethical or procedural perspective, for example in decisions regarding the environment. The benefits for the society are emphasised, with the argument being that stakeholder participation makes it less likely that some groups are excluded from sharing their opinions or taking part in the decision-making process. In contrast, *pragmatic* arguments are results-oriented, focusing on the use of participation as a means to an end, which can deliver higher quality decisions based on more complete information. At the centre of this view is the idea that even if people are simply providing information, they are more likely to agree with and support a new project and its associated methods if they feel they are involved to some degree (Pretty, 1995; Reed, 2008).

Among the normative typologies, Arnstein's ladder of participation is probably one of the best known (figure 2.1). Although the eight-rung ladder demonstrated by Arnstein (1969) is a simplification, it shows very well that participation cannot be considered a universal term, but rather a complex concept with a significant level of gradation. However, it has been argued that the higher rungs of the ladder do not always have to be more desirable than the lower ones and that there are often legitimate uses of all these different forms of engagement (Richards et al., 2004).

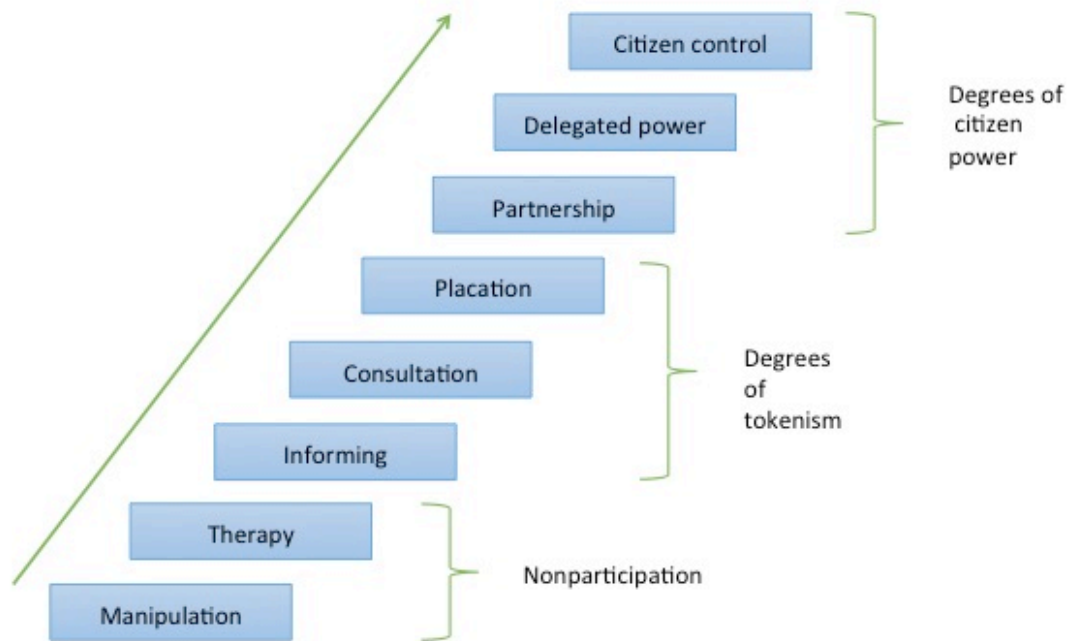


Figure 2.1. The eight rungs on the ladder of citizen participation, as described by Arnstein (1969).

Another, and perhaps simpler, approach developed by Rowe & Frewer (2005) is the use of different descriptors to differentiate initiatives classified as public participation, which in combination can be referred to as public engagement. This describes the direction of the flow of communication or information between the 'sponsor' (the party commissioning the initiative in question, e.g. a governmental or regulatory agency) and public representatives. This dialogue is divided into three types; public communication, public consultation and public participation (figure 2.2).

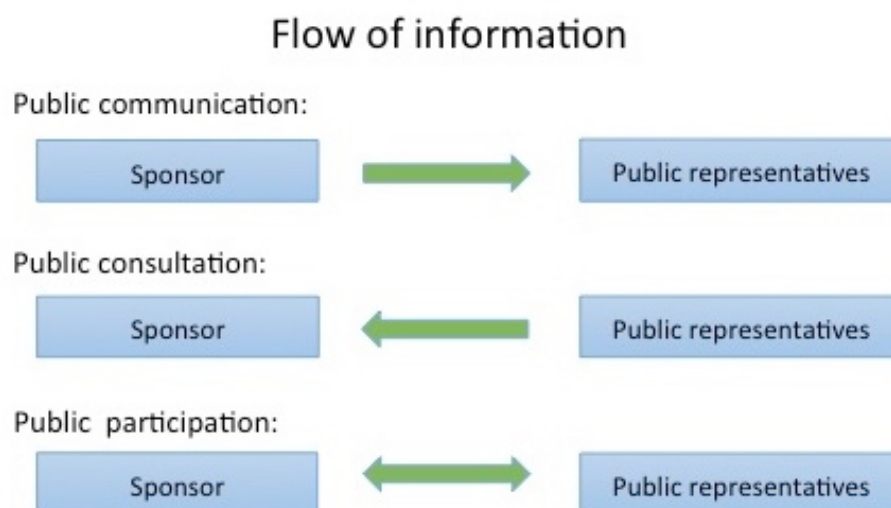


Figure 2.2. The three types of public engagement, as described by Rowe & Frewer (2005).

In **public communication** there is no involvement of the public per se, since public feedback is not required or specifically sought. This process is therefore mostly about communicating information, for example about already made decisions, to the people or citizen groups this information concerns. **Public consultation** does not include a formal dialogue between individual members of the public and the sponsors, but rather information gathered from the public is believed to represent currently held opinions on the topic in question. In **public participation** a two-way flow of information exists, with some degree of dialogue taking place within the process, thus involving representatives of both parties, albeit often in different proportions. Like Arnstein's ladder, this approach describes the incremental involvement of the public or stakeholders in the participation process. However, the authors argue that more involvement does not necessarily have to be a better option, and rather the selection of method should depend on the project at hand (Rowe & Frewer, 2005).

Participation is rarely straightforward, with the distinction between the different typologies mentioned above, as well as their different levels, often not so clear-cut in practice. This is in part a result of the fact that there are usually many different stakeholders involved, each with their own agendas and ideas about what 'participation' really means. A 'full' or 'complete' participation may be something that sounds ideal in theory, but may be very difficult to realize in reality, becoming too time-consuming or difficult to comprehend, and thus not capable of keeping everyone actively engaged (Cornwall, 2008). The outcomes and quality of environmental decision-making through participatory approaches are thus very much dependent on how the process leading to these decisions is conducted. Methods should be developed in light of the specific context, especially the level of engagement required. It is then the practitioner's task to determine which level of engagement is most appropriate for his or her own particular context, and develop methods depending on the chosen path (Richards et al., 2004). Participation is therefore a rather contested term, which, depending on the situation or project at hand, may have very different meanings. Thus, when this term is used, it is important to look thoroughly into what it actually means in the specific context (Pretty, 1995). In some cases, the stakeholders involved may hold very little influence within the project, which may make it less likely that accomplishments achieved will have any lasting effect on people's lives. In some cases, the concept of participation may thus simply be used for political gain or a validation of certain policy goals or course of action, without really being connected with how things are carried out in reality (Cooke & Kothari, 2001).

2.1.2 What constitutes effective participation?

When dealing with participatory processes it is not always simply the question of choosing one path instead of the other since each process can incorporate a range of different individual methods, each with its own strengths and weaknesses. The objectives of the process need to be clear from the beginning, including what level of engagement is

expected at each stage of the process, and which decisions the participants are able to influence (Cornwall, 2008). Furthermore, it is necessary to include efficient facilitation of the process (Reed, 2008).

It is generally acknowledged that incorporating both local and scientific knowledge can provide a better understanding of the complex processes existing within and between social and ecological systems. Such knowledge can also be used to evaluate the potential effect and relevance of various technical and local solutions to environmental problems (Reed, 2008; Richards et al., 2004). However, it is not enough to simply open up a space for people to express their opinions or ideas, some kind of mechanism also needs to be in place that acknowledges and utilizes this information. Without such a system, people might feel that their voices are not being valued or translated into influence (Cornwall, 2008). Having such a system in place is highly important, since evidence suggests that locally based, locally owned decisions are often the most effective in the long term, making it more probable that projects will continue beyond the designated implementation period. Broad ownership of a decision might also increase the chance of a range of stakeholders supporting the implementation (Richards et al., 2004). Such potential benefits of participatory approaches might, however, be difficult to quantify in advance.

When it comes to participation, there is no simple model that applies to all circumstances, but formal processes are generally needed to ensure that ideologies and visions are carried forward in practice (Pretty, 1995). Therefore, successful participatory processes need careful planning and project management, which should begin with a proper publicising of the process, ensuring that the information provided is complete, understandable and accessible. It should also allow for reflection and review, handle inputs from stakeholders and establish a mechanism for feedback, evaluation and delivery, as described in figure 2.3 (Richards et al., 2004). The management strategy should emphasize empowerment, learning, listening and mutual respect, and the application of processes must be appropriate to the context, the scale of the process, and level of engagement selected (Stringer, Reed, Dougill, Seely, & Rokitzki, 2007).

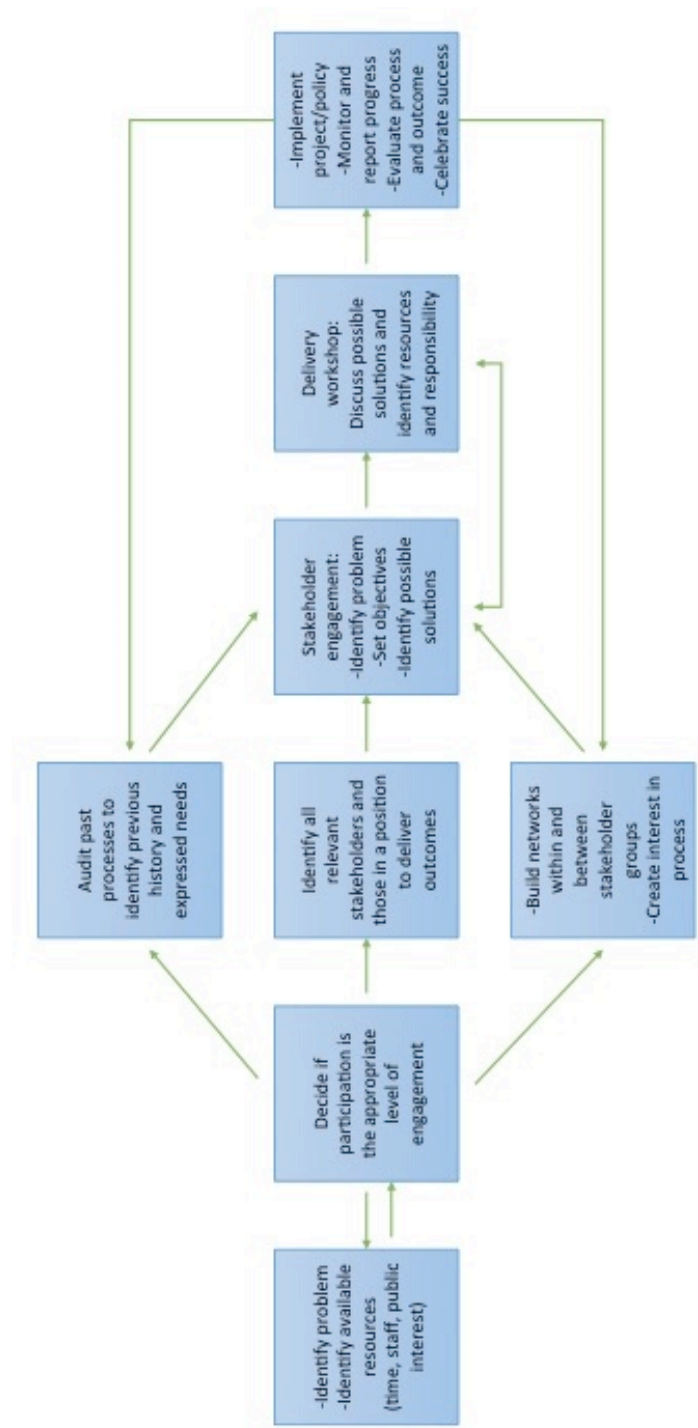


Figure 2.3. An ideal design of a participatory process, as described by Richards et al. (2004).

Environmental management decisions are often constrained by the non-negotiable terms of top-down legislation and policy and it is quite common for participatory processes to be initiated on higher institutional levels. Hence, a tension can exist between environmental management, based on regulation by the government, and public participation, when it comes to opinions on day-to-day management practices (Richards et al., 2004). However, if feedback and learning is both horizontal (between stakeholder groups) and vertical (fed back to higher institutional levels), participatory processes should help shape projects in both their local and broader management context. In this way, local perspectives are introduced to higher levels through the repetitive processes that are taking place (Stringer et al., 2006). Thus, the possibility of using bottom-up processes to seek collectively developed approaches when implementing top-down policy shouldn't be restricted (Richards et al., 2004). Nevertheless, in order to achieve such feedback across institutional levels, an agent or an institution acceptable to all groups is required to ensure that this sort of dialogue does indeed take place. If this is not the case, it becomes less likely that such projects will reach their full potential (Stringer et al., 2006).

Stakeholder participation often has to deal with power imbalances and clashing views of the different actors involved, each with their own ideas or agenda (Cornwall, 2008). Thus, for successful participatory projects, the establishment of strong relationships between different stakeholders should be emphasized, including partnerships between the agencies involved. Part of this process includes acknowledging the positive and negative aspects of the stakeholders' previous interactions. While protecting or restoring the environment might be the objective, developing and maintaining stakeholder engagement is fundamental for such goals to be achieved (Richards et al., 2004). Another key variable in the success of a participatory project is the scale of its operations. Hence, sites small enough to allow communities to come to terms with problems, goals, and indicators can prove more successful than projects on a broader scale. This means that the scaling up from successful local projects to larger programmes significant to national policy can become challenging. Transferability and comparability of results between communities and districts may also be problematic, particularly if results are context specific. The controversy of the project, i.e. how debatable, or threatening for different groups within the society the project is, also factors in (Stringer et al., 2006).

Reaching an agreement is not always an easy task, especially where participants hold opposing values, or fail to respect alternative views. For example, there may be different views on what represents knowledge or evidence, with some stakeholders not valuing subjective opinions as highly as technical data. In addition, stakeholders may prefer to further their own objectives rather than seek collectively agreed outcomes, especially when the process in question challenges established social dynamics. If people also feel that the aim of the process is simply to validate decisions already made, or to provide the illusion that different groups are being consulted, distrust can arise which can ultimately lead to the failure of the project (Richards et al., 2004).

It can prove complicated to connect management processes to environmental outcomes since, due to the nature of such processes, determining how much has been achieved by collaborative measures is not an easy task. This can be the result of a lack of data, since putting forward claims about the environmental impacts of collaboration is difficult if no concrete evidence exists on the change in environmental conditions. It is common that the outputs, such as plans, projects, management practices and policies are emphasized within participatory projects, while the development of indicators for environmental outcomes often gets neglected. Failure to establish evidence of environmental improvements might dissuade the use of collaboration in cases where such measures could be effective (Koontz & Thomas, 2006). Therefore, it is important that when a project is implemented, it is clear how indicators should be developed and which stakeholders should be involved in impact monitoring and assessment. If such a guide does not exist it becomes difficult to assess the progress and success of participatory approaches (Stringer et al., 2007). Multi-stakeholder participation can provide favourable results when it comes to monitoring and evaluating a project. Effective communication and efficient information flow is necessary within such a process, since the people participating often carry out this monitoring and evaluation. Thus, performing such tasks can prove both empowering and practical (Stringer et al., 2006).

Land degradation is a multi-dimensional, dynamic problem. Therefore, assessments that do not consider local interpretations often neglect to capture the complexity of the problem or fail to provide results that are meaningful and useful to land managers. Participation of scientists from a broad spectrum and the combination of both participatory and non-participatory methods can help limit the trade-off between a consistent, effective participation and actual, bio-physical results. There is evidence to suggest that multi-stakeholder participation can play a very important role in shaping the local context of projects. In addition, they can bring information back to policy makers so that future policies can become more appropriate and efficient (Stringer et al., 2006). However, as previously stated, the concept of participation remains loosely defined, providing little guidance for how to design and conduct such a process. This makes the level of stakeholder engagement as well as the process design greatly variable within different projects. That said, in order to understand why participation is believed to be so important when it comes to environmental problems one needs to look more closely at how social activities can affect ecological processes.

2.2 Social-ecological systems

If an ecological system is linked to or affected by one or more social systems it can be referred to as a social-ecological system (Anderies, Janssen, & Ostrom, 2004; Ostrom, 2009). As environmental problems arise, often as a result of human activities, it can prove necessary to counteract these effects with what is usually referred as ecological restoration (Abensperg-Traun et al., 2004; Benayas, Newton, Diaz, & Bullock, 2009). Although restorative measures vary greatly, they all have the common aim of “...assisting the recovery of an ecosystem that has been degraded, damaged or destroyed” (Society for Ecological Restoration (SER), 2004). This practice involves a broad spectrum of actions, such as halting erosion, reforestation, removal of invasive species and revegetation of degraded areas (Aronson et al., 2010). When an ecosystem has been fully restored it should be self-sustaining with a balance existing between ecological processes and human activities in a reciprocal relationship (Society for Ecological Restoration (SER) & International Union for Conservation of Nature (IUCN), 2004). A healthy socio-ecological system should thus benefit from inventions that create new opportunities while it is kept safe from forces of degradation (Holling, 2001). This describes restoration from an ecological perspective, but as Clewell and Aronson (2007) note, there are different ways of looking at this issue. Ecological restoration from a socioeconomic perspective thus emphasizes the flow of natural goods and services and thus the economic benefits functional ecosystems bring to society. If however ecological restoration is looked at from a personal and cultural perspective, it has the capacity of reinventing our connection with nature through aesthetics, providing personal satisfaction, shared experiences and purpose.

In many regions of the world it has become a high priority to restore ecosystems of agricultural landscapes, but it is important to note that a variety of different factors influence such processes (Abensperg-Traun et al., 2004). Governments usually shape national policies regarding restoration, while restoration efforts are often managed by the local governance system, such as municipalities, and finally implemented by the stakeholders in question. In order to successfully restore a degraded ecosystem it is therefore not enough to focus only on its ecological structures and functions. This has to do with the fact that the way ecosystems are treated is very much influenced by the effectiveness of the related policies, the relevant stakeholders and the surrounding socio-economic and political settings (Abensperg-Traun et al., 2004; Pétursdóttir, Arnalds, Baker, Montanarella, & Aradóttir, 2013). Social and economic factors should therefore be incorporated into the processes of restoration projects, as they are believed to be just as consequential as scientific and technical elements in the success of such projects (Comín, 2010). Hence, if an ecological restoration project is to be a success, certain principles must be applied that consider both ecosystems and human systems. For ecosystems this includes treating the causes rather than symptoms of degradation and making sure that monitoring protocols are in place to allow for adaptive management. When it comes to the society, it is

important to ensure that all stakeholders are fully aware of the range of possible alternatives, opportunities, costs and benefits that restoration can provide (Burton & Paragahawewa, 2011). It is also important that all stakeholders and relevant sectors have certain rights when it comes to the restoration projects and are engaged in the planning, implementation and monitoring processes. In addition, they should be involved in defining the extent of restoration or rehabilitation of the degraded ecosystem. For this purpose, all forms of historical and current information, scientific or local, should be considered (SER & IUCN, 2004).

However, the involvement and influence of the various stakeholders does not always seem to be ensured within restoration projects. In their analysis of participatory approaches in land restoration in Iceland, Berglund, Hallgren, & Aradóttir (2013) conclude that there is a lack of focus on maintaining communication and ensuring the influence of all stakeholders. Instead the emphasis is on the tangible progress, or the product, of restoration projects, neglecting the part human communication plays in this context, which may limit the projects' effectiveness. The results of a study conducted by Pétursdóttir et al. (2013) further support this trend, showing that a lack of communication within the governance part of social-ecological systems can halt the progress of management projects such as rangeland restoration. This can even have negative effects on the environmental attitude and behaviour of stakeholders in relation to rangeland management.

2.2.1 Agri-environmental schemes

In agriculture, policy makers often use subsidy schemes to encourage and promote sustainable practices in farming, which are generally referred to as agri-environmental schemes (AESs). Under such a scheme, a farmer who reaches certain predetermined standards in sustainable land use is entitled to specific funding (Burton & Paragahawewa, 2011). Thus, one might say that farmers are hired as land managers, responsible for the natural resources at hand. However, the degree of which such schemes affect the current practices of the farmers is variable, where the percentage of farmers participating often being higher in projects that do not require a lot of adaptation (Harrison, Burgess, & Clark, 1998).

With a growing awareness of the need to address environmental problems connected to agriculture, interest in AESs has been increasing. This is also a result of the growing public understanding of the benefits that a strong link between agricultural practices and resource management can provide (Atari, Yiridoe, Smale, & Duinker, 2009). This is apparent from the EU Common Agricultural Policy (CAP), where the role of farmers in landscape and resource conservation has been officially acknowledged since the beginning of the 1990s. Since that time, voluntary AESs have become a key policy instrument for environmental conservation and enhancement (Burton, Kuczera, & Schwarz, 2008).

There has been considerable optimism regarding voluntary participation in AESs, with the hope being that such participation may lead to an attitudinal change among farmers and even entire farming communities. Valentine, Hurley, Reid & Allen (2007) indicate that in some cases a subsidy scheme can break up existing traditions, thus leading to a more sustainable environmental behaviour. They further suggest that when such behaviour has become accepted within the community it can lead to a permanent change, even when financial incentives have been removed.

Such voluntary agreements have become quite widespread, creating a visible impact in many places across Europe. As such, one might assume that the change they have brought about is more than simply biophysical. However, this seldom seems to be the case and the attitudinal and environmental change has not been as prominent as was expected (Burton et al., 2008). Research even shows evidence that subsidies provided to participants following the specific rules of a subsidy system can halt innovation and creativity within the field (Burton & Paragahawewa, 2011). This is especially important since the encouragement of social innovations and competition among different approaches has been suggested to be the foundation for attitudinal and operational change (Meadowcroft, 2009). However, it has been noted that because of the high costs of restoration actions it is impossible to widely implement such measures without some financial incentives being provided (Bullock, Pywell, & Walker, 2006).

It has further been suggested that agri-environmental approaches may not receive a permanent status as 'good' practice within farming cultures unless policy-makers allow for the creation of cultural capital. This means that these approaches have to become accepted and seen as advantageous within the society (Burton et al., 2008; Burton & Paragahawewa, 2011). For that to happen, it is argued that the farmers need to be able to further develop and demonstrate these approaches or skills through their daily activities, thus leading to additional improvements (Burton et al., 2008).

The importance of a comprehensive monitoring mechanism and achievable standards must not be overlooked, since it may become hard for farmers and programme administrators to prove their claims of environmental responsibility without some way to verify such claims (Atari et al., 2009). Establishing monitoring systems and benchmarks could thus play an important part in improving relationships between different stakeholders, and should therefore be discussed at a broad social scale. This means that a consensus should be established across society on how future landscape should look like and what services they should provide. Thus, while nature conservation requirements need to be met, maintaining agricultural communities is also important (Abensperg-Traun et al., 2004). Supervision and consultation in participatory programmes also require consistency, since changes that are not properly introduced in advance can lead to distrust. Such scepticism towards the operations of a system may also lessen the extent of which participants seek advice or assistance (Juntti & Potter, 2002).

Although opinions differ on the effectiveness of AESs, there is a general consensus that such systems are necessary to move land use towards increased sustainability. This is apparent from the general political will to fund ecological restoration aimed at increasing agricultural sustainability. Within the EU, subsidies are seen as a way to guarantee social stability and environmental standards. This is because agricultural land is seen as having the potential to provide social, ecological and economic benefits in addition to agricultural production (Abensperg-Traun et al., 2004). It is also important to note that even though agri-environmental programmes are not always as efficient as was hoped for in the beginning, the environment would most likely be in a worse state than it currently is without them (Burton & Paragahawewa, 2011).

2.3 Chapter summary

This chapter has aimed at describing the different levels of participation and the various ways its meaning and purpose can be interpreted. The literature presented here demonstrates that participation is not always about choosing one path, since each process can incorporate various different methods, each with its own strengths and weaknesses. However, clarity must be maintained throughout the process, for example regarding the level of engagement expected at each stage, which decisions can be influenced. The flow of information must also be efficient and should preferably not be one-way oriented.

The usefulness of participation when dealing with environmental problems and ecological restoration is also demonstrated. The chapter describes how social and ecological processes connect and influence each other, and why this needs to be taken into account for restoration to be a success. In addition, the purpose and structure of agri-environmental schemes was introduced, why such schemes have been believed to be able to influence farmers' attitudes and operations, and what has led to them being criticized. This is especially discussed in relation to the importance of encouraging innovation, maintaining stakeholder relationships and establishing proper monitoring mechanisms as well as achievable standards.

3 Case background

In the following chapter the history and characteristics of Icelandic sheep farming will be introduced with specific reference to grazing management, the associated policy setting and legal framework. Last but not least the matter at hand – the QMS scheme – will be further introduced and how it addresses the issue of sustainable land use.

3.1 Sheep farming in Iceland

Agriculture, and especially livestock farming, has through the ages been an important part of life in Iceland, both when it comes to securing food supply or creating jobs (Eyjólfsson, 2010). One of the animals that has been associated with humans for the longest time is the sheep. In this context Iceland is no exception, with sheep farming being practiced in the country since the time of the first settlement, coinciding well with the primary needs for food and shelter. Even though the Icelandic way of life has changed in many aspects, sheep farming and its products are still considered of great consequence within the modern society (Bragason, n.d.). However, it is important to note that Icelandic livestock farming, and agriculture in general, hinges on many different factors. As defined within Act no. 80/2004 on the Rights and Obligations of Landowners and Land Users² these include: “...all kinds of safekeeping, protection, utilization, breeding and cultivation of livestock, freshwater animals, land and its resources for employment, value creation, food production and service connected to such operations”.

Icelandic agricultural policies are determined by renewable multi-year agreements between the Government and the Farmers Association of Iceland, which provide the general support and production control for farmers. One of these agreements is the Agreement on Sheep Production³, currently in effect until 2017. In accordance with the agreement, sheep producers receive direct support from the government in addition to market price support maintained by border control measures (OECD, 2014). In the mid-1990s, payments based on the total sheep meat production per farm were replaced by payments based on the historical production of the farms. This means that a certain quota was set to limit the production, which then became tradable among farmers. However, in order to remain eligible to receive such payments, this system continues to require that a certain number of winter-fed sheep remain on the farm. In addition to this, farmers receive payments specifically through the QMS (Arnalds & Barkarson, 2003; OECD, 2014).

² Icel.: *Ábúðarlög*

³ Icel.: *Samningur um framleiðslu sauðfjárafurða*

Agriculture is a small and proportionally declining sector in the Icelandic economy. In recent times, agriculture has changed extensively, with the number of sheep declining since 1980 (figure 3.1) (OECD, 2008; Pétursson, Guðleifsson, & Valsdóttir, 2013). This can probably be linked in part to the changes in the subsidy system. Nevertheless, sheep farming remains one of the main agricultural activities in Iceland, partly relying on communal highland areas for grazing. The use of some of these areas for this particular purpose has been rather contested, because of the vulnerability of the vegetation and soils combined with the harsh climate (Arnalds & Barkarson, 2003; OECD, 2008).

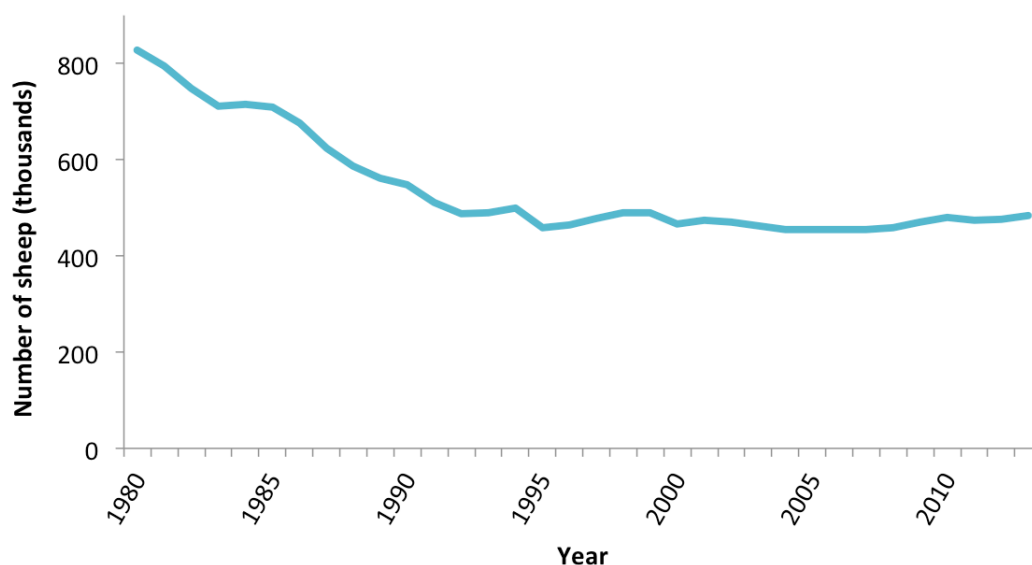


Figure 3.1. Trend in the number of sheep in Iceland from 1980 – 2013. (Iceland Statistics, 2015)

Sheep grazing can have severe effects on badly degraded land since it can reduce the resilience of the ecosystems to degradation processes, thus preventing the natural improvement of the land (Arnalds et al., 2001). However, the role grazing plays in land degradation and desertification in Iceland has been intensely debated, especially its effect in the highlands, where a large part of the ecosystem is severely degraded (Arnalds, Þórsson, & Þórarinsdóttir, 2003). This especially relates to its significance when compared to other elements since land degradation is caused by a complex interaction between various environmental factors. Iceland's geological age and geographic position makes the natural environment especially susceptible to erosion, although the common belief is that human activities have facilitated the extensive degradation that we are facing today. For example, Ólafsdóttir & Guðmundsson (2002) investigated the causes of land degradation in Northeast Iceland, and concluded that sheep grazing was a supporting factor, but not necessarily the cause, of the current state of the area's ecosystems.

3.1.1 Grazing management

Although most people would agree that agriculture should be sustainable, the same consensus does not always exist when it comes to defining what this actually means when it comes to farming conditions or operations. Sustainability is by its nature a complex and contested concept, which makes defining it in an exact and absolute manner an impossible task. As a result, the same goes for sustainable agriculture.

In the context of environmental management, sustainability usually means that actions should not damage or degrade natural resources, but in any such discussion it is important to clarify what is being sustained, for how long, who will benefit and who will pay the price. This is not always straight forward since answering these questions requires assessing and negotiating between different values and beliefs (Pretty, 1995). According to the Icelandic government's policy on sustainable development and agriculture, grazing should be moderate and structured and should not exist in fragile environment sensitive to soil erosion (Icelandic Ministry for the Environment, 2002). However, the lack of definitions and a national land-use planning policy has created uncertainties in policy making processes and has been a source of conflicts between national and local authorities (OECD, 2014).

The legal grounds for grazing management in Iceland are mostly disclosed within the Act on Rangelands⁴ no. 6/1986, Act on Livestock Handling⁵ no. 38/2013 and Act on Agricultural Products no. 99/1993. The Act on Rangelands states that decisions on grazing management practices, including length of grazing period and stocking density, are in the hands of municipal authorities and district councils. According to Acts no. 80/2004 and no. 81/2004 on the Rights and Obligations of Landowners and Land Users⁶, agricultural activities should not have negative effect on land condition. However, this is not specified in more detail within those acts.

Acts and regulations on livestock grazing and sustainability are in the hands of two ministries, the Ministry for the Environment and Natural Resources, and the Ministry of Industries and Innovation. In compliance with Act no. 70/1998 on Farming Practices⁷ livestock farming should consider Iceland's commitments regarding the conservation of biological diversity, although the act itself does not elaborate on how to do so. The Act on Livestock Handling states that free range grazing of livestock is allowed, but municipal authorities can ban grazing, either in specific regions or the municipality as a whole. Such limitations are quite common, with the general rule being that livestock grazing is banned

⁴ Icel.: *Lög um afréttarmál, fjallskil o.fl.*

⁵ Icel.: *Lög um búfjárhald*

⁶ Icel.: *Jarðalög and Ábúðarlög*

⁷ Icel.: *Búnaðarlög*

within urban areas. However, owners of livestock cannot be held responsible if their animals are found on other people's land. According to the Act on Rangelands there are no set limits on stocking density on grazing lands unless formal comments or complaints have been made on the condition of the land in question. Such comments usually originate from the Soil Conservation Service of Iceland (SCSI) since they have the legal obligation to monitor the condition of vegetation cover according to Act no. 17/1965 on Reclamation⁸. In these cases, a special council is assembled to determine the total amount of livestock allowed on the communal grazing land. This stocking density should be constantly evaluated based on the carrying capacity of the land in question. Therefore, the condition of the grazing land needs to be assessed on a yearly basis, and available research should be utilized in that process.

A landmark agreement was made in the year 2000 between Icelandic sheep farmers and the Government, where a part of production subsidies became dependent on sustainable land use practices through the QMS scheme (Arnalds & Barkarson, 2003). The current sustainability goals relevant to Icelandic sheep farming are defined within this scheme. The concept of sustainability is specifically defined within article 3 of the Regulation on Quality Management in Sheep Farming (QMS) no. 1160/2013⁹ as: "utilization that does not deplete land resources, e.g. soil, vegetation and water, and simultaneously secures maintenance and function of the ecosystem in the future".

The Food and Veterinary Authority of Iceland holds administrative responsibility for the implementation of the scheme. However, the SCSI is charged with the implementation of the land use part of QMS.

3.1.2 Quality Management in Sheep Farming

This cross-compliance scheme was originally created in order to ensure that sheep products were produced according to the specific requirements of the associated regulation. In addition, the scheme addressed growing environmental concerns related to agriculture, by ensuring that one third of the subsidies available to farmers through the QMS were dependent on land use criteria (OECD, 2008; SCSI, 2014). Apart from sustainable land use and land improvement, the regulation extends to many other factors such as record keeping, cultivation, feeding, animal health, use of pharmaceuticals and product quality (Regulation on QMS, no. 1160/2013, art. 1.) Besides the obvious goal of improving the quality of the production process, the original aspirations were that the scheme would help improve the image of sheep farming in the eyes of society. The scheme was also believed to have the potential of creating a basis for increased cooperation between stakeholders such as farmers and various institutions. This would then help move conventional

⁸ Icel.: *Lög um landgræðslu*

⁹ Icel.: *Reglugerð um gæðastýrða sauðfjárframleiðslu*

agriculture towards increased sustainability and responsible land use (Guðmundur Stefánsson, division head of Land protection within the SCSi, personal communication, July 17th 2014). Overall, agri-environmental policies in Iceland particularly focus on soil conservation. Hence, the related payments are for example aimed at reducing desertification and sand encroachment, promoting reclamation and restoration of degraded land and move land use towards increased sustainability (OECD, 2014).

The QMS called for a rapid assessment of all grazing land in Iceland along with creation of rules regarding sustainable land use (Arnalds & Barkarson, 2003; OECD, 2008). For this purpose, Icelandic rangelands are separated into highland and lowland areas when considering land degradation and sustainable grazing practices. This is due to the fact that the highland areas are more sensitive to disturbance than the lowlands, and they have less vegetation cover and vegetation yields. These areas also differ in their traditional use, with much of the highlands being communal grazing areas where each local community has grazing rights. Since the condition of the vegetation cover is often quite different between one common to another, their suitability for grazing is also highly variable (Arnalds & Barkarson, 2003).

Land condition assessment on farmlands is mostly based on information gathered in the *Nytjaland* project (e. Utilized Land), which was a cooperative project between the Icelandic Agricultural Research Centre (Rala), the SCSi and the Farmers' Association (SCSi, 2014). The project collected data on farmland boundaries and, with the help of remote sensing, the vegetation within each boundary was classified into vegetation types. The vegetation categorization is a good indicator of land condition and productivity, and the farmland boundaries provide the foundation for all calculations based on size (Arnalds & Barkarson, 2003; OECD, 2008). This information, in combination with a specific soil erosion survey and classification by Arnalds et al. (2001) (table 3.1), has been used as a basis for all evaluation associated with the QMS. An upper limit is defined for how much land considered in bad condition is allowed on each farm, which determines whether or not the farm fulfils the requirements of the management scheme. This limit is portrayed as the total area of grazing land allowed within the three most severe erosion classes (classes, 3, 4 and 5).

Table 3.1. Division of Iceland's land area according to erosion classes (Arnalds et al., 2001).

Erosion class	km ² (thousands)	% of total land area
0 No erosion	4,1	4.0
1 Little erosion	7,5	7.3
2 Slight erosion	26,7	26.0
3 Considerable erosion	23,1	22.5
4 Severe erosion	11,3	11.0
5 Extremely severe erosion	6,4	6.2
Mountains	9,8	9.5
Glaciers	11,4	11.1
Rivers and lakes	1,4	1.4
Unmapped	1,0	1.0
Total	102,7	100

If the proportional area of land within poor condition classes reaches a certain limit, as portrayed within table 3.2, the farm does not automatically meet the QMS criteria (Arnalds & Barkarson, 2003); Regulation no. 1160/2013, appendix I). In such cases, a further inspection needs to take place, and farmers are not granted certification or payments unless changes in grazing practices and an appropriate land improvement plan is developed.

Table 3.2. Set limits for soil erosion classes on grazing lands according to the newest Regulation on QMS. The table shows the allowed proportion per farmland for lowlands as well as for highland and communal areas (Regulation on QMS, no. 1160/2013, appendix I).

Proportion allowed per farmland, in % or hectares		
Soil erosion classes	Lowland areas	Highland areas and commons
Classes 3, 4 and 5 combined	≤33% or ≤ 40 ha	≤ 33%
Class 5	≤ 5% or ≤ 5 ha	≤ 5%

On January 1st 2014 a new regulation was implemented regarding QMS, with an increased emphasis on sustainable land use. This means that sheep farmers need to ensure that their entire grazing area is used sustainably according to the definition found within the regulation. If the regulation requirements are not fulfilled, the farmers themselves are responsible for developing a restoration plan aimed to reach those requirements. Farmers can however employ the help of advisors, such as from the Icelandic Agricultural Advisory Centre (IAAC)¹⁰.

The restoration plans should for example include information on the number of livestock grazing on the land (i.e. stocking density), position and size of defined grazing land as well as protected areas. Furthermore, they should state what measures will be used in the restoration process, how they will be implemented and where the implementation will take place. It is also important, especially in the context of monitoring the progress being made, to state the objectives of the land improvement plan. For example, an area can be protected from grazing for the purpose of improving the vegetation, which then falls under land improvement. However, an area can also be protected for the purpose of excluding it from the total grazing land, and as a result such land is excluded when the condition of the grazing land is assessed. Since that particular piece of land is no longer a part of the land improvement plan the only surveillance necessary is to make sure that the land continues to be protected (Regulation on QMS no. 1160/2013, appendix I).

According to article 17 of the regulation, the progress of the land improvement projects should be evaluated at least every five years. Such assessment should include measurement of vegetation height, vegetation cover, proportion of specific species groups within the vegetation, or other factors considered to be adequate indicators of the progress. The concept of land improvements is defined within the regulation as all actions taken where the objective is to improve land condition. Sheep farmers that fulfil the conditions of the QMS in the period of January 1st 2014 to December 31st 2017 have the right to receive special subsidy payments from the government. This is in accordance to the Contract on Working Conditions for Sheep Farming¹¹, which came into effect on January 25th 2007 (Regulation on QMS, no. 1160/2013, article 1).

The organizational structure of the QMS scheme, including the farmers' stakeholder organization and advisory firm, is portrayed in figure 3.2. The Minister of Industry and Innovation is the supervising party according to the regulation but the Icelandic Food and Veterinary Authority (IFVA)¹² implements the QMS scheme. The minister may then enter into agreement with various supervisory bodies (such as governmental agencies or private institutions) about supervision or assessment measures on land being used within the

¹⁰ Icel.: *Ráðgjafamiðstöð landbúnaðarins (RML)*

¹¹ Icel.: *Samningur um starfskilyrði sauðfjárræktar*

¹² Icel.: *Matvælastofnun (MAST)*

scheme (Regulation on QMS, no. 1160/2013). The SCSi has handled the supervision of the land use part of QMS according to such an agreement since 2010. The IAAC then serves as an independent advisory firm for farmers, while also holding a specific workshop each year on the QMS. However, this one-day course mostly focuses on introducing the regulation requirements, while providing very little information or advice on sustainable land use practices (Borgar Páll Bragason, crops specialist within the IAAC, personal communication, January 26th 2015).

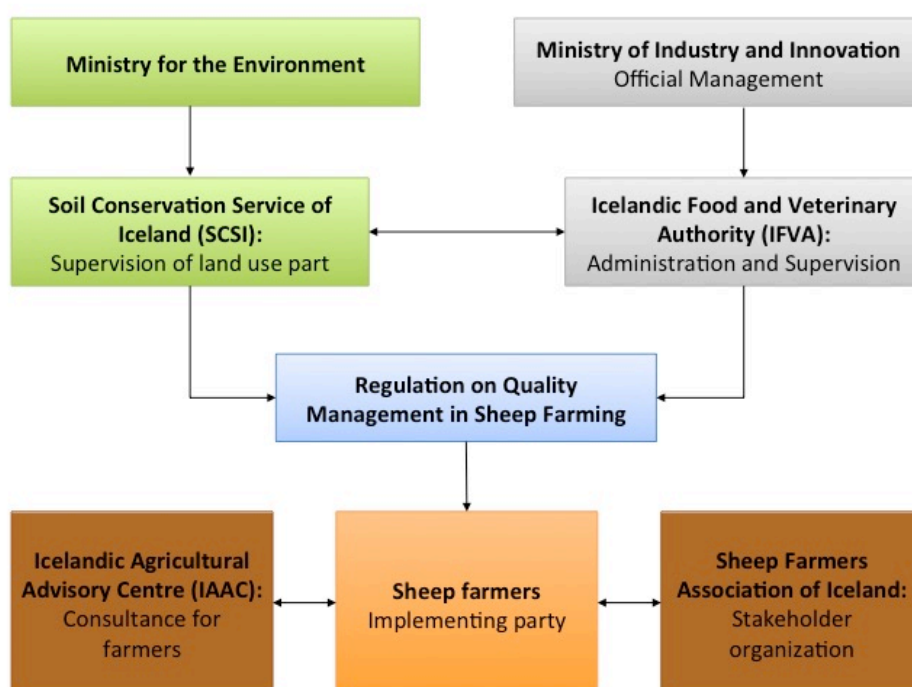


Figure 3.2. Organizational structure of the QMS scheme, constructed in reference to the Regulation on QMS no. 1160/2013.

The general surveillance carried out by the SCSi is twofold. On the one hand, 2% of the participants are chosen annually through random sampling, where their land use is assessed with regards to condition of grazing land and the sustainability criteria described within the Regulation on QMS. On the other hand, surveillance is carried out alongside other tasks of the SCSi, which includes responding to information and tips the agency receives about inappropriate land use (SCSi, 2014).

Prior to the implementation of the new regulation the SCSi was in many aspects seated at all sides of the table. First, as an all-round advisor when it came to the construction of land improvement plans in connection to the QMS scheme, secondly as the party responsible for evaluating those plans and thirdly through supervising their implementation. The role of the SCSi is defined in more detail within the new regulation with the institution no longer being directly involved in developing the land improvement plans. Instead they provide the information necessary, for example by creating vegetation maps in cooperation

with farmers and their stakeholder organizations. In addition, when a land improvement plan has been created it is sent to the SCSi for evaluation and comments and then onwards to MAST, where the plan is either approved or, if it is deemed unsatisfactory, sent back to the farmer for improvements. (Guðmundur Stefánsson, personal communication, July 17th 2014).

QMS is based on voluntary participation, where farmers have to apply for membership in the scheme on a yearly basis. In 2013 around 70% of all sheep farmers in Iceland were participating in the scheme, which represents 90% of the country's sheep production. In recent years the emphasis has been on supporting land improvement projects related to QMS, with almost 70% of all grants awarded through the Land Improvement Fund¹³ being allocated to such projects in 2013 (SCSi, 2014). These high numbers, along with the increased emphasis the new regulation puts on sustainability, suggest that the QMS should have an overall positive effect on land use and land improvement.

During the data collection period of this study, Regulation on QMS no. 1160/2013 applied and therefore the background focuses on that specific regulation. However, in June 2015, certain changes were made that especially affect the land use part of QMS, which were implemented through Regulation no. 536/2015 on Changes on Regulation no. 1160/2013 on QMS¹⁴. This regulation mainly handles issues related to the construction of land improvement plans, and is chiefly a response to the discontentment regarding the changed role of the SCSi in that respect (Guðmundur Stefánsson, personal communication, September 15th 2015).

According to the new regulation, farmers are again allowed to seek advice from the SCSi when constructing land improvement plans, and in such cases, the SCSi acknowledges that the plan has been made in consultation and agreement with the agency. The SCSi can thus be directly involved in the making of such plans although farmers are not obligated to consult the agency. In cases where land improvement plans are not constructed in collaboration with the SCSi, the agency can, in addition to giving a review, also give feedback on what should be improved, to increase the likelihood of the plan being accepted by the IFVA. Lastly, the IFVA is allowed to confirm land improvement plans, even though they are unlikely to reach the set limits of soil erosion classes as described in table 3.2. within their ten year designated implementation period. However, this is subject to certain conditions and will only be done if farmers agree to reduce grazing pressure to a certain extent and prevent the grazing of highly degraded areas.

¹³ An SCSi-run fund designated for land improvement projects.

¹⁴ Icel.: *Reglugerð um (l.) breytingu á reglugerð nr. 1160/2013 um gæðastýrða sauðfjárframleiðslu*

Because of these changes, farmers have been given an extension on the construction of their land improvement plans until March 1st 2016. This means that the land improvement plans that should have expired on December 31st 2014 are still in effect until that time.

3.2 Study area

The study area is located within Norður-Þingeyjarsýsla and reaches from the river Jökulsá á Fjöllum to the river Hafralónsá in Þistilfjörður. This can be seen on figure 3.3 along with the farmland boundaries within the area. The figure also demonstrates the total number and positions of farmers taking part in the QMS within the study area. Soil erosion and degradation are persistent problems within this domain, and according to a classification system developed by Arnalds et al. (2001) more than 900 km² of land in Norður-Þingeyjarsýsla has sparse or almost no vegetation cover. Figure 6 shows the specific soil erosion classification for the study area. Such information is used when determining whether or not farmers need to develop land improvement plans in connection to QMS.

The main occupation of the farming communities is sheep farming, which makes the organization of grazing and the strain it puts on the ecosystems an important land management issue. The area itself has a history of substantial soil erosion, and the twenty thousand hectares of the Hólsfjöll SCSi reclamation fence falling within the area's boundaries are a clear example (the larger purple area on figures 3.3 and 3.4). Hólsfjöll is the second largest area of erosion in Iceland, with only 8% considered in good condition in 1997 and nearly 70% deemed severely or extremely severely eroded (see table 1) (Arnalds et al., 2001). The SCSi fenced off the area in 1992, whereby grazing came to a halt (Crofts, 2011).

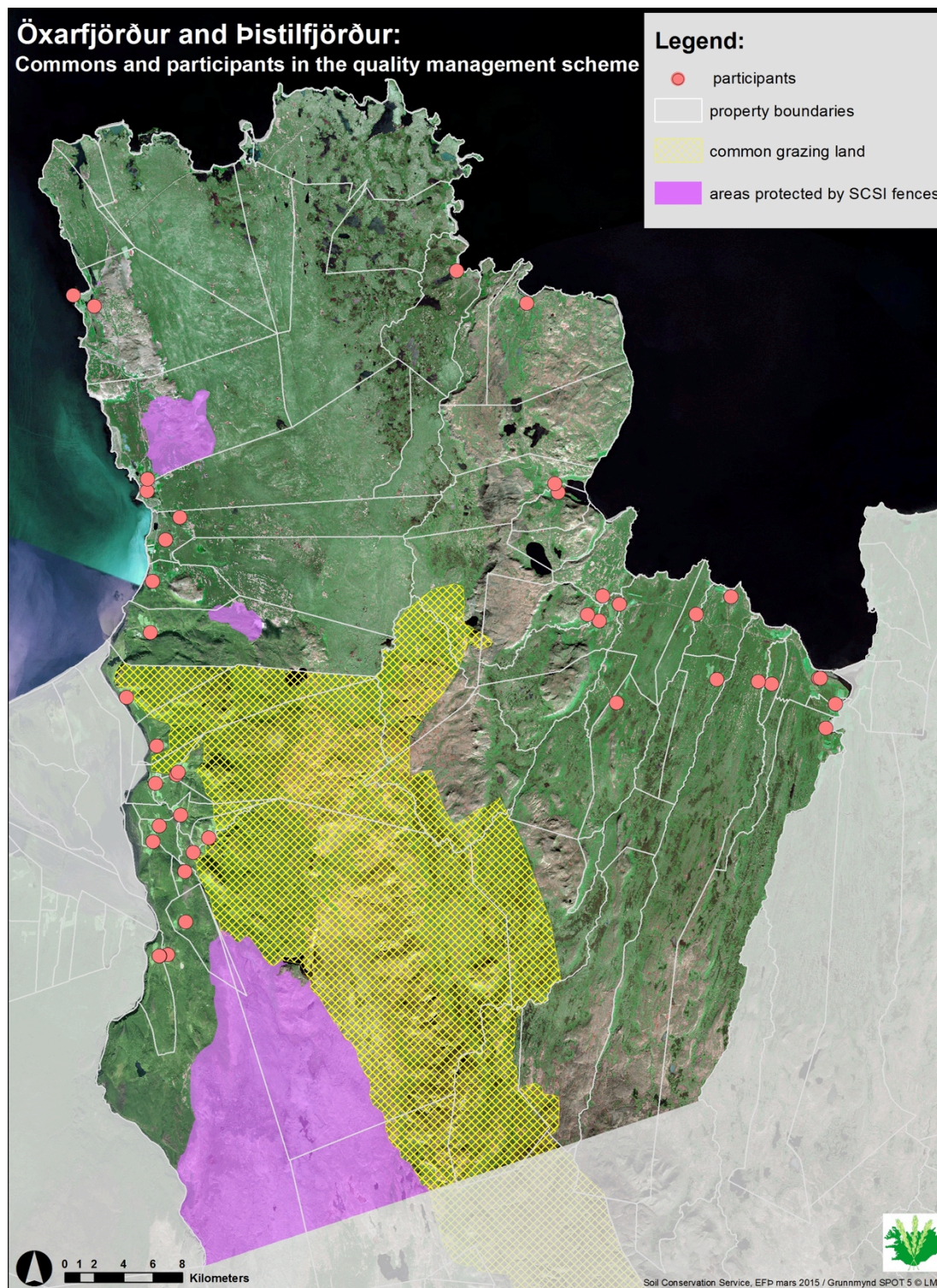


Figure 3.3. A map of the study area. Participants marked by pink dots represent all QMS participant within the area (Map made for the author by Elín Fjóra Þórarinsdóttir at SCSI, 2015).

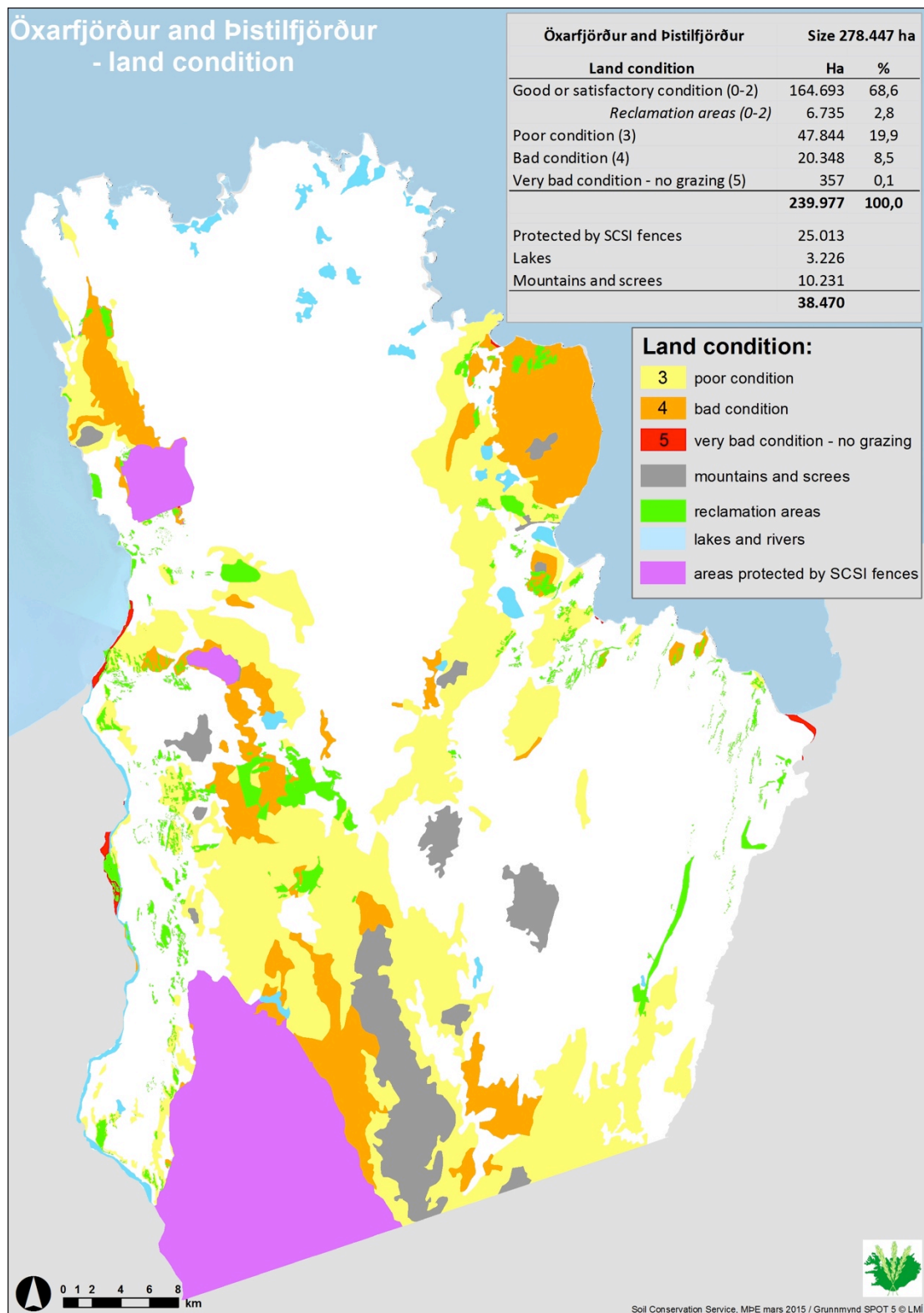


Figure 3.4. Classification of the area according to land condition, built on the classification by Arnalds *et al.* (2001). Areas without colouring are considered to be in acceptable condition, i.e. in soil erosion classes 0 to 2 (Map made for the author by Magnús Þór Einarsson at SCSi, 2015).

4 Methods

The theoretical perspective of the study is drawn from the epistemology of social constructivism. To clarify these terms, ‘theoretical perspective’ refers to certain assumptions made about reality, which underlies the questions asked within this study. The ‘epistemology’ however, is the theory influencing the methods used, and determines the study’s validity and scope.

According to social constructivism, individuals develop subjective meanings of their experiences and, since these meanings can vary, the researcher tends to look at the larger picture rather than the concepts or ideas of a few. Thus, the focus is on the participants’ view of the situations, which can be influenced through social and environmental interactions (Creswell, 2013; Crotty, 1998; Esterberg, 2002). To examine these interactions it is necessary to understand the historical and cultural settings of the participants (Creswell, 2013). Hence, when looking into the participatory element of the QMS, the communication and cooperation between the different actors within the scheme need to be examined. Using the epistemology of social constructivism supported such efforts.

The study uses a phenomenological approach to qualitative methods, which focuses on the world of the participant and how he or she experiences it (Brinkmann & Kvale, 2015). This approach distinctly compliments social constructivism, since phenomenology usually relates to an interest in understanding social phenomena from the participants’ point of view, assuming that the important reality is what people perceive it to be. This is highly important, since understanding the experiences and opinions that the participants have of the “phenomenon” Quality Management in Sheep Farming is needed in order to evaluate methods and policies in this field (see Creswell, 2013).

The study makes use of qualitative research methods since this line of action allows for a careful, detailed examination of people’s experiences through the use of in-depth interviews and observations. In order to acquire knowledge on the issue from the participants’ points of view and to understand the meaning of their experiences, semi structured, in-depth interviews were conducted with the help of a specifically made interview guide (Appendix B) (e.g. Hennink, Hutter & Bailey, 2011; Brinkmann & Kvale, 2015). This method works well within phenomenology, and helped capture personal perceptions and experiences of the participants. By conducting the interviews in the homes of the participants, this method also provided insight into the socio-cultural context of people’s lives (Hennink et al., 2011).

The use of qualitative research methods also helped establish patterns or themes, where the focus was on understanding how the participants viewed or perceived the issue. Through the use of qualitative research methods, a holistic account of the issue under study can be portrayed, reporting multiple points of view to determine the various factors that could influence the situation (Creswell, 2013). Given the complexity of the issue and the many different actors involved, this method served this study well.

4.1 Data collection

The following subchapters will present the data collection methods used in this study, including a description on how interviewees were identified and selected, and how the interviews and participant observations were performed.

4.1.1 Selection of interviewees

Participants were selected from within two different groups, which included the farming community of the study area and the stakeholder groups and institutions involved in the QMS scheme. The Food and Veterinary Authority of Iceland (MAST) provided information on farmers in the area participating in QMS. The SCSi district office in Húsavík was then contacted for further information about farmers in the area that had developed land improvement plans in connection with the scheme.

For the first group, a prerequisite of the study was that interviewees would be selected among farmers participating in the QMS, and that sheep farming was their main occupation. Therefore, participant recruitment was first carried out through purposeful sampling where parties fulfilling the selection criteria were chosen from within the farming community. This method was also used to provide a certain variety of experience related to the study topic, by seeking out a more diverse range of participants. Once the group of potential participants was determined, random selection was used to decide which of these individuals would be contacted in relation to the study (Hennink et al., 2011). The farming communities within the study area are rather heterogeneous, e.g. in terms of age and education, which was reflected fairly through the use of this method. By employing these methods, fifteen farmers were contacted and interviewed, seven of which had developed land improvement plans according to the QMS regulation requirements.

From within the second group of stakeholders and institutions, ten individuals were selected and interviewed, who were all in some way involved in the management and surrounding governance system of the scheme. This included people from the Farmers Association of Iceland, IAAC, IFVA, the Ministry for the Environment and Natural Resources and the SCSi. Participants were mostly selected through purposeful sampling, while snowball recruitment was also involved through the use of social networks and shared knowledge among individuals (e.g. Hennink et al., 2011). These interviews will not

be directly included in the findings of this study, but were used to provide a more holistic view of the system, its objectives, development and organization.

4.1.2 Interviews

The first data collection phase took place within the research area from July 30th to October 23rd 2014. For participant recruitment, letters were sent out in advance to fifteen selected parties where the research and its purpose were introduced (appendix A). A few days later I contacted the same parties via phone in order to explore their willingness to participate and to allow for additional questions or concerns. If the person agreed to participate in the study, we decided upon where and when the interviews should take place, which in all cases was in the homes of participants. The interviews were recorded, with each lasting between 40 and 100 minutes.

The second data collection phase lasted from January 26th to February 11th 2015. The ten interviewees selected were contacted through email and, if they agreed to participate, a meeting was arranged according to their preferences. The interviews were conducted face-to-face in the persons' work place, with three exceptions, where long distances required the interviews to be conducted via phone.

All interviews were transcribed in detail along with an introduction, as well as my thoughts and comments.

4.1.3 Participant observations

Participant observations include three main factors; social interaction with participants, data collection in the field and recording of data in the form of field notes. In this way, the researcher takes a specific role within the situation while keeping a certain distance to be able to record the observed events in detail (Hennink et al., 2011). Two such participant observations were conducted when the interactions between farmers and SCSI district officers were observed during the evaluation of re-vegetation projects in connection with land improvement plans on highland pastures. Eight farmers in total were present during the participant observations, two of which I later interviewed. The purpose of these observations was to gain further knowledge and understanding of the participants' life world and the way communication took place between these different actors (see Esterberg, 2002).

In the first participant observation, an SCSI district officer was accompanied during visits to four different farmers in Þistilfjörður. This involved driving up to the highlands along with the district officer and the respective farmer to evaluate each project. In the second observation, which took place in Öxarfjörður, the farmers were already up in the highlands working on their revegetation projects.

The district officers introduced me to the farmers, telling them briefly about the reason behind my presence. The farmers accepted me joining them and this did not seem to disturb the communication between them and the district officer. However, a certain shift in dynamics did take place, as demonstrated in the way that the farmers on occasion tended to point their words towards me. During the participant observations I discretely wrote down short comments, and then made comprehensive notes directly after each trip.

The notes from the participant observations were not systematically analysed in the same way as the interview transcripts, but were useful for a better understanding of the interactions taking place between SCSI representatives and farmers and helped in the interpretation process. They also provided a deeper understanding on the subject; how farmers view their land, how the need for revegetation procedures is evaluated, and how land improvement plans are developed.

4.2 Data analysis

Data analysis made use of the methodology of grounded theory, which is characterized by organized work methods and constant analytical process (e.g. Charmaz, 2014; Hennink et al., 2011). This method was also found to be complementary to the phenomenological approach, which requires data analysis to follow systematic procedures (Creswell, 2013). This study especially looks towards the constructivist grounded theory as described by Charmaz (2014), which highlights the flexibility of the method.

Following the interview transcription, the data acquired in the first data collection phase was analysed using initial, focused and axial coding in order to identify patterns, themes, biases and meanings (Charmaz, 2014). During the initial coding process, each interview transcript was read through carefully in order to distinguish important information and concepts. In focused coding the most significant or frequent codes developed during the initial coding were used to categorize this information into themes. The final step of axial coding helped interrelate the categories and describe the relationship between categories and themes. (Berg & Latin, 2008; Charmaz, 2014). This final step proved helpful when identifying specific factors that need to be re-evaluated regarding policies, procedures and regulations (see Creswell, 2013).

During the data analysis, the interpretive approach, as described by Gustavsson (1996), was also employed, where the hermeneutic model for interpreting text is closely related to phenomenology. This method places emphasis on understanding the meaning of the particular concepts and themes identified in the data. This required formulating all reasonable interpretations based on the material at hand and then testing those interpretations as new information came to light. Figure 4.1 shows the important steps taken in this interpretational process, which are then constantly repeated during the analysis as new information comes to light.

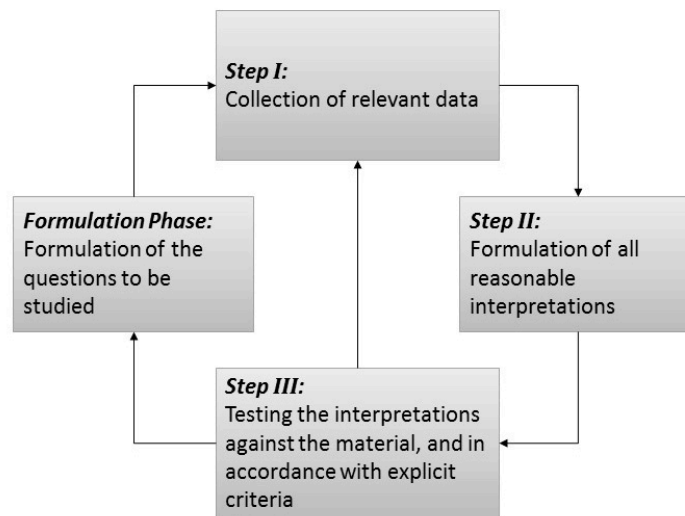


Figure 4.1. The order of progress in formal data structure analysis (Gustavsson, 1996).

Data from the second data collection phase was also transcribed in detail, however it was not analysed in the same thorough manner as the data from the first phase. Instead, it was used for background information on QMS and participatory schemes involving reclamation projects. In addition, this data served as a reference point and support for the information derived from the first data collection phase, e.g. regarding the communication and cooperation that takes place between the different actors involved in QMS.

4.3 Ethical considerations

In every qualitative research, certain ethical considerations must be involved in the entire research process. This includes acquiring informed consent of the participants (Brinkmann & Kvale, 2015). This was done through the letters and emails sent out in advance (Appendix A), which informed the possible participant of the overall purpose of the research and allowed for additional questions or concerns. The participants were then contacted a few days later via phone or email to seek participation approval and inform them about their right to withdraw from the study at any point. The end result was that everyone that was contacted agreed to participate in the study. Before starting the interview, I again went over the purpose and procedures of the research project and informed the participants of their right to withdraw their consent at any time or refuse to answer certain questions. For the farmers' interviews I also submitted a letter of agreement for the participants and myself to sign (appendix C), which everyone agreed to do. This was done for a later reference of their informed consent. I then also asked permission before starting the recording.

Another aspect to consider is to secure confidentiality, which most often implies that private data identifying the participants will not be disclosed. This study is based on private interviews, which means that certain precautions need to be taken to protect the privacy of the participants when presenting information and statements, as well as interpretations and conclusions, drawn from these interviews. When looking at one of the basic principles of scientific research, that others should be able to repeat the study, this ethical demand for confidentiality can in some cases create a conflict (Brinkmann & Kvale, 2015). However, to fulfil the promise of full anonymity and confidence made to the participants in the beginning of each interview, artificial names were used during the whole process, from transcribing the interviews to writing this thesis. In addition, some minor details, e.g. about their farm, occupation or living conditions, were changed or switched out among the participants. I decided that this was an appropriate course of action since the research area and the population within is quite small, so this would further secure the participants' confidentiality.

In social constructivism the researcher often takes a certain position within the research to acknowledge that his or her particular background can influence the interpretation (Creswell, 2013). Given that I myself have personal connections to the research area, this was believed to be an important feature based on ethical considerations. These same connections proved to be advantageous in obtaining access to the interviewees as well as in gaining their trust (see also Sears, Freedman, & Peplau, 1985). However, this might in certain situations create biased observations. Hence, in order to remain partial, extra care was taken during participant selection to limit these personal connections. These efforts included eliminating close relations and family friends from the possible list of participants prior to applying random selection.

5 Findings

In the following chapter the main findings of this study will be discussed in the wider academic, political and operational context. For this purpose, the chapter will be divided into four main sections. To begin with, the common social background of the participants will be described, which is important for the interpretation of the derived data. Further on, the general values or philosophy of farmers in regards to their occupation will be discussed, since this affects the participants' expectations and experiences of the QMS scheme. Three themes will be described and analysed, which all relate to the notion of becoming 'the good farmer', as it appears to the participants. The farmers' opinions and experiences of the QMS will be summed up into two overarching themes, which will be divided into several subcategories (figure 5.1). For clarification and in order to maintain confidentiality, pseudonyms given to the participants will be used throughout the analysis. The quotations presented within this chapter have been translated from Icelandic to English.

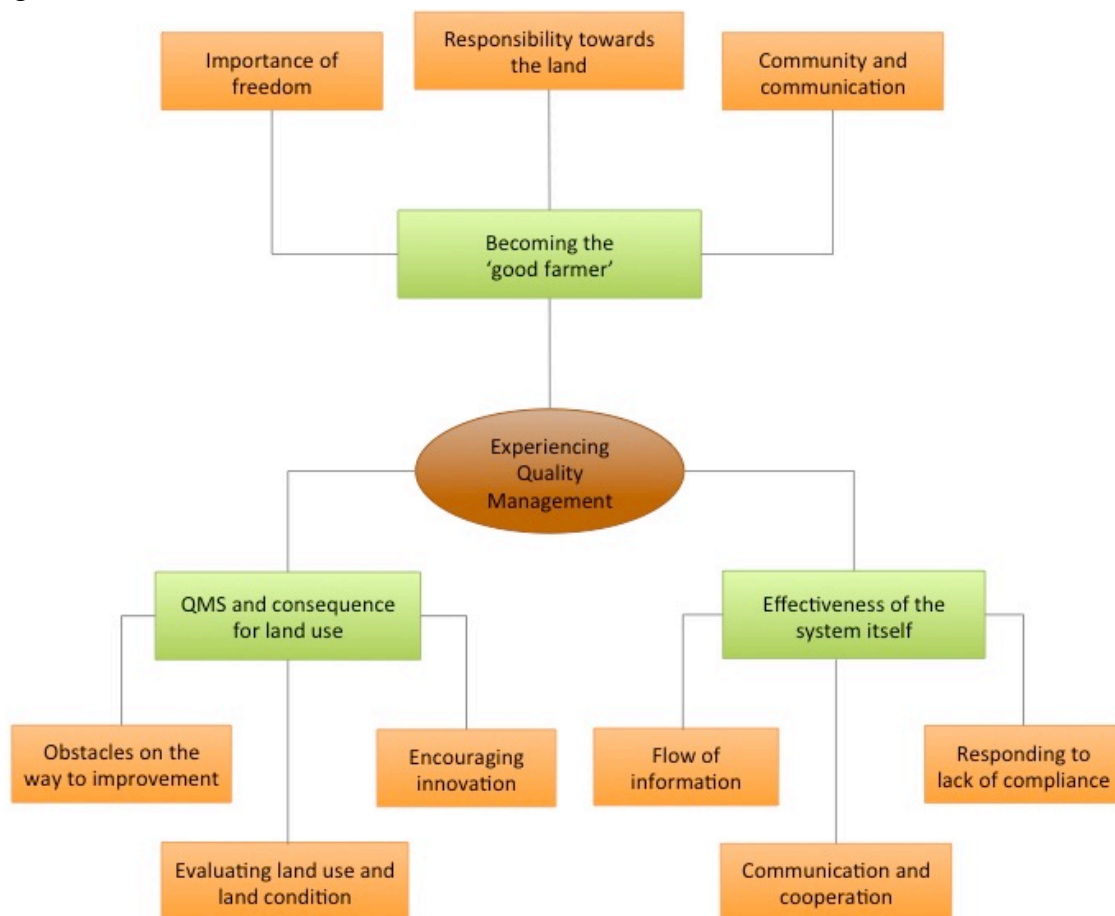


Figure 5.1. Structure of the research findings. Main themes are portrayed in green and subcategories in orange.

5.1 Social background

Almost all of the fifteen farmers interviewed had lived within the study area most of their lives with the majority having inherited their farms from their parents. They had therefore taken part in some or all aspects of the farm work from an early age. With age ranging from 29 to 69 years, their career as farmers varied in length but most had taken over the family farm after finishing some level of education after the compulsory. In a few cases the farmer's parents still lived on the farm, taking active part in decisions concerning the farm despite being officially retired.

Almost all of the participants had acquired some kind of education in relation to their occupation, for example through seminars or in-service training. In addition, more than half of the farmers interviewed had vocational training in agriculture on a high school level. In a few cases only one individual was running the farm but more often two persons, usually a couple, were in charge. However, this usually meant that one person handled the day-to-day management of the farm (here on after referred to as the farmer) while the other worked part time or full time outside of the farm. Some farmers also worked to some extent outside of the farm, for example as contractors for other farmers in the area. Such additional jobs often made up a large part of the total income.

The farming profession in Iceland tends to be male-dominated, with the communities within the study area being no exception. This resulted in the majority of the interviewees being male. However, it seemed that often when a couple was running the farm, the wife or partner actively participated in both farm decisions and work. There were three cases where this was especially demonstrated, where the farmer originally contacted requested upon arrival that his or her partner would be present and actively engage in the interview. In all other interviews, only the farmer and myself (the interviewer) were present.

When asked about their choice of profession, the farmers identified several reasons for their decision. The most common ones were pure interest in farming, the freedom and wellbeing the participants associated with life in the countryside, the duty or will to maintain farming on the land of their forefathers, along with responsibility towards the land itself. In the following sub-chapter three common notions that seemed to be related to the farmers basic values and identity will be discussed and how they are linked to the overarching theme and concept of becoming a 'good farmer'. Furthermore, they serve as an introduction into the life world of farmers, and how the farmers' established values and beliefs underpin their opinions and expectations towards the QMS.

5.2 Becoming the ‘good farmer’

The analysis revealed that certain traits and characteristics of traditional sheep farming seemed to be generally linked to the concept of being a successful or ‘good farmer’. These same factors also appeared to play an important part in distinguishing their trade from other kinds of farming. These traits can be summed up in three subthemes – the importance of freedom, responsibility towards the land and communication within the community – all playing an important part in how farmers view and use their land. Consequently, this also affects the farmers’ opinion of, and participation in, restoration projects connected to the QMS scheme. In the following sections these connections will be discussed, and how performance of different activities relates to the creation of cultural capital. This is especially important when determining if the QMS scheme is simply maintaining a certain status quo, or if it has the potential to make an actual difference.

5.2.1 The importance of freedom

The farming community in the research area has a long history. This history and tradition of sheep farming as a main occupation has shaped both the community and the landscape. The Icelandic tradition of sheep being able to roam free throughout the common grazing land and mountain areas during summertime seems to be closely intertwined with the identity of Icelandic sheep farmers. Many of the farmers mentioned directly or indirectly that this tradition somewhat sets Iceland apart from other nations when it comes to sheep farming and meat production in general. Their words could be interpreted in such a way that this freedom was also ensuring the purity and quality of the product, therefore benefitting the nation as a whole. Hence, the farmers seemed to consider traditional sheep farming to be a ‘noble project’ with the mission of protecting national interests. For Sigurjón Eyjólfsson, maintaining traditional sheep grazing therefore seems to be very much done for the consumers’ benefit:

The point of this is perhaps largely that I like to believe we are bringing people a quality product, and this is what sheep farming is. The lambs that walk free up in the mountains they just... think about the crystal clear water and this is just good for the people [of Iceland], that we produce such quality food.

This freedom seems to be closely related to how farmers view their occupation and its purpose, and free range grazing is also integrated into the Icelandic legal framework, for example within the Act on Livestock Handling. However, freedom does not only apply to the animals but also creates a certain appeal when it comes to farming as an occupation. The participants appeared to closely associate being a farmer with self-sufficiency and independence; not having to take orders from anyone and therefore planning and working according to one’s own conviction. To Garðar Ólafsson, this is seen as a great benefit:

It is... a certain privilege in some ways, to be your own employer. And it is sort of... You know, if everything goes well it is because you yourself did a great job... and also the other way around. And being a sheep farmer means that you are sort of task-oriented, so when you meet one goal you have a moment of peace before starting a different task, because you have actually finished something.

Therefore, due to the nature of farming, a certain diversification is formed where a different task takes over once one is finished. Hence, when a task is completed, for example ploughing a field or fully repairing a fence, it can create a certain feeling of fulfilment and accomplishment. It has been proposed that farmers' identity is linked to the performance of everyday activities and demonstrated through the way the farmer manages his farm or the level of farming skill possessed by the farmers (Burton et al., 2008). Thus, conventional farming activities help define the identity of the farmers, which sets them aside from other social groups through the conduct of unique, socially meaningful tasks (Burton, 2004).

5.2.2 Responsibility towards the land

In addition to the seven farmers that had developed land improvement plans in accordance to the regulation requirements the other eight had also conducted some form of land reclamation or re-vegetation on their own accord. All of the farmers also participated in the FHL programme. Furthermore, most of them participated in independent projects, which were often partly supported by the SCSi run Land Improvement Fund¹⁵. However, the farmers seemed to have different understandings of what constitutes 'good land' and what does not. This understanding often seemed to have changed considerably through the years, in accordance to new information or education of some sort. This is for example visible in how Egill Jakobsson talks about how he started to view his land differently after reading new information provided by the SCSi:

[...] It was just one thing that I paid special attention to that I had not realized before, and just had no idea about, and that is when there's overgrazing, the plants never grow to be anything but small and insignificant, but so is also the case for the roots. This was something I had never really thought about before. We have taken so much from the ecosystem by... by just using too much in this way that this is now all really in great danger. [...] So this has really become a vicious circle. If we continue to keep this huge strain on the land without doing anything, it will become harder and harder for this same land to get back to its former condition.

¹⁵ Icel.: *Landbótasjóður*

This indicates that new information can change the ideas farmers have about land condition, the feeling of responsibility regarding that condition and therefore the attitude towards reclamation projects (see also Sears et al., 1985). Most of the farmers discussed the concept of being a ‘responsible landowner’, whose task, according to the farmers, is to strive for improvement instead of letting the land remain in its current condition. However, the majority of the farmers seemed to be of the opinion that it was important that their land was indeed being used, although adding that this should be done in a responsible manner, and without over-exploiting its resources. Ingólfur Gylfason puts it this way:

You are being responsible if you don’t take anything away from the land, if you maintain it and, hopefully, are able to return it in a better condition than when you took over. And... you have to use it, you know... moderately. A well-maintained land is a moderately grazed land. I don’t like it when there is withered grass growing all over the place as sometimes happens when grazing is stopped completely.

This again is connected to the notion of being a ‘good farmer’, with organized and sufficient management appearing to be a requirement for claiming that title. This is reflected in the fact that properly organized land use, for example through the use of well-maintained fences, was indicated by almost all of the farmers as being part of a their responsibility, or as Arnar Kjartansson points out:

Well, fences organize the land and a beautiful, well-kept land is definitely land that is organized as well as possible, considering the size of the land and the number of livestock and just... well, everything.

The importance that the farmers seem to place on all of the land being kept in use might be partly explained by the fact that when farmers discussed their land, the well-kept fields and neat fences were often in the foreground. However, the highland or communal grazing areas sometimes were not mentioned to the same extent, perhaps not on purpose, but it seemed that these areas were often not the first thing that came to mind when the farmers were asked about their land. This emphasis on organized land use is also interesting when looking towards the previously mentioned importance of free range grazing, which exists in part as a result of the limited organization of land use and lack of grazing management in Iceland. This can be seen in the Regulation on QMS (no. 1160/2013), which emphasizes the importance of evaluating land condition in the context of land improvement plans while seldom referring directly to grazing management or limits to stocking density. In contrast, the Icelandic policy on sustainable development and agriculture states that grazing should be moderate and structured and should not exist in fragile environment (Icelandic Ministry for the Environment, 2002), although this is not further defined.

In this context it is also important to note that many of the restoration projects conducted by the farmers are either situated in the highland or communal grazing lands, or in other areas that are not easily accessible. Hence, it can become hard for other farmers or visitors to see the progress being achieved by such measures and, consequently, prove difficult for the farmers themselves to demonstrate their success. Other studies have suggested that being a ‘good farmer’ is very much related to how the farmers’ work is represented, both within the community and in the society as a whole. As suggested by Burton et al. (2008), the performance of everyday tasks can help construct cultural capital through the way farming skill is being portrayed. Because of the lack of visibility or opportunities for discussion when it comes to land improvement projects connected to the QMS, the skills demonstrated in that context might not go a long way in generating cultural capital. The want of such generation might partly explain why this element in the farmers’ operations is often neglected within the general discussion. This being the case, it becomes important that activities undertaken by a farmer are visible and seen as an improvement so that other farmers will want to follow the example. However, this might be seen differently in cases where farmers work together on land improvement projects, and thus formation of such ‘farmers’ reclamation associations’ should be encouraged.

5.2.3 Community and communication

A good community was often mentioned as a certain requirement for a successful farm, and some tasks almost always seemed to be carried out in cooperation with other farmers in the community. This was also the case with land use projects where farmers using common grazing land had on many occasions established specific ‘reclamation associations’ with the purpose of working on such projects in cooperation. Some of the interviewees indicated that being part of such an association made it easier to apply for and receive funding, therefore increasing the probability of the proposed reclamation project being successful. Such associations also appeared to have a significant social and educational value by creating a venue for discussion and close collaboration for the farmers involved. Ingimar Davíðsson talks about the importance of cooperation to the farmers when working towards land restoration:

Well, in this kind of community this is perhaps built more around people sticking together and working in unison towards this [land restoration]. And people have to realize that they are not alone in the world... even if they are alone most of the time.

Farmers’ networks could play a valuable role in moving agriculture towards sustainability, e.g. if such joint agri-environmental management is built further into current schemes. Hence, formation of such reclamation associations could be encouraged even further, by increasing access to grants available for proposed restoration projects (e.g. Falconer, 2000). Such associations could even increase the possibility of bottom-up processes being

used to develop approaches that might have influence within a top-down policy framework (e.g. Richards et al., 2004). This might be especially appropriate or beneficial where grazing land is held in common.

The importance of a good society could also be seen in the way the participants looked towards what others around them were doing and how they often used that information to further their own operations. This demonstrates the importance of informal learning within the farming community. Guðmundur Jónasson described how such learning could benefit reclamation projects:

What I think benefits people the most and moves things forwards is to be curious, observe and chat with others, look for new information, and then they can share their experience with others. [...] I know that my biggest education was to travel around the country and you always see something new and people are telling you something new and... I mean, I wouldn't dream about doing anything without consulting other people.

Furthermore, Egill Jakobsson mentions how he finds that the farmers' attitude has changed when seeing the effectiveness of reclamation efforts on their own land as well as on other people's land. Here he especially mentions projects carried out in connection with the FHL programme, which usually take place in lowland areas or close to the farms themselves, and are therefore often more visible than projects directly linked to the QMS. This observation seems to indicate that such projects are well received, with people looking proudly upon revegetation accomplishments in the area:

I believe farmers think very differently now and that is a good thing. Just when they started participating in healing the land and saw what could be done and... I think that changed people's perspective a lot, in my opinion.

According to this observation it would seem that a certain milestone has been reached on the path to making farmers see that improving certain land areas, in contrast to earlier beliefs, might indeed be possible, thus motivating them to continue their work. Hence, this may be becoming more socially acceptable and of high value among farmers. This increases the likelihood of such activities becoming integrated within society, and regarded as valuable farming practices (Burton & Paragahawewa, 2011).

Increased education and knowledge gained through the arrival of new people to the farming community also seemed to affect the farmers' attitude towards land use as is visible in the words of Sigurjón Eyjólfsson:

I think that especially when young people are returning to the community that people become more aware and positive towards this [sustainable

land use]. It was perhaps the generation before me that was so focused on grazing and such. But people are thinking differently now. Which is a good thing.

It appears to be very important for established farmers to get a new or fresh perspective on their work, for example through the arrival of new people or introduction of new ideas to the community. This is supported by the way most of the farmers talked about how valuable it was for them to meet and discuss their work so they could further develop their operations and move forward. However, it might be of even greater value to see first-hand the benefits that different methods or projects, such as restoration projects, can bring about. One man's initiative can in this way have a certain ripple effect within the community, such as when one person successfully starts restoration, others will soon follow. Jóhann Magnússon mentions the importance of exploring the various ideas people have about these factors since farmers build on different experiences and, as a result, can bring different knowledge to the community:

I think it is a good thing that people have different opinions. People are doing different things and we just learn from each other. I mean, there is never just one person that gets all the good ideas. The ideas I have are mostly something I've adapted from someone else.

This diversity enables farmers to gather different knowledge from within the community, simply by chatting about their daily activities with other farmers or by observing how they carry out their work. Such non-formal learning is often considered equally important to conventional education when addressing resource dilemmas (Blackmore, 2007). However, studies have suggested that if environmental attitudes and behaviour are to become established within conventional agriculture, voluntary agri-environmental schemes must be considered relevant to the society (Burton et al., 2008). Hence, farmers must be enabled to put into practice and exhibit their newly gained knowledge if such acts are to persist within the community.

5.3 QMS and consequence for land use

Through this theme the opinions and experiences of the farmer towards how the QMS has influenced land use and land improvements will be explored. Thus, what the farmers perceive as the scheme's positive and negative effects on their attitude and operations in this field will be examined. This includes their feelings towards how QMS has affected the way land use is discussed within the community, and their opinions regarding how land evaluation is carried out in connection with the scheme.

5.3.1 Obstacles on the way to improvement

A general agreement seemed to exist among the farmers that land improvements had indeed been needed in the area and that establishing the QMS had, at least to some extent, been a step in the right direction. Thus, as Þorsteinn Aðalsteinsson described, the establishment of the scheme had been an essential factor in driving farmers towards improving the land within the highland and communal areas:

Of course, it was really this system that got people in this area to start restoring the land here up in the highlands and, like I've said before, people could have, and should have, started that process earlier. Perhaps. People were clearly not doing it on their own accord, for some reason. But in this aspect the QMS has been working. It has put people in that position, to start revegetating, so yes, at least to that extent, it has been working.

Þorsteinn believed that not all farmers had grasped the importance of land improvements before the initiation of the QMS, or at least that the incentive to start such improvements had not existed. However, since the scheme and the associated subsidy payments pushed farmers to start land improvement efforts, it can be said that the QMS enabled the farmers to see the benefits and potential of such measures. This suggests that today these land improvements are not being carried out solely for the purpose of being part of the QMS, but rather as an important part in improving the farming operations. Thus, the farmers' participation in this agri-environmental scheme can be seen as having led to a certain change towards sustainable environmental behaviour (cf. Valentine et al. 2007; Burton & Paragahawewa, 2011). This is further supported by Garðar Ólafsson who believes that it helped him to work in a more organized way and thus improved his operations:

I think this system definitely has its positive sides; there is no question about that. This sort of gets you thinking about the way you perform different tasks and in that way it encourages you to do better. And just by insisting that you document everything you do and how you do it, this enables you to look back and see if the changes you have made have been an improvement or not.

Ingimar Davíðsson also remarks on the schemes benefits, specifically referring to the land use part:

I would say that this land use part for example, that it has been very positive in making us more aware and we are paying attention to how our land is evolving and... although I might not completely agree with how this is being implemented, it is still positive that we are at least

monitoring whether the land is improving or being degraded through how we are treating it.

However, despite these positive views, especially towards the improved organization, many of the farmers seemed to think that a certain disconnect existed between the land use part of the QMS and other aspects of the scheme. Freyr Haraldsson mentions this especially:

I think this [QMS] is a very good thing and just... necessary for everyone. I think that one of the most positive steps that the QMS scheme took was to get everyone involved with documenting everything they do. Made everything much more organized. But then it just sort of forgot... I feel like it hasn't really done much when it comes to the land use part or grazing management. It feels like land use, or grazing up in the highlands is not properly connected with the rest of the QMS, at least not in my opinion.

According to this, it appears that the conditions and requirements of the land use part had not been properly introduced and incorporated in the initial stages of the scheme's implementation. Thus, the farmers might not realize how little emphasis is placed on grazing management, in comparison to land condition evaluation, when it comes to land use. Since it has been suggested that complete, understandable and accessible information is one of the fundamental ingredient for a successful participatory process, this may be seen as rather troublesome (Richards et al., 2004). This also suggests that the farmers' land use in certain cases is not being linked to their performance in other areas within the QMS and thus the farmers themselves may regard it as less important. The words of Guðmundur Jónasson echoed this rather general feeling, suggesting that this lack of follow through in the beginning had made it more difficult to supervise and control land use in the long run:

When such a system is developed, it should control what needs to be controlled. I mean, twenty years ago, if someone's land was too small to accommodate his flock [of sheep], it would have been much better to just... get him to move, where there was plenty of land, just right next to his current land. And just establish this properly right away. But since the QMS didn't do anything about this in the beginning then nothing is done, and people are just stuck in the same tracks and are losing more and more every year. There is no quality management in grazing or grazing management. And has never been. This much is clear.

This view is related to a common notion appearing throughout the interviews, which is that land use practices, and therefore the land use part of the QMS scheme, had become difficult to discuss within the farming community. This seemed especially noticeable

where the farms were close to each other, meaning that many farmers were using the same grazing land for their sheep, although often only one of these farmers was the legal owner. Since formal land use contracts often do not seem to exist, this often appeared to lead to constrained communication and even a certain frustration amongst farmers. This was especially mentioned as an obstacle when it came to proposing changes in land use, such as the need to adjust grazing pressure or increase emphasis on reclamation projects. Egill Jakobsson, who himself is a landowner, appeared to feel that often the other farmers using his land were taking such discussion as a direct attack on their person:

When this was initiated, the conditions were that you would have to have your own land, and that it had to be enough for your sheep. But I mean, just like in this area for example, the farmers here never asked permission if they could release their sheep onto our land, they just do. And this must have been registered within the QMS, even though this isn't their land and they have never signed any contracts. [...] And the biggest flaw in this is that people can never be persuaded to get together and discuss these matters. It just started being about me being the land owner and the people that own the most livestock having the smallest land and... Then all of a sudden I had been turned into the bad guy.

This observation suggests that the failure of the QMS scheme to enforce the use of formal land use contracts has not only affected the land use, but also people's interactions regarding the issue. This could in turn result in less organized land use, and could reduce the scope and success of land reclamation projects. Thus, it is important to develop and maintain communication between all stakeholders when dealing with restoration projects, since lack of such communication can affect their tangible outcome (Berglund et al., 2013).

The lack of formal land use contracts even seemed to make some of the farmers question the legitimacy of the participation of some farmers in the QMS scheme. As in the citation above, this was often directed at cases when a farmer with very little privately owned land still had a large herd, which was only made possible through using other people's land. In such cases, the other farmers sometimes appeared to find it difficult to understand how the scheme's requirements of land condition were being fulfilled, or as Egill adds:

I just think it is a strange approach to just be able to point to the land of your neighbour and say: There's plenty of land there! They should at least acquire permission for using it, a formal consent. At least if they are to be able to get a contract and large amount of money through using this land.

The farmers, and especially landowners, seemed concerned about the long-term effects that the absence of such formal land use contracts could have. This especially referred to the

dangers associated with using the land unsustainably, which could affect the vegetation productivity in the long run and therefore the sheep production. The words of Jóhann Magnússon, who believed that often the true capacity of the land in respect to grazing is not recognized, support this view:

The farmers don't realize how much they are losing by taking so much, I believe people often think very little of it. I started talking about this a long time ago, that there was over grazing here, but they [the other farmers] didn't see it. They just see grass everywhere but it just isn't enough. Grass that no beast wants doesn't make a difference. They don't touch it unless they have nothing else. Everything that they want and seek is already gone and this is when we start degrading the land... because we have eliminated a large part of the plant community. And then of course this directly affects us... in a bad way, because our product loses its quality.

Hence, the different way that the land and the quality of the vegetation are perceived might also be the reason why such different standards of land use persist among the farmers. Such differences might be even more prominent when established standards or a proper monitoring mechanisms have not been developed. Without such features in place when it comes to land use, the farmers might find it difficult to determine what constitutes as responsible environmental behaviour and what does not (Abensperg-Traun et al., 2004; Atari et al., 2009). This observation also suggests a lack of consensus, both within and outside of the community, when it comes to the importance of sustainable land use and what that concept really entails. This demonstrates the importance of making an effort towards developing a shared understanding of land use and land management practices within a system such as the QMS (Stringer et al., 2006). Without such an understanding, tension might arise between environmental management, based on regulation by the government, and farmers when it comes to opinions on day-to-day management practices (Richards et al., 2004).

In the context of formal land use contracts it is important to note that, according to the Act on Livestock Handling, free range grazing of livestock is allowed and owners of livestock cannot be held responsible for animals venturing on to other people's land. Thus, it may be difficult to claim different standards within the QMS scheme since the regulation that it is built on has lesser legal status than the before mentioned Act on Livestock Handling. That being said, it appears that the focus is too set on the attitudinal change and acceptance of environmental measures on a local scale. Such change may not be followed by operational change if the institutional and legal frameworks are not in agreement when it comes to which priorities and methods are to be used. The lack of such agreements can even prove discouraging when it comes to land improvements and grazing management, since for such measures to actually work, a consensus must exist what measures to take and how future

landscapes should look like (Abensberg-Traun et al., 2004). Thus, farmers that otherwise might be involved in land improvement projects might refrain from taking action. The development of new communication platforms, linking stakeholders both horizontally and vertically, may help reach such an agreement and thus enhance the effectiveness of these methods (Stringer et al., 2007).

5.3.2 Evaluating land use and land condition

Most of the participants talked at lengths about how their land condition was evaluated within the QMS system, since depending on this evaluation it is determined whether or not the farmers meet the regulation requirements for land use. This especially related to the perceived lack of consideration given to other factors influencing land condition, such as the geology of the area in question, weather, historical context or grazing pressure. Aðalheiður Bjarnadóttir describes her childhood memories of the area:

There are just so many other factors, besides the sheep, that affect the land, such as the weather. This is what controls everything. I mean, look at the mountain range, there are very few sheep that walk here now, or did before, and I remember as a kid when sometimes there were these terrible storms for days at a time. You could see how the soil was just swept up from the ground and then it covered the vegetation like a blanket. And such events have great consequences for the land.

The mixed views concerning how, or to what extent, different factors have influenced the current state of the land thus seem to be very much shaped by the local context and people's own experiences. This is also consistent with the different opinions existing on grazing within the society and how it has influenced land degradation and desertification in Iceland (Arnalds et al., 2003). Without a common understanding on what constitutes sustainable land use it may therefore be difficult for the farmers to agree with and understand the need for the proposed land improvements of the QMS. However, very different opinions exist among the participants on how the land should look like, what are the main factors in this respect, and what is considered the 'normal' state of vegetation cover, or as Árni Helgason remarks:

Some people want to hold on to some image of the land that was here around 1750 or something, while others disagree since exactly at this time the land was very degraded and there were also times when the vegetation cover was much greater than it is now. But there are mixed opinions about this. Some people want to preserve the desert because they see something... they have just grown used to it and want to see it in the future. They think it is normal. But we cannot survive on such land. For that we need to have some vegetation on the land.

However, almost all of the farmers mentioned that in some of the highland and lowland areas, grazing pressure remains low. Hence, a general theme throughout the interviews was that the farmers felt that the land condition evaluation did not take this into account, with the existing evaluation method performed by the SCSI being more focused on determining erosion and vegetation cover. The SCSI has a legal obligation to monitor vegetation cover according to the Act on Reclamation, and the use of such measures within the QMS is understandable since the information is used to develop land improvement plans (see Regulation on QMS, no. 1130/2016). However, the farmers often seemed to feel that the connection between grazing and vegetation cover was often ignored within the QMS scheme, or as described by Arnar Kjartansson:

People have to... for example about the land use; I think people have to look properly at the land that the sheep are walking on. Just like it is here, people think that almost all of the land is unsuited for grazing. But then the lambs come down from the mountain, happy and healthy. Every fall. And these vegetated areas here, they are not overgrazed; they are not being gnawed down to the root. And this tells you that the land is quite good enough for these few animals.

Thus, it appears that being told that a land improvement plan needs to be developed to qualify for the QMS is considered equal to being told that the land is being overgrazed. Since the farmers often seem to regard the condition of their animals as a measurement for land condition, it might seem like an improbable claim to them that their land is almost unfit for grazing. Hence, if the top-down perspectives regarding land use are not really understood, or accepted, by those who have to implement them, the implementation is unlikely to be successful. In addition, the lack of site-specific adjustments can lead to standardisation, simplification of land management practices and weaken the local cultural identity (Pinto-Correia, Gustavsson, & Pirnat, 2006). Such a lack of common understanding might be best addressed by developing clear goals and indicators of land condition that can easily be understood and monitored by all parties involved (Stringer et al., 2007).

The emphasis on using aerial photos for land evaluation was also criticized, with the farmers feeling that without sufficient on-site inspections to complement the remote sensing data, the evaluation wasn't paying enough attention to detail. Many of the farmers seemed to think that their established achievements associated with reclamation measures in connection with QMS had not been properly taken into account in the newest land condition evaluation. This view was especially prominent among farmers obligated to develop land improvement plans. The farmers often remarked on it being strange that they had not been consulted in this evaluation, or regarding the construction of the vegetation maps provided for the purpose of constructing land improvement plans. Hence, as

suggested by Þorsteinn Aðalsteinsson, it appears that local knowledge is often not being properly incorporated:

We were of course not at all satisfied with what we received from the SCSi this summer. At least not when comparing it to this area. Because, it just seemed... well, I don't know how this was made, at least it didn't seem that it had been constructed in cooperation with anyone at all... at least not us. They just... seemed to have some old information, such as the maps and all that... just very old information in reality. So of course people weren't satisfied with that.

According to this, the farmers voice or actions do not always seem to be influencing the decision-making or monitoring processes within the land use part of QMS, or at least not within the newest land condition evaluation. Thus, if the farmers feel that their local knowledge is not being valued and used to adjust such measures specifically to the local context, resentment towards the scheme might be created, thus limiting the scheme's success (e.g. Harrison et al., 1998; SER & IUCN, 2004). However, if feedback is made possible through monitoring measures, the implementation of reclamation projects can be re-evaluated and adjusted along the way for maximum environmental benefits (Pinto-Correia et al., 2006). Allowing such feedback may also allow for increased input from all relevant stakeholders and thus a broader ownership of the decisions being made. This might also help establish the QMS and the associated land improvement projects more firmly within the society (see Richards et al., 2004).

5.3.3 Encouraging innovation

It has been proposed that a healthy socio-ecological system benefits from inventions that create new opportunities (Hooling, 2001). However, most of the farmers talked about a lack of flexibility within the system when it comes to new procedures in reclamation, and that it was often difficult to get a grant for something other than traditional methods, such as distribution of fertilizer and seed. For example, Jóhann Magnússon talked about his own experiments regarding revegetation and reclamation and how he has found it hard to get the SCSi to recognize their benefits or potential:

I think that if farmers are showing incentive then it is better to support that incentive, instead of trying to fit everyone into the same mould, in such a system. But they just don't come to inspect it; they don't want to... if someone has decided on one truth, they don't want to hear anything different.

Hence, Jóhann appears to think that SCSi staff members are too focused on one path, and thus not open to trying out new ideas or methods, at least not within the boundaries of the QMS scheme. The reality, according to him and based on his own experiences, seems to be

that different methods work in different places, and thus innovation is needed and should be encouraged. Þorsteinn Aðalsteinsson also remarked on this lack of encouragement within the QMS scheme.

You know, I don't actually feel like the QMS is really encouraging me to think for myself, it doesn't really do anything in that department. It just creates these rules that I need to follow. I think it does very little in initiating something new or something like that, something that could lead to some sort of progress.

This further supports the observation that there is an apparent lack of support when it comes to innovation within the system, with farmers not being encouraged to develop new ideas in connection to reclamation. This might limit the success of reclamation efforts as well as the pleasure or enjoyment that can be had by taking part in improving the land. This is especially important since encouraging innovation has been associated with creating the basis for attitudinal and operational change (Meadowcroft, 2009). This leads back to the typography of participation, and since it appears that the farmers are mostly participating by carrying out tasks based on already made decisions, their 'participation' seems to be situated towards the lowest levels of such classification (Arnstein, 1969; Pretty, 1995; Rowe & Frewer, 2005). Thus, if stakeholders do not have any real influence within the system, the possibility of their successes gained within the system having permanent effect on people's lives becomes limited (Cooke and Kothari, 2001). However this also shows the importance of the projects' objectives being properly defined from the beginning, including the level of engagement expected (Reed, 2008).

Some of the farmers, such as Garðar Ólafsson, also remarked on the need for freedom within the land use part of QMS and the scheme as a whole, believing that this was necessary for progress to occur towards the scheme's objectives:

It is necessary to give people a certain amount of space, or you know, some kind of extension or freedom, if they are to be able to improve themselves. Of course, there are always going to be a few that are unhappy or angry when changes like this happen but people just need to be patient, this all takes its time. You need to find the middle ground in this, just like in everything else.

This preference for increased freedom is in line with the underlying values of farmers, as has already been described. Thus, encouraging innovation and independent thinking within the system would most likely have positive effect both on land use and farmers' attitude towards carrying out reclamation measures. This means that some compromise might be necessary between the use of already established methods and innovative projects. The management strategy also needs to emphasize the importance of mutual learning and

respect among the stakeholders (Stringer et al., 2007). Hence, if the rules or guidelines of the scheme are too restricting, the incentive for farmers to enhance their knowledge and improve their operations could be limited. The words of Ingimar Davíðsson also indicate that performing certain tasks only because it is necessary to receive subsidies is not enough to make a difference when it comes to sustainable land use:

It is often positive that people are participating in this, but perhaps not so positive if they do so just because of QMS. And I feel that... perhaps it's not the purpose of the system if people are only doing this as a sort of unwanted obligation because it is required in the scheme, but they should rather find it in themselves to do it. And I am certain that this is not accomplishing anything if they are just working on this to get this and that in return right now.

This further demonstrates that although the QMS scheme is significant for the farmers' income, and incentives can be highly necessary when dealing with restoration (Bullock et al., 2007) it is also important to look at the effect of the system in the long run. Farmers need to be able to see the purpose of the proposed activities, for example regarding land improvements, how they can be beneficial to their operations in a wider context and help secure their livelihoods. Increased ownership of the decisions being made may increase the likelihood of such purpose being seen. It has also been suggested that if a scheme is too focused on controlling people's behaviour it can negatively affect its potential success (Deci, Koestner, & Ryan, 1999).

5.4 Effectiveness of the system itself

This theme explores the operational features of the QMS from the farmers' perspective, such as what their impressions and experiences are towards the interactions taking place between different actors within the scheme. Furthermore, how the farmers feel that their opinions and suggestions affect the system will also be discussed as well as how they perceive the flow of information between the different actors involved in the scheme. These matters will be put forward and discussed in terms of three subthemes that emerged during the analysing process.

5.4.1 Flow of information

When asked about their opinion regarding the land use part and the recent regulation changes of the QMS, many of the farmers admitted to not knowing a whole lot on the subject. This was especially common among farmers who had not been required to develop land improvement plans in order to fulfil the regulation requirements. Egill Jakobsson, who belongs to that group, talked about this at lengths, finding it rather strange that such an important issue had not raised more of a discussion:

I do not think that there was ever any introduction on the QMS... at least there have been no meetings on the subject here. I think that if this is something that really matters to farmers, they should have at least held a meeting. Because farmers around here are usually very good at attending, if there is a meeting, and I think that is the most effective and enjoyable way to introduce something like this.

Without a proper introduction, and consequentially, an established portal for farmers to give feedback on the regulation or issue their opinion, the possible active participation of farmers within the decision-making processes of the QMS is limited. Thus the level of the farmers' engagement could best be described as public communication, if compared with the classification developed by Rowe & Frewer (2005) (see figure 2). However, this communication process seems to be faulty, as the relevant information is not properly reaching all those concerned.

Farmers that were required to develop land improvement plans appeared, in general, to be better informed about the land use part of the scheme, which is quite understandable given that this is what the land improvement plans are based on. The changed role of the SCSi district officers within the QMS scheme following the new regulation was often mentioned in this context, and this was not always regarded as an improvement. Ingimar Davíðsson, who had previously constructed a land improvement plan according to the regulation, mentioned this specifically:

[...] And then of course the SCSi is no longer a part of this. Naturally, our district officer knows everything about this [land use] but he just seems to be a free agent according to the new regulation and is just not allowed to talk to us. Or... maybe he is not forbidden to talk to us completely, but he has to start questioning what he is allowed to tell us. Perhaps this could be considered normal because people were discussing this once, feeling that it was a bit strange that the SCSi was on both sides of the table. Could both tell you to do something, and then also come along and decide if it was okay or not. But the SCSi is supposed to have the professional knowledge so you would think you should be able to call them and get advice!

Thus it appears that the farmers are afraid that with the changed role of the SCSi within the QMS, they will not be able to access the knowledge they need in relation to land use and land improvements. It also seems unclear to them who they can alternatively turn to for advice, e.g. regarding land use and land improvement plans, which appears to create uncertainty and discomfort. Changes in the agency's role regarding supervision and consultation could create scepticism or distrust towards the system if such changes are not introduced properly in advance. Hence, farmers might hesitate or refrain from seeking

advice or assistance if the roles of the different actors remain unclear (Juntti & Potter, 2002). This underlines the need for a trusted and accepted agent or institution to establish a proper dialogue between the different parties involved in the QMS, if feedback across institutional levels is to be communicated and the scheme achieve its full potential (e.g. Stringer et al., 2006). This is further supported by Garðar Ólafsson:

I think maybe one of the negative parts about the QMS is that it is being made even more impersonal; it is being moved further away from us here. At least it is my feeling that people are viewing these recent changes rather negatively. So I put a question mark behind this new system. I also think this has made the scheme even more extensive, with more actors coming in, and it is still growing. And I am afraid that this will just become too complicated for people to comprehend.

Thus, it may be argued that if these changed roles end up moving decisions and knowledge further away from the local context, it might leave less space for site-specific solutions. Hence, local ideas and knowledge might not be activated or stimulated in the same way as might be possible if decision-making would be carried out within the area, at least to some extent (Pinto-Correia et al., 2006).

This disconnect is not exclusive to the relationship between supervising and administrative actors and sheep farmers, a gap also exists between sheep farmers and meat consumers, at least according to the farmers interviewed. This is especially demonstrated in their general belief that the public is not being properly introduced to the purpose and procedures of the QMS scheme, or even sheep farming as a whole. Egill Jakobsson describes this gap vividly:

One of the things that has to be done is to shorten the path from us farmers to the consumers. As it is now this is just a long dark tunnel that no one can see through. There is complete disconnect. And I also think that if there was more of a connection, the farmers would automatically start thinking more about the appearance, and they would make even more of an effort towards improvements.

Such a connection is thus seen as being able to encourage farmers even more towards improved operations and sustainability, since it might affect the consumers' choices. As it appears to most of the farmers, the consumer is not able to make well-informed decisions since there is not enough information to base such decisions on. Ragnheiður Sigmarisdóttir appears to think that if the QMS is supposed to make a difference regarding people's opinions of sheep farming, such information must be communicated:

I just feel that people do not really know what they are buying when they are buying lamb meat or sheep meat, and I just think that if you are

participating in the QMS scheme, this information should exist, also in the stores. And this should then also include that the animals are grazing on a land that is being used sustainably, they should be able to include that as well, that the sheep are walking on land that is not being overgrazed, and that kind of thing. Then people might start to think about the QMS. General consumers, you see.

Almost all of the farmers seemed to agree that this lack of information was playing a major part in what they perceive as being a negative image of sheep farming within the society, especially when it comes to grazing management. Many of the farmers mentioned that this image problem should be addressed by providing better information on what sheep farming is all about. Garðar Ólafsson talks about this negative image and the potential reasons behind it, and how this is connected to insufficient information flow:

I believe that the discussion is rather negative, and this is because people see that we are getting money out of this [QMS], and they do not know why. So I think they just see this as some kind of added aid or charity to farmers, on top of everything else. People just think we are being paid to participate in some accounting system, and that may be what it looks like now from the outside. There are probably very few people who really grasp what this is all about. This has to be addressed because you start to question what you are really gaining from participating in this. When you are told quite regularly that you are simply a burden on society.

It appears that this lack of information flow is believed to affect the way farmers see themselves, and thus negatively affect their participation in the scheme, as it might make it harder for the farmers to see the derived benefits on their production. Guðmundur Jónasson also talks about the traceability of the product, i.e. how important it is to know where, when and under what kind of condition it is produced. He also seems to believe that if that would be made possible, consumers would start to select products based on different criteria:

If we could start linking our meat to a farm or place, then people could start realizing what exactly they want to buy. If people are thinking about buying a good product then they will use this option.

This echoes the results of a study conducted by Júlíusdóttir et al. (2009) where the majority of farmers interviewed expressed a will to connect their product better with its origin, and develop a more direct relationship with the people buying the product. Again, this points towards the importance that the farmers place on the consumer being informed about the land improvements being carried out in connection to sheep farming. Without this information, they appear to believe that people only notice the land condition, often

viewing it as unacceptable, without knowing about the counter-measures taking place. This highlights doubts about the ability of the QMS scheme to influence the image of sheep farming and the farmers themselves, when the system is not properly introduced to the public. Hence, if people cannot distinguish between products based on where they come from or how they are produced, they are not being given a proper choice in what to buy, and thus promote sustainable production. From the farmers' perspective, this might limit the appeal of carrying out time-consuming and expensive land reclamation measures since it is unlikely that they will increase chances that consumers buy their products.

5.4.2 Communication and cooperation

The farmers appeared to view their personal communication and cooperation with the SCSi district officers in their area rather positively when it came to reclamation projects on their land. Sigurjón Eyjólfsson talks about the nature of this relationship, indicating that it had been rather on a personal note, which seemed to be very well received:

[Our relationship] has been extremely good. This was in place when I moved here and this has just continued to thrive. He [the SCSi district officer] has been coming here for meetings with the reclamation association that we have and just discussed those matters, you know, man to man.

Such communication can be interpreted as being on a mutual ground, creating the feeling of cooperation instead of just compliance, emphasizing mutual respect (e.g. Stringer et al., 2007). However, this positive view did not extend to all other aspects within the system, and many of the farmers mentioned that information received from different actors often did not match when it came to the land use part of the QMS. Þorsteinn Aðalsteinsson talks about this confusing fact in the context of letters he received following the implementation of the new regulation:

You kind of get this feeling, to tell you the truth... The Government sets the law, which I guess are then implemented through the different ministries. And you have these different institutions, you know, MAST, and the SCSi when talking about land use. And you just sometimes get the feeling, especially after receiving these recent letters [from MAST and the SCSi] that these parties aren't really communicating.

When the provided information is not coordinated, as appears to be the case in this specific context, it might increase the farmers' scepticism towards the system and therefore reduce their willingness to participate. Or, as Stringer et al. (2006) remark, participation can only work effectively in an appropriate institutional framework where the political will and values remain consistent. Thus, lack of communication within the scheme's governance

can halt the progress of restoration projects and have negative effects on the environmental attitude and behaviour of farmers (Pétursdóttir et al., 2013).

The many different actors and programs involved in land reclamation projects also seemed to create certain confusion. For example, farmers often found it difficult to distinguish between land improvements relevant to the QMS scheme and other programmes such as the FHL. This is no different when it comes to monitoring and surveillance, and it often appeared to be unclear which institution or actor was responsible for these elements within the different aspects of the scheme. This is reflected in the words of Ólöf Björnsdóttir:

I just think there are way too many systems in agriculture and some are just... even working against each other. The system has become so complicated, that not even the people supposed to supervise are able to follow what is going on. I think this needs to be coordinated or combined somehow, to some extent at least, although maybe not entirely. Also, some things are just very vague, for example what has to be done about this land improvement plan and who is in charge. There are just too many uncertainties associated with this.

This opinion may be caused by a lack of transparency or clarity when it comes to the QMS scheme, at least according to the farmers, who appear to think that the system lacks structure and organization. Thus, the feeling arises that the supervisors are not always up to their task, since it appears they are not always in possession of the right or relevant information. However, this lack of clarity is most likely in part a result of the inefficient or insufficient introduction process and unclear explanations when it comes to the division of tasks between the various actors and institutions involved.

The farmers in general expressed a wish to be further informed about the administration of the QMS, and further incorporated in the decision-making processes regarding the scheme as a whole. This is highly important since the active engagement of farmers is crucial if the objectives of an agri-environmental scheme, such as the QMS, are to be reached (Falconer, 2000). However, a certain frustration can be seen throughout the interviews regarding this lack of involvement and collaboration within the scheme, with farmers feeling they should have more sway in matters that directly concern them. Ingólfur Gylfason, who seems to believe that further involvement would increase the scheme's effectiveness, elaborates on this need for further collaboration:

It is just completely unnecessary to end up in this position. It should not be a problem for us to work together, this isn't that complicated. And I think... if we want to get the best possible outcome we have to work together, instead of just some orders being delivered 'from above', just saying... you will obey or you will get slapped. It is much better to let

people join the process, and if people are allowed to join they become more positive and pleased and can hopefully get their opinions heard. Think that would be an improvement, just for all actors involved.

These words reflect the possibility of different outcomes depending on the way information is communicated and highlights the importance of all stakeholders being involved for a positive outcome and active engagement. Hence, all forms of information, historical, scientific or local, should be considered (SER & IUCN, 2004). If the goal is to get a meaningful input from all stakeholder groups, then existing power imbalances need to be addressed. The way communication pathways are constructed within each stage of the process and the institutional framework of the scheme is highly important (Stringer et al., 2006). If, however, those affected are not allowed to be involved in the entire process, negative attitudes and opinions may develop and once they have formed, they might be difficult to change (Schenk, Hunziker, & Kienast, 2007). Thus, people should not feel that the process is only in place to validate already made decisions or to provide the illusion of stakeholder consultation (Richards et al., 2004).

Jóhann Magnússon appears to be of the opinion that allowing for the expression of different ideas could be highly beneficial, highlighting the importance of exploring various possibilities within the operationalization of the scheme:

When more people start exchanging ideas I often find that very good points come to light, and also, I think that the ones that are setting the rules, or have already set the rules, they should sometimes get off their high horse and use those good suggestions. There is nothing holy, even if it is the original thing, or established by a man of “knowledge”. It is just often, that when you start considering all the different aspects you often find something worth examining and using.

In this sense, the farmers often seemed to feel that their opinions and input were not valued equally to the views of other actors within the QMS scheme, or at least that they were not able to make a difference when it came to the decision making. This also raises questions about the system’s flexibility, since the farmers often appeared to think that the different needs and circumstances of the various participants were not accommodated within the scheme. Þorsteinn Aðalsteinsson, who carries out a land improvement plan in cooperation with other farmers in his area, talked about this in connection to the land condition evaluation. This especially refers to the importance of encouraging locals to become further involved in such evaluation, and that integrating local knowledge in such activities is essential. Þorsteinn also puts this into the context of practicality:

It is of course impossible to gather together a bunch of esteemed experts on high wages to some place and have them walk around the entire area

without them knowing what they are seeing. That won't accomplish a thing. It would be much better if someone that knows the land or the locals could somehow decide upon the best methods and carry out these tasks, or at least play a bigger part. Just like these images [aerial photos], this assessment needs to be built on the most correct and newest information.

This view is very understandable, and it is a rather common notion that a better comprehension of social and ecological systems can be reached by utilizing both local and scientific knowledge (Reed, 2008). However, for this to work, such utilization needs to be built on mutual respect, and the management process and associated measures must be designed in such a way that it takes local context into account (Stringer et al., 2007). This means that the scientific knowledge relative to the project must not be aimed at replacing or discounting the knowledge already in place, but rather these different sources should complement each other (Harrison et al., 1998). In order to avoid such discounting of local knowledge, a proper system should be developed for the purpose of gathering and storing information from farmers. If such a system is missing, the information may not become useful for future adjustments within the system, for example related to the policy making or implementation process. Such a system might also be useful when adapting management plans to local needs and changing circumstances (e.g. Stringer et al., 2006). By developing and maintaining stakeholder engagement and utilizing local knowledge in such an efficient manner it may also become easier to build mutual trust. Such trust is highly important when dealing with environmental protection or restoration (Richards et al., 2004).

5.4.3 Responding to lack of compliance

Most of the farmers interviewed had either been members of the QMS from the beginning, some even participating in the scheme's initial trial group, or had taken over farms where the scheme had already been implemented. When discussing the reasons behind their participation, or how it had come to be, most described this option as having been the only realistic way forward in their opinion. This mostly hinged on the fact that a substantial amount of funds had become tied to the scheme. Hence, although the QMS scheme is a voluntary one, most of the farmers believed that without participating in this scheme it would have become difficult to continue running their farm successfully. With payments gained through participation in the QMS often representing a large portion of farmers' total income, not participating was deemed financially unsustainable. This is reflected in the words of Árni Helgason:

Well, I mean, you didn't really have a choice at the time, not if you wanted to get something out of this [farming]. The scheme was linked to these subsidy payments from the start, and they had already become such

a large part... of the whole revenue of the farm, so it didn't really make sense not to take part in this.

Such a view is highly understandable, since it is not enough to be interested in farming, it also needs to be a way to make a living, and thus it is preferable that the farm can be run as efficiently as possible, or as Ingimar Davíðsson described it:

It is hard to run a company without trying to get all the possible income that is on offer. I mean, you just have to be realistic. If these land improvements would for example cost more than what you are actually gaining you would most likely think twice about carrying them out. If... the cost of participating and paying for all this supervision and everything associated with this would exceed the benefits, then you would not necessarily want to participate. But I still think we would be trying to improve the land, even if it was not connected with something called the QMS.

With the subsidy payments being an almost essential element in the budget of the farms, the farmers generally seemed to believe that the risk of losing these subsidies should be enough incentive for participants to follow the rules. Sigurjón Eyjólffsson, among others, feels strongly about this:

[...] And if this [the subsidies] are just cut, it makes such a difference, especially in sheep farming where the income is not more than this, so you would think that people would just have to follow the rules. And the people that make the rules, they have to follow through.

However, many of the farmers remarked that other farmers participating in the QMS, who are not considered 'good farmers' in their opinion, or do not meet the requirements of the scheme, are given too many chances. This appears to be seen as reflecting poorly on the farmers that are actually performing well and following the rules, thus undermining their operations and making the scheme miss its mark. Þorsteinn Aðalsteinsson seemed rather frustrated about this situation:

These so called endless exceptions are simply insufferable. People are always getting extensions and exceptions, so it feels that they are almost I don't know... protected, against losing these payments. You cannot simply cut the payments; one has to have done some profound damage before that happens - if it ever happens!

This perceived lack of follow-through appears to raise questions about the QMS itself and its administration, since breaking the rules often seems to have little or no consequences. It may also seem unfair to the farmers that are complying with the rules, if farmers that

appear to be breaking them still receive the same subsidy payments. Hence, this lack of consequences might discourage the ‘good farmers’ from making even the required efforts, for example regarding land use, since it might appear that doing so is not giving them any real advantage.

Some of the farmers also commented on the lack of structure and order within the system, which might make it hard for supervisory bodies to carry out surveillance or respond when things are not as they ought to be. This is also connected with the way land use and condition is evaluated, or as Ingimar Davíðsson remarked:

I believe that one of the biggest flaws of this system is how badly defined it is. It is sort of... hard to tell people if they are doing things wrong, or hard to prove that they are doing something wrong. And also, these changes in land use and vegetation, it is very hard to evaluate it. And I think, about this evaluation... it often just depends on the individual, what they decide, and therefore it is not always based on facts or something that is being measured. You might get one person that says: this is not good enough, or: this is unacceptable. And then the next person comes and says: this is looking great; carry on with the good work! So... it sometimes feels like this just depends on the person or the situation at each time.

This seems to point towards that the farmers do not necessarily see any pattern in the land evaluation, which might make it hard for them to trust in such an assessment. Thus, it needs to be clear which indicators should be used or how they should be developed when such projects are being implemented. In addition, it is important to define which stakeholders should be involved in the monitoring or assessment processes and to what extent (Stringer et al., 2007). If multiple stakeholders are to be involved, pathways of communication and information flow need to be properly constructed (Stringer et al., 2006).

A certain frustration also seemed to exist among some of the farmers towards how they felt that the system was dealing with their comments and complaints regarding rule-breakers, as it often appeared to them that such information produced little response. Even the farmer’s stakeholder group, the Farmers Association, was not excluded from this criticism, and Guðmundur Jónasson mentioned that especially during his interview:

These people are getting subsidies and no one says anything about it. Even though there is a sheep outside the house that can’t get in because of the snow at the door and the lamb has eaten it down to its skin and bones, nothing is done. I contact the farming advisors and the authorities

and nothing is done. I have done all I can and I just feel that the people in charge in our organization should be utterly ashamed of themselves.

The view that the enforcement and surveillance mechanism of the QMS system is not functioning properly in regards to land use appears to be quite common, especially among farmers that have not been required to develop land improvement plans. However, it is important to note that in general these farmers were often less informed about the requirements of QMS when it came to the land use part of the regulation. This could be explained by the fact that the farmers themselves do not have to prove that they are using the land sustainably, but rather it seems that the SCSI has to submit a proof if they think a farmland is not being used sustainably. Hence, if a farmers' land use is deemed appropriate, the need to familiarize themselves with the terms of the scheme in that aspect may not arise. On the other hand, they do not receive the same information as farmers with developed land improvement plans, which makes it more of a challenge for them to familiarize themselves with the land use requirements. Thus, if ecological restoration through effective participation is the goal, it is important that all relevant stakeholders are aware of the matter at hand. They also need to be well informed and get the same information, for example on what kind of opportunities, costs and benefits such measures can produce (SER & IUCN, 2004). This also highlights the importance of a consistency existing within the surveillance and consultation framework of a system such as the QMS (Juntti & Potter, 2002).

6 Conclusions and recommendations

This chapter summarizes the findings described in chapter five and discusses it from the perspective of the research questions underlying this study as well as previous research. In addition, recommendations will be put forward on what improvements should be made to enhance the effectiveness of the land use part of the QMS as well as its participation process.

There is evidence to suggest that carrying out reclamation projects influences environmental attitude and behaviour to some extent. This may in part be connected to participation in the QMS since the scheme appears to have created a venue for farmers to work further towards sustainability and improved land use, especially in the highland areas. Thus, land improvements often seem to be seen as an important part of improving the farming operations as a whole, rather than being solely carried out for the purpose of being part of the QMS. This being said, the scheme could be much more effective as a motivational tool. The findings of this study also lead to the general feeling that a gap exists between land use and other aspects of the QMS scheme. This is especially directed at the lack of formal land use agreements, which the farmers perceive as a failure within the system. As a result, land use has become something of a sensitive issue within the farming society, disrupting communication and thus making it more difficult to make adjustments or changes regarding this factor. However, this also suggests that the objectives of the scheme are not always understood in the same way among the different actors involved, which might be due to lack of introduction or information on what these objectives really entail (e.g. Richards et al., 2004).

There appears to be a need for clarification on how land evaluations are conducted and what they are based on, since the farmers often find it hard to grasp that although stocking density on their land remains low, it can still be considered in bad condition. Without such clarity, and a mutual understanding on what constitutes sustainable land use, it becomes difficult to accept or understand that land improvements are necessary. With the farmers feeling that their former land improvements are not being accounted for within the evaluation, this can also diminish the feeling of accomplishment. Without incorporating local knowledge and site-specific solutions it may be harder to understand the complexity of the problem at hand, as well as to evaluate the effect and relevance of various technical and local solutions. Thus, the scheme may fail to provide meaningful results (e.g. Reed, 2008; Richards et al., 2004; Stringer et al., 2006).

The QMS scheme seems to cast farmers more or less in the same mould when it comes to land improvements. The rigid structure of the scheme allows for limited incentive and

innovation, and is more focused on farmers following already established methods and rules. The cultural capital that can be created through land improvement measures and the satisfaction that such improvements are able to provide may thus be constricted (e.g. Burton et al., 2008). This lack of freedom can also be seen as going against one of the core values of farmers and the farming profession, as discussed in chapter 5.2.1; the freedom of choosing which path is best suited for their own land as well as the project at hand. In addition, this again suggests that local knowledge is being discounted, with little focus being put on site-specific solutions, which might result in negative opinions towards the scheme (Pinto-Correia et al., 2006; Schenk et al., 2007). Such lack of focus on innovation and incentive may thus limit the usefulness of the participation process when defining the challenges at hand, identifying the solution from different viewpoints, and increasing understanding of these same challenges (e.g. Richards et al., 2004). With the farmers' different views and perspectives not being properly represented within the scheme, this can also restrict the potential learning process and therefore also the likelihood of the scheme facilitating any real changes (see Pretty, 1995).

Although subsidies may in certain cases limit innovation and initiative among farmers (e.g. Burton & Paragahawewa, 2011), this might not be the main reason within the QMS. Rather, it is likely that this is more a result of the ineffective operationalization and structure of the scheme itself. This being said, when subsidies are not specifically tied to the land use part of the QMS, environmental benefits are most likely restricted. This is because farmers are not directly rewarded for their extra efforts and achievements in land improvements within the scheme's premises, which might limit the incentive to restrict grazing, intensify land improvement measures or try new things (e.g. Stringer et al., 2007). However, such measures may indirectly affect farmers' income through increased production, since improving the land most likely has positive effect on its carrying capacity.

Regarding the participatory process within the operationalization of the QMS, it seems that the flow of information within the scheme is highly insufficient, or at least very inefficient, especially regarding the new regulation. The sharing of information also appears to be unequal between farmers depending on if they have developed land improvement plans or not. The structural changes of the scheme and changed role of the SCSi adds to this perception, as this increases the feeling of uncertainty when it comes to retrieving information. If the farmers do not know who they can alternatively turn to for guidance, this can lead to the land improvement plans missing its mark as the farmers might not seek advice and assistance to the same extent as before. Without an institution or an agent accepted by all actors ensuring a proper dialogue and information flow, a proper feedback across institutional levels is unlikely to be achieved (Stringer et al., 2006). This has already created implications for the construction of new land improvement plans, which according to the regulation no. 1160/2013 should have been completed in January 2015. This has led to the implementation of a new regulation no. 536/2015, which came into effect in June

2015. This regulation changes the role of the SCSi back to its former state, as the agency is again allowed to consult farmers on the construction and design of land improvement plans. This perceived lack of trust and uncertainty when looking for information or advice may thus already have been addressed to some extent. However, these regulation changes still do not fully address other issues, such as the lack of information flow existing both within and outside the QMS, with the farmers feeling that their efforts within the system are not getting through to the public. Thus, it may feel that their accomplishments are not having an effect on the image of sheep farming or making it more likely that their product is purchased. Hence, farmers might not be encouraged to do more than the absolute minimum when it comes to land improvements, which diminishes the effect of the QMS in this aspect.

Farmers appear to be regarded more as passive assistants for advancing a certain agenda of the scheme by carrying out relevant tasks, rather than influential or valuable voices within the system. Thus, their engagement can be classified as 'public communication' according to Rowe and Frewer (2005), as their feedback is generally not required or specifically sought. The QMS therefore appears to be in its essence following a 'top-down' approach, where information on already made decisions is simply communicated, although even the efficiency of this communication can be questioned. However, the scheme does provide an element of dialogue within the land use part. This is demonstrated in the communication and information exchange provided by on-site inspections carried out by SCSi district officers. This being said, there appears to be no guarantee provided that this information will move up the ladder within or between institutions, or that it will have any effect on policy or decision-making processes. This means that, although this dialogue may exist, there is no proper process in place to receive or synthesize this information. Hence, the farmers can be seen as having little or no influence in matters that directly concern them, which limits the extent of locally owned decisions as well as the potential of the scheme to create any lasting effect on people's lives (e.g. Cooke & Kothari, 2001; Cornwall, 2008; Richards et al., 2004).

The structure of the scheme also seems to be very unclear to the farmers, and the feeling that communication within the system is lacking can create distrust and even reduce the scheme's success. The institutional setting is seen as complicated and uncoordinated, with information not always being consistent. Thus, there is a perceived lack of follow-through within the system, with unacceptable behaviour and rule breaking not being addressed properly, or not in time. This might discourage the 'good farmers' from carrying out additional efforts regarding land use, as it is not seen as giving them any advantage when compared to those they consider as 'bad farmers'. This emphasises the need to build strong relationships between different stakeholders associated with the QMS, including the agencies and institutions involved (e.g. Richards et al., 2004).

Based on these interpretations, there appears to be a need to ensure that farmers are able to see the future benefits of their improvement efforts. Thus, they must be able to associate such acts with other positive factors, such as acknowledgement of their efforts from other stakeholders, including consumers, as well as a better quality of their product. A good start to address this issue would be to link the achievements reached through land improvements more directly to the subsidies gained through the QMS, and make it easier for consumers to connect the product to its origin. Such a connection is likely to encourage farmers even more towards improved operations and sustainability, if such efforts are believed to affect consumers' choices. However, for this to happen, the scheme and its objectives must be properly introduced throughout the society.

This study also underlines the importance of a consensus and consistency existing within the institutional and legal frameworks, as well as farmers and all other stakeholders, when it comes to the priorities and methods used within the scheme. The roles of various actors involved in the scheme, such as the SCSi and IAAC, should also be better defined when it comes to land use and land improvement measures, for example regarding information flow, advisory services and educational material. Hence, for the best environmental outcome and successful participation, the project management structure needs to be clarified. This should include a better introduction of the process of the scheme, with comprehensive information provided to all actors involved, which at the same time is understandable and accessible. Hence, proper communication platforms and information pathways need to be constructed within the system. Facilitating the establishment of local restoration associations between farmers and creating opportunities where farmers can meet and discuss different ideas together with other actors involved, such as the SCSi or IAAC, might be useful in this context. Encouraging innovation and independent thinking within the system, for example through such measures, is likely to have positive effect on farmers' attitudes towards carrying out reclamation projects. Thus, increasing local ownership of, and involvement in, decision-making processes regarding land use is highly important.

In addition, monitoring processes should include some sort of feedback mechanism that allows for the inclusion of local achievements, ideas, and knowledge. Such feedback should allow for the re-evaluation and constant adjustment of implementation processes regarding reclamation projects. It also needs to be clear which indicators should be used, how they should be developed and to what extent stakeholders should be involved in their development as well as the assessment process as a whole. Thus, it is extremely important that the level of engagement required from farmers within the QMS is clarified within all stages and processes of the scheme to limit confusion and resentment. If the QMS is to reach its full potential regarding sustainable land use and land improvements it should also be looked at in the wider institutional and legal context, where objectives and the methods to be used to reach those objectives need to be further coordinated.

For further research it would be interesting to explore the wider political context when it comes to land use in Iceland, how policies, objectives and indicators are defined and how land use could be better managed. Furthermore, it could be a good idea to examine grazing management in Iceland and how it can be made more efficient. Looking at the success of the QMS from a more ecological or biological perspective could also prove useful, which should also include further studies on the effect of grazing, thus providing more relevant information on how grazing pressure can best be determined. Additional work should also be aimed at developing monitoring programmes and clear indicators for land condition and effect of grazing pressure, useful for all actors involved.

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Appendix A: Letter of introduction

(The following text is presented in its original Icelandic version).

Reykjavík
5. júlí 2014

Kæri viðtakandi,

Jónína heiti ég og legg ég um þessar mundir stund á meistaranám í umhverfis- og auðlindafræði við Háskóla Íslands. Nú er ég að vinna að meistaraverkefni mínu þar sem ég er að rannsaka gæðastýrða sauðfjárframleiðslu útfrá reynslu, viðhorfi og væntingum bænda.

Tilgangurinn með þessu bréfi er að athuga hvort þú myndir vilja taka þátt í rannsókninni með því að veita mér viðtal, deila með mér reynslu þinni af gæðastýringunni og fara yfir viðhorf þitt og væntingar til þessa kerfis. Langar mig að leggja áherslu á þann hluta sem snýr að landnýtingu og landbótaáætlunum, í ljósi þeirrar nýju reglugerðar um gæðastýrða sauðfjárframleiðslu er tók gildi 1. janúar síðastliðinn og þeirra breytinga sem hún hafði í för með sér.

Ég mun hafa samband við þig símleiðis núna næstu daga eftir að bréf þetta hefur borist til að kanna áhuga þinn á að taka þátt í verkefninu og til að svara öllum þeim spurningum sem þú kannt að hafa. Að auki, ef einhverjar spurningar vakna fyrir (eða eftir) þann tíma bið ég þig endilega að hafa samband, annað hvort í gegnum síma eða tölvupóst.

Með von um góðar viðtökur,
bestu kveðjur,
Jónína Sigríður Þorláksdóttir

Appendix B: Interview guide for farmers

(The following text has been translated from its original Icelandic version, with the original text presented below).

Notes and introduction to the interview

Introduction

- Introduce myself, the research and its main objectives
- How the information will be used
- Full confidentiality – anonymity/pseudonyms
- Length of the interview, and that it will be recorded
- Ask the interviewee to sign the agreement slip
- Explain the structure of the interview

Interview Guide

Background

- Year of birth/upbringing
- Occupation as farmer
 - Main reasons for choice of occupation
- Size of farmland, number of livestock
 - Farmland dynamics – cultivated land, rangeland, communal grazing land...
- Income from outside the farm
 - Ask about portion of total income
- Education
 - Importance of education
 - Ask about seminars etc.

Community, knowledge, attitude

- What it means to be a sheep farmer
- What characterizes a responsible landowner?
 - How would they describe a well-maintained land?
 - Sustainable land use?
- Communication/cooperation with other farmers?
 - Look towards learning! – e.g. “roadside farming” (learning by observing)
 - Other farmers opinion?
 - Especially land use/land improvements/grazing management
 - What about quality management?
- Participation in other projects directed at land improvements? (i.e. besides the Quality Management
 - What does the participation entail?

- Reasons for participating?

Participation in Quality Management:

-When they became members?

- Reasons for participating?
 - What lead up to it
 - Choice?

-Experiences of participation – positive/negative

- Changes in farming?
- Extra work?
- Follow through?
 - What kind?
 - Extent?
- How is quality management connected to sustainable land use?
- Learning/benefits of participating?

-Communication with other actors related to Quality Management?

- Access to information?
- Expressing opinions?

-Experiencing communication between other actors in the Quality Management scheme?

- How are the different aspects of Quality Management connected?

-Innovation/initiative?

-The new regulation:

- Introduction?
- What they think about the changes
- What about requirements concerning land use and land improvements?
- Expectations towards the new regulation?

If land improvement plan:

-Experience of these plans? How is this done?

- Information and assistance, From whom
- Communication with other actors
- Cooperation when construction land use plans? Description
- What are the benefits (Also FHL and the Land Improvement Fund)
- New regulation regarding land improvement plans
 - Good/bad – description of process
- What can be done better – communication/cooperation/requirements...

Opinion and image

-Role and effectiveness of Quality management: Grazing management, responsible land use, reclamation, revegetation...

- What works/what can be done better
- Creating a venue for initiative/innovation? How?/Why not?
- Subsidy payments

-Quality Management and the image of sheep farming - effects

- In relation to the consumer
 - Effect/no effect?
 - Why/why not?
- Introduction of the Quality Management to the public
 - What works? What can be done better?

-Concluding remarks? Something to add?

Remember: Thank the interviewee for their participation in the study.
Attention! Better to not turn of the recorder right away.

Minnispunktar og inngangur að viðtali

Kynning

- Kynna sjálfa mig, rannsóknina og markmið hennar
- Hvernig upplýsingarnar verða nýttar
- Gætt verður fyllsta trúnaðar – nafnleynd/gervinöfn
- Lengd viðtals, og að samtalið verði hljóðritað
- Biðja viðmælanda að undirrita samþykkisblað
- Útskýra uppbyggingu viðtals

Viðtalsrammi

Bakgrunnur

-fæðingarár/hvar uppalin/n

-Starf sem bóndi

- Ástæður fyrir vali á atvinnu

-Stærð bújarðar/bústofns

- Landið sjálft – ræktað land, upprekstrarland, sameiginlegt beitiland...

-Utanaðkomandi tekjur

- Athuga hlutfall

-Menntun

- Mikilvægi menntunar
 - Líka námskeið

Samfélag, þekking, hugarfar

-Þýðing þess að vera sauðfjárbóndi?

-Hvað einkennir ábyrgan landeiganda?

- Hvað er vel hirt land?
- Sjálfbær landnýting?

-Samskipti/samvinna við aðra bændur?

- Lært af öðrum! – t.d. “roadside farming” (læra með því að skoða)
- Álit annarra bænda?
 - Sérstaklega landnýting/landbætur/beitarstjórnun
 - Hvað með gæðastýringuna?

-Þátttaka í öðrum landbótaverkefnum? –fyrir utan gæðastýringuna

- Í hverju felst þátttakan?
- Ástæður þátttöku?

Þátttaka í gæðastýringu:

-Hvenær hófst þátttakan?

- Ástæður fyrir að taka þátt?
 - Hvað leiddi til þess?
 - Val?

-Reynsla af þátttöku – jákvætt/neikvætt

- Breytingar á búskaparháttum?
- Auka vinna?
- Eftirfylgni?
 - Hvernig?
 - Hversu mikil?
- Hvernig tengist gæðastýring sjálfbærri landnýtingu?
- Lærdómur/kostir þátttöku?

-Samskipti við aðra aðila tengda gæðastýringu?

- Aðgengi að upplýsingum?
- Hvernig er skoðunum komið á framfæri?

-Upplifun af samskiptum milli annarra aðila innan gæðastýringarinnar?

-Tengsl milli mismunandi þátta gæðastýringar?

-Frumkvæði/nýsköpun?

-Nýja reglugerðin:

- Kynning?
- Upplifun af breytingum
- Hvað með kröfur um landnýtingu og landbætur?
- Væntingar til nýrrar reglugerðar?

Ef landbótaáætlun:

-Reynsla af slíkum áætlunum? Hvernig eru þær gerðar?

- Upplýsingar og aðstoð, frá hverjum
- Samskipti við aðra aðila
- Samráð við gerð áætlana? lýsing
- Hvað eru kostirnir (Líka BGL and Landbótasjóður)
- Ný reglugerð – hvað varðar landbótaáætlunir
 - Góð/slæm – lýsing á ferlinu
- Hvað má betur fara – samskipti/samvinna/kröfur...

Álit og ímynd

-Hlutverk og áhrif gæðastýringar: beitarstýring, ábyrg landnýting, uppgræðsla...

- Hvað virkar/hvað er ekki að virka
- Vettvangur fyrir frumkvæði/nýsköpun? Hvernig?/Hvers vegna ekki?
- Gæðastýringargreiðslur

-Gæðastýring og ímynd sauðfjárræktar – áhrif

- Varðandi neytendur
 - Áhrif/ekki áhrif? Hvers vegna/hvers vegna ekki
- Kynning á gæðastýringu meðal almennings
 - Hvað virkar? Hvað mætti betur fara?

-Eitthvað að lokum? Eitthvað sem vilt bæta við?

**Muna í lokin: Þakka viðmælenda kærlega fyrir þátttökuna.
*Ath! Bíða með að slökkva á upptöku.***

Appendix C: Letter of Agreement

(The following text is presented in its original Icelandic version).

Háskóli Íslands
Umhverfis- og auðlindafræði
Haust 2014

Researcher:
Jónína Sigríður Þorláksdóttir
M.Sc. student

Ég vil byrja á að þakka þér kærlega fyrir að deila með mér þekkingu þinni og leyfa mér að taka hana upp. Með því að undirrita þetta skjal gefur þú leyfir fyrir því að þær upptökur og/eða myndir sem safnað hefur verið hér í dag, svo og aðrar upplýsingar sem þú hefur látið í té, verði notaðar sem gögn fyrir meistararitgerð mína. Farið verður með öll gögn sem trúnaðarupplýsingar og munu gervinöfn verða notuð við afritun, greiningu og öll skrif til að gæta nafnleyndar og koma í veg fyrir að hægt sé að rekja upplýsingarnar. Að afritun, greiningu og skrifum loknum mun upphaflegu upptökun verða eytt.

Ég undirrituð/ður gef hér með leyfi til þess að það efni sem hér hefur verið nefnt verði varðveitt og notað í tengslum við verkefnið: Connecting Sustainable Land Use and Quality Management in Sheep farming: Effective Stakeholder Participation or Unwanted Obligation?

Undirskrift viðmælanda

(Dagsetning)

(Undirskrift rannsakanda)

(Dagsetning)

Fyrirvarar um notkun: