Master‘s thesis

Geographical and Practical Islands: Sustaining Habitation through Connectivity

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Declaration

I hereby confirm that I am the sole author of this thesis and it is a product of my own academic research.

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Petra Granholm

Abstract

Islands are not always geographical. Some regions of the world can be called "practical islands" on a seasonal basis, if one is to draw the definition of islands from their degree of connectivity, in particular connectivity in transportation. Three insular case studies from the Westfjords (Ingjaldssandur, Djúpavík and Vigur) have been compared to one case study from the Åland Islands (Husö) in an attempt to answer the questions "Why do people choose to move to/stay in geographical and practical islands?", and "What is needed to sustain habitation in geographical and practical islands?"

The academic exercise consists of trying to tie the interdisciplinary threads of the Coastal and Marine Management Master's Programme together, with a focus on social sciences, in order to produce policy recommendations from a bottom-up perspective, where the individual matters. For this purpose, interviews have been conducted both with inhabitants of insular regions and decision-makers on different levels concerned with connectivity. It is concluded that the high costs of sustaining habitation and connectivity must be weighed against the importance of cultural heritage, human-nature interactions, people's relationship to the sea, economic diversification and individual rights. It is suggested that practical islands should be treated as such on a seasonal basis and that the historical waterways should not be underestimated.

Útdráttur

Eyjur þurfa ekki alltaf að vera landfræðilega afmarkaðar af vatni. Sum svæði í heiminum mætti kalla „reyndareyjur“ á ákveðnum tímum ársins, ef hugtakið eyja er skilgreint út frá tengslum þess við nágrenni sitt, þá sérstaklega þegar kemur að samgöngum. Þrjú einöngruð viðfangsefni á Vestfjörðum (Ingjaldssandur, Djúpavík og Vigur) hafa verið borin saman við eitt viðfangsefni frá Álandseyjum (Husö) í rannsókn þar sem reynt er að svara tveimur spurningum. Annars vegar: „Hvers vegna ákveður fólk að flytja til/búa á landfræðilegum og reyndareyjum?” og hin svegar: „Hvað þarf til þess að viðhalda byggð á landfræðilegum og reyndareyjum?”

Hin fræðilega rannsókn felst í því að tengja saman þverfaglega þætti náms í Haf- og strandsvæðastjórnun, þar sem áhersla er lögð á félagsvísindaþáttinn, með það að markmiði að móta tillögur að stefnu frá grasrótarsjónarhorni þar sem réttindi einstaklingsins eru í fyrirrúmi. Í þeim tilgangi hafa viðtöl verið tekin við íbúa á einöngruðum svæðum og einnig þá sem fara með ákvörðunarvald á ýmsum sviðum samgöngumála. Niðurstaðan er sú að vega þarf saman þann mikla kostnað sem fylgir því að viðhalda byggð og samgöngum við einangruð svæði annars vegar og mikilvægi þess menningararfs sem fólgin er í slíkum byggðum, samskipti mannsins við náttúruna, tengsl fólksins við hafið, efnahagslega fjölbreytni og réttindi einstaklinga hins vegar. Tillagan felst í því að reyndareyjur eigi að meðhöndla sem slíkar á ákveðnum tímum ársins og að möguleikann á að nýta hinar sögulegu siglingarleiðir megi ekki vanmeta.

For my family, on Åland and in Iceland

Foreword

On the 23rd of November 2010, the local newspaper of the Westfjordian municipality Ísafjarðarbær reported that the last inhabitant of the valley Sélardalur has deceased. At its demographic peak, the valley hosted 200 people in 30 farms (Hjaltadóttir, 2010). It remained inhabited until the present day, but is now left desolate. Sélardalur is not a case study of the present thesis, but this development illustrates the core of the question formulation—the depopulation of once vivid areas exhibiting specific character, and the heritage that is lost in the process. Are there sustainability reasons for working against such depopulation patterns, and if yes, what are the most urgent matters for the sustenance of habitation?

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Tromsø, 11.1.2011

Petra Granholm

1 Introduction

Sparsely populated coastal areas around the world share some similarities; their inherent physical characteristics make them difficult to access, such as islands or fjords, some regions are subject to natural hazards, such as storms, avalanches, sea-level rise and tsunamis, but yet their natural beauty in terms of ocean or mountains, and the natural resources, such as fish or minerals, make them attractive for people to live in and are often the reasons behind historical settlement.

However, such areas can often only host a limited number of people, and their natural characteristics make connectivity and provision of basic services in terms of infrastructure more complicated than in agglomerations or population centres. Even if global urbanization now has reached more than half of the world's population, some people still choose to stay or move, not only to the more peripheral coastal regions, but to the outskirts of these regions, for different reasons. Such areas can take the form of fjords, such as in the north-western Iceland, or archipelagos, such as on the Åland islands. Within these sparsely populated coastal areas, islands form, either as geographical islands, or practical islands, because of their situation as cut off from the rest of civilization periodically. It is these two kinds of insularity that the present thesis focuses on, as highlighted by the three case studies from Iceland and one from the autonomous province of the Åland Islands in the Baltic Sea. My interest was sparked from the pertaining centre-periphery discourse and in particular what is seen as the extreme periphery – symbolically and practically islands off the coast of the rest of the world, which after research check have not, so far, raised academic interest according to the literature. Is it worth it to sustain life on these islands? The thought behind the research has its starting point in the fact that these insular locations are often called "remote" or "peripheral" out of context. The inhabitants ask their self "From what am I remote? I am in the centre of my world view, this is my life" (Interview 7, 2010), so who has the right to decide who is in the centre and who is in the periphery? By creating an image of these locations as insular, there is no need to use "remote" or "peripheral" without context. As for terminology I therefore suggest to use these words in context, such as "remote from the primary road". As an island inhabitant myself, my world has always been surrounded by water and in this thesis I am

exploring the limits of what the term insularity may imply and what new perspectives open up from addressing issues from the insular angle.

The Westfjords comprise fourty-nine fjords in the north-western corner of Iceland, connected to the mainland of Iceland by road, ship and airplane. The three case studies from the Westfjords presented in this thesis consist of two practical islands, namely the valley of Ingjaldssandur in Ísafjarðarbær, and the small village of Djúpavík in Árneshreppur, and one geographical island, Vigur in Ísafjarðardjúp, part of Súðavíkurhreppur. The comparative case study from the Åland Islands is the small island of Husö, in Sottunga. Population wise, Árneshreppur is the smallest municipality in Iceland, and Sottunga is the smallest municipality in Finland. All case studies have very low population number in common, from one de facto permanent inhabitant on Vigur to two in Ingjaldssandur and Djúpavík and four in Husö. They are also situated hours away from population agglomerations: Vigur is half an hour by boat and Ingjaldssandur one hour by car from Ísafjörður (pop.3000), Djúpavík 74 km from Hólmavík (pop. 364) and Husö 30 minutes by boat from Sottunga (pop. 113).

1.1 Research questions

The research questions for this thesis are founded in two basic questions: Firstly, from an inhabitant point of view, why do people choose to move to/stay in geographical and practical islands? From a policy-maker's point of view, the same question, somewhat modified, can be asked: Do we want people to live in these areas, and in that case, how much is it allowed to cost and what arguments must the cost be weighed against? The second basic question follows: What is needed to sustain habitation in geographical and practical islands?

From these two sets of questions, other questions emerge, that are to some extent case specific: What role does transport play, and how has it evolved historically? Is it less difficult to live on a geographical island than on a practical island? When regional policies are developed and executed for sparsely populated areas, is insularity taken into consideration? Throughout the thesis, the issue of sustainability – environmental, economic, social and cultural such – is considered as a purpose for policy making: From a sustainability point of view, what is the best policy route to choose?

1.2 Purpose of thesis

In academic literature and regional policy documents the sparse inhabitation of insular locations seems to be overlooked. This knowledge and policy gap is widened if looking from a grassroots, bottom-up perspective. With this thesis, I intend to fill that gap by approaching the issue from an inhabitant-point of view.

The academic exercise in the present thesis consists of trying to tie the interdisciplinary threads of the Coastal and Marine Management Master's Programme together. Therefore, the reasoning and arguments in the thesis are drawn from a variety of fields, amongst others anthropology, geography, history, human ecology, politics and policy, law, philosophy and economics. The author's background in social sciences casts its light on the text and technological arguments will, therefore, remain fairly unexplored. The main purpose of the thesis it to explore the oxymoron "insular connectivity" as a prerequisite for life on islands. In the present-day context of urbanisation, staying connected is considered vital for life and living outside permanent road connection means insularity. Clark and Clark (2009) argue that the more connected you try to get, the more you might in fact isolate yourself from the world. They also draw on globalization but focus on telecommunications, whereas my focus and application is on physical connectivity. I will try to illustrate this diffuse concept through my explanation of the evolution of transport routes and the insular case studies. In regards to the wording "insular", you insulate yourself somewhere, yet at the same time you do not lose the vital connection to the other or outside world – that is seemingly the main motivation of the case study respondents; namely, a sort of "freedom within the limits one puts on themselves" and their need to have access to the other world and let the other world have access to them. Consequently, goal of the present thesis is to illustrate the importance and possibilities of this oxymoron. The famous case of Gísli á Uppsölum, the farmer Gísli Oktavíus Gíslason (1907-1986) that lived most of his life without contact to other people or the world outside his farm in the Westfjords is the extreme example and my argument is that not everyone in an insular location wants the degree of insularity Gísli reached. Therefore physical connectivity, which in this thesis is embodied by transport of humans, be it on water or land, basic services and physical mail is vital.

The insular connectivity concept can be approached from a number of angles, one of them being the fact that infrastructure investments in certain sparsely populated areas, such

as improved connections through bridges, embankments, tunnels in the Westfjords and on Åland might actually insulate insular locations further although they benefit a majority of the people in sparsely populated areas as will be discussed later. The three case-studies of the Westfjords in Iceland are set into a comparative light with the single case study from the Åland Islands, Finland, in order to increase the relevance and usefulness of the research. In comparing the two regions, one can see new sides and angles of each case while the Icelandic case will be more thoroughly examined.

1.3 Delimitation

The case studies are not thought to represent all cases of insularity, but have been chosen because their characteristics, such as number of inhabitants and physical character, and issues, such as transport and provision of basic services, make them comparable. The purpose of the study is not to look at habitation on these islands in general, which would include summer inhabitants, but to look at permanent all-year around habitation, which includes winter. Because winter is the most difficult season for habitation, the focus lies on the winter months. When reading the thesis, it is important to keep in mind that it is not about sparsely populated areas in general, such as the Westfjords in general, or the Ålandic archipelago in general, but it is about the step further from agglomerations- the extremely sparsely populated insular regions. The thesis is a first step towards an extended research on partially or fully insular locations, attempting to create a frame for what this field of inquiry may include. The case studies give valuable information about how insularity can express itself in reality. Although not meant for generalisation, the results give an idea of what is relevant to focus on when other such cases are considered and when the mapping of the general situation of insular places is carried out, in Iceland, on Åland, or elsewhere.

2 Methodology

The methodology used in the empirical research was qualitative, through personal in-depth interviews. In the interest of clarity, the persons interviewed will be called respondents. In addition, interviews were carried out with decision- makers with knowledge and opinions on the issues, and these persons are in the following called informants. Four interviews with case study respondents are counted as primary sources and the additional interviews with informants from the decision-makers' side are considered secondary sources. This is because the primary aim of the thesis is to deliver a bottom-up perspective on the research questions, and the secondary aim is to compare the bottom-up perspective to a top-down perspective. In the words of Vandana Shiva:

> A top-down model for sustainability results in pseudo-sustainability and eco-imperialism. A bottom-up search for sustainability creates an Earth democracy based on living economies (Shiva, 2008, p.133).

In the case of Ingjaldssandur I had the privilege to spend more time visiting and helping the respondent in daily life, thereby extending my research to participant observation, which has added value to the thesis.

Document analysis has also played a large role in research. Historical research by others has provided the background framework. Regional policy document has been compared and analysed together with previous research on regional policies by others. Because of my background in legal science, the analysis of legal documentation such as law and judicial review has played a part. The legal method employed has had its starting point in positive law, although arguments from natural law may have influenced the discussion on what policy route should be chosen. Additionally, maps and images are used to support the understanding of each case study. When not otherwise specified, maps are created by the author through Geographical Information Systems (GIS) with ArcGIS, and pictures are taken by the author.

2.1 Interviews

Between July and December 2010, four interviews were conducted for the four case studies in question. All of the respondents and informants have given their written consent to the use of information provided by them in the interviews (see legal release form in

appendix) but will remain anonymous. The respondents were all responding to a similar set of questions, slightly modified to fit each personal case. The informants were also responding to the same issues but from the decision-maker point of view, modified according to need. Both sets of questions are found in the appendix. Two additional interviews were carried out outside of the question framework to establish more detailed information about snow clearance in the Westfjords.

The interviews were between half an hour and an hour and a half long. All interviews were recorded by an audio recording device in addition to the notes that were taken. The audio recordings were then transcribed and analysed from the transcription. Due to the low number of interviews, statements were compared to theoretical documentation where possible. The initials "PG" for Petra Granholm indicate the interviewer's comments.

2.2 Ethical issues

One informant requested to remain anonymous; hence I took the decision not to use personal names in the thesis. However, since the case studies per definition only have a very small number of inhabitants, the practical anonymity of the respondents cannot be secured. The option to leave out place names as well as personal names was considered but recognized as obstructive to the thesis. The low number of case studies requires detailed descriptions to yield any result. Therefore, the use of place names and authority titles are needed whilst personal names are omitted. All respondents and informants have, however, signed a legal release form for interviews, stating that they are aware of the fact that the information they provide will be used for the purposes of the present thesis.[1]

A second ethical issue is language. Since my knowledge of Icelandic is limited, the interviews in Iceland were carried out in English, which is neither the native tongue of the interviewer nor the respondents/informants. Therefore, the nuances in language are lost. I have done my utmost to understand the essence of the responses, yet on the one hand language is something that has to be taken into consideration as a weakening point of the research. On the other hand, the point of the research is to capture people's opinions and arguments which may be simplified but still deliverable in English. As for the interviews on Åland, the interviews were conducted in Swedish, the native tongue of both interviewer

[1] The legal release forms are on file with the author, and can be presented if need be.

and respondents. Thereby, I seek to situate the respondents/informants from both the Icelandic and Ålandic cases on a more equal basis in the text. I have translated the quotes into English with the exact quotes in Swedish in the appendix. A second issue relating to limitation in language is also the fact that documentation and literature in Icelandic is not always available in English. Since language skills and translation efforts have been limited, I have at times had to rely on secondary sources.

2.3 Case-study respondents

The respondents were chosen based on availability and the location of residence. In the first case of the sheepherder in Ingjaldssandur, the respondent was previously known to me, which enabled more in-depth research compared to the other cases, due to conversations and experiences outside of the interview framework. The second respondent, the hotel owner in Djúpavík, has two roles; firstly, as an inhabitant in what for my purposes could be expressed as a "practical island off the coast of a larger practical island"- the larger island being the smallest municipality in Iceland, Árneshreppur in the Strandir region. Since Árneshreppur is cut off from the south during the snowiest periods of winter, and Djúpavík is south of Árneshreppur and also south of the airport, Djúpavík's insular status is particularly prone to isolation. The second role that this respondent has is being a member of the Árneshreppur local council and as such an activist for the rights of the whole community.

The third respondent is an inhabitant of the geographical island Vigur, whose involvement in politics is not personal but that of her husband's, as local council member in the municipality of Súðavík (neighbouring the municipality of Ísafjarðarbær). Her situation as a resident of one of the few islands in Ísafjarðardjúp preconditioned the choice of her as a respondent.

An interview with a couple made up the fourth case study, located on the small island of Husö in the Ålandic archipelago. Being inhabitants of a geographical island, the couple interviewed was chosen due to their reputation locally as archipelago residents who have found their livelihood niche in sheep-farming and handicraft. Again, one of the respondents has two roles, one as a resident and one as a member of the local council in the smallest municipality in Finland, Sottunga. Additional information was gained through informal personal communication with a third resident on Husö, who is one of the links

that keeps the transport and postal chains to Husö together- the driver of the so-called "*passbåt*" (approximately “connecting boat”) that takes the post and passengers between the ferry and smaller islands in the area. He has given his consent verbally to the use of information provided by him. Further personal communication is listed in index.

2.4 Decision-maker informants

Just like some of the respondents for the case studies may also be considered informants for the decision-maker side, sometimes the informants chosen for the decision-maker side are also speaking from their role as inhabitants in a sparsely populated insular region.

The first informant, an inhabitant of Ísafjörður, is a member of the local council in Ísafjarðarbær, chosen due to her personal and professional connection to me, as she is an employee of the University Centre of the Westfjords.

The second informant has two roles, one as an implementer and lobbyist for policies, due to his position as head of the development department in Byggðastofnun, the Regional Development Centre for Iceland outside the capital area, and the other as a former mayor, i.e. decision-maker for the municipality of Sauðárkrókur, which is not situated in the Westfjords but in a region with similar issues yet different starting points.

The third group of informants are all employed at the same ministry, namely the Ministry of Transport, Communications and Local Affairs, where they work as either experts in the fields of transport or postal communications. The fourth informant has three roles- first and foremost as Minister of Transport in the Åland Government, secondly as a member of the local council in Brändö municipality in the Åland archipelago, and thirdly as a resident on a geographical island off Brändö called Lappo.

2.5 Stucture of thesis

After a general introduction of concept and terms, the Part I of the thesis will put the research questions in their theoretical context of regional policy, historical background, and legislative framework. In Part I, the case studies and their issues related to connectivity are briefly presented. Part II deals more thoroughly with different insular issues relating to the case studies and explores different justifications for sustaining insular habitation both from the inhabitants’ and decision-makers’ point of view, with a starting point in

environmental, economic, social and cultural sustainability. Lastly, suggestions for policy recommendations will be followed by the conclusions of the thesis.

3 A discussion on definitions

3.1 Sustainability

This thesis is written with *sustainability*, or *sustainable development*, as the underlying premise for all actions or non-actions. The two terms sustainability and sustainable development can be used interchangeably in this context. The classic definition of sustainable development was coined by Gro Harem Brundtland in 1986, within the framework of the report *Our Common Future* by the World Commission on Environment and Development (WCED):

> Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs (1987).

This definition is frequently quoted, although alternative definitions exist. It has been criticized from the point of view that it lends the focus on intergenerational equity only (Kates, Parris, & Leiserowitz, 2005). Instead, it has been suggested that the focus should shift from an explicit definition to the process of principles: from the original emphasis on economic development and environmental protection to a broader perspective that also includes human and social development, as well as the alternative views of nature, i.e. anthropocentric vs. ecocentric (Kates, Parris, & Leiserowitz, 2005).

3.2 Basic service

Basic services in the concerned countries are the tasks of the municipalities or towns. Municipal residents pay taxes in exchange for certain services, which can range from day-care, primary schools, social service (e.g. child protection, service for disabled), planning and building matters, waste treatment, water and sewage, rescue services to culture and libraries (Åland Association of Municipalities, 2009). The municipalities' tasks are regulated by law, both in Iceland and on Åland. The inhabitants of a municipality elect the members of the local councils to steer the 76 municipalities in Iceland and the 16

autonomous municipalities of the province of Åland. For the purpose of the present thesis, basic services will refer to such services that are relevant for the respondents and dependent on a transport connection. Examples of this are road and ferry maintenance, school rides and postal services.

The European Community institutions-coined term "universal service" is a concept which refers to a set of general interest demands to which services should be subject to throughout the European Union (EU). The aim is

> to ensure that all users have access to quality services at an affordable price (European Union, 1995-2010).

For our purposes, this is relevant in the field of postal service, since both Iceland and Åland are subject to the EU regulations in this field. The Icelandic term for universal service is *alþjónusta* and the Swedish term is *samhällsomfattande tjänster*, and is specifically defined in the respective legislation.

3.3 Governance

According to Rosenau (2003), the core of *governance* involves

> rule systems in which steering mechanisms are employed to frame and implement goals that move communities in directions they wish to go or that enable them to maintain the institutions and policies they wish to maintain (p.13).

This, however, should not be confused with *government* because the rule systems of government are rooted in formal and legal procedures, while those of governance also involve informal rule systems. Rosenau's definition could be understood as having three different elements, which are defined as follows by Nyboer (2010). Firstly, an *action*, which consists of a change in technology choice, behaviour or management practice by a firm, household or lower level of government from what it otherwise would have been and secondly, a *policy*, which is what a government creates in order to cause the above-mentioned actions by firms and households (and perhaps by another level of government). Thirdly, specific *measures* are needed for an action to be driven by a policy. Policies are not perfect, thus generally the outcome of the action is less than 100 per cent.

For the purpose of this thesis, the Swedish term *politik* shall be understood as interchangeable with policy. Andersson (1997) understands the term as

> different regulation- and resource dividing measures vis-á-vis society, or parts of society, on the national level—normally issued from the state, but not necessarily—and the attempts connected to these measures (p.13, author's translation)

In Swedish the definition both broadens and narrows the agent of policy: Andersson only includes politik stemming from the national level, whereas the state is not necessarily the agent. Nyboer also focuses on striving towards a result of policy from society as represented by firms and households, whilst Andersson does not specify who is the society. What the definitions have in common is also what is useful for our purposes, i.e. that policy is an attempt, or effort, by decision-makers to lead society towards a pre-decided goal. To bind governance to its elements and create a working definition for this thesis, one could say that

> governance is the creation of policies through measures undertaken by any level of government in order to cause specific actions by other levels of community.

3.4 Settlement

For our purposes, settlement can be understood as:

> … places, which are inhabited on a permanent basis, as distinct, for example, from camps or fairs. Although they may be categorised according to their size, status and range of facilities provided, so that hamlets may be distinguished from villages, villages form towns and so on, it is important to bear in mind that, in reality, there exists a settlement continuum and each category merges gradually into the next (Daniel & Hopkinson, 1989, p.7)

This is, however, a very broad and general definition, and will also be used as such in the thesis. As it could potentially be disputed whether a settlement of two people really constitute a settlement, the term "location" will be used for the thesis case studies.

3.5 Ruralisation and urbanization

In 2011, we are just beyond the tipping point for the percentage of the world's population living in cities. According to the calculations of the population division of the United Nations (UN), 50,46 per cent of the world population were living in cities in 2009, whilst the same number was 48,63 per cent in 2005 (UN Population Division, 2009). Three quarters of the population in the more developed world already live in cities. Iceland alone already has 93,42 per cent of its population in cities and the percentage was already high at the start of the UN population division calculations in 1950, when 72,80 lived in cities. For

Finland, the percentage for 2010 is 85,09 per cent, meaning that both Iceland and Finland are highly urbanized countries. The UN calculates Iceland's annual rural growth rate to be negative every half decade from 1950 until 2050, interestingly with one exception: the period between 2005-2010, when the growth rate was positive: 0,67. This however, occurred when the urban growth rate was also high: 2,26. In 2010, 22 000 people lived in Icelandic rural areas, whilst 308 000 lived in the urban areas. The rural population of Finland was 797 000 in 2010, and the urban population amounted to 4,549 million. Finland also has a negative trend in rural growth rate for the above-mentioned decades, reaching -1,48 in 2005-2010, whilst the urban growth rate is slower than Iceland: 0,63 (UN Population Division, 2010). The distinction between urban and rural areas is difficult in the case of the UN statistics. This is due to the lack of an internationally passable definition of "urban" and "rural", which makes each country rely on its own definitions (UN Statistics Division, 2010).

3.6 Globalisation

The ruralisation vs. urbanisation approach that is taken in the thesis must be seen as phenomena taking place within the framework of the globalised world as 'the bigger picture', in which globalisation is rooted in two basic and contrary processes (Rosenau J. , 2005). Rosenau sees these processes as the struggle between two polarised groups of forces- one that presses for centralisation, integration and globalisation and the other that presses for decentralisation, fragmentation and localisation. The processes for these polarities are viewed as either philosophical or empirical, the former being expressed as either globalism or localism in people's mind-sets, orientations and world-views. The globalist orientation concentrates on the distant circumstances that lie beyond national boundaries, while localism focuses on, and values, familiar and close-at-hand arrangements located within conventional community and national boundaries. There is thus a distinction between globalism and localism as mind-sets, and globalisation and localisation as empirical processes. In the present thesis, I strive to encompass approaches from the two polarisations both as mind-sets and empirical processes.

3.7 Sparsely populated areas

The concept of *sparsely populated area* is used as the imperfect equivalent of the Swedish term *glesbygd*. This term deserves special attention since it touches upon the question

formulation of the thesis. The recently abolished Swedish National Rural Development Agency (*Glesbygdsverket*, hereinafter RDA) compiled European and Nordic definitions of *rural areas* in 2008 (Glesbygdsverket, 2008). Different purposes steer different definitions, with geographic circumstances as the defining factor. However, socioeconomic factors, labour market dynamics and employment opportunities have additionally been taken into account when creating definitions elsewhere.[2] The same applies for the Swedish Association of Local Authorities and Regions (*Sveriges Kommuner och Landsting*), in which the share of employed in area-based industries had played an earlier role in municipality classification. The RDA points out that those political and administrative factors also can play a role in definitions of rural or sparsely populated areas.

For the Ålandic circumstances, what is meant by the term sparsely populated area, is the archipelago municipalities. The Ålandic archipelago consists of over 6500 islands and skerries, out of which ca. 65 are inhabited. For the Icelandic circumstances, the Westfjords in the geographic sense is the example of a sparsely populated area. According to one definition in Icelandic legislation, an 'urban area' is

> A settlement with at least 50 inhabitants where the distance between houses does not generally exceed 200 m (Icelandic Planning and Building Act , No. 73/1997, no. 135/1997 and no. 58/1999)

This definition delimits the number of settlements in the Westfjords that can be considered sparsely populated, since most villages fall under the definition of urban areas. From a global perspective[3] most of Iceland, and in particular the Westfjords, would be seen as sparsely populated.

The socio-economic definition of sparsely populated areas is those areas that throughout history have been in need of special supportive measures, in particular along coasts, as will be discussed in a later chapter on regional and archipelago policy in Finland.

[2] One example the use of socioeconomic factors in definition creation is Ireland.
[3] See, for instance, OECD's definition, which is the most widely used in Europe: local units (e.g. municipalities) are identified as rural if their population density is below 150 inhabitants per square kilometre.

3.8 Island- geographical and practical

The two situations in the Westfjords and on Åland are, in political terms, comparable, although they are different in geographical terms. What is meant by this is that islands, or island-like places, are inhabited despite, or sometimes because of, some sort of natural element such as water or mountains. The direct examples here are archipelagos and fjords. Sometimes, as shall be seen, the practical insularity (places whose accessibility depends heavily on road maintenance) can cause more of an accessibility problem than the geographical insularity (places *without* on-land access).

To escape the broad (and for my purposes confusing) definition on sparsely populated areas, I have chosen to use the core of the issue as the title of this thesis- i.e. the insularity of a location. Insularity refers to the island-characteristic, and for the purpose of this thesis, there are two types of islands. The first is the "geographical island", based on geographical conditions, which is commonly referred to as a land mass entirely surrounded by water, or as in United Nations Convention on the Law of the Sea (UNCLOS, 1982) article 121; "an island is a naturally formed area of land, surrounded by water, which is above water at high tide". The second is a "practical island", which must be defined from a perspective of conditions, based on a seasonal situation, i.e. a location whose land road accessibility is impeded by mountains or snowfalls. The insularity does not stem from the water, but from other natural conditions, such as mountains, which impede the accessibility by land road, which is the case for certain fjords.

3.9 Insular connectivity

Can people be connected if they live in insularity or isolation? The oxymoron of *insular connectivity* builds further on an idea put forth in Clark and Clark (2009): in our eagerness to stay connected, be it by communications technology or transport infrastructure, we create new obstacles to connectivity. Connections can isolate, sometimes intentionally, sometimes unintentionally, or for economic reasons. This qualifies for the case-studies in the present thesis as well. Whereas, Clark and Clark's emphasis is on connectivity in form of telecommunications, the emphasis in the present thesis is on physical connectivity, i.e. transportation of humans, basic service and physical mail, although telecommunication is not overseen as part of the holistic picture. This delimitation is made as a necessity due to the limited scope of the thesis, but also because transportation is put forward as one of the

foremost prerequisites for living in the insular regions by the respondents of the case studies. The sparsely populated areas are connected by bridges, embankments, tunnels, cable ferries and passenger ferries in the Westfjords and on Åland. These instalments benefit the transportation of people in sparsely populated areas. However, to what extent they also benefit people in insular areas will be further discussed in the thesis.

Part I

Following this introduction to the research, problems, definitions and concepts of the study, Part I will give an overview of the theoretical background of the study, from regional policy, historical patterns, presentation of the case studies and overview of relevant legislation.

4 Regional policy

Regional policy has become a buzzword in Europe, not the least due to the European Union emphasis on regions which partly stems from the mobilization of regions themselves. According to Stephan (2010), regional mobilization may be viewed as a response to negative experiences, but also as a result of positive experiences with the European regional policy and structural funds. Within the Nordic cooperation, emphasis on regions has evolved and developed to focus on sustainability, equality and accessibility between regions today. In Iceland, regional policy has not taken as strong a foothold as on Åland—naturally, since regionalism is the basis for Åland's political autonomy. In the following chapter the implications of regional policy will be explored from a European, Nordic, and national perspective. Whilst the aim of this part of the thesis is to give the regional policy context in which the thesis is written, it also serves as an analysis of whether or not insular regions comparable to the present thesis' case studies are mentioned in regional policies.

4.1 The European Union

Finland and Åland have both been a part of the European Union since 1995. The membership plays a great role in regional policies development, since the EU is emphasizing regional development through the EU structural funds such as the European Regional Development Fund (ERDF). Iceland is highly divided on the issue of EU accession, but the accession negotiations between Iceland and the EU were opened in June 2010. Iceland joined the European Free Trade Association (EFTA) in 1970, the Agreement on the European Economic Area (EEA) in 1994 and Schengen in 2001, meaning that EU legislation is already incorporated into a great part of Icelandic legislation, such as postal

services.. In the event of future Icelandic EU membership, the Icelandic government has stated that it wants to make sure there is economic protection for "the traditional farm [that] comprises the farmer and family, with livestock of sheep and cattle" (Government of Iceland, 2010, para 37). The Icelandic Government puts emphasis on addressing challenges related to de-population, harsh climate, long distances to markets, remoteness and economic dependence on a few products and welcomes the comprehensive regional policy the EU has developed over the years (Government of Iceland, 2010).

Indeed, the EU has a number of best practice examples for sparsely populated areas, which are not limited to Member States only. One of them is the ROADEX network under the ERDF in which Finland and Iceland, together with the northernmost regions of Scotland, Norway and Sweden and all of Greenland and the Faroe Islands have cooperated. In areas with problems for mobility and accessibility, where dependence on the provision of serviceable and reliable year-round transportation links is high, over 1000 engineers and managers were introduced to the new ROADEX technologies through a variety of means including a website, the production of practical guides, seminars for technical staff and decision-makers and an e-learning training package for the maintenance of rural roads in harsh climates and poor ground conditions (European Commission, 2010). The ROADEX projects include lessons for maintainers of low density roads (<350 cars/day) such as permanent deformation, drainage of roads and environmental considerations for low volume roads (ROADEX, 2010).

4.2 Nordic regional policy

The Nordic model for regional policy was from the beginning constructed on some basic premises: first of all, there was a presumption of an internally and externally sovereign state power- without transnational actors such as the EU or much respect paid to regional actors themselves. Secondly, coherent national economy that is not internationalized and thirdly, that economy is stable enough to give room for a growing public sector and transfers from the state (Lindström, 1997). This had to change quite rapidly with globalization and entry into the EU for three of the Nordic states, even though for Iceland and Norway the European Economic Area-agreement has had consequences in regional policy. National institutions are bound by a supranational power, whilst the EU-based regional policy has encouraged a more active responsibility for the regions (Lindström,

1997). The third premise, a stable economy and growing public sector, does not reflect the reality of the present economic recession in the Nordic countries either.

The current regional policy guideline, the new Nordic Regional Policy Cooperation Programme 2009-2012, was developed by Åland Statistics and Research (ÅSUB) and adopted by the Nordic Council of Ministers in 2008 (Nordic Council of Ministers, 2009). The programme is supposed to function as a platform for the regional policy planning in the Nordic countries, and is an expression of "third-generation regional policy", which will replace the second generation's growth policy which itself was the successor of the first policy focusing on equalization between the poor and the rich. The programme spells out its aim as follows

> the third-generation regional policy is about activating and integrating all regions and communities into the European and global economies so their innovative capacity and growth potential can be handled in the best possible way (p.50-51).

This reflects the overall objectives of sustainability, equality and accessibility that apply to all Nordic co-operations. With the horizontal objectives of "sustainable societal development", "safeguard the entire population's creative resources" and "accessible regions" the programme contains a number of key action areas, of which "globalisation challenges in the most sparsely populated and remote regions in the Nordic countries" is one. Within this key action area there are initiatives and projects to which the Nordic Council of Ministers will give special priority, such as

> efforts and projects that in co-operation with selected regions and cross border co-operation committees (NORA, Northern Cap) analyse and assess what challenges and possibilities are created by the international economic integration, climate change and greater demographic mobility in the west Nordic and Arctic parts of the Nordic countries (p.59)

Under the Danish presidency of the Nordic Council of Ministers in 2010, focus was directed towards the peripheral regions in the Nordic countries to maintain population and employment, as well as to secure welfare and development. The Danish presidency thus put potential for development in sparsely populated areas in focus (Norden, 2010).

4.3 Regional and rural policy on Iceland

The agency responsible for the non-urban areas in Iceland is the Regional Development Institute (*Byggðastofnun*), which is an independent institution owned by the Icelandic state,

under the supreme authority of the Minister of Industry. The task of the Institute is monitoring, researching and contribution to regional development through the implementation of government policy via the introduction of regional strategies in Iceland. To diversify the economic base in rural areas, it can give loans and other forms of financial support for initiatives (Icelandic Regional Development Institute, 2007). However, according to an informant, the institute has not been successful in vitalising these regions, rather, some areas "are doomed to depopulate" (Interview 3, 2010).

According to a Resolution by the Icelandic Parliament on a Strategic Regional Plan, 2006-2009, the principal objective for the areas outside Reykjavík is to strengthen regional *centres* (author's emphasis), which is in line with large scale infrastructure projects in the Westfjords, such as the tunnels around the regional capital of Ísafjörður. The resolution is mainly silent on issues such as the thesis case-studies, however improving transportation and roads is the main measure to achieve the plan's objectives (Althing, n.d.). This is also in line with what has been put forward by decision-makers on Åland and in Iceland in the interviews conducted for this thesis.

The opinions of non-Reykjavík decision-makers about the regional policy of Iceland seem to be that it is simply non-existent. In the words of the informant of Ísafjarðarbær local council

> Interviewee 6: There is a regional policy that is approved by Althingi, the Ministry of Industry and Byggðastofnun, and they are responsible for implementing it, however, there are mixed views on whether it is a real regional policy, and also whether the government is in reality/well, they have some beautiful words there, but they don't necessarily follow it/ it's there, so that they can flag it when they need to. They don't give to the money it needs and I have doubts that it is really good.
>
> PG: But there is no outspoken policy to move everyone to Reykjavík?
>
> Interviewee 6: Not outspoken, no [laughter]

The informant from Byggðastofnun expressed his personal opinion in suggesting that a regional development in the direction of centralisation of the capital region is not only the result of weak policy inputs, but also dependent on a trend among the population itself:

> The regional policy in Iceland is not strong; I think we can say that. If I would have been a mayor I would have said that there was no regional policy at all, but I am not so I won't say that. But...It is quite clear to me that whatever the government would like to do, they could never [emphasis] have the same...pattern of habitation that they had 20 or 50 years ago. People are moving not only because they have to, some people just move because they want to...but the problem is that in reality we don't know, what the policy is.

There is a new proposal for parliamentary resolution concerning a regional policy 2010-2013, but it has not yet been adopted by the Icelandic parliament. This proposal recognises that the only location in the Westfjords where settlement have been strengthened in later years is Ísafjörður (Icelandic Regional Development Institute, 2010), which further supports a centralisation hypothesis.

4.4 Regional and Archipelago policy in Finland

The archipelago is an outstanding example of a sparsely populated area that from an historical perspective has been in need of support measures and particular policies. From the Finnish experience, it seems like the mistakes are made when special treatment is not granted for areas that are de facto different. In times when demand for fresh fish has been great, the need of support has been less. The Finnish example is mentioned by Andersson (1997) between the world wars in the 1930's, when supply and demand for fish was high. During the Second World War, the archipelago was again at relative benefit due to the food scarcity and the even greater need for fish. This general case of Finland also coincides with the glory days of herring fishing in Icelandic locations such as Djúpavík. After the war, however, and the normalisation of food supplies, the archipelago was threatened by depopulation and in Finland; a special archipelago committee was founded in the 1950´s.

Andersson (1997) points at the movement towards regional and welfare policy as the underlying reason for development of a Finnish regional policy in the 1960's. The efforts for the archipelago resulted in an Archipelago Act from 1977, in force 1981. This act puts up guidelines for how the state should respond to specific problems and characteristics of the archipelago. However, Andersson describes it to be more of a manifestation of principles than an instrument and means for regional policy. He concludes that the act was an extension of the institutionalisation of archipelago policy, which was followed by archipelago programmes during the 1990's. Such efforts contributed positively to a revitalisation of the Finnish archipelago.

The Åland Islands have, because of the autonomy and the division of competences, the possibility and responsibility to develop an archipelago policy for its own. For years, the question whether an archipelago act on Åland should be adopted or not has been discussed (Perämaa, 2005), without making it into anything else than a governmental bill so far. Recently, the question whether an act such as the Finnish Archipelago Act would

have protected the archipelago municipalities against the 2010 cut-backs in the archipelago ferry transport has been on the discussion table. It was, however, doubtful on the basis that the Finnish act only provides for a mandatory consultation with the concerned archipelago inhabitants. To have any effect such an act on Åland would have to have been stricter in terms of what can be done in the Ålandic archipelago and what not, because today the Åland parliament is entitled to decide on cut-backs with economic management control measures and the Åland government as the shipowner decides on the routes. There is no legal protection in any act against that, and an incorporation of the Finnish model would also not have helped (Jansson, 2010).

There are, however, other regional policy means to develop the archipelago. A common slogan in the Nordic countries is "a living archipelago" (*levande skärgård*), a popular phrase to use in political action programmes and the like. Often, however, politicians and archipelago inhabitants have called for substance to fill the slogan with (Gunell, 2010). These are issues that are often discussed in plenum in the Åland parliament, not the least during the budgetary debate. It has among other things been proposed that the Åland government adopts a specific Archipelago Development Programme, on the basis of the following statement

> With regards to the archipelago, it is not possible to distinguish transportation from other issues concerning demography, business life, culture and leisure activities. The archipelago policy is a whole, of which transportation is a carrying part (Gunell, 2010a, para 1).[4]

The underlying reasoning for the cut-backs is, according to the Minister of Transport, the historical perspective: before 1993, the Åland administration was a copy of the Finnish administration—in simplified terms, the proportion of resources spent on archipelago traffic on Åland reflected the mainland situation. This meant, for instance, ferries with a crew of 18, because money that was not turned over was lost. In 1994 the revised Autonomy Act provided for a system where Åland receives a lump sum of 0,45 per cent of the collected income of the Finnish state. In terms of archipelago traffic discussion, the old pre-1994 thinking with high costs and supplementary budgets for archipelago traffic remains. When the global economic crisis hit, the lump sum decreased by 26,8 per cent within two years and the politicians were forced to prioritize what is highest on the agenda: namely care, welfare and education (Interview 8, 2010).

[4] Author's translation. Swedish text in Appendix A.

4.5 Amalgamation of municipalities

In Iceland there is an outspoken aim to reduce the number of municipalities. In the Westfjords, 10 municipalities are working together under the regional association for the municipalities of the Westfjords, *Fjórðungssambands Vestfirðinga* (Fjórðungssamband Vestfirðinga, n.d.). However, the municipality furthest south, Bæjarhreppur, has given notice that it intends to join the Norðurlandi vestra[5] (SSNV) cooperation instead (Ministry of Transport, Communication and Local Government, 2010).

The goal of the current government is that Iceland will have 20 municipalities for the elections in 2022 (Ministry of Transport, Communications and Local Government, n.d.). In 1950, Iceland had 229 municipalities. This number had halved by the year 1998 (124) and today, Iceland has only a third of the number of municipalities it had in 1950 (76). The amalgamations are voluntary although there is a risk that municipalities with less than 50 inhabitants will be forced into an amalgamation with a neighbouring municipality, as would come in to question for the Árneshreppur municipality.

According to the informant at the regional development agency, amalgamation of municipalities has worked well in Skagafjörður. In the process of amalgamation there were meetings in every community. While meetings for inhabitant participation in decision-making are essential for sustainable development, it is doubtful that it would ever benefit insular areas due to their low inhabitant numbers making it difficult to have a stake in a committee meeting.

The municipality amalgamation success of Sauðárkrókur might not be applicable everywhere. In the Westfjords the informant, who is an inhabitant of Sauðárkrókur, thinks amalgamations are problematic because of the fact that Ísafjörður is the central location versus the rest in the periphery (Interview 3, 2010). The respondent in Djúpavík agrees, as is clear from the following quote

> Interviewee 2: [....] I think we can help each other out in many ways/a few years back there was a voting on how much we should unite these communities and then it was just "no" over the whole line you know, people did not want to be pushed to do this by the authorities, which was Kristján Möller. And even though we voted no at that time, some of these have united now but on their own premises/ and some of us are outside it still because of our geographical situation, because we have impossible roads to drive to the nearest town or villages so to speak.

[5] Norðurland vestra is the region south-east of the Westfjords, neighbouring Bæjarhreppur.

> [Pause because of telephone call]
>
> You know, even though we voted no, we have a strong will to work together. But we want to do it on our own premises I think, and you know, we have this now, a new elected local board here in the area, and I hope we will be lucky enough to work to make the future a little better than it is. I think that, eh, the generation before us, did not think far enough into the future, do you understand?

An explanation for resistance against amalgamations elsewhere has also been that it has not been planned as voluntary and on the small municipalities' own premises (Hovgaard, Eythórsson, & Fellman, 2004), in combination with confusion regarding division of responsibilities, and the fear of small municipalities that they will "disappear" upon amalgamation with other, larger municipalities. Some of the Icelandic amalgamations of municipalities were also de facto forced after 1996, when the responsibility for elementary schools was transferred from the state to the municipal level (Hovgaard, Eythórsson, & Fellman, 2004), even though in theory amalgamations on this ground should not have been necessary because the Municipality Equalisation Fund should equal out expenditure resulting from the transfer of compulsory schooling from the state to municipalities according to law (Lög um tekjustofna sveitarfélaga , 4/1995).

Åland with its 27500 inhabitants is divided into 16 municipalities. In terms of service provision, the Ålandic municipalities have much in common with the Swedish and the Finnish municipalities, except for the tasks relating to healthcare and secondary education, which were taken over by the province in 1994. However, in terms of size and municipal structure, the Ålandic municipalities have more in common with the municipalities in Iceland and the Faroe Islands. A similarity with Norway is the strong anchoring between the local communities and villages (Fellman, 2006). Ålandic municipalities often cooperate around issues like social welfare and education, just like some Icelandic municipalities, as can be seen from the Djúpavík quotation above. Amalgamation of municipalities has been a topic of discussion for a long time, and on mainland Finland major reforms have been conducted during recent years. In the beginning of 2010, the number of municipalities in Finland (including Åland) was 342, after amalgamations that reduced the number of municipalities with 67 in 2009 and 6 in 2010 (Halonen, 2010). For Åland, a major argument against amalgamations, especially in the archipelago areas seem to be that the municipality is, in fact, the largest employer. In 2006, the Åland Statistics and Research gave the following recommendation for Åland

> Roughly generalized, one could say that if the highest importance is given to the close proximity to services and local participation and identity, it means that smaller organisations and operations on a smaller scale are preferred. However, if one prioritises competence and productivity, larger organisations and larger municipalities are an advantage (Fellman, 2006, p. 34, author's translation).

Anecdotal evidence also shows that the resistance against amalgamation may stem from people's common identity in an old municipality, and that they feel that their common identity is threatened by an amalgamation.

Nordregio conducted a comparative study of the Faeroe Islands, Iceland and the Åland Islands on the topic of *Future challenges for small municipalities* in 2004. Municipal leaders in each location were asked to rate their concerns, showing that the more central a place is, the more factors are considered problematic. However, demographic and economic development are seen as more problematic the more peripheral from population agglomerations a municipality is. Somewhat surprisingly, what the authors of the study call "geographic location" and "smallness" is not considered a problem by leaders of the municipalities further away from the centre. This is explained by fairly good infrastructure and the fact that they see their geographical placement as a given fact in combination with seeing possibilities that central authorities do not see (Hovgaard, Eythórsson, & Fellman, 2004).

In the peripheral municipalities the demographic and economic development was instead considered a problem. "Communications" were not considered a problem in neither peripheral nor central municipalities. However, "insufficient municipal revenues" were considered a larger problem the further away from population centres the study went, which indicates dissatisfaction with central government laws and regulations. This explanation was supported when small and peripheral municipalities were asked to profile the reasons behind their problems, whereby the loss of people and one-sided economy stood out as the major reasons, which again is blamed on the central government's regional policy. The authors describe the Icelandic case:

> In the Icelandic case, this might be explained by the fact the central government has abandoned a generalist policy of trying to save or strengthen all areas of the country towards a growth centre policy, where only three places outside the capital area have been designated as growth centres (Hovgaard, Eythórsson, & Fellman, 2004, s. 40).

When asked to make a "wish list" for solutions to the problems, the small and peripheral municipalities pointed towards improved communication, even though they did not point out communications as a problem when asked before. The authors provide no explanation for this paradox.

4.6 Municipality finances

In Iceland, the sources of municipal income stem from three main sources: a. property tax, b. contributions from the Equalisation Fund, c. municipal income tax, in accordance with the Act on Municipalities' Revenue Bases section 1 (Lög um tekjustofna sveitarfélaga , 4/1995). The property tax is collected annually at a rate of 0,5- 1,32 per cent of the assessed value of the property, if applicable, together with lot rights. A municipality can choose to increase these percentages by up to 25 per cent, however, if the municipality hosts both urban and rural areas it can omit the increase for rural property and summer homes, which would be of relevance to Ísafjarðarbær. The municipality can also "reduce or waive property tax on farms while they are used for agricultural production and on outbuildings in rural areas if they are only partially used or are unused" (Act on Municipalities' Revenue Bases, section 5, para 6). However, the municipality of Ísafjarðarbær uses neither of these tax reliefs (Interviewee 10, 2010).

The Municipal Equalisation Fund is another source of income for the municipalities. The revenues there stem from the National Treasury and from a share of the municipalities' income tax equivalent to 0,77 per cent of the tax base for municipal income tax each year, and from interest income (Act on Municipalities' Revenue Bases, section 8). From this fund, municipalities can receive funding for instalments such as expensive infrastructure and water utility (Act on Municipalities' Revenue Bases, section 11). For the purposes of this thesis, it is sufficient to point out that the school rides are paid for with money from the Equalization Fund, as illustrated in the quotation from the representative of the Ministry of Transport, Communications and Local Government

> Interviewee 5A: I know the school transport for primary pupils are paid for by the local government and they are arranging the transport for primary school students, and these municipalities they receive a grant from the Municipal Equalization Fund for running this task, so of course the transport in remote areas for collecting pupils is very expensive. But we have mechanisms under the Equalization Fund, which is granting the expenses/that equalizes different expenses between municipalities. This is because primary education is obligatory and very important for all regions, so we are taking care of that problem, if you can call it that.

Individuals in Iceland are also obliged to pay municipal income tax (Act on Municipalities' Revenue Bases, section 19). The municipal tax rate in Iceland ranges from 11,24 -13, 28 per cent (Act on Municipalities' Revenue Bases, section 23). For instance, Ísafjarðarbær has the highest tax rate of 13,28 per cent (Interviewee 10, 2010).

Additionally, the Icelandic municipalities also receive income from their assets, business operations and institutions operated as public services (water, electricity and heating utilities etc.). They can also collect sewage disposal fees, lot rental, license fees etc., as spelled out in Acts and Regulations (Act on Municipalities' Revenue Bases, section 2).

On Åland, the most significant income source for the municipalities is the tax revenues, but also a system with provincial allotments (*landskapsandelar*) from the Åland Government to the municipalities, and various fees (Fellman, Rundberg, & Palmer, 2010).

The Ålandic municipalities have the right to collect municipal tax in accordance with the Åland Municipality Act (Kommunalskattelag för landskapet Åland, 37/1993) in which most parts of the Finnish income tax legislation concerning municipal tax are included. The taxation rate varies in the municipalities between 16,25 and 19,50 per cent. The average rate for the Åland municipalities is 17,03, with the town of Mariehamn at the lower end of the scale at 16,50 and Sottunga at 17,50 (Ålands kommunförbund, 2010). However, the average efficient tax degree after deductions, i.e. the rate that shows how much of the gross income that is paid as municipal tax, is 11,9 per cent (Fellman, Rundberg, & Palmer, 2010). On one hand, the archipelago municipalities have the highest cost per inhabitant on Åland. On the other hand, in the particular case of Sottunga, it is also one of the municipalities with the highest tax revenues per capita (Fellman, 2006).

According to the 2004 comparative survey of small and peripheral municipalities on the Faroe Islands, Iceland and the Åland Islands by Hovgaard et al, insufficient municipal revenues were considered as the main problems in both Iceland and Åland. The costs of the municipal obligations and voluntary tasks cannot, according to the survey respondents, be covered by the municipal revenue. As we have seen above, income taxation is the most important source of municipal income, and hence, a positive demographic development is seen as a precondition for economic growth in a municipality. When investigating the solutions, the Åland and Icelandic cases showed similar emphasis on increased state funding and revision of the allocation of responsibilities between the national and the local

level. The 2004 study makes a cautious conclusion on government policy: modern regional policies seem not to favour small and peripheral municipalities because of the growth centre policy, however, the authors called for further scientific explanation.

The above-mentioned survey was conducted via a mail survey among the political and administrative leaders in every municipality in these three countries. The reply rate was 190/314, and allowed the researchers to broadly map the problems, reasons and solutions for the challenges that small municipalities face. This survey is to my knowledge one of the few scientific studies that relates remotely to the topic of the present thesis. Even though the study illustrates a municipal leadership point of view, I will attempt to discuss some of its main conclusions in the light of my case studies.

4.7 Example of proposals for strengthening sparsely populated rural areas

Árneshreppur, the small municipality where the case study of Djúpavík is situated, has in cooperation with various development institutions twice put forward proposals concerning its cultural heritage. In 1998, it was suggested that Árneshreppur should represent Iceland as an area for implementation of a Nordic Council of Ministers' strategy for preservation of old cultural landscapes. The purpose was not to develop a "living museum", but to create a possibility for the survival of Árneshreppur cultural heritage as part of world heritage. Measures for such preservation need to be introduced before the last inhabitants move away or become deceased, thus time is limited. A 2003 proposal contained similar ideas. A five-year experiment was suggested, including ideas concerning tax exempted grants for permanent residents and new inhabitants, improved road connections and snow clearance within the municipality and to Holmavík, development of a special trademark for sheep products from the area, a location-bound fishing quota, tourism and exhibition development around the old herring factory in Djúpavík and cooperation with the EU. The ideas in the two proposals were put forward under the premise that a small population does not need large pots of money to be able to do something valuable for the nation (Committe for the preservation of settlement and cultural landscape in Árneshreppur in the Strandir region, 2003).

5 Settlement patterns

In the following chapter, historic settlement pattern in the Icelandic rural areas and the Finnish archipelago (including Åland) are briefly presented. The two cases cannot be entirely compared because I divide the Icelandic case into rural and urban, urban being mainly Reykjavík from a historical point of view, and the Finnish case, with a focus on Åland, into archipelago, rural and urban.

5.1 From farm to fish- Iceland´s late urbanization

Recently, Icelandic historical writing has turned away from the traditional picture of Iceland's history being divided into "golden" and "dark" ages (Sveinsson, 2000). According to traditional writing, the first golden age period of the Commonwealth period ended in 1262 AD, whereby 500 years of dark ages in Iceland followed until the new golden age started with nationalism in the 19th century. The recent historical revisionists are mainly critical towards the description of Iceland as dark in the period between 1550 and 1830. Júlíusson (2007) rejects the darkness view, in particular with regards to the Icelandic peasantry under the Danish crown. Because Iceland was a colony far away, it was not under close supervision of the central power, but rather protected by local elites, who hindered exploitation by the state. Furthermore, the agricultural system of Iceland was not characterised by difficult environmental conditions or lack of resources, but by a development of the Norwegian agricultural model, including fishing as a seasonal activity. Icelandic peasants were economically homogenous and relatively well off. Both international and internal trade was extensive, in particular between the seaside and the interior. It is noteworthy to mention the different reactions between the north and the south of Iceland in 1602, when the Danish king decided that the emerging Danish towns of Copenhagen, Helsingør and Malmø would take over the lucrative trade with Iceland from the Germans, as a result of the strengthening of the central power (Danish crown) in the 16th century. The south of Iceland reacted with protests against the monopoly, which such an arrangement implied. However, in the north, the peasantry actually gained an opportunity to complain if there was no ship coming, and this had an immense impact, since in some places there had not been a single ship in 30 years. This monopoly trade, according to Júlíusson, was not a cause of immense suffering but a protection of the economic interests of Icelandic aristocracy and peasants. Also the fishing villages

benefitted, growing in size for the first time since the 14th century. The Icelanders also escaped a tax increase that hit the Norwegians hard in the 17th century. In Júlíusson's calculations the Icelandic peasant paid 15 times less tax than their Norwegian counterparts in 1690. Icelanders were not military-threatened by anyone, but enjoyed the protection of the naval forces of the Oldenburg monarchy. Sveinsson makes one addition to Júlíusson's argument, which is interesting for our purposes; namely that until the railway was developed in the 19th century, waterways and the ocean were superior to land-based systems. He gives the example of large fleets of European fishing vessels, also trading with Icelandic peasant population, and the ease of access from Iceland to Europe's ascendant countries.

Iceland's insular characteristic has brought its inhabitants some benefits historically. The ocean brought security, wealth and transport. The culture that the Icelanders have inherited is based on the economic activities- agriculture, fishing and trading by sea. However, it was also the fishing industry that brought urbanisation to the Icelanders. Sveinsson points out that the key to modernisation is to be found in technical advancements made in the fishing industry, making fishing and fish-processing Iceland's first step towards capitalist social formation. In the 1850's Iceland was still a rural society. The capital of Reykjavík hosted only some 1000 people, still being the largest settlement, since no other settlement had over 200 inhabitants. This gives an indication of a widely dispersed population, since the overall population amounted to around 40 000, which was the result of a long period of population decrease. Since 1890, however, the population has grown and urbanisation rates are among the highest in the world. The underlying reason for the long period of non-urbanity has been described as a conscious policy by the Icelandic leading elite, many of whom were farmers, who wanted to keep the ancient so-called *vistarband* laws. These laws prohibited vagrancy and made all persons not in possession of a farmland enter into service at a farm, and they were fully in force until 1894. There was the fear of losing labour force to fishing, which was not considered a "real" livelihood like farming was (Sveinsson, 2000). However, in line with the growth of the fisheries, the fishing vessels grew and the need of harbours created harbour towns. Proximity to fishing grounds and good sheltered harbours were decisive factors in the localisation of the new fishing towns. These towns attracted people seeking work and personal freedom, shaping the coastal towns of the latter half of the 19th century rapidly.

Ísafjörður was in fact, according to Þór (n.d.). the "capital" of decked sailing vessels' operation in Iceland from around 1840 until it the 1890's when it was surpassed by Reykjavík. Ísafjörður, which had only 76 inhabitants in 1850, grew to 830 in 1890 and to 1.085 in 1901. Reykjavík's population growth started just before 1870 and the fleet and the population grew rapidly especially during the 1890's. Reykjavík's growth may, however, also be explained by the fact that it was the country's administrative centre (Þór, n.d.). Vestmannaeyjar was also one of the first towns to emerge due to the fishing. The Icelandic turn of the century urbanisation can be summarized as follows: in 1860, Iceland's urban habitants were only 1943, or 2,9 per cent of the population. In the following 30 years, this number increased to 12,1 per cent of the population divided to 11 towns. After this, depopulation of the rural areas accelerated, culminating during the 1940's when the countryside lost one out of four inhabitants. In summary, Iceland has gone through most of its urbanization during the 20th century (Sveinsson, 2000).

5.2 From fish to farm- the Finnish archipelago

Historically, habitation in the archipelago was important for security reasons, first and foremost being military security. In the Finnish and Ålandic archipelago, "*vårdkasesystemet*" was of utmost importance for fast communication. "*Vårdkasar*" or beacon fires were prepared piles of wood, placed strategically throughout the archipelago, that could be set on fire in case of the threat of war, such as an enemy ship approaching. The beacon fire system created a chain of fires that sent the message to the centre in the fastest way possible. "*Postrotar*", i.e. men that were in charge of specific distances for carrying the post, by boat or by horse, between centres were also employed from the archipelago. In this way, population throughout the archipelago was of essential importance for daily and military communications before the modern communication-tool era. These aspects as culturally important historical facts are easily forgotten today, even though nomenclature still bears witness of the beacon fire system (Dreijer, 1948),[6] and the Åland Islands have made efforts to preserve the memory of the old post route through museums, exhibitions and "*Postrodden*", an annual sailing race in the memory of the post carriers of the olden days.

[6] For instance, on Åland there is one municipality called "Vårdö".

Smeds (1948) indicates that population in the Finnish archipelago has fluctuated over time, which does not make the demographic settlement pattern as straightforward as in the Icelandic case. While mainland Åland saw a population decrease during the period 1880-1910, the archipelago parishes (*socken*) saw an increase as a rule. However, the archipelago depopulation started around the shift of the century and the worst affected parishes saw a quarter of their population disappear between 1910 and 1946. Smeds explains this depopulation by

> the infamous unease of rural areas, caused by discomfort in work and daily life, of bad communications, lack of entertainment and leisure activities of a more pretentious nature, has one of its headquarters in the isolated societies of the archipelago (p.535, author's translation)

Despite his value-laden language when describing the archipelago, Smeds admits that during this period there was still some sort of attraction of the archipelago- the inhabitants that worked in the towns during weekdays notably returned home the whole year round "to the home village's deficiently illuminated houses, its uneven roads and grey rocks" (p.538, author's translation). Smeds discussion indicates that the suitability of the archipelago for habitation may be relative to people's experience and cannot be judged on an absolute scale. Smeds continues to speculate about the factors causing the depopulation beyond the "unease", possibilities to earn a living in the aftermath of the old maritime industry being the most important, followed by the scarcity of cultivable land.

During the older days, the main livelihoods of the Finnish archipelago were maritime catch and fishery, which meant that natural and man-made harbours and their situation were of utmost importance (Smeds, 1948). The harbour-dependent economy was during Smeds' observatory period replaced by agriculture, which rendered the importance of the harbour secondary. Hence, instead, the closeness to cultivable land became important whilst communications were still conducted by sea, except for the case of the parishes in the inner archipelago, which had by now received road- or ferry connection to the mainland, cutting off the century-old link to the sea.

Gardberg (1948) illustrates that livelihood in archipelagic areas never has been easy throughout time: the gross benefit of the average homestead in the Kumlinge municipality 1879 was not enough to pay servants after working costs, fuel, and maintenance of house and fences had been paid. However, as Gardberg points out, the economic situation of a homestead greatly depended on family size and order, health and sickness, yearly growth

and fishing luck. For people on the limits of survival, choosing where to put work effort is a difficult decision. As pointed out by an Icelandic cultural anthropologist:

> For instance, fishing could be an asset during times when agriculture failed, but did not make people better off in good times, when agriculture gave a surplus […] It would save the poor from hunger if they could fish but the workload spent in fishing could waste a precious time in the agriculture (Personal communication D, 7.12.2010).

5.3 From sea to land: transformation of transport routes

Settlement patterns around the world can often be explained by transport and communication transformations (Jónsson, 2002). The Icelandic coastal settlements and the Finnish archipelago are no exceptions to this, as will be shown in the following.

5.4 Iceland's transport transformation

Iceland saw a transformation in both settlement and transportation around the middle of the 20th century. To understand this, one must consider the situation in 1876, when transport along the coast started in Iceland, making seaside settlements attractive places to move to. Jónsson (2002) argues that the destiny of coastal towns and villages are intricately linked to the transport transformation during the 20th century. Sea transport made locations on peninsulas that had been remote before turn into population centres en route. Population increases, such as can be seen in the Westfjords in the beginning of the 20th century, when the Westfjords had around 12 000 inhabitants (Hagstofa Íslands, 2008) can to a great extent be explained by the fact that they were transport hubs rather than the fact that they were fishing stations. According to Jónsson, this is because fishing stations were not permanent, and being in the centre along a transport route was more important: people in harbour towns were better situated than people along land transportation routes. At the beginning of the 20th century, the road system was only about 10-20 per cent of what it is today, and the existing roads were so rough and impassable in the winter that in practice land transportation was virtually non-existent. Access to the ocean at this time was vital, both for transportation and for livelihood. This seems to coincide with theories of settlement in general, which points at both physical and social characteristics of a place chosen for settlement (Daniel & Hopkinson, 1989).

The settlement pattern changed, however, starting in the year 1930. Between 1930 and 1960, the road system increased five times and private car ownership led to improvement of roads and the construction of bridges and tunnels. Jónsson mentions World War II as the peak of transport transformation, leading to the closure of passenger transport by sea in 1969. The paving of roads started in 1965 and the first tunnel was built in the Westfjords in 1949, between Ísafjörður and Súðavík. Despite being only a few metres long, this tunnel is an important sign of the emphasis on land-based transportation in the post-war era. These developments effected coastal settlements, which provided less and less employment opportunities and services, leading to a flight to inland settlements which were now better situated en route. In the words of Jónsson:

> If the settlements of the country are classified roughly into two groups according to access to land and sea transport, the following pattern appears: the seaside settlements had their prosperous period in times of sea-transport when the routes of transport and communication lay along the coast, but started regressing after 1940 when the road system started developing. This happened in spite of a considerable development of the fishing industry after the war (p.11).[7]

Indeed, the transport of fish, and other goods and supplies, also developed along these lines, although a few decades later. Iceland had a state-run company, *Skipaútgerð Ríksins* carrying domestic cargo and passengers around Iceland since 1929 (Magnússon, 1998). The symbiosis here, between local industry (fishery) and transport is similar to the Ålandic case, as will be seen in chapter 5.6 below. In 1992, this transport was taken over by the private companies Eimskip and Samskip for economic reasons. Until the year 2004, Eimskip had the coastal vessel Mánafoss carrying goods on a weekly route clockwise around Iceland, calling at 11 ports. However, there was also a parallel land transport system by trucks that took over completely in 2004 (personal communication C, 10.11.2010).[8] Studies to reintroduce the coastal shipping have been made, the most recent in May 2010 (Möller, Guðleifsson, Eyvinds, & Helgason, 2010). Even though coastal shipping is evaluated to be beneficial for the Westfjords, including not only fisheries

[7] Translation by Helga Ögmundardóttir. Icelandic text in Appendix A.

[8] What is left of the domestic coastal transport system is only a container vessel on the route Reykjavík to Reyðarfjörður one way on the east coast due to the aluminium industry, and another one sailing on weekly basis from Reykjavík to Vestmaneyjar to pick up export containers on its way to Europe one way (Personal communication C, 10.11.2010). The aluminium industry has much to do with how transport is carried out in Iceland today (Personal communication D, 7.12.2010).

products but also other goods and even waste for recycling, it is not seen as financially viable from the business side (personal communication C, 10.11.2010). However, it is unclear whether such a business perspective takes positive and negative environmental externalities into consideration.

Thus, applying the Jónsson argument in the above quote for this thesis' case studies in the present day situation, it can roughly be said that every step forward for land based transport has meant a step backwards for the extreme cases subject to the present thesis. Since September 2009, when the bridge over Mjóifjörður in Ísafjarðardjúp was completed, it is possible to travel on paved roads the 450 kilometres between Isafjörður and Reykjavík. New transport related projects are a priority for Iceland, according to the Ministry of Transport (Interview 5A, 2010). For the Westfjords circumstances, the second tunnel, that connects Ísafjörður as a main agglomeration centre with the surrounding villages of Suðureyri, Flateyri and Þingeyri was completed in 1995. A third road tunnel, Bolungarvíkurgöng, was opened in September 2010. A transport priority for the Westfjords is a fourth tunnel that would connect the southern and the northern parts of the Westfjords. Despite this massive investment in point projects for the benefit of transport infrastructure, it can be argued that these investments have not benefitted the geographical and practical islands, as they are not, by definition, situated in the settlements between which the increased connectivity is meant to come about. On the contrary, the development of land based transport has meant a decrease in sea-based and air-based transport for the Westfjords, such as the old system of postal flights and ferry transport. This will be illustrated through the case studies, in particular the case study of Ingjaldssandur.

5.5 All roads lead to Reykjavík

The current focus on road transportation is described as a "trend" by a representative of the Icelandic Road Administration. Even though, as is the situation in one of the case studies of the present thesis, there is a flight connection to insular regions, people want to use cars. In the Árneshreppur case there is a flight twice a week to the airport in Gjögur, but in accordance with the trend, people want to use the car, especially for economic reasons when travelling with a family. Since almost all settlements in Iceland now have road connection to Reykjavík, this becomes an equality issue for the people in insular regions.

5.6 The Finnish and Ålandic transport transformation

Andersson (1997) describes the communications situation in the Finnish archipelago before the general modernisation as very good, because the archipelago inhabitants were equipped with boats both for their own needs, but also for public transport - many times, the sea route was superior to the land route, just like in the Icelandic case. The archipelago inhabitants, who were accustomed to the sea, and had homes close to harbours and sea routes both gained an income and secured their own transportation this way. Interestingly, for the few instances where such an archipelago transport system is still in function today, this two-fold benefit can be noted. For example, in the case of the Husö inhabitants- the person running the post- and passenger boat to the small islands around Sottunga is himself one of the four inhabitants of Husö (Personal communication, 13.10.2010).

Andersson further points out that the maritime traffic had developed in a strong symbiosis with the local industries, such as fishery, in the archipelago. After the first world war, the land-based communications such as roads with cars, buses and trains developed and the importance of the archipelago routes diminished (Memo of the Archipleago Committee, p. 60, cited through Andersson, 1997) .

In the Åland case, the archipelago transport is since the beginning of the 1980's organised by publicly owned and run car ferries, and a development of the road network that covers a great part of the archipelago through embankments, bridges and cable ferries.

5.7 Comparison

Settlement patterns in broad terms in rural Iceland and Finland have moved in different directions historically, with two key terms: fishing and farming. These two livelihoods played significant roles for settlement in Iceland and Finland during the decades around the turn of the 19th century. In Iceland, it was the farm and thereby connected regulations that kept the population dispersed throughout the country, and it was the fish that concentrated the population into villages and towns at the end of the 19th century.

In the Finnish archipelago and on Åland, it was the natural resources that sustained the population in the archipelago. Indeed, Andersson defines "natural resources policy" for the purposes of the Finnish historical perspective on archipelago policy as the regulation of the right to fish in different areas of water (1997). Farming, in turn, drew the population to

agglomerations and further inland. This reverse dichotomy may be explained by differing geographical prerequisites that might not render the cases completely comparable. What can be said as a common denominator, however, is that activities connected to the marine environment have played great parts in Icelandic and Ålandic societies historically.

In both cases though, transportation has gradually moved to land from the sea, also following a global trend in increased transportation by car. Settlements that were before positioned as transport hubs, i.e. coastal towns with harbours, experience depopulation when transportation is moved from sea to land, and settlements situated along a road network increase in importance. This picture is, however, clearer on Iceland than on the Åland islands.

6 Case studies presentation

In the following chapter, each case study will be briefly introduced along with a statement of the situation of the case study with regards to transport connectivity. The issues will be further discussed in the case study analysis.

6.1 Ingjaldssandur: Sæból sheepfarm

Ingjaldssandur is a valley in between the fjords of Önundafjörður and Dýrafjörður in the municipality of Ísafjarðarbær. This valley has been inhabited since the period of settlement in the 9th century (Ólafsson, 1999). The homestead Sæból that is permanently settled is a sheep farm situated at the outermost end of the valley, closest to the coast. There are about six buildings used as summer houses in the valley, but the only permanent residents are the sheep farmer and her 12-year-old son. The residents have their family history in the valley, which used to be highly populated a few decades ago—in 1920 there were as many as 90 inhabitants—however, the peak of Ingjaldssandur's demographic development was reached in 1801 when inhabitant numbers was 143. One third of these inhabitants lived in Sæból. One could easily row out a short distance to good fishing grounds; however, there was problematic surf (Torfason, o.fl., 1999), something that can easily be spotted by the visitor today. 1996 by the tunnel that was built from Ísafjörður and under Breiðadals- and Botnsheiði.

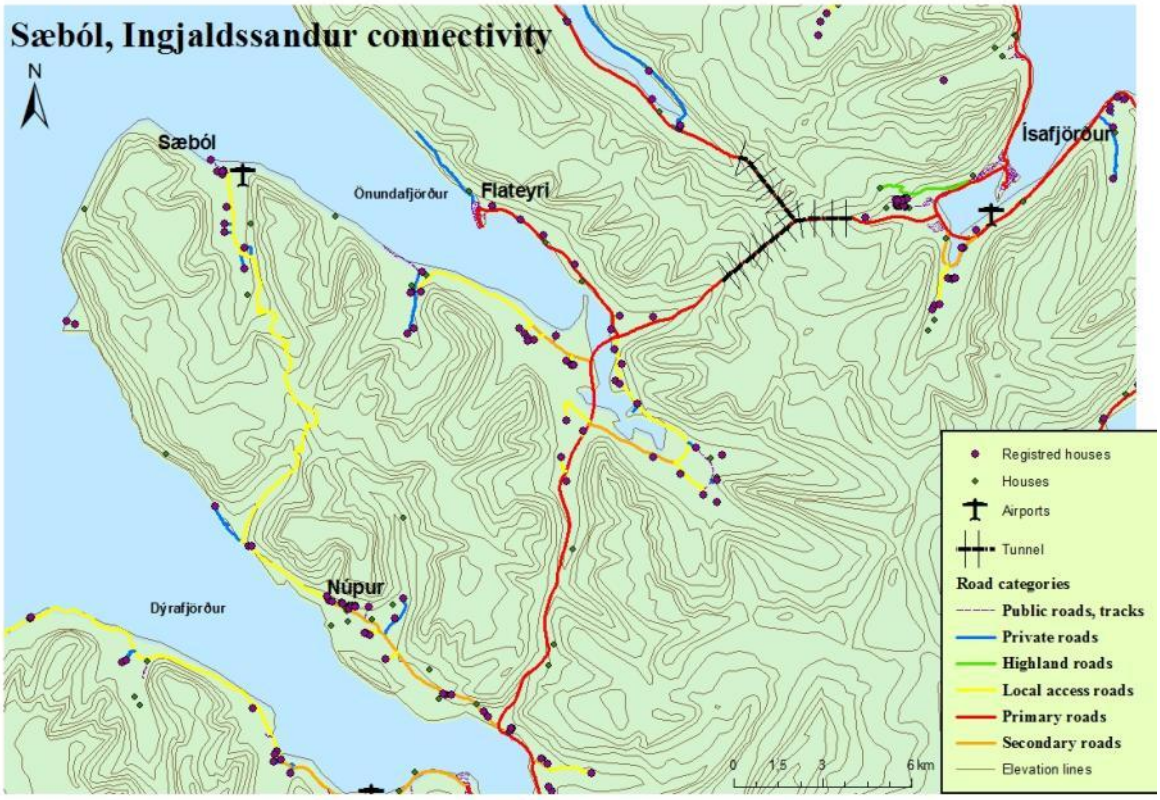
Despite this surf, and the human casualties it contributed to, inhabitants of Ingjaldssandur travelled by boat until 1950, when the road over Sandheiði was opened. Before 1790, the Ingjaldssandur inhabitants' commercial centre was Þingeyri, but changed to Flateyri after 1790. Inhabitants travelled to these places by boat (Ólafsson, 1999).

Now, farmers and fishermen have moved away and left the valley with uninhabited residential houses, farmhouses and a church that dates back to 14th century.

Image 1. The for boat-landing problematic surf at Ingjaldssandur. Photo: Petra Granholm.

6.1.1 Connectivity and related issues

Ingjaldssandur's nearest urban area is Flateyri with around 350 inhabitants (Westfjords Tourism Office, n.d.) and connectivity to this part of Ísafjarðarbær was enhanced in 1996 by the tunnel that was built from Ísafjörður and under Breiðadals- and Botnsheiði. Paradoxically, according to the sheep farmer, this had a reverse effect on Sæból - before the tunnel was constructed, there was a postal flight coming to the valley twice a week, with which the inhabitants could get supplies and necessities (Interview 1, 2010). Now, according to the sheep farmer, the valley is in the same situation as 100 years ago. The only road leading into the valley is a 25 km gravel road over the mountains, in the category



Map 1. Sæból and surrounding areas. The local access road from Núpur to Sæból (length ca 25 km) is a gravel road over mountains with limited maintenance during snow season. The airstrip is no longer in use. The tunnel from Ísafjörður has paradoxically made connectivity more limited according to the Sæból farmer. The registered houses category is a selection based on the Icelandic "heitinúmer" available from the Land Registry Database, but does not necessarily mean the house is inhabited all year round. Map by Petra Granholm 2010.

of local access road (*héraðsvegir*), which is impassable in winter and has limited maintenance. The municipality has the responsibility to clear the road until the farmer's son finishes 10th grade (see chapter 7 on legislation), so that he will be able to go back and

forth to school in Flateyri. However, in practice, the boy lives in Flateyri during the school week and comes home during the weekends in the winter when the road has to be cleaned. It is also the authorities' responsibility to care for postal communications. The farmer drives at her own cost to Flateyri twice a week to pick up her post (Interview 1, 2010). The winter conditions on the gravel road leading to the farmer's house are due to the elevated area and the large amount of precipitation, making driving in these conditions very difficult. Therefore, the Ingjaldssandur valley is often cut off from the rest of the Westfjords, and becomes a practical island during winter. There are, however, no boats going to and from Ingjaldssandur, although the sea route is estimated to take 15 minutes to Flateyri, and there is a long tradition of boating in former generations.

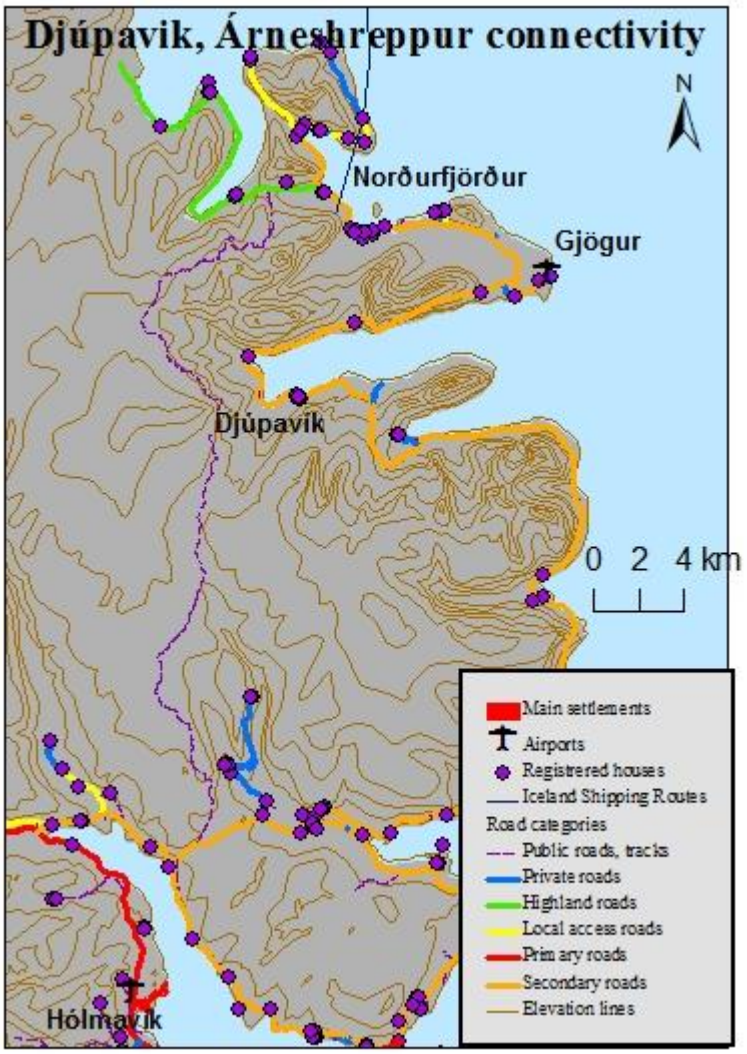
6.2 Árneshreppur- Djúpavík village

The village of Djúpavík is situated in the demographically smallest of Iceland's municipalities, Árneshreppur, with 50 inhabitants (Statistics Iceland, 2009). Today, Djúpavík only has two permanent inhabitants, but Djúpavík has hosted farmsteads for hundreds of years. Around the year 1916, only one family inhabited Djúpavík. However, during the years 1934 until 1954 around 260 people inhabited the village, when a herring factory was operational there. In 1954 the factory was finally closed due to the lack of herring (Jónsson & Holloway, 2003). Today, tourism has taken over after fish processing and the two people who run the Hotel Djúpavík are the only ones to live in the village all year around. However, there are at least three people who have their permanent address in Djúpavík and live there during the summer (Interview 2, 2010).

6.2.1 Connectivity and related issues

Djúpavík is not a geographical island, but can be seen as a practical island in terms of transportation- the road leading north to Árneshreppur is only open when weather permits, and flights are operated by Eagle Air to and from Reykjavík twice a week in the winter (Eagle Air, 2010) and once a week during the summer months, May through September (Interview 2, 2010). In 2010, as an attempt to save money, a decision was taken not to plough the road between the airport in Gjögur, northeast of Djúpavík, and Djúpavík, a decision that led to protests from the hotel-owning inhabitants there. After negotiations, it was agreed that that the Road Administration clear the road twice a week. The road leading from Hólmavík to the airport in Gjögur, along which Djúpavík is situated, is the no. 643

called Strandavegur, and goes from Djúpvegur at the bottom of Steingrímsfjörður, through Bjarnarfjarðarháls, Bali Veiðileysufjörður, Djúpavík, Reykjarfjörður, to Gjögur, Árnes, to Norðurfjörður. The road is categorized as secondary road (*tengivegur*). According to the respondent in Djúpavík, the crucial part of the road is from Byrgisvík to Gjögur, a road stretch of approximately 34 km (Interview 2, 2010). The whole road is in the snow clearance group G, i.e. the so-called G-rule is supposed to apply (see Chapter 7.2). This means that the road is only cleared during the autumn and the spring.



Map 2. Djúpavík in Árneshreppur is connected to the road system through a secondary road with limited maintenance during snow season. The airport in Gjögur operates all year around, but the secondary road connecting Gjögur and Djúpavík is also not maintained. There is no shipping route in winter. Map by Petra Granholm.

Árneshreppur is cut off from the rest of the Westfjords for several months of the year, Djúpavík being the village most adversely affected because of its situation between the non-winter-maintained road north to the airport and south to the winter-maintained roads. Connectivity is crucial for the Hotel in Djúpavík so that the residents are able to pursue their livelihood for longer times throughout the year, both by receiving goods and supplies, post and visitors. Somewhat paradoxically, the Icelandic Road Administration recently found money to improve the surface of the road 643 in its most difficult places at Norðurfjörður, Gjögur, Byrgisvík and Sýruvík. This is the largest road improvement of road 643 that has ever been made (Guðjónsson, 2010). Despite these improvements the road will not be open during winter season, and concerns that this is an attempt by the

Government to silence the more difficult issue of permanent road connection have been raised (Islandsbloggen, 2010).

Djúpavík, just as Ingjaldssandur, can be seen as a practical island during periods of winter when the G-rule does not provide for snow clearance.

6.3 Vigur island in Ísafjarðardjúp

The geographical island of Vigur is situated in Ísafjarðardjúp, belonging to the Súðavíkurhreppur municipality. The island has had documented settlement since the year 1194, however, the island is believed to have been inhabited since soon after the settlement of Iceland. Historically, Vigur offered good living conditions with plentiful fish, birds for eggs and meat, and was situated strategically in the middle of a fjord. During the 18th and 19th century, the population of the island averaged 25-35 people including farmers, children and workers (Personal communication E, 15.11.2010). Today, the island is an important tourist resort in the summer, in particular for bird-watching of, among other birds, eider ducks and puffins. Therefore, a tour boat regularly runs to the islands during the busy months from early June to early September. Vigur has three inhabitants who live there permanently. The livelihood of the respondent consists of tourism in the summer and eider down collection for eider down products.

Map 3.Map 3. Vigur and Æðey. The lined route is the summer tour boat traffic carrying tourists to the island. Map source: vesturferdir.is, with permission.

6.3.1 Connectivity and related issues

In the year 1999, the m/s Fagraness stopped trafficking the route Ísafjörður – Arngerðareyri, due to lack of financial viability, when more and more people chose to drive the new road through Ísafjarðardjúp than to go by ferry (Samgönguvefurinn, 2002). The ferry traffic was run by the Ísafjörður-based company HF Djúpbáturinn and called at the islands Vigur and Æðey on its way. The withdrawal of the ferry was widely discussed during the 1990's and the majority opinion was that the ferry did not serve its purpose anymore (Sveinbjörnsson, 1996). The purpose of the installation of the ferry in the first place was the extremely bad road conditions along Ísafjarðardjúp. However, in the

Icelandic parliament there were heated debates on whether the ferry should still be stationed in the Westfjords or not. The main argument for keeping the ferry in the Westfjords was safety, because of the avalanche risks prevailing along the roads, in a time when avalanche catastrophes from Flateyri and Suðavík were just a few months old (Morgunblaðið, 1995).

> Interviewee 4: Because it has changed so much in our farming, it was too expensive to have a ferry to two islands, Æðey and Vigur
>
> PG: But, just a side question – about the ferry station in Ísafjörður fjord
>
> Interviewee 4: Yes, from there the cars went to Reykjavík. The ferry went to Vigur and Æðey, to Arngerðareyri where the cars landed, but when my sons had to go to school, they first took them, [...] so it was not always the same and it stopped 1999.
>
> [...]
>
> PG: But was not that a big thing as well, when the ferries stopped going?
>
> Interviewee 4: Well, it wasn't as big as you could imagine, because the roads were getting better so that was the main reasons for the ferries to stop.
>
> PG: And how many times a day did the ferries go? Once a day or?
>
> Interviewee 4: Only twice a week. When my husband was younger they went much more often, that's because there weren't roads in the whole of Ísafjarðardjúp.
>
> PG: And also out of curiosity, how long did it take from Ísafjörður to…
>
> Interviewee 4:..to Arngerðareyri? It was quite long, I think it took about two hours, some people said it was not the right place to put the cars on land, it should have been in some other place that was shorter for the ferries to go but not so much longer for the cars to go.

The Vigur residents now take care of their own transport out to the island in the wintertime. The Icelandic Road Administration provides the inhabitants with a grant for going by their own boat to Ísafjörður as a substitute to the road. However, due to the respondent's daughter's schooling, and the fact that the respondent herself is studying, they have taken the decision to stay in Ísafjörður over the winter for the past year.

Iceland's "smallest post office" is also located on Vigur, where tourists can receive the Vigur stamp on their letters. Interestingly, however, the inhabitants of Vigur and neighbouring islands of Æðey were, as a result of a recent decision of the PTA, not entitled to payment for picking up their own post in Ísafjörður (Um póstþjónustu í Æðey og Vigur, afhending póstsendinga, 2010). This case will be further explored in Chapter 7.2.

6.4 Husö in the Åland archipelago

Husö is a small, geographical island located in the Ålandic archipelago, in the municipality of Sottunga. Sottunga is the smallest municipality on Åland and in Finland, yet larger than

Árneshreppur in terms of population. Sottunga was first permanently settled during the 11th century (Municipality of Sottunga, n.d.). The municipality of Sottunga had 125 inhabitants the 31 December 2009, out of which the island of Husö had six registered inhabitants. Other demographically small islands are situated in close proximity to Husö: Finnö with two inhabitants and Hästö with two inhabitants. In the Sottunga main village, on the main island, the number of inhabitants is 113 (ÅSUB, 2010). In practice, four people live on Husö permanently. The respondents' livelihoods are sheep farming, handicraft and small-scale agrotourism. Husö was first inhabited in the 16th century and is unique from the point of view that it has never been depopulated (Municipality of Sottunga, n.d.).

6.5 Connectivity and related issues

Sottunga is connected to the public archipelago ferry network through the so-called "south line" (Ålandstrafiken, 2010). The south line calls at Husö regularly as part of the timetable, however, not on every route—the time-table is "shared" with another small island in a neighbouring municipality, Kyrkogårdsö—so that the ferry calls at at least one of the islands per route. There is also a possibility for the inhabitants of both ports-of-call islands to "trade" trips with each other in an informal way, meaning that the ferry timetable can be

Image 2. One of the connecting boats bringing post and passengers to Husö and surrounding islands.

rearranged when an inhabitant from one of the islands asks for the other island's ferry trip and vice versa (Interview 7, 2010). Much is dependent on communication between inhabitants and the ferry captain. The winter schedule has recently been updated and reflects the cut-backs in the Ålandic public sector due to the public sector economic crisis that started in 2008. However, when the ferry does not call at Husö or Kyrkogårdsö, it is possible for the traveller to contact the so-called "*passbåt*", i.e. a smaller connecting boat that transports inhabitants of the small islands in the Sottunga and neighbouring municipality of Kökar archipelago. This connecting boat also carries the post to the islands, and the person employed for this purpose is another inhabitant of Husö. This service is free of charge for the traveller and the duration of the trips depend on the number of ports of call on the agenda.

The respondents main point of argument is that it is easier to live in the archipelago in the summertime than in the wintertime (Interview 7, 2010), because there are more people on the move in the archipelago and this can be seen from the higher number of ferry trips in the summer. Another argument put forward is that a more extensive summer time-table serves the politicians' self-interest, as many are summer house owners in the archipelago (Interview 7, 2010).

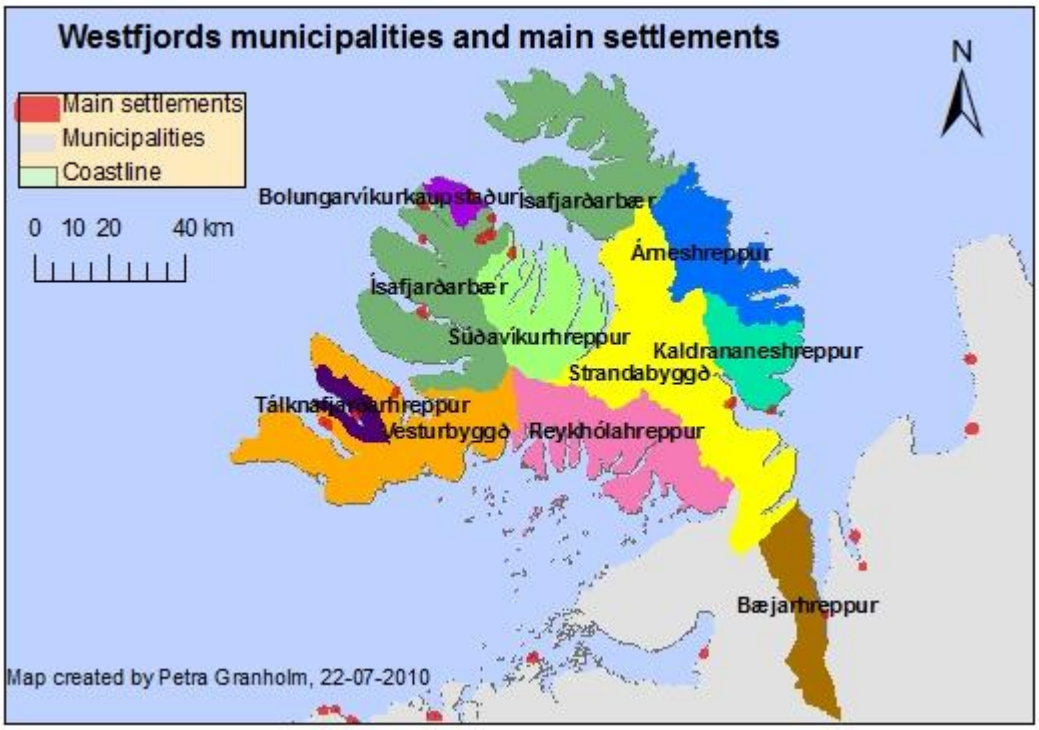
The cut-backs and their reflection in the archipelago time-table have been widely discussed. The Åland Minister of Transport and her team have travelled around to the archipelago municipalities during the autumn to discuss the matter through meetings with the concerned archipelago inhabitants. Reactions have varied from expressions of "nothing new" in the Sottunga municipality (Interview 7, 2010) to deep disappointment in the Kökar municipality (Interview 8, 2010), which is worthy of analysis itself but is outside the scope of discussion in the present thesis.

7 Overview of relevant legislation

In the following chapter, the Icelandic and the Finnish/Ålandic legislation crucial for the case studies will be presented and compared in accordance to a thematic scheme. The legislation is such that it all falls under the theme of transport connectivity and therefore, mainly under the umbrellas of the Icelandic Ministry of Transport, Communications and Local Government and the Ålandic Traffic Department. The case study experiences serve as illustrations of the legislation's practical implications.

7.1 Basic services

After the 2010 elections, Iceland has 76 municipalities. The number of municipalities has been reduced from 124 in the year 2000 (Samband íslenskra sveitarfélaga , n.d.). The Westfjords consist of 10 municipalities.



Map 4. The municipalities of the Westfjords.

Basic service provision is mainly the task of the municipality, as provided for in the Local Government Act (Sveitarstjórnarlög, 45/1998) article 7:

> General obligations of municipalities.
>
> Municipalities must carry out those tasks assigned to them by law.

> Municipalities shall work for the common welfare of the residents, as far as they are able at any time. Municipalities may undertake any task relating to the residents of the municipality, if it is not assigned to others by law.
>
> Municipalities shall have their own sources of revenue, and shall be autonomous in determining fees collected by their own companies and agencies in order to meet the expenses of tasks undertaken by their companies and agencies.
>
> Municipalities shall set objectives regarding profitability and dividends in operation of their companies and agencies, and they may allow for an appropriate return on their investment in these operations. (Translation provided by the Icelandic Association of Municipalites)

There is only one level of local government in Iceland, and a great number of small municipalities. Local governments in Iceland are responsible for similar tasks of the public sector as in other Nordic countries and these tasks are on an increasing trend. The tasks assigned to the municipality by law include social welfare and health care (aid for the aged and disabled, welfare of children, day-care centres and playgrounds, housing, etc.), education (elect members of school committees, and cover part of the capital costs of school buildings and operational expenses), cultural affairs (operation of libraries, museums and cultural centres, sport and outdoor recreation) and infrastructure (sewage, water supply, electric power and central heating systems). In addition, land-use planning and building construction, preparation of general plans and regional plans, implementation of building construction legislation, fire protection and supervision of preventive measures against fire, civil defence and security, waste collection and waste disposal, building and maintenance of buildings, including streets, roads and harbours and public transport are also the responsibilities of the local authorities (Nordal & Kristinsson, 1996).

Map 5. The municipalities of Åland. Sottunga municipality with Husö is in the Mid-Eastern archipelago. Map source: Wikimedia Commons, Sémhur.

Åland has its own Municipality Act for the 16 Ålandic municipalities (Kommunallag för landskapet Åland, 73/1997). Six of these are considered archipelago municipalities.

The Åland territorial autonomy means that one level of government is added as compared to the sole level of Icelandic local government. The fact that the Ålandic provincial government has legislative competence in, for instance, transport matters, might indicate that it is easier for Åland to have an administration that suits the whole of the territory. Similar to the Icelandic municipalities, the Ålandic municipalities are responsible

for a range of basic services. The section in the Municipality Act that is comparable to section 7 of the Icelandic Act, is section 3:

> Tasks of the municipality
>
> The municipality should care for the tasks which it has undertaken as a consequence of the municipal autonomy and which it has been assigned by law. The municipality may, through agreement, care for additional public tasks. The municipality may by itself attend to the tasks assigned to it by law, or together with other municipalities, or through ordering services from other service producers.
>
> The municipality shall, in all its activities, strive to promote the welfare of its inhabitants and an economically and ecologically sustainable development within the municipality.[9]
>
> The municipality must not be given new tasks or obligations or be deprived of its tasks or rights through other means than by an act of law.[10]

The Ålandic municipalities' tasks relate to the following, as assigned to them by law: day-care, elementary school, care for the elderly, other social services (such as child protection, service for the disabled, subsistence support), matters relating to planning and building, waste management, water and sewage, the rescue service, culture and libraries. Other services that the municipalities care for on a voluntary basis are, for instance, spare-time activities, housing and commercial life (Ålands kommunförbund, 2010). It is interesting to note that the Ålandic provision includes sustainable development as a goal to promote whereas the Icelandic counterpart is silent on the matter.

To what extent municipalities in Iceland and on Åland are responsible for the road network will be discussed in the following section.

7.2 Road maintenance

The Icelandic road system builds on a division into categories of national roads (*þjóðvegir*), municipal roads (*sveitarfélagsvegir*), public paths (*almennir stígar*) and private roads (*einkavegir*). National and municipal roads create a continuous road system that connects urban and rural areas. The responsibility for maintenance of these roads is divided in accordance with Icelandic Road Act article 13 (Vegalög, 80/2007). The

[9] N.B. that social and cultural sustainability is left out. This might be due to the preceding wording – "promote the welfare of its inhabitants" – that might be considered to include social and cultural sustainability.
[10] Translation by author. Swedish text in Appendix A.

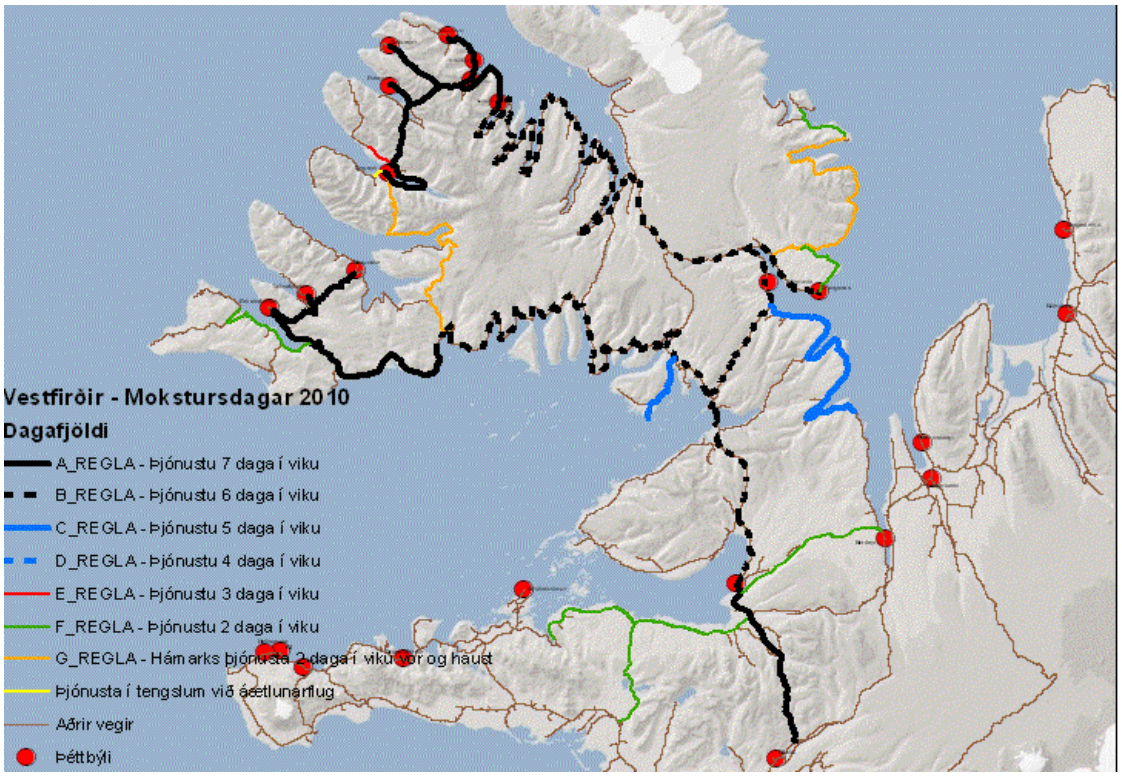
Icelandic Road Administration (*Vegagerðin*) is responsible for national roads while the local authorities are responsible for municipal roads. The owners of private roads are responsible for the maintenance of their own roads.

In addition to the above categories, there are subcategories for the public roads of the country. For national roads, these subcategories are made up by primary roads (*stofnvegir*), secondary roads (*tengivegir*), local access roads (*héraðsvegir,* previously *safnvegir*) and country roads (*landsvegir,* out of which the most are in the highlands) (Act 80/2007, section 8). The primary roads connect the country's urban areas and some of these roads run through the highlands. The secondary roads are outside populated areas and connect villages, other roads, tourist destinations, harbours and airports to primary roads. For places such as farms, factories, churches and public schools and so on outside populated areas there are local access roads, which are officially planned and listed in the Road Register. Across mountains and moors there are highland roads, which are usually gravel roads (Vegagerðin, 2009).

The different categories play a role when it comes to seasonal connectivity in terms of winter maintenance such as snow clearing. Roads through the highland are usually closed in winter and there are no bridges across most rivers. Services on these roads are limited (Vegagerðin, 2009). In the summer, all roads are passable; however, some roads can only be driven by four-wheel-drive vehicles, due to lack of pavement and bad conditions.

In terms of snow clearance, Vegagerðin has categorized parts of the roads into groups named A-G: Category A receives seven-day snow clearance, B six days, C five days, D four days, E, three days, F two days a week and G according to the above explanation, i.e. autumn and spring. In addition, there is a category of airport roads that receives snow clearance in connection with a flight (Vegagerðin, 2010).

Roads in the F-category, secondary roads and roads to ski areas, can be requested t beploughed up to three times a week when weather conditions and amount of snow allows,



Map 6. Snow clearance days in the Westfjords. Black line: 7days/week, black dotted line: 6 days/week, blue line: 5 days/week, blue dotted line: 4 days/week, red line: 3 days/week, green line 2 days/week, orange line: 2 days/week in spring and autumn, yellow line: in connection with flights, brown: other roads. Map source: Vegagerðin, 2010, with permission.

however, the requester is obliged to pay half of the cost. The Road Administration pays the other half when the payment is guaranteed, if the snow clearance benefits more people than just the requester. The so-called G-rule, applicable in the case of the road leading to Djúpavík, allows for snow clearance two days a week during autumn (until 1st of November) and spring (from 20th of March) whilst there is a small amount of snow. Circumstances define what "a small amount of snow" implies. The definition is that there is "a small amount of snow" when a little snow anddriving conditions are not considered to be impassable anywhere (*ófært*), difficult road conditions (*þungfært*) or difficult driving (*þæfingur*)[11] on the particular route and when the service measures only includes cleaning the roadway with a snow clearing vehicle[12] (Vegagerðin, 2010). In the snow clearing

[11] The Icelandic Road Administration's translation of its own categories.
[12] Translation by Páll Eiríkur Kristínsson. Icelandic text in appendix.

manual of 2007, it was however added, that roads that fall under the G-rule can be cleared once a week until the 5th of January on the expense of the Road Administration. After the 5th of January snow clearance can take place once a week so that the road is passable for four wheel drive vehicles, when the municipality pays half the costs and/or when the cost for that clearing on average does not exceed three times the cost to clear the route when there is light snow (Vegagerðin, 2011). These rules are, however, difficult to interpret because there is a wide variety between what are difficult driving conditions for a large four wheel jeep and a small city car.

Road stubs to a house from a main road under the Road Administration's care and local access roads usually fall under the municipality's responsibility. The municipality is by law the maintainer for municipal roads, but there are no clear legal responsibilities for what it is bound to do. Rather, it is up to the individual municipalities to decide on (Interview 9, 2010).

The Åland Public Road Act (Landskapslag om allmänna vägar på Åland, 23/1957) includes a division of road maintenance responsibilities between the province (*landskapet*) and the municipality. Road maintenance on Åland is defined as construction and maintenance of public roads (Act 23/1957, sections 4-5) by the road maintainer. Section 11 defines, among other measures, road maintenance to include removal of obstacles on the road and removal of snow and ice. However, also the up-keep and drift of bridges, moving bridges, and ferries and laying of ice roads are included in road maintenance. The clearance of snow and ice are further specified in section 12.1 and section 13, stipulating that the highways and the neighbourhood roads should be kept clear of snow and ice to the degree necessary for motor traffic. However, the Åland Government may decide, upon consultation with the traffic board in the concerned municipality, that clearance is unnecessary if intercommunication along the particular road is scarce, or if another winter road is put in place (such as ice roads on the frozen sea).

The same act also specifies the responsibilities for the Åland government and the municipalities with regards to road maintenance (chapter 2). The Åland Government is responsible for country roads (*landsväg*) and neighbourhood roads (*bygdeväg*), however, this responsibility can be transferred to a municipality following consent (Act 23/1957, section 20). One municipality can be made responsible also for roads in another municipality (Act 23/1957, section 21). Chapter 11 of the act specifies who is responsible

for the cost of the road maintenance, stating that the province (*landskapet*) pays for the costs if the province is the road maintainer. If the task has been allocated to a municipality, the municipality has right to be compensated from the province.

The Municipal Road Act (Landskapslag om kommunalvägar, 16/1964) deals with such roads that are the responsibility of the municipality. A Road Board is set up in a municipality for this matter (Act 16/1964, section 9), and the responsibilities for road maintenance also include winter maintenance, as in the case of public roads (Act 16/1964, section 11). A fee for the ferries under the responsibility of municipalities may be collected (Act 16/1964, section 15).

Ferries on Åland are seen as part of public (Act 23/1957, section 3) and municipal roads (Act 16/1974, section 2). Drift of ferries is further regulated in the Åland Regulation on Ferries (Landskapsförordning om färjor, 6/1979). Since 1997, the Åland government has been given authority to decide regarding fees for archipelago ferries that are not cable ferries (Regulation 6/1979, section 18). Cars are now subject to a fee, whilst passengers travel for free on the ferries. The archipelago ferries are thus owned and operated by the province, i.e. the Traffic Department of the Åland Government, through its agency *Ålandstrafiken* (Ålandstrafiken, 2010). Discussions about privatisation of archipelago ferries have been held, but as of yet they are run by the province.

It is not as clear-cut regarding the ferries in Iceland. According to the Road Act, ferries are seen as part of the road network when they constitute a substitute for a road, seasonally or all-year-around (section 22). For instance, the ferry m/s Fagraness that serviced Djúpið until 1999, was run by the private company HF Djúpbáturinn and was for a long time, in practice, the only road to the north of the Westfjords. When the road network was improved, there were discussions about keeping the ferry for avalanche security but it was finally withdrawn in 1999. The Ferry Baldur that crosses Breiðafjörður Bay between Stykkishólmur on the Snæfellsnes peninsula and Brjánslækur in the south of the Westfjords, is since recently owned and operated by a private company (Seatours, 2010). However, the state still supports the ferry by subsidising a certain number of trips a year. The ferry used to be operated by the state as a second alternative to the roads to the Westfjords, in the wintertime, as a security matter. Similar to the m/s Fagraness discussion, the state sees no necessity to operate a ferry anymore as a result of the amount of roads that have been paved (Personal Communication B, 26.4.2010). Therefore, it can

be said that these two ferries were seen as an integral part of the road network when the existing roads were not sufficient in terms of security and reliability; which is no longer the case.

In a comparative light, the Åland legislation on roads is more thorough when it comes to regulation of what is included in road maintenance and division of responsibilities between the province and the municipality. On Åland, the division also has the status of law and is regulated through two separate laws. Although there is extensive regulation of road maintenance also on Iceland, a significant amount is regulated through the Road Administration's rules and not in acts of law. There is also no act on municipal roads and as such municipal roads are left to each municipality's discretion. This difference may be due to the additional level of government in the Ålandic case as mentioned in chapter 7.1.

7.3 School rides

The Icelandic Primary School Act (Lög um grunnskóla, 91/2008) stipulates in its section 22 that the municipalities are responsible for organising school rides where it is needed and to pay the associated costs. The Minister of Transport, Communication and Local Government sets out further rules regarding school rides in cooperation with the Association of Iceland Municipalities. School rides shall come at no costs for the pupils.[13] These further rules are spelled out in Rules on school rides in elementary school (Reglur um skólaakstur í grunnskóla, 656/2009) which make the municipalities responsible for the cost, safety, welfare and concern of pupils benefitting from the school ride (Rules 656/2009, section 2). The municipality, upon recommendation from the school committee, will annually plan the school rides according to school schedule, number and combination of students, their age and environmental/geographical circumstances. The municipality may organise driving routes of school buses in accordance with the location of the school within the municipality. The plan shall be introduced to school councils and shall be accessible to the municipal residents (Rules 656/2009, section 3). School rides shall be organised in accordance with the needs of students based on their safety, welfare and environmental/geographical conditions, such as the distance between home and the school.

[13] Translation by Páll Eiríkur Kristinsson. Icelandic text in appendix.

Daily school rides shall be organised in such a manner that students are driven home as soon as possible after a regular school day is over. The aim is that the school ride including waiting time does not exceed 120 minutes. Of particular importance for this thesis is that municipalities may negotiate with parents about parents' participation in school rides. The agreements shall include a clause of termination beyond which the normal rules apply (section 4).

If a parent feels that the school ride arrangement is defective or that the rights of the child are violated, the parent can seek correction with the municipality or with the concerned school principal (section 8).

The Ålandic Primary School Regulation (Grundskoleförordning, 95/1995) stipulates which pupils have the right to school rides or guidance on the way to school (*ledsagning*) (section 30). These are pupils in classes 1-3 for which the road to school is more than three km and pupils in classes 4-9 for which the school road is more than five km, or for pupils whose road to school is too strenuous or dangerous with regards to the pupil's age or other circumstances. The school should also make sure that the pupil has the possibility to do homework under supervision if there is a waiting time between school hours and the school ride (Regulation 95/1995, section 20). If there is no possibility to a school ride solution, then the school should organise lodging for the pupil after communication with the legal guardian. Lodging includes board and rides between the lodging and the home on weekends, holidays and the first and the last day of school work (Regulation 95/1995, section 21). The school ride or guidance, and lodging, are free of charge for the pupil. These stipulations do have implications for the Åland archipelago and were topical in a recent decision by the municipality of Brändö in the north-eastern archipelago to shut down an island school and instead send the children to the main municipal school. The Åland Ministry of Traffic informant, herself an inhabitant of Lappo, explains the difference between the cost of running a school as opposed to school rides in the archipelago as follows

> Interviewee 8: Yes, but the problem has been that it has been difficult to provide enough school rides, since you have to have guidance on the vessel. I mean, the Åland government, if I dress in my Minister of Traffic hat, we do not take any responsibility for the cargo beyond what the Sea Act requires. We do not have any responsibility for a seven-year-old who travels alone, because we have no insurance for the children, the school has an insurance that takes effect when you open the door, and it stops when the children enters the school and we/the Åland Government, takes the responsibility required

> by the Sea Act, which means that you have to have guidance in addition to the children, so economically there was no profit in that.

A different regulation sets the rules for students on the tertiary level (Landskapsförordning om studiesociala förmåner för studerande på gymnasialstadienivå i landskapet Åland, 60/1997). The student is entitled to compensation for school rides if the distance to school is longer than five kilometres one way (Regulation 60/1997, section 2). This compensation is primarily given as a personal bus card and secondary as compensation per driven km. Compensation can also be paid for distances longer than five km between the home and the closest bus stop (Regulation 60/1997, section 3). The compensation will not be given if the student receives some kind of financial assistance for lodging. Free lodging at the location of studies in boarding schools or an apartment rented by the school is primarily given to students under 18 years of age (section 6).

Hence, in Iceland, every student from first until tenth grade has the same right to school rides, whereas there are different provisions for primary and secondary on the one hand, and tertiary level students on the other hand on Åland. The Ålandic legislation is more specific as regards to distances from home to school that entitle to school rides. In Iceland, however, kilometres would not be an easy way of comparison due to varying geographical factors in different part of the country, and it is up to the individual municipalities to arrange for the more specific terms for school rides.

7.4 Postal communications

As part of the European Economic Area, the Icelandic postal communications are subject to the EU legislation on the matter, in particular the new 3rd Postal Services Directive (EU, 2008), which amends the first directive (97/67/EC). The Postal Services Act (Lög um póstþjónustu, 19/2002) contains the current regulation on postal matters in Iceland. In accordance with EU legislation, the Icelandic state shall ensure "universal postal service" as stipulated by the Postal Services Act article 6.[14]

Universal service means, as amended by the 3rd directive (article 3 a), that service is guaranteed not less than five working days a week, and that it includes as a minimum one

[14] 6. gr. Íslenska ríkið skal tryggja öllum landsmönnum á jafnræðisgrundvelli aðgang að ákveðnum þáttum póstþjónustu, alþjónustu, með ákveðnum gæðum og á viðráðanlegu verði. Við úthlutun rekstrarleyfa fyrir póstþjónustu, sbr. 14. gr., getur Póst- og fjarskiptastofnun lagt kvaðir á rekstrarleyfishafa, einn eða fleiri, um að þeir veiti alþjónustu á starfssvæði sínu.

pick-up, and one delivery to the home or premises of every natural or legal person or, by way of derogation, conditions at the discretion of the national regulatory authority, one delivery to appropriate installations. Exemptions to this general rule may, however, be made in circumstances or geographical conditions that are deemed exceptional. This means, that the Member States have legal space to exempt certain homes, such as the geographical and practical islands case studies in the present thesis, from the universal service, and that for these cases the post does not necessarily have to be delivered to the door. In short, if you live far away from population centres, you can expect less frequent service, and when delivered, it will be to a location that is in the immediate proximity of your house.

However, despite this definition of universal service, the new EU Directive states in its non-binding preamble, that the universal service, in principle, is the same also in remote or sparsely populated areas:

> The universal service guarantees, in principle, one clearance and one delivery to the home or premises of every natural or legal person every working day, even in remote or sparsely populated areas (para 21).

The reasoning behind efforts to ensure universal service also to remote or sparsely populated areas is the recognition that e-commerce[15] will offer new opportunities for these areas to participate in economic life for which the provision of good postal services is an important precondition, in accordance with the goal of social and territorial cohesion.

Universal service (*Alþjónusta*) in Iceland is regulated in the Postal Services Act (Lög um póstþjónustu , 19/2002), section 6 in which the Icelandic state ensures all its citizens on equal basis access to certain aspects of postal service, universal service, with certain standards and at a reasonable price.

The categories of post that, at a minimum, are included in the universal service are further specified in the same section of the law. The service includes both domestic postal deliveries and deliveries abroad. The Minister of Transport shall, and has, put into force a regulation on more detailed provisions of universal service, such as the position of the post box (Reglugerð um alþjónustu og framkvæmd póstþjónustu, 364/2003). It is interesting to

[15] E-commerce is a term used for the buying and selling of products or services over electronic systems such as the Internet.

note, that this regulation's definition of urban area (*þéttbýli),* is broader than that of the Icelandic Planning and Building Act (PBA) (Skipulags- og byggingarlög, 73/1997). The postal regulation defines an urban area as a location of at least 50 people where the distance between houses does not generally exceed 50 metres (section 16), whereas the PBA requires a settlement with at least 50 inhabitants where the distance between houses does not generally exceed 200 metres (PBA 73/1997, section 2). The postal regulation is therefore narrower in its interpretation of an urban area. This plays a role, because in an urban area the post box can be situated in or beside the house, whereas in a rural area (*dreifbýli),* there is a limit of 50 metres of local access road that the post deliverer will drive to a house. Otherwise, the post box should be located at the crossroad to the primary or secondary road. As a principle, the post box should not be further away than 500 metres from the house. There can, however, be exceptions from this, if two or less houses are on average located on a 2 km-distance on a local access road or a secondary road, if there is no road to the house or if the house is located far away from common settlement (Regulation 364/2003, section 16).

In Iceland, the Post and Telecom Administration, PTA (*Póst- og fjarskiptastofnun*) is responsible for the fulfilment of state obligations regarding post (Regulation 364/2003, section 6). The PTA shall ensure that mail, which falls under the definition of universal service, is delivered every day from Monday to Friday, everywhere within the state *unless circumstances or geographical situations hinder*[16] (Act 19/2002, section 21).[17] Such circumstances or geographical situation is in the commentary to the law (Frumvarp til laga um póstþjónustu, 2001-2002) defined as impassable transport conditions (*ófærð*) and storm or special geographical circumstances. A PTA survey from 1999 on the possibilities of starting Monday-Friday postal delivery everywhere in the country showed that it would equal a delivery cost increase of 100 million ISK per year.

This has explicit consequences for insular areas. Until the 31st of March 2010, post was delivered to Vigur by a Road Administration boat going regularly twice a week to the island as a substitute for a road connection. An arrangement to enable post and supplies delivery to the island had been in place since around the year 1900 (Personal communication E, 15.11.2010). When the agreement expired, the Road administration

[16] Author's emphasis.
[17] Translation by Páll Eiríkur Kristinsson. Icelandic text in appendix.

decided not to renew the agreement as a part of a cut-back and instead reached a new agreement with the inhabitants to cover part of the cost for transport back and forth to Ísafjörður. These transport grants were given to enable the inhabitants to pick supplies and services themselves. The Íslandspóstur then saw it more suitable to deliver the post to a post box in Ísafjörður where the inhabitants themselves could pick it up. The Vigur inhabitants stated that they would not be satisfied with the solution that the Íslandspóstur had suggested to the PTA. They wanted either the mail to be delivered to Vigur twice a week, and if that was not possible, that they would be reimbursed for picking it up themselves twice a week in Ísafjörður. The PTA decision was based on the fact that with the Road Administration withdrawal, there could no longer be considered a road connection to Vigur, which Íslandspóstur would be obliged to use. Instead, the PTA pointed to the fact that all exceptions to the position of post boxes in section 16 of the regulation applied, and therefore Ísafjörður was considered the nearest possible location to deliver mail. Furthermore, by delivering the mail to this post box, the PTA stated that Íslandspóstur had fulfilled their obligation in accordance with section 14 of the same regulation, stipulating that delivery can be considered fulfilled when mail can be picked up at a post office, by delivering it to the address of the addressee, or by delivering it to a post box that the addressee rents. Therefore, no reimbursement for the inhabitants own transportation could come into consideration (Um póstþjónustu í Æðey og Vigur, afhending póstsendinga, 2010).

In its decision, the PTA pointed to precedence set by the Post and telecom appellate committee in 2006 about Hvaley, stating that the location of the post box is normal according to circumstances (X og Y gegn Íslandspósti hf (hvalseyjarákvörðun), 2006). In the precedence it was concluded that the aim was that those who live under similar circumstances shall enjoy the same service. This is because Iceland is geographically diverse, which makes it more difficult to service some groups than others. It is taken into consideration in the law that certain geographical circumstances can affect the services the licensees are expected to provide (para 5.0). Similar decisions have recently been taken by the PTA for other locations in the Westfjords. In the cases of Láganúp (Erindi Íslandspósts hf. um að minnka þjónustu við bæinn Láganúp, 451 Patreksfirði, 2010) and Breiðavík, (Erindi Íslandspósts hf. um að minnka þjónustu við bæinn Breiðavík, 451 Patreksfirði, 2010) the PTA rejected the request by the Íslandspóstur to stop delivering mail completely. However, the PTA recognises that these locations are situated far outside common

settlement in the context of universal service. The PTA concluded this as a result of a comparison with the Road Act, stating that the road leading to the locations is a country road across a mountain 300 metres above sea level that is not maintained and therefore the costs of mail delivery are extremely high. It was thus decided to locate post boxes 11,78 and 10,5 km, respectively, away from the addressees.

In accordance with the trend in Sweden and Finland, **the Åland Post** (*Posten Åland*) was transformed from an '*affärsverk*', which is a sort of governmental owned company[18] to a joint-stock company (*aktiebolag*) in 2009. So far, the Åland Government is the sole shareholder (Posten Åland AB, n.d.). In the transformation, the new joint-stock company overtook the licence for postal services that was previously held by the old company (Landskapslag om ombildande av Posten Åland till aktiebolag, 144/2008).

Åland as a member of the European Union, is like Iceland bound by the Directives on Postal Services. The EU legislation is incorporated to the Åland body of law through the Åland Postal Services Act (Landskapslag om posttjänster, 60/2007) The purpose of this act is to ensure equal access to postal services of good quality and in particular, universal service, throughout Åland. It is the responsibility of the Åland Government to make sure that universal service is accessible in all municipalities. Section 10 stipulates the location of the deliveries, i.e. primarily at the receiver's address or if that is not possible, in a container meant for post situated in a location within a reasonable distance, taking into account local circumstances, from the address that the addressee has given. It furthers stipulates that letters should be delivered at least once a working day if not prevented by an insurmountable obstacle, a provision in law, a disturbance in traffic or similar circumstance. Packages shall be delivered within a reasonable time, which is not specified in the section.

There are, however, some exceptions from the general provision about collection and delivery. For the Ålandic circumstances, such exceptions apply for addressees in inaccessible archipelago areas or along roads which are not publicly serviced. For these circumstances density in collection and delivery can be less, but no less than once a week. The postal company has an obligation to inform the Åland Government at least once a year which households these exceptions concern. The underlying reason for this seems to be a

[18] An *affärsverk* is a governmental authority run on business principles, which has no legal personality, unlike a joint stock company.

will to strive towards keeping the number of households concerned by exceptions as low as possible, due to the fact that the Åland Government can decide on whether there are reasons to change the decision of the postal company (Act 60/2007, section 11). There is also a possibility for the addressee to enter into dialogue with the postal company about a plan for delivery that the postal company has set up. In case the addressee wishes the mail to be delivered to a location closer to the household, the company can charge an adequate fee for this.

As we have seen, rules on postal communication are quite elaborate and intricate, both in Iceland and on Åland, as a result of the EU Directives. There is a rule of thumb of universal service, in principle also for cases such as the present case studies; however, there is a large margin of appreciation for the legislator, in that the postal authorities can decide more or less on a case-by-case basis. Therefore, each decision has to be scrutinised as an isolated case. The rulings by institutions such as the PTA are important because they set standards of what is outside common settlement and what is not, although the physical post in itself may be of declining importance and a policy of internet access is taking the place of physical mail, as stated by an informant at the Icelandic Ministry of Communications

> Interviewee 5 B: We are currently working on a new policy document. As regards to the postal services, it is declining; we have now replaced it with the broadband policy, that everyone should have access to broadband, who lives permanently in a place. The post will go from addressed letters to non-addressed post, and also more of parcel service if the electronic commerce picks up. So it will change, it is an evolving industry.

It is, however, as pointed out by the same informant, of utmost importance to pay adequate attention to those who are not computer literate and fall between a decreasing postal service and the Internet generation.

Part II

Part I dealt with the theoretical, political and legislative framework of Iceland and Åland/Finland concerning geographical and practical insularity. The discussion will now move to the reasoning behind insular habitation, both from the inhabitants' and the decision-makers' point of view. Arguments both pro and con will be part of exploring the justifications behind policies. Once possible justifications have been discussed, we shall turn to discussing the possible solutions at hand.

8 Inhabitant's perpectives

The following section summarizes a bottom-up perspective as to answer the questions why people choose to live in insular locations and what challenges they are faced with in every-day life.

8.1 Advantages: "You are your own master"

Taking the bottom-up approach, I started out by asking the inhabitants the reasons and main advantages of living in their respective insular region. The replies were strikingly similar, both among the Icelandic respondents and the Ålandic ones, focusing on something that fits well under the heading "personal freedom", as will be seen from the quotes below. On the disadvantages side, the respondents' answers stated that the transport connectivity was a challenge and the main reasons for that were the difficulties associated with having children in school. The practical island respondents talked about struggle with the road authorities as a main challenge, whereas the same situation was not portrayed as problematic by the geographical islands.

When asked for the reasons for their choice of habitation, despite struggles with connectivity, *all* respondents talked about the freedom to "own yourself" and be accountable only to yourself as the first answer to the question.

The respondent in Ingjaldssandur

PG: What do you think are the greatest advantages, assets of living in this area?

> Interviewee 1: Well/[thinking] you are kind of free from all the stresses, well you are kind of, choose your own kind of working, and that means that you have to be strict with yourself how to handle things and how to start on things, and I don't need to go after the clock, but then again, I do go after the clock a little bit you know, I am often really strict to look after the news and follow the weather reports, depending on what time of year it is, and what kind of weather, and when the sheep are home over the wintertime, I do have timing on feeding and going out and work hours. But nothing says if you are a bit earlier out or late in doing things. But to get things going you need to be strict with yourself to follow the timing.

The quote seems to paint a picture of freedom within limits, but those are the limits you put on yourself by choosing your way of life, as is similarly illustrated in others' responses below.

The respondent in Djúpavík

> PG: So what are the biggest advantages of living here?
>
> Interviewee 2: You are your own master you know. You do not have to bond to/ not too many rules, of course you have to be polite to your neighbours that are here during the summer and such things, but you know, you have your own clock, you can do what you want at what time of day that you want in 24 hours, so in a way you are your own master, and that's a very good thing in a way, you have to work independently, and decide what to do by yourself, there is no one else to decide what to do, if you want to be lazy one day you can do that too.

The respondent in Vigur

> PG: What do you think is the greatest advantage of living there?
>
> Interviewee 4: Eh/you are your own/what do you say/your own master, yeah/ and you can have it as you like in a, in a big frame, maybe not quite, but yeah you can, yeah, that's a big, what do you say, a big advantage. To live there, you can do things on your own terms, on your time, when you want to, not a 8-5 job, it takes, yeah, sometimes not so much to do, and sometimes a lot to do, I think, as much Icelanders, we are take it in work pass, we Icelanders are a bit like that, we work a lot during some time, and then maybe not so much during some time/do you know what I mean?

The respondents in Husö

> PG: And then I'd like you to tell me the most positive aspect of living here?
>
> Interviewee 7A: You are to a large extent your own and manage only yourself, at the same time as one is dependent on outside factors, however, a certain freedom.[19]

The striking resemblance of answers is also in accordance with literature on "islandness". Baum (1999) describes islands in a tourism context as offering a significantly different environment to the pace and pressures urban living: "Islands are seen as slower paced, emphasising traditional, old fashioned values — a real chance to 'get away from it all'"(p.48).

[19] Translation by author, Swedish quote in Appendix A.

8.2 Challenges: Children in school

All respondents have had, or have, children in school during the time they have lived on their respective island. Talking about the challenges of living in their respective location, schooling for the children, and in particular how to get to the school, was a concern for all respondents.

Respondent in Ingjaldssandur

> PG: What would you say is the greatest difficulty in living here?
>
> Interviewee 1: That's to fight with the system to open up the road and keeping up the road opening.
>
> PG: I am very interested in this particular part.
>
> Interviewee 1: Yes and even then they need to open up because of [her son] in school and he has to be able to come home over the weekends/ but if it had been strict they had to get him home every day, but I try to level and be reasonable too, but then I do not have the feeling they have been coming straight up against that, but finally when [her son] was now in 6th grade, it is now as if people in Ísafjarðarbær have realised to get him back and forth on weekends, because some of them realise I have been reasonable with them, and not asking for opening up the road when it is bad weather report and not/but then they guy who is supposed to clean for them, he has failed, because he thought he could have some kind of influence.

Respondent in Djúpavík

> PG: And have you ever regretted this [the] decision [to move here]?
>
> Interviewee 2: Well sometimes of course. We have had tough times, especially when the kids where younger and they could not get to school and could not get home for weeks because of bad weather you know of course we regretted it.
>
> PG: Where did your children go to school?
>
> Interviewee 2: In Finnbogastaðaskólinn in Trékyllisvík. The local school.
>
> PG: So it is actually not so far away?!
>
> Interviewee 2: No, no, but we could not drive the road so we had to sail with them to Gjögur, get them to school that way, so it was not easy and sometimes/ and sometimes if it had been blowing, if it had been windy, we could not get the boat up to the jetty at Gjögur, so we could not take the children home. So one of the longest periods would be five weeks or something that they could not get home, so that is not so fun.
>
> PG: And during which year, I am just thinking about the law now, because I know the law, for example in [the Ingjaldssandur] case, say that they have a duty to clean the road.
>
> Interviewee 2: Yeah, they had that/they did not do that for us you know, our kids went to school here until they got to 9th grade, and then in the 10th grade they had to go somewhere else, so they went to Hólmavík all of them /that was our choice instead of having them in Reykjavík where we did not want to have them, so it was our choice to have them in Holmavík and of course then it was not so far away and we could fetch them when it was no snow and so on. We thought that was the easiest way. But they did not clear any of the roads because of the kids.

When asked about the greatest difficulties of living in Djúpavík, the response portrayed the road system in a similar way as the respondent in Ingjaldssandur, i.e. as a kind of struggle against a system that is not understanding of the inhabitants' needs.

> PG: And/the greatest difficulties [in living here]?
>
> Interviewee 2: That's of course the road management and what/how they limit our life livelihood by not clearing the road, because of course we would be happy to have some income in the winter, just as in the summer/

A similar response is given by the respondent in Vigur, who actually spends a great amount of time in Ísafjörður while her daughter is still in school.

Vigur respondent

> Interviewee 4: If it wasn't for my 14-year-old daughter, I think I would be in Vigur the whole year, yes.
>
> PG: That's interesting. But when she was smaller you/
>
> Interviewee 4: Yes, when she was smaller/ I have four children, three boys who are 29, 28 and 22, they went first to school in Reykjanes, then they went to Súðavík later on Monday morning and came home on Friday/ and when she, she is the youngest, when she began school, she was with her older brother in the beginning, who is now 22, but when she was just left she stayed with two elderly people in Súðavík, and she got, well she was so much alone and did not have friends either in school or at home so we decided to take her to school here in Ísafjörður, and it is the third year now that she is in Ísafjörður. First she stayed a lot with her brother who was here, and his girlfriend. But when she is here I stay with her most of the time, sometimes she is with her uncle, if I am in Vigur /and that is the main reason why we went to Ísafjörður, she was so isolated in Súðavík, it was difficult.

The older Vigur children had a different arrangement with their schooling. When the Vigur respondent's children were in a boarding school at Reykjanes, the ferry Fagraness was their way to school, and would therefore also call at Reykjanes. The children stayed for ten days in Reykjanes, going on Mondays and coming home on Fridays. When the ferry stopped going, the children had already started school in Súðavík instead. However, according to the Vigur respondent, the withdrawal of the ferry line was not such an obstacle for the inhabitants of Vigur, since there was a smaller boat that continued to bring the inhabitants and children back and forth to the mainland (Interview 4, 2010).

Husö respondents

The Husö respondents' children never went to boarding school, but yet schooling was a concern.

> ee 7B: So our children haven't lived anywhere else before they moved here.

PG: And that could have positive and negative aspects, to have children out here, could you tell me a little bit about that, and about schooling? It has been mentioned in earlier interviews.

Interviewee 7A: Yes, it hasn't really been a problem here. We did not know what it was going to be like when [the first child] started school, with the one who was first in line,

Interviewee 7B: we had a certain preparedness if [interviewee 7A] would have to move to Sottunga.

Interviewee 7A: But then, in fact, we have managed to get the traffic to/ to arrange the [ferry] timetable after the school schedule and the school schedule after the time table/ so there we have had a great understanding from both the school and really also from the province.

Interviewee 7B: We have to be a bit flexible and they have had to live away from home as well.

Interviewee 7A: For certain periods of time, but it has been very little.

Interviewee 7B: Sometimes they have had to wait at the school, wait that the others would wake up and come to school.

Interviewee 7A: And sometimes wait to get home...it has been quite a few "waiting hours", that our children have been talking about, "what shall I do during the waiting hour today?".
Interviewee 7B: But mainly it has been fine.

PG: What kind of rights do you have regarding school rides on Åland?

Interviewee 7A: You can arrange boarding, which the municipality pays for, but that can become very expensive also for the municipality, and you have to look what kind of situation you put a small municipality in…

The last quote reflects an selfless concern from the service-receiver – a kind of reasonability in expectations from the inhabitants' point of view that will be further discussed in chapter 11.1.

8.3 Home schooling

One interesting aspect is the approach towards home education, a method that was used quite extensively on Vigur throughout the school years of the four children. When the oldest Vigur children were younger, they were taught at home by the respondent until they were ten years old, with a one-week school stay in autumn and spring. However, the method of home education was used less frequently when the youngest child grew up. Since the children were good learners it was not much of a problem, except for the lack of patience that might appear when a teacher and a pupil are closely related. However, in the view of the Vigur respondent, things have changed a lot in Ísafjarðardjúp since the two oldest children grew up; there are presently fewer people and fewer children in the same situation and hence the boarding school in Reykjanes could no longer run due to a lack of

students. Therefore, the social life of the children becomes so much more important, and was the main motivation for the respondent to spend the winter with her daughter away from their island home.

For the other geographical island case study, Husö, home schooling was never an alternative.

> Interviewee 7A: No, [home schooling] hasn't been an alternative for our children, because in our opinion they need to see other children.
>
> PG: Also not in periods?
>
> Interviewee 7A: No.
>
> Interviewee 7B: It has been too easy to arrange, it has not been needed.
>
> Interviewee 7A: They have been able to go by ferry most of the days, both home and away, with a little bit of special arrangement in between.

The Vigur children, and the Husö children are in both cases four siblings, and all in the same age as each other—today between 29 and 14 years old. This is just a research coincidence, but it is tempting to draw parallels. In both cases, the parents have emphasized the importance of the social life of the children—"our children needs to see other children"—and this seem to have been a determining factor in decision-making. The Husö parents never really considered home schooling, and were prepared to move temporarily to the village where the school was if needed for the sake of the children. However, this was never necessary due to good organisation, even though the Husö children were the only ones in such a situation in that particular part of the archipelago. The sea-travelling distance is similar in both cases—around 30 minutes in good weather. For years, the Sottunga municipality children have gone to a neighbouring municipality for schooling twice a week once they reach the 7th grade and beyond, but also this will be changed in favour of the future Sottunga pupils (Interview7, 2010). The Vigur respondent, however, sees her children being the only children in such an extreme situation as more problematic, and has, in fact, chosen to temporarily reside away from the island because of this matter and her own studies in Ísafjörður. The reason for this difference in views can only be speculated upon—perhaps the changes in the demography of Ísafjarðardjúp is more of a manifestation in the minds of the Vigur inhabitants, whereas the Husö children were always the only ones in the same situation. The transport service policy must be seen as another difference. The Husö children had the regular ferry call at their home throughout their school time, whereas the "Vigur road connection" has diminished

throughout the years until today, when in effect the "road connection" is constituted by an Icelandic Road Administration grant for covering the costs of transportation.

8.4 Importance of the sea

Living on an island, it is assumed that water and the sea or the ocean plays a role in your life. To find out attitudes and differences concerning the relationship to the sea, I asked the respondents about the role of the sea for them personally, and the informants about the role of the sea for Icelanders and Ålanders , respectively.

The Westfjordic and the Ålandic people both have a sea-faring history and culture that would deserve their own theses. However, one could suggest that the relationship to the sea has changed along with the change in common means of transportation. All interview answers were of a similar theme: a life without the sea was unimaginable. Such a life would be "weird" (Interview 6, 2010). However, none of the respondents or informants referred to the sea as a transport route, which could be a result of the phrasing of the questions.

Respondents did not refer to a passion for the sea as such, but rather as a habit and dependence, or experience of landscape (Interview 2, 2010), without which there is no comfort (Interview 4, 2010), just a feeling that the sea is missing (Interview 2, 2010). The Husö respondents emphasised the importance of their identity as archipelago inhabitants (Interview 7, 2010), more than the role of the actual sea, which possibly can stem from the different physical and social characteristics of the Ålandic waters, which are more waters between islands than the open ocean, where social identity is based on the fact that your life is among a scatter of islands.

When asked about the ocean's role for settlement patterns and livelihood, one Icelandic informant said

> Interviewee 3: One hundred years ago, it was a question of life and death if you had good access to fishing grounds. But today, even the trawlers from Sauðárkrókur, they land part of the catch in Reykjavík area because it is cheaper. If we have this quota system[20] for eternity, it will be in the Reykjavík area, it is cheapest to have it there. But it could change if you have the quota connected to the communities.

[20] For a description of the Icelandic fisheries' quota system, see chapter 9.2.2 below.

The informant thus points his finger to a development where the Icelandic population is turning their backs against the sea, looking towards the urban area as "the hand that feeds the world" instead of the ocean. Interestingly, the Åland Ministry of Transport informant had a different view:

> PG: Do you think it has changed over time, that it was more important before? And that the modern human being cares less about the sea?
>
> Interviewee 8: No, I don't really think so. Because in the older days I think it was like this/that the sea gave your subsistence, you had a great respect for the sea, but you lived up in villages, you ventured far into land, you looked for protection from the wind, you lived closed to each other, pretty close because you might need help from your neighbour, you looked for security in the social network, and also out of practical reasons. But if you look at the modern human being today, where do you want to live if you live in the archipelago, yes you want to live down by the sea. And why do you want to live by the sea, what is the lure of the sea, is it beautiful, is it somehow/there is something that pulls that makes people gather down towards the shore, and plus today we have such a construction technique and build down at the beach and we can have it environmentally nice and good (author's translation).

The same recreational and aesthetic aspects cannot be drawn from the Icelandic answers; however, it is also not to be rejected that the Icelanders find aesthetic value in the ocean although they emphasize merely their habit of being by the sea.

9 Justifications

If the present is not sustainable, there will be no future. Therefore, the following chapter will explore benefits, but also disadvantages, of insular habitation from a sustainability point of view: environmental, economic, social and cultural sustainability. The arguments are integrated with each other and thus not rigidly categorised; on the contrary, many of them could be placed in more than one category.

9.1 Environmental sustainability

Environmental sustainability is about investing in natural capital[21] (Ott, 2003) without exploiting it. For our purposes, it means instilling in present and future generations the value of sustainable methods of human-nature interactions, and there are at least two case studies in the present thesis that are outstanding examples of this.

9.1.1 The ecological importance of human inhabitation

Ålandic cultural landscapes are holistic systems of different kinds of fields, meadows and pastures. There are a few types of biotopes that make up the classical Ålandic cultural landscape. These types of cultural landscapes tend to lose their meaning upon translation to English. However, a few types of meadows could be literally translated to natural meadow (*naturäng*), shoreline meadow (*strandäng*), floriferous meadow (*löväng*), haysel meadow (*slåtteräng*) and dry meadow (*torräng*). What these biotopes have in common is that they need human interference for the preservation of their high biodiversity. As early as 1948, Smeds described the disappearance of these types of cultural biotopes, as a result of changing agricultural techniques starting at the end of the 19th century. With more efficient agriculture, chemicals and machines, new fields were cleared and the old meadows were not needed anymore. The meadows are an important habitat for a wide range of species. In the year 2000, an estimated 28 per cent of all threatened species live in cultural biotopes (Metapopulation Research Group, n.d.). These species are, when left to their own, taken over by coniferous trees, common reed and black alder.

[21] Natural capital can be understood as "natural resources like freshwater, soil, forests, freshwater, the ozone layer, the climate system, ecosystem services and functions, species richness, genetic diversity, and units of cultural significance. Many components of natural capital are living beings or results of life, like coal or crude oil" (Ott, 2003, p.63).

On Åland, however, these meadows are still quite common, although they are now only 20 per cent of what they were a few decades ago (Metapopulation Research Group, n.d.). The importance of grazing sheep for the coastal meadows is visible on the island of Husö, where the inhabitants' sheep keep the meadows open, as distinct from elsewhere in the archipelago where coniferous species are common. The inhabitants of Husö practice controlled deforestation where stronger species are threatening to take over the sensitive ones. Human habitation on this island thus serves the maintenance of a distinct ecosystem that would otherwise disappear, rendering humans part of the meadows ecosystem. The biodiversity argument becomes one for sustaining the meadows-ecosystem, yet strictly ecologically speaking, conifers are not more or less sustainable than meadow plants (Personal communication D, 8.12.2010).

Vigur island is an important habitat for different kinds of sea-birds. The residents of Vigur have shared the island with the sea birds for many generations. While puffin populations are on the decline elsewhere, Vigur receives over 80 000 puffins every spring that come to the island to nest. The inhabitants of Vigur have lived in symbiosis with the different sea birds for generations, as is exemplified below, and have obtained invaluable knowledge about the birds and about sustainability in a system where humans are seen as part of nature. When puffins nest, they return to the same island where they were born, making Vigur a central place for puffin survival and the surveillance of their population of outmost importance.

Image 3. "Vacant" eider duck hotel on Vigur. Photo: Petra Granholm.

Vigur also has a small eider down production. The almost symbiotic relationship with the eider ducks, providing them shelter in the so-called "eider duck hotel" and taking only so much down so that the ducklings survive, is an excellent example of sustainable eider duck management that goes back many years. Written notes from the 20th century clearly illustrate this. In an article from 1950, the Vigur farmer Bjarni Sigurðsson criticises

the people who shoot the eider duck instead of collecting the down, pointing out the scarcity of eiderdown in the world (Sigurðsson, 1950). Through this practice, the inhabitants live off nature at the same time they are giving to nature, through offering the eider ducks protection during nesting season.

Back to nature

These examples show interactions between human beings and their environment that are easily lost in larger population agglomerations. That is not to say, though, that settling on an island automatically renders a person a care-taker of nature. There may be cases of environmental suffering due to human settlement also in our case-studies, such as harmful deforestation or bird population control.

It would always be possible to argue that "nature should be allowed to take its course" in a true conservationist-sense, that is, to let the forests grow and the seabirds flock independently of human interference, in addition to the local pollution that inevitably occurs in places of human settlement. That is, however, why it would be important to tackle the issues of the present thesis from a holistic point of view, as included in physical planning. Nature conservation does not mean the removal of human habitation, but there can be especially designated areas for such. In the Westfjords, the Hornstrandir nature reserve nowadays lacks permanent human habitation. However, if one steps back from a biological ecology perspective that views humans as external to ecosystems, and sees humans as part of nature and not separate from it, one is actually in line with the prevailing perspective in human societies historically, with one exception—Western industrial society for the last 400 years (Berkes & Folke, 1998). Traditional ecological knowledge is normally associated with indigenous people; however, as Berkes and Folke points out: local, newly emergent "neo-traditional" resource management systems may be as valuable as ancient knowledge that spans over thousands of years. This can apply to weather patterns, characteristics in nature, animal behaviour and biodiversity—knowledge often possessed by insular dwellers that is invaluable to modern science and ecosystem management.

Pro and con urbanisation

There are evident environmental arguments pro urban habitations as well. More energy is consumed per capita in a sparsely populated area than in a city, where more people benefit from the same system. Constructing and maintaining roads and infrastructure in a remote

area is an interference with nature, whereas urban areas can offer shorter distances suitable for low emission means of transportation: walking and biking and public transportation, which are often not options in sparsely populated areas. In addition, the pro-urbanite could argue the along the lines of environmental conservation: sparsely populated areas should rather be left to nature itself, for wildlife habitat and untouched wilderness.

At the same time as offering sustainability in environmental, social and economic terms on a large scale, the local pollution and environmental degradation due to urbanisation can be severe. Examples of this are air pollution and waste accumulation. From the ecological footprint point of view, urbanites' footsteps do not stop at the borders of a city, they mark forests, croplands, coal mines and watersheds outside the city as well (Davies, 2008). Indeed, the world's cities consume 75 per cent of global energy, emit 80 per cent of global greenhouse gases, in addition to a disproportional share of resource use, such as food, timber, and steel (Williams, 2007).

As early as 1987, the World Commission on Environment and Development discussed their concerns relating to "the urban challenge" in what is commonly known as "the Brundtland report" (World Commission on Environment and Development, 1987). The main concern lay with the overcrowding of third world cities, spreading of diseases, often due to high concentrations of air and water pollution and lack of adequate sewage systems. Despite this main concern, the Commission did not dismiss the fact that the urbanisation challenge also takes place within industrial world cities. These cities account for a high share of resource use, energy consumption and environmental pollution. Other problems mentioned include deteriorating infrastructure, inner-city decay and neighbourhood collapse. In light of the challenges and opportunities urbanisation stands for, the Commission pointed at the importance of rural and urban interdependence. Urban and rural strategies cannot be developed in a vacuum, or as contradictory to each other; they need to be complementary. The job opportunities and housing provided in cities are essential to absorb the population growth that the country-side cannot cope with. Any country benefits from the balance between urban and rural areas. The urban market should offer advantages to rural producers. In an interview with an Ísafjaðarbær informant a similar view was offered as the reasoning behind the need for both cities and rural areas in Iceland:

PG: What are the reasons for wanting to have people live outside of Reykjavík?

> Interviewee 6: Partly because a lot of the national income comes from outside of Reykjavík, where many people work with production and export, that is a big and…and I think it would be even more expensive to do everything we need to do to keep the country balanced if nobody would live outside of Reykjavík. Yeah, I think mainly because of export income and production.

The sustainability focus of the quote, and of the Brundtland report itself, lie on socioeconomic sustainability and not primarily environmental. The reasons that urbanisation alone is not sustainable are from the World Commission's perspective, anthropocentric reasons. The problems caused by urbanisation have detrimental effects on human health and wellbeing; they are point-sources of pollution whose main effects lie locally on people inhabiting the city and areas close to the city.

9.2 Economic sustainability

Economic sustainability is about the economic health of a societal system, but for our purposes also economic justice in terms of how large a share of a public budget it is possible to devote to individual units of the society. This is, however, not the only aspect of an economically healthy society, as will be seen below; a diversified economy is also an important ingredient.

9.2.1 Costs

The most significant argument against enabling and increasing transport connectivity in the Westfjords is the cost for society. The most extreme example is perhaps the cost of the snow clearance for Ingjaldssandur and Djúpavík. A brief look at the infrastructure spending for the Westfjords, with bridges and tunnels, reveal that a significant amount of money is indeed invested in improving connectivity in this part. The recently opened Bolungarvíkurgöng (the Bolungarvík tunnel) was an investment of five billion ISK, replacing a road where 600 cars pass on a daily average. This enormous investment was, however, made solely out of security reasons, since the road is in an avalanche risk area, and the argument is that security is difficult to measure in economic terms. According to the Icelandic Road Administration representative, however, the maintenance of the tunnel will, in fact, cost more than what the maintenance of the road cost—yet this is a choice based upon the fact that the service for the inhabitants will be better.

According to an Ísafjarðarbær representative, if there were three inhabited houses in Ingjaldssandur this would constitute enough of a reason from a Road Administration

perspective for ploughing the road (Interviewee 10, 2010). However, normally when such decisions are made in the municipality, the road stretch is about 2-300 metres from the main road that is ploughed, as in the case of Holt in Önundafjörður. The mountain road in need of clearance to Sæból in Ingjaldssandur is approximately 25 km long, which both the municipality and the Road Administration identifies as "very expensive snow clearance" (Interview 9, 2010).

The Ísafjarðarbær representative does not, however, think it would be economically sustainable to plough the road to Ingjaldssandur even if there were three families living there. Rather, he believes that the Road Administration would try to change the rules if there were three or four permanent households there, because it is too difficult ploughing (Interviewee 10, 2010).

An informant from the Icelandic Ministry of Transport sees more benefits than economic challenges in diversified habitation patterns:

> PG: Do you see benefits for the whole of society?
>
> Interviewee 5A: Yes, it is beneficial to have this diversity in habitation.
>
> PG: Do you see it economically sustainable?
>
> Interviewee 5A: Well, of course when we are talking about remote areas we can say that the economics of scale is negative/ investments in transport infrastructures, but there are other criteria that we are after when we look at the transport net, of course maximising the resources we have in this country, so I think a good transport net not only for this area but also for the rest of the country.

This shows that not only financial aspects are taken into account when planning a transport network, but also a thought to enable a maximisation of resource utilisation for the profit of the whole country. In regards to school rides and inequalities in access to services between different regions, the same informant sees this as merely an issue of organisation. He recognises that the transport for primary pupils is very expensive; however, the Municipal Equalisation Fund is the instrument that is supposed to even out this inequality.

9.2.2 Economic diversification

Lack of diversified economy was perceived as a problem by the small and peripheral municipalities in the 2004 comparative study of the Faroe Islands, Iceland and the Åland Islands mentioned above. Monotonous economy can be said to be a characteristic of Iceland as a whole, in particular the rural areas, which tend to be areas for pure resource

extraction. The crudely processed or refined raw materials are then transported to a distant metropolis (Personal communication D, 8.12.2010).

I will look the theme of the lack of diversified economy through examples from the Westfjords. It is quite clear in the Westfjords case that the economic base is in fisheries. The quota system is commonly referred to as the catalyst of village fisheries decline and depopulation. All commercial fishing is subject to the Individual Transferable Quota (ITQ) system, i.e. vessels are allocated a fixed quota share of a species subject to total allowable catch (TAC). The TAC is set by the Minster of Fisheries after hearing the Marine Research Institute. Historical catch data determined the allocation of quota when the system started in 1991. After multiplying quota share and TAC, each vessel is given its quantity of a certain species that it is allowed to catch during the fishing year (Ministry of Fisheries, 2005). The quotas are hence linked to an owner of a vessel and not to a certain location, and because quota is transferable, people can rent out or sell their quota. When quota owners have sold their quota, small fishing villages have lost employment opportunities and people have moved away, in some cases the population in a village has halved within a very short period of time after the quota has been sold. This is the case in places of the Westfjords, such as Þingeyri and very recently Flateyri, but also other small places such as Hrísey in Eyjafjörður (anecdoctal evidence), despite efforts from the Ministry of Fisheries to ear-mark some quota for small settlements (Vísir, 2010).

The second example is the herring industry. Herring fisheries saw a boom from 1906 to 1939 off the north coast of Iceland. Places in the close proximity to herring grounds became "herring towns" with an increased population, because it is caught far out at sea and needs to be processed before it decays. The labour-intensive process gathered people to these towns over the north coast including the Westfjords (Þór, Herring bonanza and failure, n.d.). The herring fishery lasted until 1968 when the herring stocks collapsed, leading to the depopulation of Djúpavík, for instance. The importance of the herring fishing industry moved from the Westfjords, in the beginning of the herring era, to the north, and finally to the Eastfjords, where the last period took place and where it ended in 1968. Thus, the whole country enjoyed and suffered the boost and collapse of the herring fishing (Hamilton, Jónsson, Ögmundardóttir and Belkin, 2004).

From these two examples and the quotation, it comes as no surprise that an economy that is always based on fisheries, in combination with declining stocks and a quota system

that is not favourable to small communities far away from Reykjavík, makes for a lack of diversified economy. In Ísafjarðarbær the employment in the major population centres is more or less related to fish, to the extent that the mayor of Ísafjarðarbær equated the lack of quota in Flateyri with a "death sentence" for the community.This would have been the case had Minister of Fisheries not stepped in when the company Eyraroddi was forced to fire its employees due to the lack of fish to process (Arnarson, 2010). Diversifying the economy must be seen as a way of creating more sustainable communities which can withstand bankruptcies in addition to declining fish stocks. Three arguments in connection to the case studies will be made with this as a starting point: first of all, the people who stay in places suffering from depopulation, struggling with finding other means of livelihood than fish, such as their own small businesses, *are* the diversifying factor in the economy and should not be punished for it. By remaining in insularity and not basing their livelihood on fish, they are making a statement: we are not living in the Westfjords because of fish! When asked for the reasons behind their choice of habitation, none of the Westfjordian respondents mentioned fish as a reason. Elsewhere in Iceland and in other parts of the world, in places that have suffered immensely from overfishing and the collapse of fish stocks, tourism has turned out as a successful diversification. The decline of the North Atlantic Fisheries during the late 1980's/early 1990's in places such as Iceland and Newfoundland is one example. It has been argued that for tourism to play a real role as an alternative to traditional primary or tertiary industries, it must be established before or early in the decline period of the industry (Baum, 1999). Djúpavík is already an established tourist destination with much to offer its guests, and the old herring factory serves both as a museum, an exhibition and activity hall. As a tragicomic paradox, the abandoned herring factory also serves as a reminder for the dangers of overfishing and hopefully an incentive to sustainable fishing. Now, the hotel in Djúpavík is more or less forced into a summer seasonal emphasis due to the lack of connectivity during the winter. That said, the hotel would have much to offer also in the wintertime—snow hiking, snow mobile tours, cross-country skiing, winter retreats, and Northern lights watching are only a few examples—and in that way contribute to the economy throughout the year.

Vigur is likewise an established tourist destination in the summertime. Hundreds of tourists take the small tour boats to the island every summer to watch puffins and to learn about the old trade of eiderdown collection and processing. Without the year-round habitation, it would be more difficult to run Vigur the way it is run today and keep up the

tourism infrastructure. Besides, the year-round habitation contributes to the "uniqueness" of the island. The eider-down collection is another contribution to the diversification of the Westfjordian economy.

The valley of Ingjaldssandur is not a tourist resort, but receives a surprisingly high number of spontaneous tourists during the summer and the respondent is positive towards developing infrastructure for tourism within her business. There are tourism potentials there both in the summer and in the wintertime.

One of the most-read travelling guides, the Lonely Planet, recently ranked the Westfjords of Iceland number five in their Top Ten Regions for 2011 (Lonely Planet, 2010). This creates significant opportunities since Lonely Planet reaches a large audience: in 2006 LonelyPlanet.com reached 6.2 million unique visitors per month (Lonely Planet, 2007). For these opportunities in tourism awaiting, permanent inhabitation is significant for the maintenance of tourism infrastructures.

The people of Husö can be seen as a contributor to a diversified economy. In the Åland archipelago municipalities, the major employer tends to be the municipality, i.e. a public sector with associated jobs in schools, kindergartens, home care and elderly care. This is a sector that just sustains life in the archipelago without adding value to it. That is why business life in the archipelago is so important; however, in many archipelago municipalities there is stagnation in this field, which the Åland Minister of Transport mentions in her interview. The Husö respondents' livelihood consists of sheep-farming, handicraft and agro tourism on a small scale. Their handicraft contributes to the 'brand' of Sottunga, as the particular type of candles created there is exported to different parts of Finland.

9.3 Social sustainability

As environmental and economic sustainability can be said to focus on the hard, physical aspects of society, social sustainability commonly refers to "soft values" such as cohesion, justice, and engagement, drawing on the idea that society not only has a physical form but also consists of people. Social sustainability in the light of the thesis case studies relates to social justice and equity for the inhabitants.

9.3.1 The human rights argument

From a human rights-based approach, freedom of movement and residence is considered at the core of universal basic human rights, as can be seen from the Universal Declaration of Human Rights (UDHR, 1948, article 13.1) and one of the core United Nations Human Rights conventions, namely the International Covenant on Civil and Political Rights (ICCPR, 1966, article 12), which stipulates in its first paragraph:

> 1. Everyone lawfully within the territory of a State shall, within that territory, have the right to liberty of movement and freedom to choose his residence.

This right can only be subject to restrictions except in cases necessary to protect national security, public order (*ordre public*), public health or morals or the rights and freedoms of others. Both the Icelandic and the Finnish constitution (which is applicable on Åland) have incorporated the freedom of movement in their respective rights chapters. The Icelandic constitution, article 66.3 reads:

> Every person lawfully residing in Iceland shall be free to choose his residence and shall enjoy freedom of travel subject to any limitations laid down by law.

Similarly, the Finnish constitution, section 9, stipulates that:

> Finnish citizens and foreigners legally resident in Finland have the right to freely move within the country and to choose their place of residence.

Hence, there is no doubt that people in Finland and Iceland have the theoretical right to freely choose where they want to live. The state can be said to have a negative obligation not to do anything to hinder an individual to enjoy this right, and positive obligations to ensure that individuals enjoy the associated human rights that arise from the starting point of residential choice, such as the right to an occupation, and the right to education. As expressed by an informant from the Icelandic Ministry of Transport:

> PG: So there should be money for everyone?
>
> Interviewee 5A: Yes, and we have system which is correcting the different expenses between municipalities and that is stressing the view that there is an equal right to access to education.

In this way, the informant from the Icelandic Ministry of Transport is supporting the view that a rights-based approach must come before cuts in expenses, and that there is an obligation on the side of the authorities to ensure that rights are fulfilled.

9.3.2 Safety

The safety argument has two sides to it. The first is the traveller (whether tourist or local) in the cold and dark wintertime in areas far away from other settlements. These people could be migrating workers, fishermen or hunters, who may rely on inhabitation in the insular locations if the need for help arose; such as if they encounter a sudden change to bad weather. For instance, every year during hunting season there are search and rescue operations conducted for people in trouble. The same goes for people at sea seeking help from geographical islands.

The other side of the security coin is the event of an emergency in an insular location, which is not easily reached by land or by sea during certain periods of time. Indeed, respondents have mentioned proximate health care as a vital prerequisite for habitation on islands (Interview 7, 2010).

9.4 Cultural sustainability

It has been suggested that culture is the fourth pillar of sustainability, and that public planning would benefit from an integrated framework of cultural evaluation similarly to assessments of social, environmental and economic impact (Hawkes, 2001). Culture includes our whole system of beliefs, values, attitudes, customs, institutions, and social relations (Polistina, 2009).

9.4.1 Insular inhabitants as diversifiers

In a sense, the inhabitants of the insular places can be seen as carriers of the historical culture in a world whose inhabitants more and more emphasise the urban cultural values. Here, the issue of diversified economy, as discussed above, also plays a part as it may be viewed from a macro-format perspective, that is, the whole of Iceland, the whole of the Westfjords, the whole of Åland or the whole of the municipality, or a micro-format perspective, i.e. that the case studies in question are diversified within themselves, and therefore contribute to a diverse economy. Out of necessity people in sparsely populated places often tend to be multi-talented, jack-of-all-trades, as has been the case throughout history. The case study respondents of the present thesis and their families are no exception. The Ísafjarðarbær local council informant mentions this as a kind of cultural uniqueness:

> Interviewee 6: But…yeah of course, those areas that you are looking into are very unique and it's, I don't know, cultural, of cultural importance to us to have people live in those areas, but at the same time, I can see the reasoning behind, the monetary reasoning behind, like the problems.
>
> PG: I can also understand that this what you say about cultural importance/ can you elaborate on that…?
>
> Interviewee 6: Well, they are living in areas that are unique, and keeping them open for people and also keeping the knowledge that goes with living in such an area, is very important for us I think.

Most of the respondents have some kind of ancestral link to their islands. In the case of Ingjaldssandur, the respondent is the 16th generation in the valley, her son being the 17th (Interview 1, 2010). Their home, Sæból, is marked on ancient maps, before the

Map 7. Sæból between Aununda fiördur (Önundafjörður) and Dyra fiördur (Dýrafjörður). Jón Eiríksson and Ólafur Olavius, Nyt Carte over Island 1780. With permission from Ísafjörður library.

neighbouring village Flateyri, or the Westfjordian capital of Ísafjörður were even mentioned in cartographic circumstances.

The present day residents of Sæból can therefore be argued to be living carriers of a national heritage, consisting of farming and seasonal fishing.

The respondents of Djúpavík do not have as long a history in the place, but the respondent's husband's grandfather lived in Djúpavík in the 1960's, and is also the reason

for the Djúpavík couple's initial curiosity about the place, when they heard on the news that the last people were leaving Djúpavík shortly after 1980 (Interview 2, 2010).

Vigur, whose inhabited history is documented since 1194 when a man named Þorvaldur Vatnsfirðingur stayed there for a winter (Personal Communication E, 15.11.2010), is also an important place for historical purposes. In the Vigur case it is also the respondent's husband whose family has farmed the islands for generations. The Vigur residents carry on the production of eider down from eider ducks on the islands.

Husö is also similar, with the respondent's family history on the island. She is, however, even more closely linked to the island because she was born there. As a child her family moved into town, but the summers were spent on the island. For the Husö family, the family connection was what enabled them economically take over the place. On Husö, the respondents carry on the tradition of island sheep herding, caring for the important types of natural environments as described above in chapter 9.1.1, through disforestation and grazing stocks, which allow for habitat conservation of flora and fauna that otherwise would be taken over by stronger plants.

All of these places show some practices where humans interact with nature in one way or another, but also people who have found innovative ways of sustaining themselves financially in a place, often with more than one livelihood at the same time. The households of the four different islands make a living out of a. sheep herding: three out of four cases have sheep, either commercially or for the household; b. handicraft: three out of four places focus on knitting, eider down production or candle-making; and c. tourism: all four cases run either hotel and restaurant business, bird-watching tourism, small-scale agro tourism or spontaneous tourism. The respondents and their families are thus creative and flexible individuals, determined to find their ways to stay where they are. It can be argued, that such creativity is an asset both regionally and nationally, especially as today's formal education tends to put little value on practical knowledge and skills, while abstract, or technical skills for the advancement of industrialisation and economic growth are valued highly (Polistina, 2009).

Table 1. Summary of the main arguments for and against sustainability of sustaining habitation in the case studies.

Sustainability	Pro	Con
Environmental	Handing over sustainable ways of human-nature interactions to present and coming generations, traditional knowledge Environmental importance of human habitation: disforestation for meadow biodiversity (Husö), sea-bird management (Vigur)	Pure ecology: Nature should have its course Habitation is polluting (roads, transportation, sewage etc) Urbanisation more sustainable?
Economic	Can insular characteristics be measured in economic terms? Cf. Security (*Bolungarvíkurgöng*) Contribution to economic diversity: something else than fish	Economic justice? Spending a lot of money on very few people
Social	HRBA: Freedom of movement and residence is considered at the core of universal basic human rights Security for travellers in remote areas	Security: What to do in case of emergency?
Cultural	Carriers of historical culture in a world that more and more emphasise the urban cultural values Urban-rural balance Own ancestral history Multi-talented, creative individuals Uniqueness	"Uncomfortable" historical ways of living: should they really be kept?

10 Threats to the insular regions

The historical argument put forward by Jónsson (2002) and Andersson (1997), that land-based transport routes develop at the expense of sea-based transport routes is supported, in particular, by the Icelandic case studies. Large infrastructure developments—paved roads, bridges, embankments and tunnels—render sea transport routes unnecessary. Such developments greatly benefit people in the rural agglomerations, but for insular regions, this may lead to a connectivity decrease. Whether such a backwards development for insular regions is a conscious policy or the result of mere neglect is hard to prove. In the opinion of an Icelandic Road Administration representative it is a conscious policy, but it has never been written down (Interview 10, 2010).

There is in particular one aspect of land transportation development, such as tunnels, that can be noted in the light of some of our case studies. In the words of the respondent in Sæból

> Interviewee 1: I am not sure how the law is, but I know they have to get [her son] back and forth, that is the law that says the child has to be able to come home and be in school. And that's/but then it is a problem here in Iceland, I do not think they have rules, how to clean the roads for people who are isolated, and then they only clean it once in the autumn and then in the spring.
>
> PG: Once...?
>
> Interviewee 1: Once. And then I think that is breaking the human rights and then they must have to support those or do something, people have to be able to go shopping, and then it is really backwards, because before the tunnel opened between Ísafjörður and Önundarfjörður/ I know it was more people living here then, but we had the post plane coming here then, three times a week, all year around, if the weather was ok in the winter, and as soon as the weather got better/ and then it was not so important to clean the road. But the Road Administration sticks to that, they only cleaned that much before and they are bound to that, but I think the government should look into that more, that we had this post and things coming, and supplies coming, and you could use the post plane to go with it and come back with it. So, it is really going backwards last 15 years since 1996 when the tunnel opened.

The "post plane" the respondent is referring to was a pre-tunnel phenomenon. According to the Icelandic Road Administration representative, there were flights five days a week from Ísafjörður to five main population centres in the Westfjords, and to Ingjaldssandur for a few years. To some places, the flights were daily, such as Patreksfjörður in the southern Westfjords. These flights were carrying goods and passengers but were not seen as part of

the road network. Hence, they did not fall under the Icelandic Road Administration but were called "post flights" because the Icelandic post subsidised the flights to deliver the post (Interview 9, 2010).

Hence, the construction of the second tunnel of the Westfjords has aggravated the situation of isolation in Ingjaldssandur. Whilst the tunnel increases accessibility for the people in the villages of Suðureyri, Flateyri and Þingeyri, the people in the areas situated further away from the main road are faced with less accessibility, because the tunnel, understandably, only connects main agglomeration centres. Thus, it can be suggested that the periphery from the main agglomeration centres are actually left with less service than before road improvement. Also, a road connection through means such as a tunnel also contributes to a policy of centralisation within a region. This has been discussed both in the Icelandic and the Ålandic case. After the tunnel was constructed, creating a permanent road connection between Ísafjörður with its surrounding villages, the commercial centre was moved away from the villages to the centre, i.e. Ísafjörður (Wagner, 2007). An informant from the Ministry of Transport states that this is the other side of the coin – the inhabitants of Flateyri lost their shop but instead they now have a bigger employment area and better access to a broader spectrum of services. In his opinion though, the people probably would rather have the tunnel than the shop (Interview 5A, 2010).

There is also another dimension of the respondent 1 quote above, namely, the political argument relating to the extent of services, which is not evaluated based on necessary budget cuts for public expenditure, but on rhetoric. This rhetoric argument is also found in the case of Djúpavík as illustrated by the following quote

> Interviewee 2: And this G-rule is used.../ but it was not used for ten years when it was decided that to start opening the road until new year, then they put this G-rule under the table or something/so it was not used until the crisis started and then they found out that they should start use it and they took away all the snow clearing all year and then when everyone became very angry and protested over this they let us have one clearing per week and they called it to "increase the services" and you know it is just so ridiculous and it is hard to argue something like this, because they are just speaking nonsense in a way. They are talking about a rule that exists on a piece of paper but they haven't been practicing it and then they want to practice it and then they are not practicing it because they give us one time a week. It's just plain stupid. It is very difficult to argue.

The quote is referring to the facts presented in 6.2.1 about Djúpavík above. In practice, this was a decrease in services, whilst in legal terms, there was no change. Following strong protests by the people of Árneshreppur, the Minister of Transport allowed for an "increase" in services to clearance once a week until December 31st.

The political rhetoric does not reflect the inhabitants' logic. Although in strict legal terms, the authorities' standpoints in the Ingjaldsandur and Djúpavík case, are perfectly legitimate. After the population decrease and the improved road conditions by tunnel, why clean the road more often for a less number of people? However, the point that the tunnel led to the withdrawal of the post flight, an Ingjaldssandur lifeline, becomes the major argument for the respondent. She views the situation in practical terms, not economical. In the Árneshreppur case, where a stricter rule has not been practiced in the inhabitants' favour – services are taken away just to be given back again after protests under the label "increase of services" – the situation is similar. Again, in strict legal terms, the authorities are just practising rules on paper. However, in practical terms in both cases there is a lack of legal security for the inhabitants because of incoherent practice. Prima facie, the legal principle of protection of legitimate expectations (*réttmætar væntingar/berättigade förväntningar*), a central principle in European Community Law, could be made in favour of both respondents in Ingjaldssandur and Djúpavík. However, whether the principle applies for the present cases or not can only be established by judicial review.

11 Concluding discussion

From the inhabitants' responses to why they live in their respective insular region, the answer can be summed up as "freedom within the limits you put upon yourself". From policy-makers' point of view, the answers seem to range from the statement "people should be free to choose where they want to live" to "unreasonable demands cannot be met". At the top levels, at both Ministries of Transportation in Iceland and on Åland, the answers were closer to the former statement, whereas in the regional agency and municipality level the answer lies in between the former and the latter. Informants agreed, however, that it was just a matter of finding the right solution to a problem. From environmental, economic, social and cultural sustainability perspectives, arguments have been weighed against each other and the strongest arguments are found in the intersection of these four pillars, i.e. that habitation in insular locations contributes to a diversification in environmental and economic terms that serves the cultural heritage of the nation and the world.

Transport connectivity has also been identified as the most crucial issue for the sustenance of habitation in insular regions, be it geographical or practical islands. Along with development of land-based transport networks, insular regions on the coast have lost out in terms of connectivity, both historically and from a current development perspective. Transport connectivity in particular for the purpose of children's schooling has been put forward by respondents as their greatest challenge, and more so, in fact, for the practical islands.

From an overview of regional policies, extremely sparsely inhabited insular regions are not mentioned specifically, although the above raised arguments pro sustaining habitation would make them deserve consideration.

11.1 Reasonability in expectations

Most respondents see their choice of staying or moving to a geographical or practical island as a personal choice, not part of an underlying conviction that people should stay out of urban areas. Both respondents and informants have spoken about expectations and reasonability. The Ísafjarðarbær local council informant sees insular connectivity as a

"problem to be solved", due to the extreme expenses of keeping roads open during snow season, for instance. She sums up the major issues at stake:

> Interviewee 6: I think that people should be allowed to live where they want to, but at the same time they need to realise that they will never get the same services that people who live in urban centres do. And that should be your choice. But…yeah of course, those areas that you are looking into are very unique and it's, I don't know, cultural, of cultural importance to us to have people live in those areas, but at the same time, I can see the reasoning behind, the monetary reasoning behind, like the problems.

The fact of the matter is that the respondents in the case studies do not disagree with her. They know that they have made a choice that might complicate matters and are not demanding services that are more than what they consider necessary for sustaining habitation in these areas. Both of the practical islands respondents have experienced long periods of being snowed in, and accept that reality. Their main concerns have evolved around the transportation of their children back and forth to school, and the conditions that enable them to pursue their livelihood, especially in the case of Djúpavík. The Vigur inhabitants have, in essence, lost their road connection, which within a couple of decades has gone from a regular ferry connection several times a week to a grant for taking their own boat back and forth. Yet, the respondent reflects on the changes in their livelihood and the decreasing population in Ísafjarðardjúp when she accepts the loss of the road connection. The respondents in Husö on Åland, with experience from the Sottunga municipality local council, emphasise the need for taking into account what kind of situation one puts a small municipality in when requesting municipal services. All these thoughts reflect reasonability in demands due to circumstances that needs to be recognised by authorities making crucial decisions for the life of the inhabitants. Similarly, the top-level reasoning from the Ministries responsible for transport both in Iceland and on Åland, is that people must be free to choose their location of living:

> Interviewee 5A: Of course people should have the possibility to choose themselves where they want to live, and of course different individuals/ we see different values in our environment and conditions, what places like Vigur is for people living there is a value that people in Reykjavík are not so much thinking about, so it's relying on the view of people.

11.2 Principle of subsidiarity and legal security

From a Reykjavík point of view, the Icelandic case studies are situated in the outskirts of the periphery. In Iceland, where such a large part of the population is urbanised, the legislator primarily takes the urban situation in Reykjavík into account, leaving the rural

areas to cope for themselves (Interview 3, 2010). It does not seems to be completely clear on what grounds an authority has an obligation to keep up transport connectivity to an insular location. In the Ingjaldssandur case, the reasoning behind snow clearance seems to be the municipal duty in the Primary School Act to provide for school rides for children. In the Djúpavík case, where the road connects and disconnects a whole municipality, the responsibility for the road belongs to the Road Administration. The respondent in the "island in between" never received any assistance from the Road Administration for her children's school rides. This might have to do with developments in legislation, which are outside the scope of this thesis. However, the arguments for Djúpavík's connectivity right now can only be directed to rules issued by a governmental agency, i.e. the Road Administration, not explicit connectivity rights in the law. Connectivity rights argument must be sought for elsewhere, such as in equal access to services and, as the respondent herself reasons, in equal opportunities for livelihood, in this case tourism business (Interview 2, 2010). In the Vigur case, the previous regular ferry connectivity has since this spring been replaced by a Road Administration grant for the inhabitants' own transportation. Although on the island, there is a child at school age for which the municipality of Súðavíkurhreppur should be obliged to arrange for school rides, the grant is not based on school ride arrangements but on the lack of a road (ferry) connection. Applying the same arguments for the Vigur and the Ingjaldssandur case, Súðavíkurhreppur would be obliged have an agreement with the parents for school rides. However, as a result of social and practical circumstances, the child now lives in Ísafjörður. In essence, there are two institutions, i.e. the Road Administration and the municipality, and two legal spheres, i.e. the Primary School Act and the Road rules, that inhabitants can base their direct arguments on. Because of municipal discretion with regards to the municipal responsibility for schooling and for municipal roads, the situations between the cases render them very difficult to compare.

On Åland, the decision-making levels have an extra step due to the autonomous government. For instance, provision of schooling belongs to the municipality, while transportation is an Åland Government matter and income taxation is a matter for the Finnish state. Recently on Åland, the local government board in the municipality of Brändö suggested that the archipelago municipalities themselves should prepare the timetables for the archipelago routes within a given financial frame (Ålands Radio, 2010).

This would be a step towards more subsidiarity and would also render the timetables more transparent and legitimate in the eyes of the archipelago inhabitants themselves.

11.3 Development of regional policy

Iceland is, so far, not a member of the EU, but can and has participated in EU-financed projects through neighbourhood cooperation. However, another close international actor for Iceland is the Nordic council of ministers, within which a common Nordic policy is developed. Both of these levels include agencies of competence, within which a stronger Icelandic regional policy is, and can, be further developed.

The programme project budget of the Nordic Council of Ministers has limited funding for activities under this key action area, which could, however, enable external funding for cross-border cooperation, such as the EU Interreg funds for the development of Nordic cross-border regions, since special emphasis has been placed on integrating remote regions within the Interreg programmes (European Commission, 2008).

12 Suggestions

12.1 The sea as a transport route

Fisheries have also been of importance to the Ålanders historically, although it would be wrong to state that the ocean for the Ålanders is primarily seen as the source of fish. Åland's strategic position in the Baltic Sea, and Åland's past and present in shipping, means that for Ålanders the sea is also a transport route. The Åland Museum points out that the boat has always been a prerequisite for archipelago life (Ålands Museum, n.d.). That might indicate one of the reasons why Ålanders are keen to use boats as a means of transport.

What is striking is that the transportation to the Icelandic islands, in particular the practical, de facto islands, is seen as such a problem, whereas for the Ålanders, the boat or the ferry is the natural means of transportation, and people are actually doubtful about the practical meaning of a permanent road connection, i.e. a sub-sea tunnel to one of the southern archipelago municipalities. The old Ålandic saying that "the water is what keeps the islands together", instead of separating them, is a summary of Ålandic philosophy in a nutshell. Allowing the luxury of generalisation, one could say that the Ålandic policy environment welcomes personal, ad hoc solutions like the extra Husö connecting boat extending ferry routes, but hesitates at large-scale solutions benefitting a couple of hundred people. The Westfjords policy environment is not foreign to ad hoc solutions, but emphasis is on the large-scale infrastructure projects like tunnels, to improve connectivity. Such a view, however, does not take into account level of urgency in projects, since the Westfjords must be considered less habitable due to danger and risk than the Åland archipelago. However, there is a difference in willingness to accept boats as the alternative to car transportation, which is illustrated by the example of Sæból. Centuries ago, when Sæból was first settled, there was no road network in place. One of the reasons for settlement was the short distance to fishing grounds. Hence, the Ingjaldssandur problematic surf and the unsuitability to land with a boat was overcome, since boat, walking and horses were the only means of transportation and Ingjaldssandur is in a valley surrounded by high mountains. Throughout the Ingjaldssandur history, many lives have been lost at sea—during the first half of the 19th century, as many as 48 inhabitants drowned (Ólafsson, 1999). Still, the natural choice of transportation to this practical island

should be boat, which takes 15 minutes to the nearest village of Flateyri, as opposed to 45 minutes by roadway. However, even this is not a simple choice, since Sæból is completely open to the Arctic Sea and pack ice comes in during winter. At the same time, the road cannot be cleared if there is a storm, leaving an inhabitant of Sæból isolated through periods of the year anyway, which is acceptable if one is prepared for it.

The issue of road transport versus sea transport is definitely not ignored in Iceland, as can be seen from the studies on the feasibility of returning to cargo shipping. Arguments in favour of cargo sea transport point at the downsides of land transport in terms of road damage, increased danger of road accidents and whether or not road transport is more environmentally damaging than sea transport. Another set of general arguments can be used for passenger transport via the sea as well:

> the loss of sea transport leads to loss of sea transport expertise and experience in Iceland. Sea transport and fishing is in addition closely linked and the idea is that Icelanders need to know and practice both to be able to fully claim to be dependent on the sea, culturally and economically (personal communication D, 10.11.2010)

With the development of land-based transport routes at the expense of sea-based, there is thus a transfer of economic assets and knowledge from the sea-based system to the land-based one.

12.2 Tax incentives as policy measure

Tax relief is one policy measure proposed in the Kvarken Straits study *An Active Coastal Area* from 1993. The idea is that tax benefits can be introduced for permanent residents in places where more than one profession is necessary for sustaining a livelihood. Such benefits could include the possibility to a basic deduction (*grundavdrag*) or lower VAT for working tools of different kinds. In the municipal taxation a "*fjärrortsavdrag*" (distant-location-deduction) could be applied: the closer to the centre of the region one lives, the higher the tax; the further away, the lower the tax. This would make the argument "she lives there and pays the same amount of tax, but is not entitled to the same services" unnecessary: if you choose to live there, you do not have to pay tax for services that you do not receive, which evens out part of the inequality in access to services. Although it might be problematic to define which households get this deduction, it is also an answer to problems with non-implementation of the law by the authorities. On the risk side however, it might be an excuse for authorities to diminish basic services further. It has to be well

regulated and decided on a case-by-case basis in cooperation with the tax payer. The Kvarken straits study further suggested that no VAT should be collected in archipelago regions for a secure basic service supply, such as school, grocery store, post and bank, working transport connections. These two fiscal measures would encourage industry and settlement in these areas and equal out the unfairness between the urban and the rural areas. In Icelandic fiscal legislation, there is already space for tax exemptions, for instance in the case of property tax, where

> A local authority may reduce or waive property tax on farms while they are used for agricultural production and on outbuildings in rural areas if they are only partially used or are unused. A local authority must adopt rules on the application of this provision (section 5 para 5 of the Act on Municipalities' Revenue Bases, no 4/1995).

This paragraph is, however, not used e.g. in the municipality of Ísafjarðarbær, but it is an indication that tax reliefs are not unthinkable in Icelandic legal tradition.

12.3 Diversity in solutions for practical insularity

Decision-makers on different levels have indicated that solutions must be found to the extreme cases of insular connectivity. It seems to be just a matter of finding the best solution in each case, by institutions like Íslandspóstur and the Road Administration (Interview 5C, 2010).

Even though the Åland case study is a small island with a population of four off the coast of a small archipelago municipality, which itself is off the coast of a small autonomous island region, the logistical problems concerning connectivity function the way they have functioned for centuries, by regular ferry/boat and local arrangements where the inhabitants themselves are involved as ad hoc planners and even performer of services, such as is the case with the smaller connecting boat in Husö. For Vigur, the case is similar. In the words of the Vigur historian: "The people of Vigur have always had good connection to the mainland. The occupants there have always owned good boats" (Personal communication E, 15.11.2010). The difference between Husö and Vigur is that the Vigur case is not as supported by the relevant institutions as Husö connectivity is. This difference probably stems from the fact that it is easier to deal with many islands in an archipelago at the same time, than just a few islands in a fjord without a regular public ferry connection. For the practical islands cases, there is a range of solutions proposed, none of which seems

perfect at first glance. Previous inhabitants of Sæból were always able to travel by boat, even after the road was in place. Sæból is, however, unsuited for a harbour due to the problematic surf. However, the right technical solution, with the right boat or combined transport boat/landing boat and experienced skippers, may save expenses and time during periods of heavy snowfall when the road is difficult to maintain. As for Djúpavík the boat could serve the whole community of Árneshreppur, in which case money for a subsidised flight route and difficult snow maintenance could ensure connectivity for Djúpavík and the whole of Árneshreppur for the entire year, and also offer safer transportation avoiding the avalanche danger on the road.

Driving on top of the snow is, according to the Icelandic Road Administration representative, the only feasible solution (Interview 9, 2010). Suggestions for the Westfjords include snow mobiles and caterpillar vehicles. In Ísafjarðarbær this was tried in the year 2000 for Ingjaldssandur, but because a snow mobile needs snow to drive on, practical problems with varying elevation levels of the snow lines complicate this solution. However, the road over Hrafnseyrarheiði that leads to a settlement in Mjólká,[22] south of Þingeyri, is passable by snow mobile, and there a system is in place where a snow mobile driver, based in Þingeyri, can be called when Mjólká inhabitants want to leave or return home at their own expense (Interview 10, 2010). In addition, caterpillar vehicles have been tried in Ingjaldssandur. These vehicles are, however, not allowed to be driven without a license and they are also very slow; one respondent recalled that a caterpillar vehicle trip from Ingjaldssandur to Flateyri took 11 hours (personal communication F, 16.11.2010).

The technical solutions to insular connectivity deserves its own practical research, but the suggestion of the present thesis is to regard seasonally isolated places as practical islands, and take the focus away from costly land road connections, in addition to being prepared to use different types of transport during differing times of the year.

12.4 Ways forwards

Making a list for and against the issues of why society should pay for all-season transport connectivity to geographical and practical islands raises many reasons in favour, but one major reason against: it simply costs too much money for too few people. On the other

[22] It is here relevant to note that the inhabitants of Mjólká are "professional residents" in the sense that their reason for residence is their work with the Mjólká hydropower station.

hand, access to services should be on an equal level for all members of a society and people have the freedom to choose where they want to live. The scale is equally weighted on both sides weighs the same for both sides, thus we appear to be faced with Rittel and Webber's "wicked problem"—i.e. a problem that corresponds to ten specific criteria, such as that the problem has no definitive formulation, that it has an answer that is "good or bad" rather than "right or wrong" and that it does not have a well-described set of potential solutions—as so often in a complex social planning context (Rittel & Webber, 1973). Should the main research question of the present thesis—i.e. if it is sustainable for a society to arrange and pay for means of connectivity to people who have, out of their free will, chosen to literally insulate themselves—even be treated as a problem to be solved? And when, in that case, is the problem solved? When the road is ploughed after the storm? There will be another storm. When the ferry arrives regularly, five times a day at every little island people have chosen to inhabit? Or, is the problem solved when the last person has moved away?

The solution must lie with the people themselves. These people who have shown an outstanding determination to stay right where they are, to come up with creative and innovative solutions to earn their livelihoods on the islands to which there are not always road connections or comparable. What does a society lose out on if it does not recognise these people's will, stubbornness, creativity and flexibility before it is too late? It is that which must be weighed against the taxpayer's money. The policy-maker must know that to a wicked problem there is no "true" or "false" answer: there is only "better" or "worse", and what is right or wrong is dependent on the stakeholders. The policy-maker must decide in accordance with what is the right thing to do. When standing like Scott out in the blizzard that is the economic crisis of today, forced to make a decision whether to bring the wounded man with us at the risk of the rest of the community, or leave him to die to save the others, should we serve a categorical imperative and listen to our morals: "Everyone should be equal before the law", or follow a call for an utilitarian perspective of maximum happiness for maximum number? A cost-benefit analysis (CBA) would show the most efficient allocation of scarce resources. However, a CBA was not even made for the large-scale infrastructure project that benefits a few hundred in the Bolungarvík tunnel case, which shows that there is room in Icelandic policy making for arguments other than

economic efficiency, such as safety. Thus, is there another way to solve this wicked problem? Is there a way to get around the oxymoron of "insular connectivity"?

We must ask what our goal is, do we want people to choose where they want to live, even if the location has insular characteristics? Is our goal that more people move to that same location, because then, it would be justified to spend public money on connectivity? Is our goal complete urbanisation? Around what number or people does a settlement start to count as a community? Is it solely the number of people that make a village, or also historical accounts?

There are at least two paths to take: The most pessimistic approach, which seems to be prevailing, can in analogy be referred to as "If you let the last animal of a threatened species die out, then you no longer have the problem of how to save them." This would be the status quo-approach.

If you prefer to take a more pro-active approach, i.e. focusing on diversity in particular in economic and cultural terms, then you do recognise that these islands and their inhabitants have values which cannot be found elsewhere in society. The values stem from certain personalities, and creativity, formed in specific, insular environments.

This is of course part of a holistic picture—the focus of this thesis has been on transport connectivity, because it has been identified by the respondents as the absolutely most essential criteria for sustaining habitation in an insular region in modern times. However, this issue is larger than transportation; it cannot be put on the shoulders of a single municipality, or a Road Administration, or a Ministry of Transportation alone—it requires interdisciplinary and interministerial collaboration. The insular case studies of the present thesis must be seen, mostly, as being overlooked in regional policy development, in particular in Iceland. Unique problems require unique solutions and thinking outside the box. If we take the diversity-approach, we might look at the kingdoms of animals and plants, where dealing with biodiversity conservation has a long-standing tradition. At the risk of seeming blunt, it could be recommend to draw inspiration from the World Conservation Union (IUCN) Red List of Threatened Species (IUCN, 2010) for making a list of threatened cultural/social/economical/environmental domains which are in need of special protection. From there one could look at specific measures, some of which have been introduced in this thesis, for an action plan. The difference to the IUCN list is that the threatened species in this case are not helpless animals, but human beings, capable of

acting themselves. Inspiration can also be drawn from the UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003), to which Iceland, but not yet Finland, is a State Party. The arguments for cultural sustainability in the present thesis also correspond to the criteria for putting elements on UNESCOs list for safeguarding intangible cultural heritage – it is not the cultural manifestation itself but rather the wealth of knowledge and skills that is transmitted through it from one generation to the next that is in focus (UNESCO, 2010). Similar ideas were put forward also in the proposals to make the municipality of Árneshreppur a special area for preservation of cultural landscapes and heritage: Policy-makers should not ask what they have to do for the inhabitants, but what they can do to make the inhabitants themselves act in the rescue mission of cultural heritage, before it is too late (Committe for the preservation of settlement and cultural landscape in Árneshreppur in the Strandir region, 2003). Unlike Finland and Åland, Iceland does not have experience in the field of minority protection, which could be another policy sphere from which trains of thoughts can be adopted, recognising societal diversity as a value in itself. It is indeed a classical problem of the dilemma of democracy – how to fulfil the rights of a vulnerable minority against a strong majority.

The present thesis cannot portray itself to be more than merely a spotlight on these previously unexplored issues. Further research must include an interdisciplinary approach, yet there are certain benefits in the Icelandic case with the recent installation of the Ministry of the Interior, under whose auspices such research could be undertaken. Åland has the benefit of allowing for such a discussion under the heading of the archipelago committee. Such research would, however, involve both a recording of the specific value of each insular case, and a technical analysis of how specific issues pertaining to transport connectivity can be solved in practice.

The scope of the present thesis has also been such that it could only limit itself to deal with "sustaining habitation" in these insular cases. A further study would take the next step and ask the question "why, or why not *encourage* repopulation of these places?" The answer to this question would be of utmost importance for the preservation of the cultural heritage of such small island communities.

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Appendix A

Interview quotes in their original language (where they have been translated), in order of appearance.

Chapter 3.3 Governance

Andersson, 1997

olika reglerings- eller resursfördelningsåtgärder vis-á-vis samhället, eller delar av detta, på den nationella nivån-vanligtvis utgående från staten, men inte nödvändigtvis- samt de strävanden som är anslutna till dessa åtgärder.

Chapter 4.4, Regional and archipelago in Finland

Gunell, 2010

För skärgårdens del går det inte att särskilja trafiken från övriga frågor som berör befolkningsstruktur, näringsliv, kultur och fritidsverksamheter. Skärgårdspolitiken är en helhet där trafiken är en bärande del.

Chapter 4.5, Amalgamation of municipalities

Fellman, 2006

Mycket generaliserat kunde man säga att om störst vikt läggs vid närheten till service och lokal delaktighet och identitet innebär det att minde organisationer och småskalighet är att föredra. Om man däremot prioriterar kompetensen och produktiviteten kan större organisationer och större kommuner vara en fördel.

Chapter 5.2, From fish to farm-the Finnish archipelago

Smeds, 1948

... den beryktade vantrevnaden på landsbygden, härrörande av bristande bekvämligheter i arbete och dagligt liv, av dåliga kommunikationer, av brist på nöjen och fritidssysselsättning av mera pretentiös natur, har ett av sina huvudvisten just i skärgårdens isolerade samhällen. p.535.

... till hembyns bristfälligt upplysta hus, dess ojämna vägar och gråa stenar p.538.

Chapter 5.4, Iceland's transport transformation

Jónsson, 2002

Ef byggðum lands er skipt gróflega í tvo flokka eftir aðgengi að land- og sjósamgöngum kemur eftirfarandi mynstur í ljós: Hafnarbyggðirnar áttu sitt blómaskeið á tímum sjósamgangna þegar samgönguæðar landsins lágu meðfram ströndum, en tók að hnigna eftir 1940 þegar vegakerfið fer að byggjast upp. Þetta gerist þrátt fyrir að mikil uppbygging ætti sér stað í sjávarútvegi eftir stríð.

Chapter 7.1, Basic services

Åland Municipality Act

3 §. Kommunens uppgifter

Kommunen skall handha de uppgifter som den åtagit sig med stöd av den kommunala självstyrelsen och som den ålagts genom lag. Kommunen kan genom avtal åta sig att handha även andra offentliga uppgifter. Kommunen kan handha sina lagstadgade uppgifter själv, tillsammans med andra kommuner eller genom att beställa tjänster från andra tjänsteproducenter. Kommunen skall i all sin verksamhet sträva efter att främja kommuninvånarnas välfärd och en ekonomiskt och ekologiskt hållbar utveckling inom kommunen. Kommunerna får inte ges nya uppgifter eller skyldigheter eller fråntas uppgifter eller rättigheter på annat sätt än genom lag.

Chapter 7.2, Road maintenance

G-regla: Heimilt er að moka tvo daga í viku haust og vor á meðan snjólétt er. Hausttímabil er skilgreint til 1. nóvember og vortímabil frá 20. mars. Ástandið er skilgreint "snjólétt" þegar um er að ræða lítið snjómagn og færðarástand telst hvergi ófært, þungfært eða þæfingur á viðkomandi leið og þegar þjónustuaðgerðin felst eingöngu í hreinsun akbrautar með snjómokstursbíl.

Heimilt er að moka vegi sem falla undir G-reglu einu sinni í viku fram til 5. janúar á kostnað Vegagerðarinnar og eftir það einu sinni í viku gegn helmingagreiðslu frá sveitarfélagi þannig að fært sé fyrir fjórhjóladrifin ökutæki og/eða þegar kostnaður við

þann mokstur er að jafnaði ekki meiri en þrefaldur sá kostnaður sem til fellur þegar leiðin telst snjólétt.

Chapter 7.3 School rides
Lög um grunnskóla, 91/2008, section 22
Sveitarfélög bera ábyrgð á skipulagi skólaaksturs þar sem hann á við og standa straum af kostnaðinum. Ráðherra setur nánari reglur um tilhögun skólaaksturs í samráði við Samband íslenskra sveitarfélaga. Skólaakstur skal vera nemendum að kostnaðarlausu.

Chapter 7.3, School rides
Åland Minister of Transport informant
Interviewee 8: Ja men problemet har varit att det har varit svårt att få skolskjutsarna att räcka till, du måste ju också ha en följeslagare på fartyget. Jag menar, landskapsregeringen, om jag tar på mig trafikministerhatten, vi tar inget ansvar för lasten utöver vad sjölagen kräver. Vi har inget ansvar för en sjuåring som liksom, vi kan inte ta ansvar om en sjuåring reser ensam. Därför att vi har ingen försäkring för barnen, skolan har en försäkring som börjar gälla när man öppnar dörren, och den slutar när barnen kommer in i skolan, och vi landskapsregeringen, tar det ansvar som sjölagen kräver, men vi tar inget ansvar därutöver, vilket innebär att man måste ha en följeslagare utöver barnen. Så ekonomiskt sett så fanns det ingen vinning i det.

Chapter 7.4 Postal Communications, p. X
Section 21 of Act 19/2002
Póst- og fjarskiptastofnun skal tryggja að alls staðar á landinu sé alla virka daga borinn út póstur sem fellur undir skilgreiningu á alþjónustu nema kringumstæður og landfræðilegar aðstæður hindri slíkt.

Chapter 8.1, Advantages: ”You are your own master”
Husö respondents
PG: Och då får ni gärna berätta för mig vad är det mest positiva med att bo här?
Interviewee 7A: Man är ju till stor del sin egen och rår sig själv/ samtidigt som man är beroende av väldigt mycket yttre faktorer, men att ändå en viss frihet.

Chapter 8.2, Challenges: Children in school

Husö respondents

Interviewee 7B: Så våra barn har inte bott någon annanstans förrän de flytta hit/

PG: Och det kan ju också ha positiva och negativa aspekter, att ha barn härute, kan ni berätta lite om det, och om skolgång? Det har framkommit i tidigare intervjuer.

Interviewee 7A: Jo, det har nog inte riktigt varit problem här. Vi visste ju inte hur det skulle bli när [vår dotter] började skolan, med den som var först i ordningen/

Interviewee 7B: Vi hade ju en viss beredskap om att [interviewee 7A] skulle måsta flytta till Sottunga.

Interviewee 7A: Men sen ha vi faktiskt fått trafiken att ... att ordna turlistan efter läsordningen och läsordningen efter turlistan... så där har vi haft stor förståelse både från skolan och egentligen från landskapet också.

Interviewee 7B: Vi måste ju vara lite flexibla också och de har ju fått bo borta också.

Interviewee 7A: I vissa perioder, men det har ju varit väldigt lite.

Interviewee 7B: Ibland har de fått vänta på skolan, vänta att de andra skulle vakna och komma till skolan.

Interviewee 7A: Och vänta ibland på att få komma hem... det har varit ganska mycket ”väntatimmar”, har våra barn pratat om, ”vad ska jag göra på väntatimmen idag”?

Interviewee 7B: Men i stort sett har det gått bra.

PG: Vad har man för rättigheter med skolskjuts på Åland?

Interviewee 7A: Man kan ordna inkvartering, som kommunen betalar, men det kan ju bli väldigt dyrt också för kommunen, och man måste ju också titta vad man sätter en liten kommun i.

Chapter 8.3, Home schooling

Husö respondents

PG: Har det någon gång varit tal om hemundervisning?

Interviewee 7A: Nä, det har inte varit ett alternativ för våra barn, för vi har ju tyckt att de behöver träffa andra barn.

PG: Inte heller i perioder?

Interviewee 7A: Nä.

Interviewee 7B: Det har gått alltför lätt att ordna, det har inte behövts.

Interviewee 7A: De har ju kunnat åka färja de flesta dagar, både hem och bort, med lite specialarrangemang emellanåt.

Chapter 8.4, Importance of the sea

Åland Minister of Transport informant

PG: Tror du att det här har förändrats över tid, att det var viktigare förr? Och att nutidsmänniskan bryr sig mindre om havet?

Interviewee 8: Nej, det tror jag egentligen inte. För förr så tror jag att det var så här att havet gav din utkomst, man hade stor respekt för havet, men man bodde uppe i byar, man sökte sig långt upp på land, man sökte lä, man bodde nära varandra, ganska nära för att man kunde behöva hjälp av grannen, man sökte tryggheten i det här sociala nätverket, också av praktiska orsaker alltså. Men tittar man till nutidsmänniskan i dag, var vill du bo om du bor i skärgården, jo du vill bo nere vid havet. Och varför vill du bo vid havet, vad är det som lockar vid havet, är det vackert, är det liksom, det är nånting som drar som gör att folk söker sig ner mot stränderna, och plus att vi har idag en sån byggnadsteknik och bygg ner vi stranden och ändå få det miljömässigt å schysst och bra.

Appendix B

Model questions for interview with respondents

1. What is your reasoning for living here?
2. Does your family have a history in this area?
3. What role does the ocean play for you?
4. Is there any other place that you could imagine living? If not, why?
5. What would you do if you were not living here?
6. Which are the greatest advantages of living here?
7. Which are the greatest difficulties?
8. What is your livelihood?
9. Which kind of basic services are you provided with here?
10. What are the biggest shortcomings or difficulties concerning your livelihood and the provision of basic services?
11. In your view, what kind of policy should local/national authorities pursue for inhabitation/life in sparsely populated coastal areas?
12. Do you think that decision-makers ask you to a sufficient extent about decisions that affect you?
13. Do social networks play a decisive role for life in this area?
14. What is your view of the future?

Model questions for interview with informant

1. What is the reasoning for encouraging people to stay/move to areas outside Reykjavík?
2. Do you see a difference in policies for people who are born and have a family history in such an area and those who are recently moved there?
3. Do you think it is important for Icelanders to live near the coast and the ocean?
4. Do you ever advise people to move to urban areas?
5. Which are the greatest advantages of having people living in sparsely populated coastal areas?
6. Which are the greatest difficulties?

7. Which kind of basic services should people in sparsely populated coastal areas be provided with?
8. What are the biggest shortcomings or difficulties concerning livelihood and the provision of basic services in sparsely populated coastal areas?
9. In your view, what kind of policy should local/national authorities pursue for inhabitation/life in sparsely populated coastal areas?
10. Do you think people have enough say in matters that concern them that lead to decisions?
11. Do you want more information about people's situation, do you think your task would be easier or more difficult, would it benefit you?
12. What do you think about large infrastructure projects such as tunnels- are they a way in or a way out?
13. Do you rather see a development where people live in agglomerations (cities, towns, villages) or decentralized (spread out all over the country)?
14. In Icelandic politics and implementation of politics, is corruption, or nepotism, an issue? (cronyism)
15. What is your view of the future?