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Author: Matthias Kokorsch

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The Tides they are a Changin': Resources, Regulation, and Resilience in an Icelandic Coastal Community

Matthias Kokorsch

University of Iceland

Reykjavik, Iceland

mak31@hi.is

Abstract

Icelandic coastal communities face major socio-economic and demographic challenges. Multiple reasons can be identified, among them restricted access to fishing grounds with *de facto* privatisation through the introduction of individual transferable quotas in 1990, which caused substantial stress to the economic structure of numerous fisheries-dependent towns and villages. The aim of this case study is to reveal the coping strategies of one such place that once was a thriving fishing village. The underlying theoretical framework is that of social resilience, here understood as the ability of a system to adapt to changes and disturbances. The case study is based on a mixed methodology approach, including structured interviews with key informants and workshops with various groups, including young adolescents, entrepreneurs and the general public. The chosen case study site is a place that has lost almost all land-based jobs in fisheries, but where the former fish processing facilities have been transformed into places of cultural activity and for research and development. It therefore provides a good example of a shift from extractive industries towards creative and knowledge-based industries. This does not only invite the emergence of innovative pathways, but also increases the ability to attract young talent from outside, and to keep educated and skilled people in the community. Potentials and capacities for further increasing the social robustness of the community are identified in the paper.

Key words: Iceland, social resilience, coping strategies, fisheries, ITQs

1.0 Introduction

Icelandic coastal communities have experienced profound changes since the early 1900s, when industrial-scale harvesting and processing of fish began. Most settlements along the coast owe their existence to this natural resource. As time passed, overexploitation, overcapacity and inefficient regulatory frameworks made changes towards a more sustainable management system inevitable. Iceland chose a market-based solution: individual transferable quotas (ITQs). The success of this solution has been judged in very different ways, depending as much on ideological as analytical approaches (Árnason, 2008; Carothers & Chambers, 2012; Durrenberger & Pálsson, 2014; Kokorsch, Karlsdóttir, & Benediktsson, 2015). Undisputed is the fact that several towns with a one-sided economic structure have had to cope with the loss of their main industry. The still-ongoing centralisation of fishing rights has led to considerable socio-economic and demographic stress (Agnarsson, Matthiasson, & Giry, 2016). Whereas some towns feverishly struggle to maintain the traditional fisheries,

others endeavour to find new pathways for coping. This is achieved either through shifting to a different kind of engagement with the fisheries sector—e.g. research and development, or the ‘blue economy’—or to entirely new fields of economic activity.

The central question of the research presented here is how resilient fishing villages are, in the face of such a radical policy change regarding entitlements to resources. The case study represents a community that has followed a gradual shift, detaching from the traditional extractive industries and moving towards creative and knowledge-based activities.

The development of coastal villages during the past 30 years illustrates the general importance of thoroughly reviewing the local social consequences of the privatization of natural resources. In particular, the importance of diversified local economies as a coping strategy for a future without traditional fisheries is of interest. The main focus of this paper will be on this aspect, as a general discussion of social consequences of privatization would be beyond the scope of this case study.

2.0 Theory

The theoretical foundation for the case study derives from the concept of *social resilience*. With regard to communities, it is understood as the ability “to adaptively respond to change rather than simply returning to a pre-existing state” (Maguire & Cartwright, 2008, p. ii). Social resilience is defined as the ability of a group or community to cope with shocks that may be caused by social, political, or environmental changes outside the community (Speranza, Wiesmann, & Rist, 2014, p. 110). Resilience thus implies a clearly defined external stressor and subject (Carpenter, Walker, Anderies, & Abel, 2001). In this case study, the introduction of the ITQ system is the identified cause of stress, to which the local community is subjected.

Resilience encompasses the concept of *coping*, or *coping strategies*. Originally used to describe personal responses of individuals to stress, or for analysing responses to natural hazards, the application of these concepts to communities in transitions stresses the importance of innovation and the formation of identity (Adger, Brooks, Bentham, Agnew, & Eriksen, 2004; Cutter et al., 2008; Keck & Sakdapolrak, 2013). Coping strategies are “active and intentional practices as they include modern reflexive use of knowledge, and the formation of social identity” (Børenholdt & Aarsæther, 1998, p. 33). The concept has not been systematically used to analyse resilience in the face of policy changes, which is attempted in this article.

Along with coping, *adaptive capacities* and *fate control* are frequently mentioned in association with resilience (Lorenz, 2013; Speranza et al., 2014). Adaptive capacities are the inherent “resources and abilities of a community to cope with change” (Maguire & Cartwright, 2008, p. ii). Fate control refers mainly to the question whether or not a community is in charge of its own destiny (Ozkan & Schott, 2013). The question of destiny in this particular case study is based primarily on the economic situation of the community and political dependency. Even though a policy change—the de facto privatization of fishing rights—is the main stressor identified, it needs to be added that resource-dependent communities are prone to undesirable ecological development.

Ross, Cuthill, Maclean, Jansen and Witt (2010, p. 108ff) defined six key parameters for community and social resilience and applied them for a case study in Australia (see also Berkes & Ross, 2013). Those parameters were included in

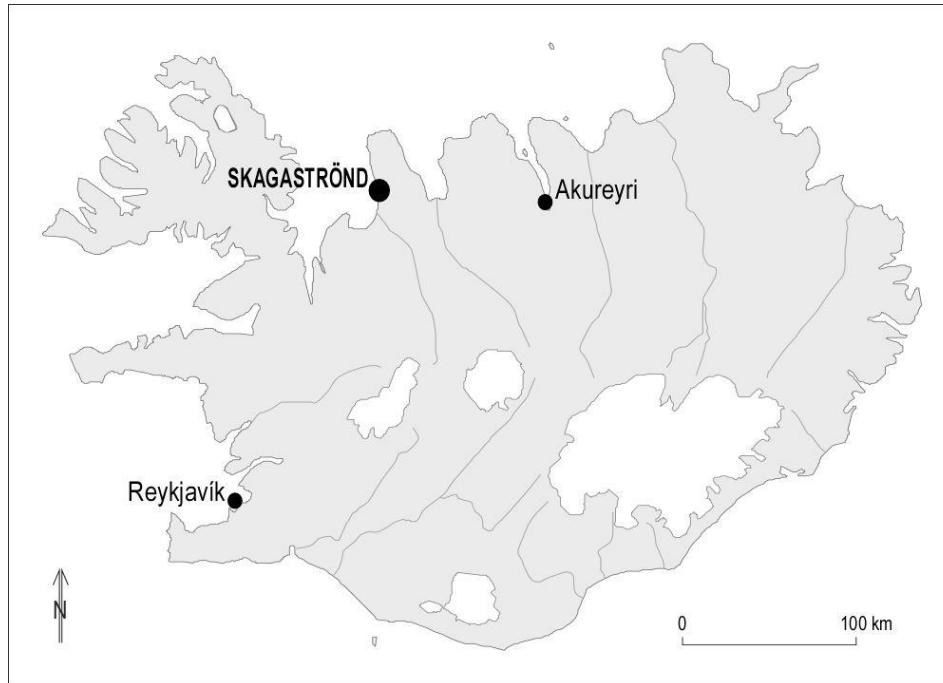
the analytical toolbox for the case study and are listed and briefly explained below:

- **People–place connections:** The identification of place attachment among locals is the main idea behind this variable. Does the village stimulate a feeling of belonging, of being at home? How do the people perceive the surrounding nature and its resources? A strong identification with a place can be interpreted as a solid foundation for resilience building.
- **Knowledge, skills, and learning:** Driving change requires certain expertise and the willingness of both the general population and the local authorities. An assessment of the educational level among the locals is therefore necessary. In addition, it needs to be analysed to what extent the municipality encourages educational programs.
- **Community networks:** Fluctuation of the population and extreme migration processes can add stress to small and close-knit communities. It is of importance to determine how demographic changes have affected the residents. A stable work environment and social and cultural activities within the community can be a strong pull-factor for newcomers, but can also work as a motivation to stay.
- **Engaged governance:** The approachability of political leaders and authorities within the community is of significance for local businesses and entrepreneurs. Representation and trust are central themes. Apart from that, networking abilities and ties between the local policy makers and those at the state level can help to foster investments and employment.
- **Diverse and innovative economy:** Diversification is a key factor for resilient communities. The main focus here is on different development paths and the support of the locals. This opens up the question whether projects are of a bottom-up and endogenous nature and embedded in the municipal environment, or if the stimulus comes from the outside.
- **Community infrastructure:** Here the main focus is on the assessment of existing infrastructure and to what extent it is under stress in times of demographic challenges. Locational factors, such as energy supply and transport distances, are also considered.
- With reference to Walker, Holling, Carpenter, and Kinzig (2004), this list can be extended by transformability, defined as “the capacity to create untried beginnings from which to evolve a new way of living” (p. 7).

3.0 The Location

The location for the case study was chosen based on the researcher's previous quantitative research on socio-economic and demographic changes in coastal communities since 1990. The village is located in the north of Iceland. Distance by road to the capital Reykjavík is about 260 km, and there are 160 km to the next regional centre, Akureyri (see Figure 1). Within the region, the town is the smallest of three that are within commuting distance from each other (Sauðárkrókur 52 km, 2,500 inhabitants and Blönduós 23 km, 800 inhabitants).

Figure 1: Location of Skagaströnd



Source: Author.

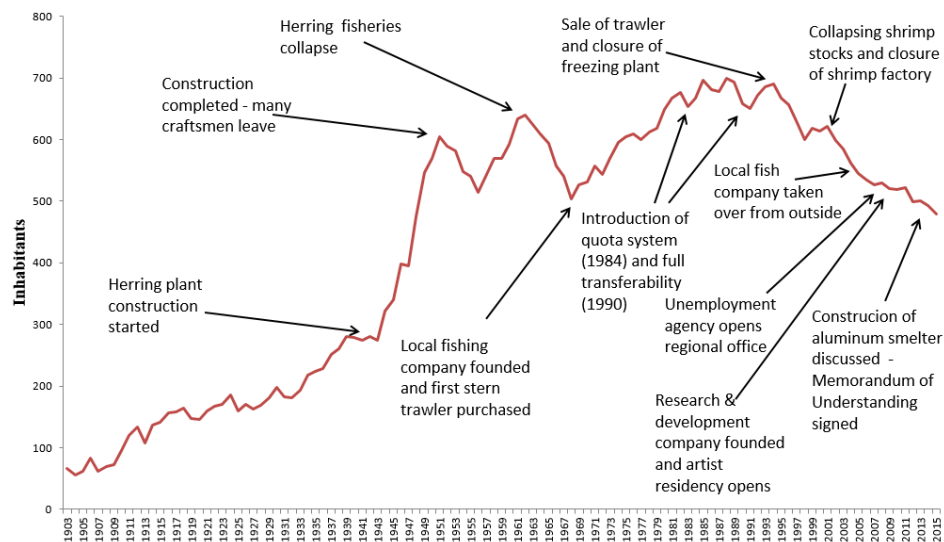
One of the main challenges has been outmigration. The net loss of people during the past 20 years is around 200, with well under 500 inhabitants remaining. As indicated in Figure 2, the population development has shown constant fluctuations, seemingly caused by particular economic and ecological events. Despite the fact that the population had not reached one hundred before the early 20th century, the place was already of regional importance. Chosen as one of the country's main merchant stations of the Danish colonialists, Skagaströnd received its key function in the 18th century and kept it into the beginnings of the 20th century. With the advent of the 'Icelandic industrial revolution' and advancing fishing technology, the place experienced the first wave of in-migration. People from the scattered farmsteads in the district settled in the town, with its improved harbour conditions. With a doubling of population in the 1940s, based solely on immense landings of herring, the place was designated as a future 'capital' of the North. A master plan, somewhat similar to socialist city planning, envisaged up to 5,000 inhabitants (Morgunblaðið, 1946). This utopian construct ended abruptly in the late 1960s, as the herring altered its migrating behaviour. This fate was not uncommon for localities in the north of Iceland during this period. Skagaströnd recovered from this economic and demographic setback through a change towards demersal fish and crustaceans, notably shrimp, instead of herring. Also, a local fishing company was founded with some hundred shareholders from within the community. Until the early

1990s therefore, alternating phases of growth and stability characterised the development of the village.

In conjunction with an overall migration tendency within rural Iceland towards the capital region, several partly interrelated events have taken place, coinciding with severe population decline since the early 1990s. Following the privatization of the fisheries through ITQs, the municipality-owned company was gradually taken over by shareholders from the outside, culminating in a hostile takeover. One of the two trawlers delivering fish for the local processing plant was moved to the neighbouring community of Sauðárkrókur. The freezing plant was closed. Moreover, the local shrimp factory had to shut down as the stocks in the bay had been overexploited and catches collapsed. The closure of the two plants affected employment opportunities within the community, particularly for women, and the loss of the trawler has taken a heavy toll of tax revenues and has affected the service facilities within the harbour and the community as a whole.

Several attempts have been made to mitigate the consequences and eventually reverse the trend. After the closure of the shrimp factory, three projects which intended to make use of the cultural heritage of the community—textile, sewing and fortune telling—, received some funding. All were initiated by women. The sewing workshop is still running, and the museum of vffvthe fortune teller attracts several thousand visitors per year. In 2007, a research-and-development company centred on marine biotechnology started its operation and the state-run unemployment office opened a regional office in the town. Furthermore, an artist residency was opened in 2008 which transformed the former fish factory into an open studio. In 2012 a start-up company was established, where three non-local newcomer professionals manufacture high-quality loudspeakers.

Figure 2: Population Development of Skagaströnd and Main Events Regarding Fisheries and Employment



Adapted from: "Fisheries Management and Livelihoods in Iceland" by C. Chambers, 2016, Doctoral Dissertation.

4.0 Methodology

The case study was carried out in early 2015, using a mixed methodology approach that included five partly overlapping phases. Throughout the five weeks stay, the researcher took the role of a participant observer and took part in numerous social activities. Some 23 semi-structured interviews were also

conducted and another 40 people were interviewed informally, approached on the street, in public places or in their work-environment.

The first phase consisted of desk work and archival research. Together with a key informant, historic documents and photographs of the town were examined and discussed, while the researcher used online sources for establishing a newspaper article collection about Skagaströnd. Having acquired this background information, the next phase was started, consisting mainly of interviews and informal group discussions. Apart from locals who have spent most of their lives in the municipality, three artists from the local art residency were interviewed, as well as some four newcomers.

Participants in both the informal and formal interviews were asked the same starting question: ‘What are the first three words that come to your mind when you think of Skagaströnd?’ This question was used as a lead into a discussion, but also to gain insight into the connection between people and place. The last question was also similar, asking about a favourite spot in town, as well as a place that symbolised deterioration or stimulated a feeling of melancholy. Both places were identified on a map. The semi-structured interviews centred on a set of standardized questions, based on the participant’s role within the community.

A strong focus was on the adolescents of the community, who were approached through the graduating class of the local school with students aged around 15. Two workshops were held during the third phase, applying the scenario method; a popular didactic tool in education for sustainable development. The workshops centred on three ideas: first, an identification of the willingness to stay within the community, or to move back after completing further education; second, place-based problems—and positive attributes—were revealed by the future generation; and third, possible solutions were eventually developed in a collective brainstorming-and-discussion round. A best-case scenario was developed and necessary steps for a realisation discussed.

The researcher then left the community for a short break. When he returned, the results from the workshops were presented to the public together with the researcher’s own preliminary interpretation of the interviews and field notes. People that had been interviewed joined in, especially policy makers and entrepreneurs, and the results and future scenarios were examined. The preliminary results of the case study—individual interpretation—were thus taken back to the participants who got the chance to (re)evaluate them—mutual interpretation. After this last phase of collective evaluation, the interviews were transcribed and interpreted with the qualitative analysis software ATLAS.ti.

5.0 Findings

5.1 Fisheries

Having been an archetypical Icelandic fishing community for decades, one of the main questions asked in Skagaströnd was about the past, present and future of the fishing industry. That traditional fisheries—in the form of classical resource extraction combined with Fordist processing onshore—are not part of the community’s future, has been a common belief. Nonetheless, this form of labour and the industrial heritage related to the fisheries has been consistently glorified and romanticized:

I connect the past with the fishing industry, I think of what we are now in is kind of stable time, not so much action. New things are there, like

[R&D Company] Biopol [and] the unemployment office, that are not based on fishery, which is what we want. (Man, 65)

The past is meaningful and—traditional—fisheries still serve as an identity-establishing sector. This finds clear expression in the local pub, which is almost like a museum with its artefacts and photographs of the boom times. Furthermore, like in all Icelandic coastal villages, the Seamen's Day (*Sjómannadagurinn*) is celebrated annually.

When it comes to the current self-perception, Skagaströnd is not really a fishing community anymore. That it once was is on daily display, as both ends of town are framed by almost monumental remains (see Figures 3 and 4). Especially the old herring factory with its still-standing chimney is frequently referred to and arouses conflicting sentiments, particularly among those who experienced the 'golden age'. Not without irony, the chimney towers over the second highest building, namely the church:

...the large chimney...was part of the herring factory—the big dream. [It is] a symbol of broken hopes. I want to stress that I am very positive for it to remain forever. In my mind it is a symbol for big dreams and broken hopes. (Man, 65)

And, there was another [chimney], that spilled bad, foul stench down here. People called it the stench of money. (Man, 45)

Figure 3: The Village of Skagaströnd With the Chimney and Harbour in the Centre and Right



Even though most of the older respondents mentioned some fish-related items that came to their mind first, none of the adolescents did so and only one of the newcomers perceived Skagaströnd as a fishing community. This is not surprising, as there are currently barely more than two small boats landing each day on average, while the remaining trawler lands every third week. The fish

itself is invisible to the public, as it is taken out of town immediately for processing elsewhere. Often, the interviewees commented on the absence of fish processing:

There is no factory to work the fish. You know, every fish that comes here, all you see is the big trailer going down [points to the road behind us]. Everything goes away. It is not good to see it. (Man, 40).

Figure 4: The Chimney of the Abandoned Herring Factory. Mural by a Visiting Artist (Guido van Helten)



Modern forms of natural resource use, other than industrialised fishing and processing, have been identified as one of the possible future opportunities of the community instead. This includes forms of the ‘blue economy’ and tourism. The latter is one of the main bearers of hope and has experienced a steady increase all over Iceland during the last years. At this stage, this sector is lacking the know-how and infrastructure in Skagaströnd. In combination with tourism, new opportunities for the almost invisible small scale fleet could evolve in connection with local food markets (cf. Smith and Chambers, 2015). Marine angling trips to the ocean, as well as Arctic charr fishing in the freshwater lakes in the hinterland, are pointed out as potential attractions. Especially the pristine fresh water lakes could become an attraction for niche tourism, offering solitude which has become rare with the advent of mass tourism, particularly in southwest Iceland.

Although in a transitional phase out of traditional fishing, the town still has a certain reliance on fisheries. Especially in terms of tax revenues, harbour fees and the ability to run certain services to the fishing industry—such as net-mending—, Skagaströnd is heavily dependent on the periodic landings from the trawler. Apart from this is the fact that it is the biggest private employer in town, giving work to some 40 men directly. The arrival of this floating factory turns the village back into a fishing community for a while and gives a feeling of what it must have been before. Days in advance, people start talking about the

imminent arrival, the trawler being almost a *Zeitgeber* for an otherwise sleepy community to wake up. On the day of the arrival people can be seen driving to the harbour constantly, and the local *rúntur*—car cruising circuit—(Collin-Lange & Benediktsson, 2011) in the evening is extended to the trawler. Teenagers from the local school earn some money by sorting boxes that clearly identify the export purpose (Figure 5). Several trucks wait to take the fish out of town. Within not even 36 hours, this short-lived revitalization is over.

Figure 5: The Trawler "Arnar", Landing in Skagaströnd but Operating for a Company (FISK) from a Neighbouring Town. Youngsters from the Local School Help to Pack the Boxes



Even if the trawler is out of sight for most of the time, it still occupies a central place in the locals' mind-set. Both trawlers that the local company once owned are still referred to by their names, *Arnar* and *Örvar*, and in each official building photographs of them can be found. To the researcher, it felt almost as if *Arnar* and *Örvar* were family members—two lost sons, of which one at least still comes for a regular visit. An interviewee who had moved to Skagaströnd felt the same:

When I first came and they were planning a meeting for the parents at school, they said they would have to wait until *Arnar* was in land, in dock and I thought, OK, who is this *Arnar*? And that was 40 persons.
(Man, 30)

Land-based fish processing jobs barely exist and apart from the summer months the small-scale fisheries sector is economically insignificant. Engagement with fisheries is, moreover, gendered: apart from the female harbourmaster, it is an entirely male business. Employment opportunities for women are rare and severe setbacks occurred with the closures of the processing plant and the prawn factory.

Regional quotas—*byggðakvótar*—were introduced in 2003 to support struggling communities. This was perceived by the people of Skagaströnd as an insufficient

response. A quota of this kind had been allocated to the town, but a large part of it was eventually allocated to the trawler, thus not helping employment in the community at all. Instead, the interviewees saw this as primarily benefiting the neighbouring community of Sauðárkrókur, where the company that now owns the freezing trawler is located, but which is basically not eligible for this scheme.

The aforementioned small-scale sector was supposed to receive a boost through recent policy reforms that included the creation of a new category of small-scale fishing in the summer months—coastal fisheries, or *strandveiðar*—, that is open to new entrants. However, the inflexibility of this new scheme and the limited catches allowed has been a hindrance for potential new participants. Only some former fishermen have reactivated their businesses through the scheme. Coastal fisheries are not enough to making a living on an annual basis (see Chambers, 2016) and do not at all make up for what has been lost, “It is like a bandage on a wound. It is not quite healing the wound. It just temporarily protects the wound” (Man, 55).” “It has done some good. But it is not changing the evolution in this business. Not at all. It is all too small” (Man, 63).

Skagaströnd seems rather well prepared, however, for ‘post-quota development’, or in other words a strategic transition in times of precarious resource entitlements towards an economy not based on extractive fisheries. The focus on the quantity of fish has given way to an emphasis on qualitative improvement and making more full use of the catch. Since the opening of research and development facilities, the establishment has constantly grown and its directors hope that it will be able to launch some prototypes for production in the near future. In case of a successful development, the intention is to create opportunities for people with various educational backgrounds. Apart from that, the company has the potential to be the starting point for a business cluster.

5.2 Social Resilience

The aforementioned qualitative shift in fisheries is one of the factors leading to increased diversification of the socio-economic structure of the community. This is partly due to a stable combination of public and private employment. Even though the research company attracts newcomers and educated back-movers, more variation is needed. Education plays a key role. It has hitherto been more of a push- than a pull-factor. Adolescents have either left for higher education, or young men have started a career as fishermen, lacking the incentive to pursue further education due to attractive salaries as crew members. Whereas those who have gained higher education have found limited job opportunities in Skagaströnd, fishermen have faced the problem of finding suitable jobs for their partners.

Particular interest is shown in improving the already existing distance learning facilities. At this stage, the community has a research library connected to a small research centre set up in 2009 by the University of Iceland, and facilities for distance education classes. In addition, a curricular change is intended, intensifying the cooperation of the local school with the research centre. The individual interest for continuous education seems to be there. A presentation of regional and national institutions regarding educational opportunities, held during the author’s stay, was well attended.

That the municipality has been able to attract and host those research and education opportunities can be linked to its political independence and the networking abilities that have been kept alive. This is mainly due to the comparatively stable economic situation, as the community has neither taken any ad hoc decisions regarding investments after the loss of the fisheries nor were

any quotas purchased to keep this sector running on a large scale. Economic stability is one possible explanation for a strong resentment that is felt towards a proposal for amalgamation with neighbouring municipalities. In 2004 over 90% of voters in Skagaströnd voted against a proposed merger.

This topic was taken up again and debated intensively with the participants in the last phase of fieldwork. While the necessity of collaboration was seen after some debate, the willingness was not. This could be taken as an example of economic, cultural and social ‘othering’. But more significantly, there is a shared fear of losing certain important facilities in the case of an amalgamation, first and foremost the local school. “So, it would be very obvious to start shutting down this school.... If there is no school, there is no community” (Man, 45). “It will be a terrible day when we close our school.... In a small community like this, the school is the heart of the town” (Man, 65).

Taking the size of the municipality into account, the level of entrepreneurship can be considered high. People are constantly seeking new opportunities and ideas. In addition, the political will to support innovative ideas is there. Examples for this is are the start-up company and the foundation of the artist residency. The opening of the residency was met with scepticism during the initial stage, but is now generally perceived as very valuable to the community in all respects. Up to 12 artists, mainly non-Icelandic, stay there for up to three months each. This has enhanced the cultural participation and understanding of the local population. Regular open houses, workshops and the use of public space show the interactive aspiration (see Figure 6). The majority of artists try to include local features, both natural and human, into their work. It should not be underestimated how important it is for such a remote community to be on the art world’s map: this is a sector where word of mouth is significant. To what extent the self-perception and formation of identity of the local population has received a boost cannot be evaluated in a precise way, but the people of the community were open and welcoming in their attitude to the artists in residence.

Despite the positive evaluation of the community’s resilience, the number of inhabitants has been decreasing and only two children were born in 2015. In general, communities that have fallen under the threshold of 500 inhabitants have been unable to turn the downward trend around. It is necessary to attract young families to the community, which has been the Achilles’ heel in previous years. One possible solution to this is a proposal to locate an aluminium smelter in the region. This large-scale remedy has been applied in another location of Iceland as a solution to declining fisheries and depopulation, with debatable success (Benediktsson, 2009). Among the locals, this possibility has been seen in a somewhat positive way, yet with reservations. It is more accurate perhaps to say that locals see it as not ‘wanted’ but perhaps ‘needed’: “Beggars can’t be choosers” (Man, 60).

With regard to innovative potential and new job opportunities, gender issues in the community were addressed. It has been primarily women that have suffered from unemployment throughout the decades, starting with the arrival of the freezing trawler and the gradual loss of land-based processing. And even if processing facilities were present, it can be doubted that women—especially young and educated ones—would like to start a career at an assembly line. The potential to grow in the existing alternatives is limited, however, and more opportunities need to be offered to stop the still higher outmigration tendencies among women.

Figure 6: School Class Interacting With Artists in Residence at the Studio



6.0 Discussion and Conclusion

In times of unsteady resources and changing regulatory environments, the development of new socio-economic paths for resource dependent localities is ineluctable. Even though a tailor-made solution is not at hand, some results from Skagaströnd might serve as examples and could be transferred to other localities. Table 1 summarizes the parameters identified above for gauging social and community resilience, and identifies possible obstacles and threats to an increased resilience building capacity.

Table 1. *Parameters for a Community Resilience Assessment and Findings. The Level of Resilience was Evaluated as Low, Medium or High.*

Parameters	Level of resilience	Obstacles & Threats
Natural Resources	Low	Fisheries regulation, technology, attractiveness
People-place connection	High	Loss of trawler
Knowledge, skills and learning	High	Loss of local school, lack of funding for research; failing research, educational level
Community networks	Medium	Outmigration
Engaged governance	High	Municipality amalgamation
Diverse and innovative economy	Medium/ High	Scale, funding opportunities
Community infrastructure	Medium/ High	Municipality amalgamation
Transformability	High	Continuous outmigration

The research question centred on the level of resilience in the face of resource privatisation through transferable quotas. When it comes to the natural resource itself—the fish in the sea—and access to it by local inhabitants, the level of resilience can be deemed as low. Skagaströnd is a community that has experienced most of the negative side-effects of centralization and vertical integration in an efficiency-driven management regime. Amendments to the regulations have not proven to be beneficial for this place. Apart from that, neither traditional nor modern forms of fisheries seem to be particularly attractive to the younger generation (cf. Bjarnason, 2014).

Social resilience and the concept of coping have been interpreted as active, intentional and bottom-up approaches for communities in transition. This requires a strong people–place connection and the general will of the local population to walk a hitherto unbeaten development path—transformability. Both can be found within the community. In particular, local policy makers show general support for innovative and unconventional ideas—engaged governance. A possible threat to this is municipality amalgamation, which is also perceived as one of the biggest threats to the community's infrastructure. To an outsider, the merging of municipalities seems economically reasonable. However, one should not underestimate the significance of independence and the importance of an active local school for a lively community.

Social resilience is also about responding to an—external—shock. The shock or stressor for this community has been the loss of quotas. Instead of keeping this sector running at any cost, like many other fishing villages have tried, new forms of employment are aimed for. So far, it has been a fruitful strategy to shift from labour-intensive fisheries with a strong focus on quantity to a qualitative, research-based, trajectory. This has turned the former fishing village into a prototype of post-quota development. The community is not in full control of its fate regarding resource use. Fundamental decisions about this are made by the central government. A change of the regulation that really enables and attracts new entries to the fisheries is advisable. Regional quotas need to be directed more at new entries into the fisheries and/or local job creation by existing or new companies, instead of ending up in the hands of external companies. Apart from that, regulatory changes regarding the requirement to land the catch locally could enable local food markets, fresh fish consumption and trade opportunities within communities (Smith & Chambers, 2015).

As explained at the beginning of the paper, coping strategies are centred on the reflexive use of knowledge and the formation of social identity. In Skagaströnd, one of the main drivers regarding identity is the artist residency and the constant cultural exchange created through the inflow of artists. This stimulates a local-global identity establishment. Culture and research define the main coping strategies, but are still dependent on the funding situation. Particularly the research and development company is reliant on successful research in the long run.

The overall economic situation is another aspect of fate control and influences the inherent capacity for a diverse and innovative economy. Not all projects are of a bottom-up and endogenous nature, embedded in the municipal environment, nor can all ideas be realised without external partners. For some projects, the stimulus comes from the outside, here in the form of the central government or an investor. Most interviewees referred to the latter almost like a *deus ex machina*. Even if such an investor appeared one day, conflicts might occur. This becomes apparent when the possibility of a large-scale industrial project is discussed. Here it is advisable to learn from the past. Previous large-scale plans have not led to diversification and independence, but have caused exactly the

opposite, leaving the municipality in the current situation. A large industrial project might work against the locally-developed, small-and medium-scale coping strategies. It might be a solution that would bolster the local economy in the immediate future and would lead to a population increase; yet there are certain imponderabilities. The main question is to what extent such a large project would eventually help to diversify the local economy, instead of just overheating it temporarily.

In this paper, the concept of coping strategies has been used to analyse local resilience when faced with policy changes. Has the former fishing village of Skagaströnd shown resilience in the face of changed regulation? This was the main research question of this study. In general terms, the community seems to have shown considerable resilience, even though its population has not increased yet. On the other hand, just like with the fisheries, it is not merely the quantity—the sheer number of heads—that defines a robust and flourishing community.

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