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BAXTER, G., YUILL, C. and HOLM, D.

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ARCTIC CONNECTIONS

Addressing the out-migration of young people from the Scottish Highlands and Islands

A review of relevant issues and interventions from the Nordic Region and the wider Arctic

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Executive Summary

Introduction and Methodology

This report presents the results of research conducted as part of the Scottish Government's Arctic Connections programme. It has explored the ways in which countries in the Arctic region have attempted to address the challenge of youth out-migration from their rural and island communities; and has identified policies, interventions, and examples of good practice that might potentially be adopted, or adapted, in the Scottish Highlands and Islands context.

The research was entirely desk-based, and consisted of two elements. Firstly, an extensive literature search was conducted, in which issues surrounding rural youth out-migration in Arctic region countries, and the approaches taken to addressing the problem, were identified and critically reviewed. Over 800 discrete items were consulted as part of this process, and almost 500 are cited in this report.

Secondly, four complementary interviews were conducted with key stakeholders from across the Arctic region and in Scotland (one from Iceland, one from the Faroe Islands, two from Scotland). These interviews explored rural youth out-migration issues in more detail, and focused on the potential transferability of policies, interventions, and good practice to the Scottish Highlands and Islands context.

Issues associated with the out-migration of rural Arctic youths

The research identified a wide range of factors and issues associated with youth out-migration in the Arctic.

Lack of employment and career progression opportunities

One of the key issues is a lack of employment and career progression opportunities for young people. The situation varies significantly between regions, particularly in the more sparsely populated areas of the north.

Decline or collapse of traditional industries

In much of the literature, rural youths' out-migration in search of employment is linked to the decline, or the complete collapse of, 'traditional' industries in the Arctic. Typically, these have been fishing, farming, forestry or mining. A body of work also exists that explores the challenges faced in the traditional Arctic occupation of reindeer husbandry.

Lack of educational opportunities

Across the Arctic, a lack of local tertiary education opportunities is frequently cited as a key factor behind rural youths' out-migration decisions. A recurring theme is the greater proportion of young *women* who leave peripheral areas to pursue educational opportunities.

Lack of affordable housing

In contrast to the situation in the Highlands and Islands of Scotland, a lack of access to suitable and affordable housing was rarely identified as a factor in rural youth out-migration across the Arctic. While some housing 'hotspots' are identified, the general

trend observed is that of an overabundance of empty and/or low-price houses in the more peripheral areas.

Poor local infrastructure and lifestyle opportunities
Poor local infrastructure in peripheral areas, and a lack of lifestyle opportunities for young people are recurring themes. In terms of infrastructure, this can include: limited or expensive public transport provision; inaccessible health and social support services; the closure of small rural schools; and poor digital infrastructure and online connectivity. In terms of lifestyle opportunities, these typically relate to a lack of sports, social or cultural facilities and venues, and generally a lack of "things to do".

Role and lure of regional centres
Regional centres — more modestly-sized but amenity-rich towns or cities, usually with a university or college — play an important role in the out-migration decisions of young people in rural communities throughout the Arctic. Opinions on the attraction and the impact of regional centres are mixed. Some observe the contribution they can make to regional population growth. Others describe them as regional "magnets", drawing people and economic activity away from smaller, more peripheral communities.

Gendered out-migration: 'female flight'
A large body of research exists which indicates that greater proportions of young women than young men out-migrate from rural and peripheral areas across the Arctic, ultimately leading to demographic problems. While the pursuit of a wider range of educational and employment opportunities is regarded as the main reason for female flight, other factors have also been identified, including a greater demand than young men for a more modern, urban lifestyle; one in which they have access to better public services (including health and social services), better public transport, and a more diverse range of social, leisure, cultural and retail offerings. A wish to escape "macho" rural cultures is also identified. Female flight in a Highlands and Islands context was not recognised by our Scottish interviewees.

Perceived hostile environments for sexual minorities
A small but significant body of literature from the Nordic countries explores the relationship between rural youths' gender identities and sexual orientations, and their out-migration decisions. In some cases, there is a perception that rural areas are hostile environments for sexual minorities (an argument supported by recent research in Scotland).

Social surveillance and gossip
Some Arctic studies have explored the "social surveillance", "prying", and "gossip" that can take place in small, intimate, rural communities; and have made (sometimes tentative) links with young people's decisions to leave these communities for larger towns and cities in which they can feel more anonymous. There is evidence that young women feel the negative effects of such gossip more keenly than young men.

Stigma associated with remaining in rural areas

In some Arctic and Nordic countries (particularly Denmark), there is a stigma associated with living in the more rural and peripheral regions. Rural youths can equate success (or potential success) with moving away. Staying behind or returning can represent failure.

Mental health issues

Poor mental health amongst young people — particularly indigenous youths — in the Arctic and Nordic regions is a recurring theme. However, mental health issues are rarely linked to out-migration behaviour.

Migration embedded in culture

Some argue that rural youth out-migration is now embedded in local cultures: “it is simply the way it has to be and it goes without saying”.

Climate change: ‘climigration’

Attention is increasingly being turned to the impact (actual and potential; direct and indirect) of climate change on migration patterns. Arctic climate change is affecting northern communities in multiple ways, all of which might influence the movement of individuals. It can hamper the pursuit of traditional livelihoods, such as reindeer husbandry; it can affect food security, particularly for communities reliant on subsistence lifestyles; it can make local mobility more hazardous, particularly over traditional river ice and coastal sea ice routes; it can have detrimental structural impacts on buildings and infrastructure; it can have negative effects on burgeoning tourism industries; and it can further impact upon the already fragile mental health of many Arctic residents. Equally, there are those who identify *opportunities* that climate change might bring to the Arctic, in terms of economic development.

Types of intervention discussed in the literature

The research has identified a wide range of policies, programmes and interventions, from across the Arctic, that have been designed to counter rural youth out-migration or to contribute to wider regional development.

Large-scale, country-wide or regional, rural development or settlement/ resettlement programmes

The last 30 years have seen a general shift from exogenous, top-down approaches to Arctic regional development, towards more endogenous, bottom-up, place-specific methods. These efforts have met with mixed success in encouraging regional growth and discouraging depopulation.

International immigration: ‘demographic refill’

As a means of addressing rural depopulation and ageing populations, some municipalities from across the Arctic have focused on attracting younger international immigrants, in a process known as “replacement migration” or “demographic refill”. Opinions on the suitability and success of such strategies are decidedly mixed.

Regional universities and the provision of distance learning opportunities
The 1960s saw the beginning of a trend towards the regionalisation of higher education institutions throughout the Arctic. Today, almost every jurisdiction has a post-secondary institution of some kind. Some success stories are reported, in terms of student attraction and retention. Equally, limitations in the range of courses offered, and a continuing post-graduation brain drain to larger metropolitan areas are identified.

Economic diversification: large-scale, industrial projects
In efforts to encourage economic diversity, several regions or municipalities have established large- or medium-scale industrial projects in rural areas. These have included aluminium smelters, hydropower schemes, new or reopened mines, manufacturing plants, oil and gas exploration and extraction facilities, nuclear power plants, renewable energy projects, and aquaculture. Not all of these schemes have been entirely successful in attracting young people or facilitating local and regional development.

Economic diversification: research and development
A small body of work has discussed the opportunities that can exist via research and development. But this is rarely related directly to rural youth out-migration or population movements more broadly.

Economic diversification: friluftsiv, nature-based tourism, and the experience economy
A vast body of work exists which argues that tourism can provide significant opportunities for job and income generation, and can assist in addressing depopulation in rural and peripheral areas. The discussion is often related to the Scandinavian concept of *friluftsliv*, or ‘outdoor life’. Several barriers and tensions are identified, which perhaps bring into question the perception (of some) that tourism is a panacea for rural depopulation and youth out-migration in the Arctic. These include: an over-reliance on seasonal, low-skilled, low-paid work, unattractive to local youths; a preponderance of small, family-run businesses and ‘lifestyle entrepreneurs’ providing few employment opportunities; conflicts with other traditional land uses and subsistence economies; and pressures on local infrastructure and the local environment.

Entrepreneurship and business start-up support: accelerators and ‘decelerators’
There is a disjointed and variable response to entrepreneurship development across the Arctic. An interesting recent development in Iceland is the creation of start-up *decelerators*, where entrepreneurs are provided with high-tech facilities, but in a slower-paced, stress-free environment.

Location-independent public sector jobs and catering for ‘digital nomads’
Across the Arctic, various initiatives have seen public sector or government jobs distributed throughout the more peripheral areas, rather than being located in a capital city or a large regional administrative centre. The success of these schemes has been variable. More recent literature discusses the Covid-19 pandemic and the opportunities it has brought to light, in terms of remote/home working. Some small towns and villages in Norway, Iceland and the Faroes, have begun concerted efforts to attract digital nomads, as a means of invigorating their communities and perhaps persuading them to become more permanent residents.

Housing services
As a lack of affordable rural housing is rarely mentioned in relation to Arctic youth out-migration decisions, little evidence of any relevant interventions could be found. Our Scottish stakeholder interviewees reiterated the extent to which housing is the most pressing issue for young people in the Highlands and Islands. They described it as a "multifaceted" and "wicked" problem.

Transport infrastructure improvements
Some studies have considered the socioeconomic impact of transport infrastructure improvements in particular parts of the Arctic. A particular focus here has been on fixed links connecting islands with a mainland. The results of this research have been mixed.

Other infrastructural improvements
Some of the literature reports on efforts to improve or create new social and recreational facilities for young people and the wider population. The development of new sports and recreation facilities in communities in Iceland and the Faroes have been particularly well received.

Community, creative, and/or co-working 'hubs'
Allied to the provision of new infrastructure has been the creation or adaptation of existing community hubs of various kinds. These have included social spaces, cultural hubs, distance learning centres and co-working spaces aimed at digital nomads. Some report tangible benefits for their communities.

Youth involvement in decision-making
Across the Arctic, a need for young people to be better involved in the policy- and decision-making processes is widely recognised. A range of youth parliaments, youth councils, youth panels, and other 'youth voice' fora in rural areas is reported. The influence and effectiveness of these bodies have been questioned, but those in northern Norway are considered successful.

Support networks for rural LGBT+ communities
There have been *some* efforts to establish networks and other mechanisms to support LGBT+ individuals who live or work in rural areas. These include examples from Scotland and the wider UK.

'Vitality policy', place narratives, and the dissemination of 'good news'
Many municipalities, from across the Arctic, have adopted place branding or similar techniques to present their local communities as attractive places in which to live and work. The effects of these approaches have been variable.

Conclusions and recommendations
This research interrogated a wide range of literatures that seek to explain the complex array of motives and circumstances that guide rural youth out-migration. We found several universal findings across the Arctic region. In all contexts, changes in established and traditional industries provided the backdrop for increased youth mobility. Education provided

another disembedding mechanism that further increased mobility among the rural young. It did so in two ways. Firstly, by providing the qualifications that make new forms of professional employment possible and the resource to access further education. Both of which are found elsewhere in urban locations. Secondly, education unintentionally created a culture that prioritised an urban culture and stigmatised rurality. Not to leave becomes a sign of failure and leaving a sign of success.

We make two key recommendations that are necessary to alter patterns of youth out-migration in the Scottish Highlands and Islands.

Housing emerged as both the prime problem and the main solution for rural youth migration. Scottish interviewees emphasised that without the material resource of housing the retention or attraction of young people to the Highlands and Islands would be highly challenging. The lack of housing is a combination of affordability plus the low level of housing stock. More housing needs to be built. An adequate housing supply would provide the necessary material base for the creative projects that have worked elsewhere in the Arctic region to be enacted.

***A new narrative of rurality*.** Rural locations are frequently described negatively, as, for example, being in crisis, failing or left behind. A negative narrative posits moving away as a sign of success and staying as indicative of failure. It also dissuades returners, as moving back can be construed as failure. A new rural narrative built on positive features is therefore required.

A positive narrative could emphasise features of rurality not available in urban locations. For example, closer connections and access to nature and the environment, a vibrant place to begin a young family, enhanced quality of life, unique cultural activities and traditions, as well as examples of stayers and returners who have created new businesses, cultural pursuits or found happiness that was not possible elsewhere. This positive narrative assists in reducing place-based stigma of staying and returning. It could extol the Highlands and Islands not just as rural idylls but as locations that are energetic, vibrant, creative hubs integrated into global flows of information, industry, new technologies and innovation.

A place-sensitive curriculum at primary and secondary school level should support and develop a positive narrative of a locality to reduce issues associated with 'learning to leave'. Areas where young people had been either attracted to return, to stay or to relocate from urban centres created narratives that centred a positive narrative of rural living.

The new narrative also entails thinking about communities and populations differently. A move away from fixity and permanence in understanding what a community is and how young people are situated in a community to a perspective based on fluidity and change is suggested by the literature. Mobility is a feature of late modernity. Those with the requisite educational and cultural capital can find higher education, professional jobs, and locations for lifestyle and identity projects in larger urban settings both in the home nation or abroad facing relatively few barriers in doing so.

Working against mobility is therefore no longer a useful approach in attempting to retain or attract young people to rural locations. It is perhaps better to work with it and harness the various flows of culture, people and technologies that move around the world. Fluidity should be embraced, and policies created and enacted that result in rural locations attracting and retaining young people, but where that young people demographic is heterogenous and constantly changing. That young person demographic could consist of local stayers, returners, short- and medium-term visitors in addition to young people from elsewhere who wish to permanently relocate.

1. Introduction and Methodology

Rural and island communities in Scotland have long faced the problem of the out-migration of young people, who leave their local areas to pursue education and employment opportunities elsewhere. In the latest of a series of studies of young people in the Highlands and Islands, ekosgen *et al.* (2018, p.4) noted a “deficit of young people” in the region, with 15–30-year-olds comprising 17% of the total population compared to 21% across Scotland. This migration occurs even though young people may have a strong affinity with the Highlands and Islands, and a real sense of pride in their local communities (p.47). A lack of affordable housing, employment and career progression opportunities, are viewed as the most influential factors in young people leaving the region (p.10). The situation in Scotland, however, is far from unique. As this report will demonstrate, the challenge of youth out-migration is one that is encountered by rural and peripheral communities across the Nordic Region and the wider Arctic.

As the Scottish Government’s Arctic Policy Framework, *Arctic Connections*, points out (Scottish Government, 2019a, p.3), Scotland’s geographical proximity to the Arctic region, and its trade, cultural and social links to countries in the region, means that it has much in common with Arctic communities. With these points in mind, this project has explored the ways in which countries in the Arctic region have attempted to address the challenges of retaining young adults in their rural and island communities; and has identified policies, interventions, and examples of good practice that might potentially be adopted, or adapted, in the Scottish Highlands and Islands context.

The research has been entirely desk-based, and has consisted of two elements. First, an extensive literature search was conducted, in which issues surrounding rural youth out-migration in Arctic region countries, and the approaches taken to addressing the problem, were identified and critically reviewed. Over 800 discrete items have been consulted as part of this process, and almost 500 are cited in this report. These include: academic journal articles, book chapters, theses and dissertations, and research project reports; government policy and strategy documents; trade and industry publications; third sector research reports; and online news and media pieces. And while the focus of the research has been on items published within the last 10-12 years, it does also consider some older material that has been cited frequently in other, more recent publications.

As the causes and impacts of rural youths’ out-migration decisions (or, of course, their decisions to remain in the rural environment) are many and varied, the literature discussed in this report comes from a wide range of subject disciplines, including: population and demographic studies; ethnography; sociology; psychology; gender studies; education; public health; agriculture; forestry; environmental studies; hospitality and tourism; entrepreneurship; economics; marketing; political science; and transport.

The literature search was restricted to English-language material only. It should be noted here that a significant body of work was identified that was available only in the first languages of the various Arctic countries. On some occasions, an English-language abstract or executive summary was accessible and consulted. It should also be emphasised, however, that the key themes and results from this first-language material were typically reported by the same authors, or by others, in the English-language papers and reports

reviewed here. We are therefore confident that this review is comprehensive, both in terms of the types of issues affecting youth out-migration in the Arctic, and the approaches made to address rural depopulation.[1]

As the second element of the research, four complementary interviews have been conducted, via Zoom and MS Teams, with key stakeholders from across the Arctic region and in Scotland (one from Iceland, one from the Faroe Islands, two from Scotland). These interviews explored rural youth out-migration issues in more detail, and focused on the potential transferability of policies, interventions, and good practice to the Scottish Highlands and Islands context. To preserve the anonymity of these interviewees, they are described as 'Interviewee 1', 'Interviewee 2', etc, when quoted directly in this report.

The remainder of the report is structured as follows. In Section 2, we consider the youth out-migration patterns reported in the literature, both within the individual countries and across the Arctic or Nordic region more broadly.

Section 3 covers the most discussed issues associated with rural youth out-migration in the Arctic. Here, we also consider our Scottish stakeholders' perceptions of the relevance, or otherwise, of these issues in the Scottish Highlands and Islands setting.

In Section 4 we discuss the types of policies, programmes, and other interventions, designed to counter rural youth out-migration or contribute to wider regional development, that have been reported in the literature. Here, too, we consider the responses from our Scottish stakeholder interviewees, in terms of the potential relevance and transferability of the exemplar interventions to the Scottish Highlands and Islands.

In the final section, Section 5, we draw some conclusions and provide some recommendations for the Scottish Government and other Scottish stakeholders.

[1] A less restrictive limitation was that, for subscription-only academic papers, we could not access material to which Robert Gordon University's Library did not subscribe. This situation applied only in a small number of cases, usually with book chapters. Our general impression is that these chapters typically replicated other material by the same authors, to which we *did* have access. We therefore believe that this has had no great impact on the comprehensiveness of the review.

2. Migration patterns in the Arctic

In this section of the report, we consider the broad patterns of internal migration and out-migration within the individual countries that comprise 'the Arctic'. We also include literature that discusses migration patterns throughout the Arctic as a whole, or across two or more of the constituent countries. As will be seen, several authors consider population migration more broadly, rather than focusing specifically on the movements of young people.

2.1 Canada

Rural youth out-migration is a long-standing issue in Canada. Earlier research by Dupuy *et al.* (2000) found that 15-19 year olds in all ten Canadian provinces were leaving rural locations at higher rates than the same age group leave urban centres. This trend is particularly noticeable on the Atlantic seaboard, where all provinces are net losers in rural migration. Outward youth migration and a lack of young people relocating to those provinces are prime drivers of that demographic transition. Subsequent research (Malatest *et al.*, 2002; Moazzami, 2015; Valade, 2017) has found the overall trend has not changed.

A report by Moazzimi (2015) makes projections from census data and predicts between 2011 and 2025 all rural populations in Canada will decline further. In provinces such as Newfoundland on the Atlantic coast the projected decline is steep, with a loss of 19.2% of the rural population. The demographic future for rural Canada, according to Moazzimi's modelling, is one of fewer people and of older people. The consequences of this demographic transition are profound for rural communities. Siddiq (2020) notes a potential decline in the tax base of rural areas leading to reductions in public services with implications for future economic growth.

The reasons for youth migration from rural to urban Canada are multiple and take place against a background of decline in traditional industries, such as fishing (Reid and Reid, 2016). In Newfoundland, for example, the decline in fishing has led to a substantial reordering of the local community and the relationships inhabitants have with place (Stoddart and Sodero, 2015).

Though decline in traditional industry is important, education emerges as an important element in rural youth out-migration (Sano *et al.*, 2020). Schooling functions as a "disembedding mechanism" for rural youth (Corbett, 2010). It reduces association with place and constructs other places, often urban and elsewhere, as being desirable locations in which to live. Moving away therefore becomes indicative of success and higher social status, while remaining, or returning, becomes indicative of failure and low achievement (also noted by Corbett, 2013; Sano *et al.*, 2020). Indeed, schools may develop a hidden curriculum or informal culture that begins to sort out 'leavers' from 'stayers' with the former perceived as high achieving and the latter as low achieving (Corbett, 2013).

The construction of school curricula also contributes to mobility. They are standardized nationally, they tend to focus on the types of skills necessary for employment in urban locations, while (unintentionally) denigrating traditional manual employment, which further

promotes narratives of mobility (Corbett and Forsey, 2017). To mitigate this effect, in an earlier work Corbett (2005) advocates for "place-based education and contextually specific curriculum", that would posit a positive construction of rurality that centred living in rural communities as a valid and successful lifestyle.

The quality of place acts as another driver of youth migration. Esses and Carter (2019), in studying wider patterns of immigration, found that for youth in rural locations issues such as transport, the lack of recreational facilities and "something to do", plus a lack of feeling and being involved in community decision making also contributed to out-migration. Jobs were also important, but the work must be fulfilling and meaningful.

2.2 Denmark

In discussing the factors behind rural depopulation and urbanisation in Denmark, several authors point to the decline of the agriculture and coastal fishing industries (e.g., Tietjen and Jørgensen, 2016; Prince, 2017; Gyimóthy and Meged, 2018). However, much of the literature focuses instead on the impact of the local government structural reforms of 2007, in which the number of Danish municipalities was reduced via mergers from 271 to 98, and where the country's 13 counties were replaced by five regions (see Danish Ministry of Economic Affairs and the Interior, 2013). These reforms resulted in the increased centralisation, and rationalisation, of public services across the country (e.g., Winther and Svendsen, 2012), and the strengthening of the metropolitan areas (e.g., Nørgaard, 2011).

As several authors argue, the 2007 reforms have also contributed to a negative public and media discourse on "Outskirts-Denmark" ("*Udkantsdanmark*"), where Denmark's rural and peripheral areas are stigmatised as being "the Rotten Banana" ("*den rådne banan*") (e.g., (Svendsen, 2018; Rudolph and Kirkegaard, 2019; Gulisova *et al.*, 2021). The banana metaphor relates to the curved geographical shape of the more marginalised regions of Denmark (see Figure 1); and, as Winther and Svendsen (2012, p.466) explain:

> "That this banana should be 'rotten' stems from an increasingly widespread belief that all rural areas are backward, depopulated, demolished, deprived of infrastructure, lack employment opportunities, have ageing and poorly educated populations."

Figure 1: Denmark's 'Rotten Banana' (Winther and Svendsen, 2012, p.468)

As can also be seen from Figure 1 (the areas in blue), rural out-migration in Denmark is largely directed towards the Copenhagen metropolitan area, and to the larger towns and cities within east Jutland, such as Aarhus, Horsens, Kolding, and Vejle (e.g., Halkier, 2009; Andersen, 2011; Hansen and Winther, 2015; Sørensen and Pless, 2017).

In common with many of the other countries discussed in this report, a number of studies of the migration aspirations and intentions of rural youths in Denmark have been undertaken (e.g., Yndigegn, 2003; Sørensen and Pless, 2017; Pedersen and Gram, 2018; Gulløv and Gulløv, 2020). These have typically found that young people exhibit ambiguous and conflicting feelings about leaving their local communities, but that there is something of an inevitability about rural youth out-migration: "Becoming a 'real' youth is very much about mobility—in order to get on in life, you have to get out of the local area" (Sørensen and Pless, 2017, p.11). Interestingly, Mærsk *et al.* (2021a & 2021b) established how youths from the rural areas of southwestern Denmark address this "mobility imperative" by choosing to study in the same region, in the city of Esbjerg. This pattern, they argue, allows the students to simultaneously identify as local leavers from their home village, *and* as stayers in their home region. They thereby remain "attached" to their home region, whilst escaping the stigma associated with being a local stayer (see also section 3.10 of this present report).

There have also been two (English-language) studies of recent young rural migrants to urban areas in Denmark, including to the cities of Aalborg, Aarhus and Copenhagen (Pedersen, 2018; Svendsen, 2018). As well as investigating the participants' reasons for their rural-urban migration, both studies also explored the potential for return migration. Here, however, some resistance was demonstrated by the participants. Pedersen found that moving back was perceived as "a step in the wrong direction… a less prestigious downward social mobility" (p.698). While Svendsen's respondents indicated that any moves back home

would demand “well-esteemed, interesting and well-paid jobs”, that would ensure that they did not waste their high educational capital and thereby “lose face” (p.19).

In a similar vein, there have also been studies of the *counterurbanisation* motives and behaviour of Danish people (Andersen, 2011; Hansen and Aner, 2017). Again, however, these have found little evidence of any longer-term, return-migration aspirations amongst young people. Andersen, for example, found that the largest group in his study consisted of low-income families and singles who had moved to the fringe areas in order to obtain lower-cost housing, often on occasions such as retirement, or becoming unemployed or divorced. Only a very small proportion of urban-rural migrants were young, recent graduates returning to their place of origin (p.639). Similarly, Hansen and Aner’s study found that the young and newly graduated viewed their urban-rural move as an opportunity to “kick start their careers and to obtain positions with more responsibility than they might otherwise expect in the city” (p.8). In this regard, their relocation to a peripheral area was viewed as temporary only, and as a “stepping stone” towards their next job.

2.3 Faroe Islands

Perhaps unsurprisingly, given the relatively small population[2] of the Faroe Islands, there is only a small body of English-language literature that discusses migration from the islands.

Gaini (2016a) outlines the islands’ long history of education- and work-driven migration, which has been significantly affected by the prevailing economic conditions at the time. As he observes, “recession pushes people out, away from home; economic boom pulls them back” (p,12). Indeed, a number of authors discuss the significant impact of the 1990s fisheries crisis on levels of out-migration (Hamilton *et al.*, 2004; Hamilton, 2010); with Cooke and Petersen (2019, p.103) noting that the resultant fall in the Faroese population took almost a generation from which to recover. Recent figures would suggest that the population is continuing to grow in many of the islands’ communities (Gaini, 2018; Alexander *et al.*, 2020; Pristed Nielsen *et al.*, 2020).

Some authors focus on the cyclical nature of Faroese migration, where the islands experience a “constant flow of leavers and returnees” (Hayfield, 2017, p.8). In illustrating the propensity for a significant proportion of Faroese out-migrants to return to the islands, Hayfield (2018, p.1143) notes that around 40% of the current population, and around two-thirds of those aged 30-44, have previously lived abroad. This pattern is in line with Gaini’s (2015) study of the migration intentions of Faroese teenagers, which found that while most expect to move away from their hometown in the future, at least for a limited period of time, a large majority expressed a wish to return to their hometown later in adulthood.

In terms of *internal* migration and urbanisation in the Faroe Islands, the small city of Tórshavn, which is home to around 40% of the Faroese population, is generally regarded as the focal point (Johansen, 2013; Hayfield, 2018); although, interestingly, in Gaini’s 2015

[2] The Government of the Faroe Islands currently puts it around 51,000 (see https://www.faroeislands.fo/people-society/people-of-the-faroe-islands/population/)

study, few of his rural teenage participants expressed any interest in moving to the capital. In terms of *external* migration, Denmark is the most popular destination, due largely to its historical and jurisdictional links with the Faroes (Hayfield *et al.*, 2016). These connections mean that Denmark is perceived as being “less foreign” (Hayfield, 2017, p.4) and the “least alien” option (Gaini, 2015, p.61) by young Faroese out-migrants.

In the Faroe Islands, the proportion of young people leaving to pursue educational opportunities has been above 60% for some decades, according to Alexander *et al.* (2020, p.68). Hayfield *et al.* (2016, p.21) note that many young people still choose to study abroad, even if the subjects they are interested in are available in the Faroe Islands. In terms of job opportunities, a number of authors observe that youth unemployment is a relatively minor problem in the Faroes (Gaini, 2016a; Cooke and Petersen, 2019); therefore youth “generally are not forced to leave due to lack of job prospects” (Hayfield, 2017, p.6).

2.4 Finland

Urbanisation due to rural out-migration is a more recent phenomenon in Finland than in many other European countries (e.g., Gløersen *et al.*, 2005, p.57; Fina *et al.*, 2021). Westerholm (2002, p.133) illustrates this by noting that Finland’s urban population surpassed the rural population in numbers as late as 1960. Whereas, in neighbouring Sweden, the urban population had outnumbered rural inhabitants in the early 1930s.

Rural out-migration in Finland began in earnest in the 1940s, following the mechanisation and decline of the agriculture and forestry industries (Kuhmonen and Kuhmonen, 2015). It reached its peak in the late 1960s and early 1970s, in what is described variously as the “Great Move” (Lehto and Oksa, 2002; Arbo and Eskelinen, 2003), the “Big Move” (Suopajärvi, 2016), or the “Great Migration” (Tervo, 2005; Andersson and Sjöblom, 2013). During this period, many people moved to Sweden (e.g., Salmi, 2015; Eliasson *et al.*, 2019; Fina *et al.*, 2021). Following an economic crisis in the early-1990s, Finland again experienced a significant wave of urbanisation (e.g., Voutilainen and Wuori, 2012; Lehtonen and Tykkyläinen, 2014; Tervo, 2016).

The urbanisation trend continues across Finland. Indeed, between 2000 and 2019, the share of the Finnish population living in areas that are classed as ‘rural’ decreased from 33% to 27% (Copus *et al.*, 2022, p.349). The main population flows are from the north and the east of the country to the south and the west (e.g., Heikkilä and Pikkarainen, 2010; Lehtonen and Tykkyläinen, 2017; Komu and Adams, 2022). Most observers are in agreement that the majority of rural migrants head to one of a small number of urban growth centres, namely the capital city Helsinki, and other university towns and cities, such as Jyväskylä, Kuopio, Oulu, Tampere, Turku, and Vaasa (e.g., Lehtonen and Tykkyläinen, 2010; Tervo, 2016; Fina *et al.*, 2021).

A small body of work has explored the aspirations and migration intentions of rural youths across Finland as a whole (Kuhmonen *et al.*, 2016), or more specifically in eastern Finland (Armila *et al.*, 2018) or Finnish Lapland (Juvonen and Romakkaniemi, 2019; Komu and Adams, 2022). This work has typically found that a significant proportion of participants feel

a desire, or compulsion, to leave their local area, to pursue educational or employment goals, or to "seek urban youthfulness" (Armila *et al.*, 2018, p,1200). Interestingly, however, Adams and Komu (2021) focused on the young people who had made conscious decisions to stay in their home town (the small northern town of Kemijärvi), and who were "content" with their choice (that study is discussed further in section 3.10 of this present report).

There have also been some studies of the migration behaviour of university graduates. These have found that graduates in Finland are not particularly mobile, with most remaining in their region of studies for the ten years after graduation (Haapanen and Tervo, 2012). Kotavaara *et al.* (2018) found that around two-thirds are concentrated in the four largest city regions of Helsinki, Turku, Tampere and Oulu; with only 5% living in small towns or rural areas.

Mention should also be made here of the work of Hedberg and Kepsu, who have studied the out-migration choices of rural Finland-Swedes, a Swedish-speaking minority in Finland. They found a recurrent pattern of migration to Sweden, which is shaped by their ethnic identity and by social, cultural and economic links (Hedberg and Kepsu, 2003; Hedberg, 2007). Indeed, for some Finland-Swedes, "crossing the linguistic border to the central regions of Finland was too big a barrier in comparison to the national border to Sweden" (Hedberg and Kepsu, 2008, p.110).

2.5 Greenland

In discussing settlement and migration patterns, the literature identifies several characteristics that set Greenland apart from many of the other Arctic countries discussed in this report. Firstly, much of its surface area (around 80%) is covered by an inland ice sheet, which has largely restricted human settlement to the narrow coastal fringes (Dzik, 2016 & 2018). Secondly, land transportation within Greenland plays a minor role compared to aviation and shipping: there is no real road infrastructure between settlements, which will, of course, have an impact on residents' mobility (e.g., Alexander *et al.*, 2020; Pristed Nielsen *et al.*, 2020). Thirdly, the majority of Greenland residents self-identify as indigenous Inuit people, with estimates ranging from 80% (Rosen, 2016) to 89% (Karsberg, 2017).

Hendriksen (2014, p.11) argues that for urbanisation the significant difference between Greenland and the other Nordic countries is that the Greenlandic situation is "much more a consequence of administrative and political decisions than the consequence of the development of commercial and economic structures". He and many other authors highlight Greenland's recent colonial past, and, in particular, the policies of the Danish Government's Greenland Commission (*Grønlandskommissionen*) of 1950, and Greenland Committee (*Grønlandsudvalget*) of 1960. Usually known, respectively, as G50 and G60, these "infamous" (Connell, 2016, p.475) and "dubious" plans (Dzick, 2016, p.106) saw the Danish Government attempt to concentrate the Greenlandic population into the larger settlements. As Hamilton and Rasmussen (2010, p.46) explain, this was achieved "partly by persuasion, partly by material incentives such as providing new houses and dwellings, or access to schools and shops. Negative incentives appeared in efforts to close public facilities in smaller settlements".

Hendriksen (2014, p.7) contends that these centralisation processes were key to the establishment of home rule in Greenland, in 1979. However, he also points out that the resultant Home Rule Government introduced policy measures that were to add to Greenland's pattern of urbanisation. In 1994, a uniform price system in retail, whereby a given product would cost the same price throughout the country, was abolished. Furthermore, a public subsidy to the government-owned retail chain Pilersuisoq was gradually phased out. Combined, these saw sharp increases in the prices of essential groceries in the peripheral communities. Then, in 2005, a similar uniform price system for electricity and water was abolished, meaning that the publicly-owned utilities company Nukissiorfiit could charge 'true-cost prices' with limited public subsidies. Consequently, electricity prices and water rates became 2.5 to 3 times higher in the smaller communities than in the major settlements, and resulted in increased out-migration rates from the peripheries (see also Winther, 2010).

In addition to these state-induced factors, a number of authors point to changes in the fishing industry, over the last 40-50 years, as having contributed towards urbanisation in Greenland. These include: the collapse of the cod stock, and a subsequent move to a shrimp-based economy; the closure of smaller storage facilities; the introduction of factory trawlers; and the out-sourcing of fish processing to other countries, such as Poland, China and Thailand (e.g., Hamilton *et al.*, 2003; Rasmussen, 2013; Hendriksen and Jørgensen, 2015; Gjedssø Bertelsen *et al.*, 2016). And while Rasmussen (2007) saw some signs of the reversal of the concentration process, noting that diversification into halibut fishing had become important for community growth in north-west Greenland, this does not seem to have had any significant impact on Greenland's overall pattern of urbanisation. Indeed, in 2020, of the overall population of 56,367 people, 87.3% (49,198) were living in urban areas, according to the World Bank.[3]

This urban population is based largely in the three biggest urban centres, Nuuk, Sisimiut, and Ilulissat. Most estimates indicate that the capital, Nuuk, holds between one-quarter and one-third of Greenland's population (e.g., Dzik, 2018; Petridou *et al.*, 2019; Grydehøj, 2020). With specific regard to Greenlandic *youth*, the estimated proportion of young people living in urban areas is similar to that of the population as a whole: i.e. 85% of those aged 15-24, according to Karsberg (2017, p.6). Indeed, Tróndheim (2013, p.78) describes urbanisation as now being "part of the contemporary lifestyle in Greenland"; which allows younger Greenlanders to live "a more individual life and [define] themselves both locally and globally".

Several authors emphasise the extent to which young Greenlanders migrate to Denmark, for education or employment purposes, and the ease with which this can be done (e.g., Boersma and Foley, 2014; Connell, 2016). This movement can present its own problems. Alexander *et al.* (2020) observe that many young people leave to train in professions that may be needed in the local community, but then choose to stay away; with Greenland instead experiencing a steady throughput of young Danish professionals who stay in Greenland only temporarily. Meanwhile, those who come back to Greenland after studying abroad, in Denmark or elsewhere, can be treated with some hostility on their return; being no

[3] See World Bank's DataBank at https://databank.worldbank.org

longer regarded as 'real' Greenlanders because of their absence from the country. This can then result in these young professionals leaving again in frustration, only this time permanently (Taagholt and Brooks, 2016, p.368).

The relatively low level of education in Greenland, particularly in the smaller, more remote settlements, and the extent to which this restricts youth opportunities, is also discussed frequently in the literature. For example, Rosen (2016, p.299) notes that only 35% of students progress beyond compulsory school, which they finish at the age of 15 or 16. While Gjedssø Bertelsen *et al.* (2016, p.14) observed that, in 2014, a "staggering" 38% of young people aged 16-25 were unemployed, or were not enrolled in any education programme. A key factor here is a lack of Danish language skills. As several authors note, young people who primarily speak the indigenous Greenlandic language can face significant obstacles when attempting to enter further education (e.g., Rygaard, 2003; Abelsen, 2010; Wyatt, 2012; Taagholt and Brooks, 2016).

2.6 Iceland

In terms of rural out-migration in Iceland, the most significant body of research literature relates to the depopulation of coastal fishing communities, caused largely by the introduction of a comprehensive system of individual transferable quotas (ITQs) in 1990 (e.g., Einarsson, 2011; Willson and Gunnlaugsdóttir, 2014; Chambers *et al.*, 2017; Kokorsch and Benediktsson, 2018a). A smaller number of papers also point to the decline of the agriculture industry (e.g., Magnússon, 2013; Karlsson, 2020); while the Icelandic financial crisis of 2008, saw an increase in *international* out-migration, particularly to other Nordic countries (Júlíusdóttir *et al.*, 2013; Guðjónsdóttir and Loftsdóttir, 2017; Bird and Gísladóttir, 2018).

The internal movement has largely been to the Reykjavik capital region in the south west (e.g., Júlíusdóttir *et al.*, 2013; Karlsdóttir, 2013; Thorsteinsson *et al.*, 2020), and, to a lesser extent, Akureyri, the largest town in the north of the country (e.g., Magnússon, 2013; Bjarnason *et al.*, 2021). Indeed, in 2019, two-thirds of Iceland's 357,000 inhabitants were living in the Reykjavik area, and just 55,000 people were living in the smaller towns, villages and farming communities in the more sparsely populated regions of the island (Garðarsdóttir *et al.*, 2021). There have, however, been some recent suggestions that the rate of urbanisation in Iceland is declining (*Iceland Magazine*, 2018; Garðarsdóttir *et al.*, 2021).

Several studies have investigated the migration expectations and intentions of youths in Icelandic fishing and farming communities, all of them conducted by Bjarnason and his colleagues (Bjarnason and Thorlindsson, 2006; Bjarnason, 2009; Seyfrit *et al.*, 2010; Bjarnason, 2014). These have found that rural youths increasingly want to move to urban areas in Iceland, or abroad. Indeed, Bjarnason's 2009 study specifically examined *international* migration preferences, and found that the affinities of Icelandic youths were split amongst the islands of the North Atlantic, continental Nordic countries, European core countries and North American countries. He also found some gender differences: girls were more likely to choose the Nordic countries, particularly Denmark; while boys preferred English-speaking countries "with a reputation for economic and military power" (p.150), such as the United States and Britain. Interestingly, a recent masters student project (Kelly, 2021)

has explored the actual migration behaviour of some of the cohort that participated in Bjarnason and Thorlindsson's 2006 study. She found a clear mix of behaviours: "Those who stayed were content to do so, those who left did so in search of a different lifestyle, and some who left ended up returning at a later period of time" (p.*v*).

2.7 Norway

In comparison with the situation in its Nordic Neighbours, Denmark and Sweden, Norway's urbanisation occurred somewhat later (Angell *et al.*, 2015; Wessel and Turner, 2020). A number of authors attribute Norway's pattern of rural out-migration to the decline in the fishing industry in the 1950s and 1960s (e.g., Cruickshank, 2006; Foss, 2016); and again in the 1990s with the introduction of a quota system (e.g., Hovelsrud *et al.*, 2010; Gerrard, 2017; Walsh and Gerrard, 2018; Gerrard and Kleiber, 2019). Some other authors point to the decline and closure, in the 1970s and 1980s, of various large-scale industrial plants (e.g., hydroelectric power, metals, chemicals) that had been established in Norwegian peripheries in the first half of the twentieth century, and in the period following the Second World War (Jakobsen and Høvig, 2014; Karlsen and Dale, 2014).

While Amundsen (2012a, p.4) suggests that "the centralization of population from the periphery to larger centers and from the north to the south has been the demographic trend for several decades", other authors argue that migration patterns in Norway are not so straightforward. For example, Carlsen (2006, pp.2-3) observes that migration from rural to urban areas in Norway is "highly correlated with macroeconomic conditions"; that "population flows from the periphery to cities are large when the economy is booming and small during downturns". Pedersen (2013, p.296), meanwhile, agreed that migration frequency in northern Norway is "extremely sensitive to changes in the economy"; and found that the majority (63.4%) of young adults in his longitudinal study did *not* migrate from their homes in the north (p.297).

The relative complexity of Norwegian youth migration patterns, is further illustrated by the mixed results obtained in various studies of rural youths' career aspirations and out-migration intentions. For example, Bæck's 2004 study of rural youths in northern Norway found them to have "a more negative outlook" on where they lived, and a desire to move to the most urban settings within north Norway. In contrast, the cross-cultural study of rural youths' views on migration, conducted by Kloep *et al.* (2003), found that Norwegian adolescents were less likely to want to leave their rural communities, compared with their counterparts in Scotland and Sweden. Meanwhile, Rye (2006a), studying youths in the Mountain Region (Fjellregionen) of mid-eastern Norway, found that they had "strong urban residential preferences", at least for the 'young adult' phase of their lives. But Bakke (2018), in interviews with youths in rural northern Norway, found that "for some of them, being able to stay in their home community is pivotal" (p.9).

The work of Rye is interesting due to exploring the influence of social class on Norwegian rural youths' migration choices and behaviour. In a series of papers, he has argued that rural youths' migration decisions are strongly related to their social class (as defined by their fathers' capital resources), and that those in the rural upper social classes are far more likely

to out-migrate than others (Rye and Almås, 2004; Rye, 2006b; Rye and Blekesaune, 2007; Rye, 2011a).

A small body of (English-language) work that discusses the out-migration of indigenous Sámi youths from north Norway is also noteworthy. Dana (2008), for example, argues that the decreased profitability of traditional reindeer husbandry has forced some to find other occupations and migrate from their homeland. Mathisen *et al.* (2017) notes that young Sámi people are increasingly moving to larger cities in Norway, and that this can put pressure on their Sámi identities, particularly if they do not speak Norwegian. Meanwhile, Melhus *et al.* (2020) observe that most young Sámi migrants move to the city that is nearest to their homeland, but that they can be particularly vulnerable to bullying and social exclusion due to their different dialect, habits and behaviour.

2.8 Russia

A large body of literature exists relating to internal or interregional migration in the Russian Federation. Some of this work focuses on migration at the country-wide level, but most of it focuses on particular regions. While some authors look specifically at youth and/or rural out-migration, most adopt a broad-brush approach to the country's migration patterns. Much of this work is based upon census data and other official statistics produced by the Federal State Statistics Service, *Rosstat* (see https://eng.rosstat.gov.ru/).

Many authors compare migration patterns of the Soviet-era with the current, post-Soviet era. Some of these historical aspects are discussed in this present report, as they contextualise current rural out-migration. Doing so does complicate a discussion of Russian migration for a number of reasons. First, several papers highlight the Soviet-era residence registration system of *propiska*, which severely limited (official) rural-urban migration in the former Soviet Union (e.g., Andrienko and Guriev, 2004; Brunarska, 2014; Karachurina and Mkrtchyan, 2019; Heleniak, 2020). Second, the accuracy of government migration statistics, both in the Soviet and post-Soviet eras, has been brought into question (e.g., Nefedova, 2012; Mkrtchyan and Vakulenko, 2019; Kashnitsky, 2020). Third, in two waves, in the mid-1990s and the mid-2000s, many 'urban-type' settlements across Russia were reclassified as 'rural' communities, further complicating any comparative analyses (e.g., Zubarevich, 2013; Alekseev and Safronov, 2015; Nefedova and Treivish, 2019). Indeed, Borodina (2017, p.13) notes that these administrative changes suddenly added 2.3 million citizens to Russia's rural population.

Two broad migratory movements are discussed most frequently in the literature. One movement, usually described as the "western drift", commenced in the 1980s, and saw movement from the far east of the Russian Federation to the west (e.g., Zaionchkovskaya, 2013; Gavrilova, 2017; Lutsenko *et al.*, 2017). Mkrtchyan (2011, p.195) notes that, in the 1990s, some eastern regions of Russia saw their population shrink by 20-30%, and, in some cases, even halved.

The second broad movement, of greater relevance to this Arctic Connections project, is a move southwards from the 'Far North'[4] of Russia: movement which the Arctic Council (2021, p.165) calls the "flight from the north". In considering this north-south migration, most authors also discuss the earlier movement *to* the north (some of it voluntary and incentivised, some of it forced), which began in the late-1920s prompted by the mass industrialisation of the Russian Far North.

Following the break-up of the Soviet Union, however, the role of the state in northern development decreased significantly, and the introduction of a free market saw huge increases in the costs of living, which resulted in a large-scale exodus from the region (e.g., Wegren, 2016; Anderson, 2020; Heleniak, 2020). While various government resettlement programmes (some with World Bank funding) aimed to encourage older, less economically-active citizens to move south, to retain a younger Arctic population (e.g., Thompson, 2004; Nuykina, 2011; Khoreva *et al.*, 2018), these achieved limited success (see Section 4.1 of this report).

Two further factors affecting patterns of internal migration are also discussed in the literature. The first of these is the concept of *otkhodnichestvo* (temporary labour migration) and of the *otkhodnik* (a temporary labour migrant). The terms were originally used to describe rural peasants who supplemented their household income during the cold seasons by moving (on foot) to find temporary work in towns and cities (e.g., Makhrova *et al.*, 2016; Gunko and Nefedova, 2017). The phenomenon disappeared in the 1930s, following the Soviet programme of collectivisation, but re-emerged in the 1980s, with the new Russian economy forcing rural residents to move temporarily to urban areas to find work, often in the construction sector (e.g., Holland and Eldarov, 2012; Nefedova, 2015; Averkieva, 2016).

The other factor, which is particularly salient at the time of writing, given the conflict in Ukraine, is that of conscription to the military services. All men aged 18-27 currently have to serve a one-year period in the Russian military, and a number of authors have discussed the impact that this can have on rural youth migratory movements (e.g., Agranovich *et al.*, 2008; White, 2009; Miljukova *et al.*, 2019); with Walker (2010, p.658) observing that some young men in peripheral communities were "upbeat about their imminent enlistment into the armed forces, which was perceived as presenting opportunities both for mobility and for future job prospects". The Russian invasion of Ukraine has also raised concerns about a potential 'brain drain' from Russia, with an estimated 200,000 citizens having left the country during the first weeks of the conflict (see Demytrie, 2022).

A significant body of work has studied the aspirations and migration intentions of young people in the Russian Arctic and Far North. In most cases, these studies have focused on *urban* youths, currently living in small Arctic towns and cities (e.g., Ljovkin *et al.*, 2020; Rozanova-Smith, 2021; Bolatova, 2022; Simakova *et al.*, 2022), although Osipova and

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[4] The Russian 'Far North' (*kraynyy sever*) is very much a social construct, used by the Russian government for planning, economic development and statistical purposes. It encompasses 16 regions, with the classification being based on harsh climatic conditions, high latitude, remoteness from more densely populated regions, and greater expenditure on the exploitation of natural resources. While most of these regions are, indeed, in the north of the country, one region, Tuva, is located in southern Siberia (see Heleniak, 2009a & 2009b).

Maklashova (2016) studied youths living in Arctic coastal communities. Several studies have also explored the intentions of agricultural students located in predominantly rural areas of Russia (e.g., Bednaříková *et al.*, 2016; Unay-Gailhard *et al.*, 2019; Kvartiuk *et al.*, 2020). And while Antosik and Ivashini (2021) suggest that university graduates are attracted to the industrial regions of the Russian North, the vast majority of these studies generally indicate preferences for north-to-south and rural-to-urban movement by Russian youths.

It is perhaps fair to say that the Russian literature typically paints a rather bleak picture of any efforts to address rural youth out-migration. For example, Kumo and Litvinenko (2017, p.67) believe that "any attempt to reverse migration…is likely to fail"; Rozanova (2019, p.81), describes a "slow but inexorable rural exodus"; Sukneva and Laruelle (2019, p.19) claim that north-to-south migration is "irreversible"; while Karachurina and Mkrtchyan (2021, p.1) believe that there are "no viable alternative directions" to peripheral-to-urban migration movements.

2.9 Sweden

A number of authors point to the industrialisation and rationalisation of agriculture and forestry, and of other labour-intensive manufacturing industries, which began in the 1950s and 1960s, as contributing to rural out-migration (e.g., Hedlund and Lundholm, 2015; Hedlund *et al.*, 2017a). Others, however, cite the expansion of the Swedish higher education sector in the late-1970s, which saw a significant rise in student enrolments from the late-1980s onwards (e.g., Andersson *et al.*, 2004; Chudnovskaya and Kolk, 2017; Kulu *et al.*, 2018).

It is claimed today that Sweden has the fastest rate of urban growth in Europe, with the population gravitating more and more to urban centres (Eriksson, 2017). The vast northern region (Norrland) is regarded as being particularly vulnerable to depopulation (McMorran et al, 2019). Indeed, Eliasson *et al.* (2019) argue that the most significant internal migration patterns in Sweden have been from the north to the south of the country, and from inland areas to the coast. Sweden's three metropolitan areas of Stockholm, Gothenburg and Malmö have been the major destinations for internal migrants (Hansen and Niedomysl, 2009; Keskitalo *et al.*, 2017), as have other cities and towns with universities. In northern Sweden, for example, the university town of Umeå, on the Bothnian coast, is a popular migration choice of young adults (Berck *et al.*, 2016).

Whilst perhaps not as pronounced as the 'Rotten Banana' discourse surrounding rural Denmark (see section 2.2 of this report), a number of authors have identified similar narratives concerning northern Sweden, and have related these to rural out-migration and depopulation. These narratives have appeared in the press, in films and television programmes, and even in official Swedish parliamentary publications, in the form of non-government bills (e.g., Eriksson, 2010; Forsberg and Stenbacka, 2013; Nilsson and Lundgren, 2015). As Eriksson (2010, p.102) contends, there has been "a shift in the representations of the Norrland population; from representations of a traditional but honest and hardworking population, to those of an obsolete, stagnant, dishonest and non-enterprising one".

Similar to other Arctic countries discussed in this report, there have been a number of studies of the aspirations and the migration plans and behaviour of rural youths in Sweden, particularly in Norrland. Here, the results have been rather mixed. For example, in two studies of young women in the county of Västernorrland, a general desire to leave the area was expressed by the participants (Rauhut and Johansson, 2012; Rauhut and Littke, 2016); and the study by Rönnlund *et al* (2018), of 14-16-year-old schoolchildren in two (anonymous) rural municipalities, found that the dominant narrative in both communities involved "moving away" (p.132). Meanwhile, Eriksson (2017) studied young people who had already migrated from rural Norrland, and who regarded the move to larger cities in the south as "natural" (p.5).

In contrast, Forsberg's (2019) study of youths in the northern municipality of Kalix found that many challenged the assumption that 'leavers' and 'stayers' are associated with empowerment and disempowerment. Instead they declared a "right to immobility", to make a rational choice to continue to live and work in the local area. Similarly, in his studies of young people in the ski-resort area of Sälen, Möller (2012 & 2016) concluded that "the general picture from the respondents is simply that some young inhabitants moved and some stayed. Neither group was considered better than the other…" (2016, p.42).

There have also been some studies of counterurbanisation and return urban-rural migration in Sweden. Here, too, the results have been mixed. For example, in countrywide studies of counterurbanisation patterns in Sweden, Lindgren (2003), Hjort and Malmberg (2006), and Westlund and Pichler (2013) have all found that movement from urban to peripheral areas is far less likely amongst those aged under 30. In contrast, when studying the migration of women to and from the county of Västernorrland, Kocziszky *et al.* (2012) and Johansson (2016) found evidence of women "in the household creating ages" returning to the area, albeit to the more densely populated coastal communities. While Carson *et al.* (2019) found most return migrants to the inland municipalities of northern Sweden to be in "the younger working age groups". They note, however, that "a number of these will come and go from the north repeatedly throughout their lives, and may choose different specific locations to live each time they do so" (p.30). This last point, concerning the mobility of young Swedes, was echoed by Bernard and Kolk (2020), who studied the migration behaviour of young people (i.e. aged 15-35) in 25 European countries, and found that Sweden was the only country where young adults move on average more than five times – almost double the European average.

2.10 USA (Alaska)

Youth migration to urban areas is an issue in Alaska, especially for Alaskan Natives who constitute the bulk of rural populations (cf. Section 2.5 on Greenland). The 15-19 year old age group constitutes the largest outflow of young migrants (Sandberg, 2021). This category represents high-school leavers who seek further educational opportunities, careers, or new cultural experiences. Alaska historically experienced a positive net migration for the 20-30 year old age group, with more in-migration than out-migration. Young people seeking work and leisure experiences, plus return migrants, made up that figure. However, as Sandberg

(2021) notes, from 2015 to 2021 that is no longer the case, leading to negative net-migration for that age group.

The causes and patterns of migration while superficially like elsewhere can be more complex than in other Arctic regions. Traditional industries are undergoing considerable change, with few younger people entering the fishing industry, for example. It is entry costs into an otherwise relatively lucrative industry (especially salmon fishing) as opposed to the industry being in decline that dissuades young people. Many young people lack the financial capital to afford the permits legally required to participate in the industry (Dunkersloot and Carothers, 2016). Permits are consequently owned externally to communities resulting in the concentration of the fishing industry into fewer and fewer companies, who employ fewer local people.

One additional potential driver of out-migration is climate change. The evidence is, however, ambivalent as to how much migration is driven by climate change. Hamilton *et al.* (2016) found that climate change had little effect on migration, but noted that it may become unavoidable in the near future.

Patterns of migration, especially among Alaska Native youth, can be circular and flexible (Howe, 2009; Lowe 2010), which differs from migration elsewhere in the Arctic region. As Lowe (2010) has identified, this pattern of migration can mitigate the socioeconomic impact on rural communities, with a flow of money and skills back into that community. Howe (2009) also found return migration was common among Alaskan Natives. Both pieces of research also found that step migration was common for Alaskan Native youth moving up the chain of villages to towns and then on to towns and regional centres.

Migration does pose existential challenges for young Alaska Natives. They are required to negotiate two sets of cultural identities between their traditional indigenous identity and western modernity (Lowe 2010; Trout *et al.*, 2018). How that balancing act is reconciled can influence return migration if leavers still feel a connection with their communities.

The unintentional and contradictory consequences of education influence youth migration. For Alaskan Native youth, post-secondary education requires moving away from their local communities. Gram-Hanssen (2018) urges caution in assuming a simple causal relationship between youth migration and education. Her research indicates that maintaining connections with the community is important in informing choices to leave or return. Communities that offer support for returners do not experience problems of youth retention. Support here refers to assisting educated youth to create meaningful employment and creating space to influence the development of the local community. Offering support therefore acts as a mitigation strategy in stemming youth out-migration.

2.11 The Arctic or Nordic Region more broadly

In addition to the country-specific material outlined above, a significant body of literature exists that discusses migration and population patterns (and associated issues) more

broadly, across the Arctic as a whole, or across geographic groupings of two or more of the countries.

For example, there is literature that encompasses 'the Arctic' (e.g., Jungsberg *et al.*, 2019; Arctic Council, 2021; Heleniak, 2021), 'the North' (e.g., Walsh *et al.*, 2013; Lundmark *et al.*, 2020), or the 'Circumpolar North' (e.g., Hamilton, 2010; Allen *et al.*, 2014). And there is material that considers 'the Nordic Region', 'the Nordic Arctic', or 'the Nordic countries' (e.g., Johnsen and Perjo, 2014; Karsldóttír and Jungsberg, 2015; Grunfelder *et al.*, 2020).

Some authors discuss the Scandinavian countries only; or the 'North Calotte Region', which is typically defined as the northernmost parts of Scandinavia (e.g., Nyseth and Pedersen, 2014; Pedersen and Moilanen, 2019a & 2019b). While others focus on the 'Barents Area' or the 'Barents Region', which incorporates some of the northernmost counties in Finland, Norway, Russia and Sweden (e.g., Waara, 2002; Emelyanova and Rautio, 2016; Bæck and Paulgaard, 2019).

While the geographic coverage of this literature may vary, it is perhaps fair to say that, on the whole, it identifies a general trend of rural out-migration and urbanisation, particularly amongst young people. For example, Grunfelder *et al.* (2020, p,21) note that:

> "High levels of internal mobility have also been characteristic of migration patterns in the Nordic countries in recent years, leading to rapidly expanding urban populations and outmigration from rural and sparsely populated areas."

While Coates and Holroyd (2020, p.536) observe that:

> "Across the Arctic, populations are generally stagnant or declining. Small, remote communities have trouble holding young people in place."

In the next section of this report, we will look more closely at the factors and issues most associated with these trends.

3. Issues associated with the out-migration of rural Arctic youths

3.1 Lack of employment and career progression opportunities

One of the key issues associated with rural out-migration in the Arctic, and one that is repeatedly cited in the literature, is a lack of employment and career progression opportunities for young people. While the latest *State of the Nordic Region* report observes that the average Nordic employment rate of 79.4% is well above the EU average of 67.7%, it also emphasises that the situation varies significantly between regions, particularly in the more sparsely populated areas of the north (Grunfelder *et al.*, p.21). This is emphasised by the likes of Pedersen and Moilanen (2019), who, in discussing northern Scandinavia, observe:

> "In all three countries [Finland, Norway and Sweden], the northern Scandinavian region constitutes a northern periphery viewed from the perspective of both the large labour market cores and the central political and administrative pivots, which are located in the southern parts of all three countries. The region has been, and still is, regarded as being beset with problems, characterised by high unemployment and large net relocation" (p.33).

Similarly, Bæck and Paulgaard (2019, discussing the Barents Region, note:

> "… rural areas face severe challenges when it comes to industrial structures and labour markets. An important part of this picture is increasing unemployment throughout the region, and unemployment is a serious challenge especially facing the younger generations of the northernmost regions of Norway, Sweden, Finland and Russia" (p.9).

Employment is a challenge also facing young people in the Scottish Highlands and Islands. While the ekosgen *et al.* (2018) survey found that almost two-thirds (64%) of young people wanted to work in their local area, or elsewhere within the Highlands and Islands region (p.41), a lack of local employment opportunities was cited by a minority (38%) of respondents (although this figure did rise to 45% amongst young people in "fragile areas").[5] This more optimistic view, regarding the availability of job opportunities, was echoed by our Scottish stakeholder interviewees, with one observing:

> "Generally that might be what we've said in the past. But right now we're in the midst of a sort of economic growth period, where we're on the precipice of future jobs and a whole range of things going on." (Interviewee 3)

[5] A 2014 review of fragile areas, conducted for Highlands and Islands Enterprise, found these to be concentrated in the Outer Hebrides, in Lochaber, Skye and Wester Ross, and in Argyll and the Islands (Highlands and Islands Enterprise, 2014, pp.2-3).

While acknowledging that there would be some geographical variations across the Highlands and Islands, in terms of employment opportunities, our Scottish stakeholders cited other factors (particularly the availability of affordable housing) as being more critical:

> "Whilst I would accept that in some very rural parts and remote parts then, yes, you could apply that. But more broadly across the whole region, I would say that the problem is we've got many, many jobs and we just don't have enough people or enough houses to put them in." (Interviewee 3)
>
> "The lack of affordable housing is the key issue. We can't house locals. We also can't house those coming in to take up work." (Interviewee 4)

This issue, of the availability of affordable housing for young people, is discussed further in Section 3.4 of this report.

3.2 Decline or collapse of traditional industries

In much of the literature, rural youths' out-migration in search of employment is linked to the decline, or the complete collapse of, 'traditional' industries in the Arctic. Typically, these have been ***fishing*** (e.g., Hamilton, 2010; Gerrard, 2017; Bjarnason, 2020), ***farming*** (e.g., Lehtonen *et al.*, 2012; Foss, 2016; Sheludkov *et al.*, 2021), ***forestry*** (e.g., Carson *et al.*, 2016a; Pitkänen *et al.*, 2017), or ***mining*** (e.g., Dubois and Carson, 2017; Kaltenborn *et al.*, 2020); although the decline of some other industries is also occasionally mentioned, for example the closure of ceramic factories on the Danish island of Bornholm (Prince *et al.*, 2021).

A body of work exists that explores the challenges faced in the traditional Arctic occupation of ***reindeer husbandry***, such as the loss of grazing lands and the fragmentation of reindeer migratory routes. The literature here focuses on the impact on the indigenous peoples, i.e. the Sámi in Finland, Norway and Sweden (e.g., Buchanan *et al.*, 2016; Mathisen *et al.*, 2017; Joona and Keskitalo, 2022), and the Karelians, Nenets and Vepsians in Russia (e.g., Vladimirova, 2017; Garipov, 2020). As will be discussed further throughout this report, however, these challenges are not always associated with indigenous youths' out-migration behaviour.

With regard to these more traditional industries in the Scottish Highlands and Islands, Skills Development Scotland's recent *Regional Skills Assessment* exercise (2022) found that, while job opportunities in mining and quarrying are forecast to decline over the next few years, agriculture, fishing and forestry will continue to be a relatively important sector in the region. For example, it is noted that, in 2021, the concentration of employment in fishing and aquaculture in the Highlands and Islands was almost 6 times that of the Scottish average; that the crop and animal production employment concentration was 2.6 times the national average; while employment in forestry and logging was 2.5 times as concentrated than the average for Scotland (p.14). Furthermore, the agriculture, forestry and fishing sector is predicted to be one of four sectors in which job openings are expected to be concentrated in the longer term, i.e. 2024-2031 (p.31).

These figures may explain why our Scottish stakeholder interviewees did not attribute Highlands and Islands youth out-migration decisions to any perceived or actual decline of industries such as farming or fishing. They instead focused on the employment opportunities that are arising from economic diversification in the region, particularly the development of renewable energy:

> "I think economic diversification is going to be huge. Offshore wind is a once in a generation opportunity for Orkney, to sustain our community. And the same with Caithness, and some areas down the West Coast, and Nigg and various areas down the Cromarty Firth. It's a huge opportunity." (Interviewee 4)

3.3 Lack of educational opportunities

Across the Arctic, a lack of local tertiary education opportunities is frequently cited as a key factor behind rural youths' out-migration decisions. For example, Coates and Holroyd (2020a) note that: "many northerners leave for advanced education and training, often never to return permanently due to an absence of career opportunities" (p.536). Meanwhile, in the Nordic Council of Ministers' second *Arctic Human Development Report*, Hirshberg and Petrov (2014) argued that:

> "A common problem of non-metropolitan, peripheral regions is the "flight" of human capital. With an increased level of education the ability (and desire) of local residents to find employment or new educational opportunities elsewhere grows as well. An increasing number of northerners, especially women, move away from the Arctic to receive or use their education." (p.369)

The point about a greater proportion of young *women* leaving peripheral areas to pursue educational opportunities, is a recurring theme in the literature, and will be discussed further in Section 3.7 of this report. The Arctic Council (2021), for example, notes that:

> "Women pursue higher education to a greater extent than men; consequently, they out-migrate at a higher rate, often not to return" (p.148).

While Grunfelder *et al.* (2020) observe that:

> "From a gender perspective, women are more prone than men to pursue tertiary education and move from peripheral areas" (p.135).

The relationship between rural out-migration and the availability of further or higher education opportunities is recognised in the Scottish context (e.g., Gillies, 2014; Alexander, 2016 & 2021). Indeed, in the ekosgen *et al.* 2018 survey, 52% of the student respondents from the Highlands and Islands studied at a college or university *outside* the region (p.32); with 57% choosing to do so because their course was unavailable in the Highlands and Islands (p.33).

This relationship was also recognised by our Scottish stakeholders. One interviewee put the number of young people from the Highlands and Islands who graduate from Scottish institutions *outside* the region at around 2,500-2,600 annually. It was suggested here that a wider range of educational choices was required (see also Section 4.3 of this report), both to retain local youths and also attract young people from outside the region:

> "What I'm *not* saying is that we need to do things to keep that 2,500 people here. I'm absolutely comfortable that they go, and encourage them all the time. But we should and could become a net importer of young people." (Interviewee 3)
>
> "We don't want to discourage people from going away. If they want to go away, brilliant. But we want to provide them with opportunities, that they don't *have* to go away." (Interviewee 4)

3.4 Lack of affordable housing

In the ekosgen 2018 survey of Highlands and Islands youth, access to suitable and affordable housing was recognised as one of the main barriers to studying and working in the region (p.74). The ekosgen report also highlighted earlier research that identified a significantly higher proportion of "young and stuck" people in the Highlands and Islands Enterprise Region than in other Scottish Enterprise Regions. Here, "young and stuck" people were defined as young people with constrained housing aspirations, with the potential to leave if they do not find affordable housing (Highlands and Islands Enterprise, 2017, p.32). The 2017 research found that there was considerable pressure in a number of 'hotspots' in fragile areas, where young people "are more commonly stuck", and where they face higher average house prices, but with lower average incomes. As the report continued, these hotspots:

> "… are commonly tourist destinations with very high numbers of second homes. There is a tension between providing tourist accommodation for a critical industry in the Highlands and Islands and providing affordable accommodation for young people and families wishing to live and work in the Highlands and Islands." (p.37)

This theme was very much echoed by our Scottish stakeholder interviewees, who again identified that the availability and affordability of housing was the most important issue affecting out-migration and return migration decisions:

> "Overlapping all that is a kind of market failure of housing provision, particularly in the west coast and the island communities." (Interviewee 3)
>
> "It's holding on to people in their 20s, or drawing in people in their 20s and 30s, because they're the ones that are going to bring kids in. But they're the very people who've got the least opportunity of accessing housing. Because they've not got the capital behind them to be able to do so." (Interviewee 4)

Given the affordable housing barriers facing young people in the Highlands and Islands of Scotland, it is perhaps surprising that the problem appears to be not so extensive across much of the Arctic. Indeed a lack of affordable rural housing is only rarely mentioned in the literature, in terms of youth out-migration decisions. That is not to say that there are no housing-related issues in the Arctic. For example, Eliasen *et al.* (2020) provide an overview of rural housing challenges across the Nordic Region, observing that there are huge dissimilarities between, and internally within, the different countries. The general trend observed, however, is that of housing pressures in some specific growth areas (cf. the Highlands and Islands hotspots above), but an overabundance of empty and/or low-price houses in more peripheral areas, partly *because* of depopulation:

> "Various correlating trends strongly influence responses to the housing challenges faced in Nordic rural areas. Demographic trends such as urbanisation, an ageing population, migration and the creation of companies and jobs locally lead to a rural housing market where a general tendency to overcapacity is exacerbated and at the same time a lack of suitable housing in growth areas and in rural towns (where services tend to be localised)." (p.3)

A surplus of empty and low-cost rural homes appears to be a particular problem in Denmark (Eliasen *et al.*, 2020, p.14) – a factor that contributes to the 'Rotten Banana' metaphor discussed in Section 2.2 of this report (Jørgensen, 2016). Indeed, Hansen and Anar (2017), in discussing highly educated (and potentially temporary) *in-migrants* to rural Denmark, argue that such migrants are reluctant to purchase property. They are concerned that they will be unable to sell the house when they move on. "The current trends in the Danish housing market," they conclude, "do not favour investment in peripheral areas" (p.10).

Some authors, in contrast, have observed the emergence of rural hotspots in northern Sweden, which Andersson (2015) defines as places with rising house prices and in-migration of households with higher-than-average education and income. These areas, Andersson continues, have "a rare combination of factors sought after by footloose in-migrants": that is "the 'extra' natural beauty, cheap housing in combination with a high status, as well as a location suitable for commuting" (p.17). While some observers believe that the impact of these rising house prices will not be felt by existing residents and potential return migrants until "further down the line" (Magnusson Turner, 2013), others argue that the effects are already being realised. For example, Lundmark (2020) notes that, in the community of Arjeplog in Norrbotten, which has become a popular winter test site for European and Asian car manufacturers, the car test industry has influenced house prices and "created difficulties for the local population since housing has become very expensive in relation to the local salaries" (p.96).

Little evidence existed of displacement caused by rural second home ownership and the "gentrification" of the countryside by urban dwellers in any of the Arctic countries reviewed here. The academic literature provides some evidence of this leading to the "social displacement" of local residents in rural Scotland, including the raising of local house prices beyond those affordable to those in lower-income groups (e.g., Stockdale, 2010; Sutherland, 2019, 2021 & 2022) but not elsewhere. Certainly, Mamonova and Sutherland (2015) found that new-build rural second homes (or *dachas*) in two Russian regions did not *directly* displace local people, but that local residents were *indirectly* displaced through resultant

restrictions on land access and economic activities (p.160). However, neither of the two regions studied is in the Arctic or in Russia's Far North.

In Scandinavia, meanwhile, two studies have analysed the situation in Norway, where second home ownership is described as being "socially embedded as an integral part of the national cultural heritage" (Rye, 2011b, p.265). These studies have however concluded that the demand for second homes in rural Norway has not (yet) had any displacement effect of permanent residents. As Rye and Berg (2011) contend:

> "When rural outmigration leads to over-supply of rural housing, and in addition the second home population often erects new buildings rather than converting permanent homes, the result is that the populations do not compete in the same housing market. This provides for a rural permanent housing market with prices little affected by external demand…" (p.134).

Although, in exploring the second home phenomenon in *eastern* Norway, Overvåg and Berg (2011) argued that an increased demand for second home development in the coastal areas has the potential to lead to greater "conflicts and contestations" between second home owners and rural residents.

Sweden, too, has a long tradition of second home ownership (Müller, 2002), and a small number of studies have explored what, if any, impact this has had on rural out-migration. The work of Marjavaara (2007a, 2007b, 2008 & 2009) focused on second homes on the island of Sandö in the Stockholm archipelago (again, technically outside the Arctic) and found no evidence of any widespread displacement of local residents. He concluded that:

> "The reasons for leaving Sandö are related to issues of labour market, education and individual events in life. Issues concerning the dwelling situation in terms of prices and supply must be considered as negligible" (2009, p.216).

In his more recent work, however, Marjavaara observes that second-home ownership and migration in rural Sweden can be both a blessing and a curse. He highlights, in particular, the potential for house prices in rural communities, especially those in relatively close proximity to urban areas, to rise dramatically and thereby create more exclusive second home destinations (Müller and Marjavaara, 2012; Marjavaara and Lundholm, 2016).

The affordability of rural housing does not generally appear to be a major factor in Arctic/Nordic youths' out-migration decisions, at least presently. This finding is in sharp contrast to the situation in Scotland. Our Scottish stakeholder interviewees argued repeatedly that it was the predominant issue facing youths in the Highlands and Islands; and, as such, will impinge upon the potential transferability of many of the interventions that are discussed throughout Section 4 of this report.

3.5 Poor local infrastructure and lifestyle opportunities

The effects of poor local infrastructure in peripheral areas, and a lack of lifestyle opportunities for young people provides a recurring theme throughout much of the Arctic migration literature.

In terms of infrastructure, this can include: limited or expensive public transport provision (e.g., Vestergaard *et al.*, 2011; North Norway Youth Panel, 2020); inaccessible health and social support services (e.g., Sørensen, 2008; Hayfield *et al.*, 2016; Vaalavuo and Sihvola, 2021); the closure of small rural schools (e.g., Lehtonen, 2021; Sørensen *et al.*, 2021); and poor digital infrastructure and online connectivity (e.g., Arctic Council, 2015; Kiilakoski, 2016; North Norway Youth Panel, 2020).

In terms of lifestyle opportunities, these typically relate to a lack of sports, social or cultural facilities and venues, and generally a lack of "things to do" (e.g., Cooke, 2017; Pedersen and Gram, 2018; Jonsson *et al.*, 2020). The need for better lifestyle opportunities for young people in rural areas is perhaps best summed up by the North Norway Youth Panel, who, in their 2020 *Arctic Policy for Young People*, argue:

> "There is a great deal of talk about the importance of making the region an attractive place to live. To make this happen, youth centres, sports halls, cultural centres and modern schools need to be built. These are the kinds of things that will make us stay. When we [are] able to thrive, we do not feel a need to move away." (p.10)

In the Scottish context, the ekosgen 2018 survey identified similar concerns and needs amongst young people in the Highlands and Islands. It found, for example, that: 31% of young respondents saw a lack of transport, or a lack of *affordable* transport, as a barrier to study, and 12% saw it as a barrier to employment (p.61); that mobile and broadband connectivity is perceived as limited by significant proportions of young people (p.65); and that young people are keen to engage in arts, leisure and culture but are hampered by a lack of affordable transport and limited availability (p.45). As ekosgen concluded, "the limitations of the leisure, amenities and connectivity offering for young people in the Highlands and Islands can be a major driver for young people to seek education and employment opportunities elsewhere" (p.66).

Scottish stakeholder interviewees echoed these thoughts. Interviewee 3 described the "big ticket blockages" for young people as being housing, broadband, transport (particularly ferries), and, increasingly, energy and grid connection. While Interviewee 4, discussing Scotland's Northern Isles, believed that transport and connectivity issues were felt more keenly at the "micro-community" level, in the smallest and most remote communities in Orkney and Shetland.

3.6 Role and lure of regional centres

Regional centres appear to play an important role in the out-migration decisions of young people in rural communities throughout most of the Arctic and Nordic countries reviewed here. Although terminology varies throughout the literature — for example, they may also be known as “regional nodes” (Smas *et al.*, 2013), “regional hubs” (Rasmussen *et al.*, 2014), “municipal centres” (Carson *et al.*, 2016b), or “microurban/micropolitan centres” (Bjarnason *et al.*, 2021) — regional centres are typically described as more modestly-sized but amenity-rich towns or cities, usually with a university or college. Frequently cited examples include Tromsø in Norway, Luleå in Sweden, Rovaniemi in Finland, and Fairbanks in Alaska (Pedersen and Nyseth, 2013; Coates and Holroyd, 2020a).

Opinions on the attraction and the impact of regional centres are decidedly mixed. While some observe the contribution they can make to regional population growth (e.g., Lehtonen *et al.*, 2015; Foss, 2016; Coates and Holroyd, 2020a), the same authors also describe them as regional “magnets”, drawing people and economic activity away from smaller, more peripheral communities. Concerns are also expressed that regional centres act almost as urbanisation stepping stones, from which rural youths will leave their local region completely, for the largest cities at home or abroad. For example, in discussing the town of Akureyri in northern Iceland, Bjarnason *et al.* (2021) suggest that:

> “…there is a somewhat darker possibility that Akureyri has acted as a regional sponge, sucking people and activities from towns, villages, and farming communities in the north. Furthermore, Akureyri may have acted as an escalator of urbanisation, drawing people from more rural communities and sending people up the urban hierarchy to the Reykjavík capital area or abroad.” (p.408)

Our Scottish stakeholder interviewees both recognised this pattern, in the Scottish Highlands and Islands context, and expressed equal concerns about the impact of regional centres, albeit that the Scottish examples given (Fort William, Kirkwall and Stornoway) are of a much smaller scale than those typically discussed in the literature:

> “So Kirkwall is drawing people from the rest of Orkney. Stornoway is drawing people from the rest of Lewis. And it's just because the market is sort of making that happen, and we're trying to find a way of stopping that and turning the emphasis right to these very outer areas of depopulation.” (Interviewee 3)

> “And a lot of it, it’s policy. It's planning policy. It's local housing strategy policy. For the last 20 years we've kind of meandered into half our population being in our regional centre. Did anybody want that? No, but that was just the easy thing to do.” (Interviewee 4)

3.7 Gendered out-migration: ‘female flight’

What is commonly termed “female flight” constitutes another recurring theme in Arctic migration. A large body of research exists (both Arctic-wide and country-specific) which

indicates that greater proportions of young women than young men out-migrate from rural and peripheral areas, ultimately leading to demographic problems. For example:

> "Disproportionate out-migration of women characterizes many rural areas of the Arctic, primarily as a result of diminishing employment and lack of educational opportunities for women. The resulting gender ratio imbalance negatively affects the resilience and development of Arctic communities…" (Oddsdóttir *et al.*, 2014, p.14)

> "The disproportionate out-migration of women has led to a skewed sex ratio in much of the Arctic… The pattern of gendered out-migration leads to the Arctic being a heavily masculinised space." (Arctic Council, 2021, p.22)

While the pursuit of a wider range of educational and employment opportunities is most frequently cited as the main reason for female flight, other factors have also been identified. For example, several authors suggest that young women have a greater demand than young men for a more modern, urban lifestyle; one in which they have access to better public services (including health and social services), better public transport, and a more diverse range of social, leisure, cultural and retail offerings (e.g., Rasmussen, 2009; Hayfield *et al.*, 2016; Rauhut and Littke, 2016; Wessel and Turner, 2020).

Others, however, argue that young women wish to escape the "conservative 'masculine' values" (Gaini, 2018, p.16), the "traditional gender ideology" (Johannesdottir *et al.*, 2021, p.237) and the "macho culture" (Rauhut and Littke, 2016, p.308) present in the peripheral regions of the Nordic countries. As Bye (2009), discussing female flight from rural Norway, claims:

> "In Norwegian public discourse, rural man is often portrayed as a marginalized loser. Raised media coverage of 'the exodus of women from rural communities' and of young women who escape from 'tacky' young men have clearly indicated that the latter are abandoning rural areas and rural men in preference for life in modern towns and cities". (p.278)

Some evidence exists of female flight being tempered by the return migration or in-migration of slightly older women, for example in northern Norway (Pedersen, 2013) and in Sweden (Carson *et al.*, 2016b; Johansson, 2016; Haley, 2018). In the Faroe Islands, meanwhile, it has been observed that female flight is balanced to an extent by the immigration of young women from other parts of the world, often for marriage to local Faroese men (e.g., Gaini, 2018; Alexander *et al.*, 2020). Nevertheless, rural female flight remains a recognised phenomenon in the Arctic and Nordic countries, and one on which there is a need for further research:

> "There is a need to better understand gendered push-and-pull factors and address place-relevant structures that result in more women than men leaving." (Arctic Council, 2021, p.22)

Female flight in a Scottish context was not one that was recognised by our stakeholder interviewees. And while the ekosgen 2018 survey report found very few gender-related variances in the responses, it is interesting to note that it did highlight a difference in terms of

perceived local employment opportunities; where 41% of female respondents believed that there was a lack of employment opportunities in their local area, compared with 32% of males (p.38).

3.8 Perceived hostile environments for sexual minorities

From across the Nordic countries, there is a small but significant body of literature that explores the relationship between rural youths' gender identities and sexual orientations, and their out-migration decisions. Some authors here point to the perception that rural areas are hostile environments for sexual minorities. Peltomaa (2013), for example, describing the situation in Finnish Lapland, highlights a popular cultural narrative that paints rural areas as "inhospitable" to LGBT individuals, who, as "sexual refugees" then "escape to the south" (p.155). Interestingly, however, Peltomaa also found that the *ski resort* villages in Finnish Lapland turn into "pseudo-towns" during the ski season, populated by metropolitan tourists and seasonal workers, and offering LGBT individuals "a place to meet others and find company, perhaps even a life partner" (p.166).

Meanwhile, Jonsson *et al.* (2020), studying young people's views on health and social services in Norrland, Sweden, found that:

> "Adding to these discriminatory struggles, the youths believed that identifying and/or coming out as lesbian, gay, bisexual, transgender or queer (LGBTQ) might be difficult since it deviated from the heterosexual norm. In this regard, most participants assumed that youth with non-binary gender identities or non-heterosexual sexual orientations would (have to) leave for the cities to avoid the prejudice and isolation associated with being 'different' in the rural." (p.6).

In Iceland, Thorsteinsson *et al.* (2020) studied the sexual orientation and migration intentions among rural, exurban and urban adolescents. They found that, despite rural Icelanders being more likely to believe that their area is a good place for LGBT individuals, compared with most other nations,[6] LGBT youths in Iceland are more than twice as likely as other youths to expect to migrate, either domestically or abroad (p.12). Here, rural and exurban LGBT youths were more likely to want to move to the Reykjavik capital area, while LGBT youths already residing in urban areas were more likely to want to move abroad (p.11). Given the perceived tolerance of Icelandic society, the authors concluded that out-migration "may have less to do with escaping discrimination and more to do with leaving the home community as a part of developing LGBQ identities and negotiating various life course stages" (p.12).

The assumption that rural areas are less tolerant towards LGBT individuals has also been questioned by Wimark (2014a & 2014b), in studies of the migration movements of gay men and lesbians in Sweden. Wimark challenges Weston's concept of the "gay imaginary", where the city is "constructed as a place for sexual liberty away from the scrutinising eyes of normative sexuality", and where rural areas are imagined as "a place of loneliness for gay

[6] A 2015 Gallup poll is cited as the source here. This is available, in Icelandic only, at https://cdn.gallup.is/media/documents/thjodarpuls_2015_07_samkynhneigd_og_buseta_On2Lwa6.pdf

and lesbian people” (Wimark and Östh, 2014, p.740). Instead, he argues, LGBT individuals have “much more complex migration processes than a simple rural-urban one-way ticket” (p.749). He found that gay and lesbian *singles* tend to concentrate in the largest Swedish cities, but when they have found a partner and decide to move together, city life is less important (p.740). Furthermore, in a study of the migration motives of gay men who had moved to the city of Malmö, Wimark (2016) found that older cohorts equated the city with gay life, but the youngest cohort elaborated on other aspects of the city, such as the educational and employment opportunities it provides.

Beyond the work outlined above, there would appear to be relatively little literature on the migration behaviour of LGBT individuals across the Arctic or Nordic region. This deficit in the research has recently been highlighted by Hayfield *et al.* (in Arctic Council, 2021), who make a clarion call for more work in this area:

> “Research concerning migration and mobility of LGBTQIA2S+ people in the Arctic is scant. The available literature mostly addresses sexual health issues, and there is precious little research giving voice to and exploring the experiences of LGBTQIA2S+ people in the Arctic. The need for knowledge, especially taking the perspective of LGBTQIA2S+ people is integral to furthering understanding of inequalities in the context of migration and mobility in the Arctic.” (p.154)

Regarding the situation in Scotland, our Scottish stakeholder interviewees were unaware of any major studies that had established any correlations between rural LGBT youth out-migration decisions and any intolerant attitudes (perceived or actual) in their local communities; although there was an acknowledgement that a “small towns scenario” may apply in many cases (Interviewee 3). It was also suggested that migration decisions were probably based more on lifestyle choices:

> “I know some people who've been in sexual minorities who have moved to places like Brighton. Not because they felt as though they've been attacked or anything here. But just because there's a larger community in that location.” (Interviewee 4)

Several recent studies have however highlighted the additional challenges facing young LGBT people in rural areas in Scotland, which have touched upon out-migration and urbanisation behaviour. Skerratt *et al.* (2014, p.32) citing some earlier 2005 research by LGBT Youth Scotland, argued that the “invisibility” of rural LGBT youth, combined with homophobia (perceived and real) and a lack of support services, may act as push factors in encouraging migration or in leading to exclusion. More recent research by LGBT Youth Scotland (2017, p.7) found that just 39% of LGBT young people living in rural areas felt that their area was a good place to live, compared with 70% of those in urban areas and 52% in suburban areas. The ekosgen 2018 survey (p.47) found that of the young people in the Highlands and Islands who identify as gay, lesbian or bisexual, just 34% believe that their local community is a place where it is “okay to be different”, compared to 53% of heterosexual young people. While Crowther *et al.* (2020), in a wide-ranging study of the lived experience of LGBT people living in rural Scotland, identified, for example, that 51% of LGBT people living in rural areas have personally experienced prejudice or discrimination for being LGBT; that 62% believe there is an equality imbalance between rural and urban regions in Scotland; and that 40% of LGBT people living in rural areas feel isolated, with a

further 39% having already moved from rural to urban locations (see also Sinclair, 2021). With these points in mind, there is perhaps scope for further research into the LGBT experience in rural Scotland, which specifically explores what, if any, impact this has on decisions to leave or remain in rural communities.

3.9 Social surveillance and gossip

A small number of studies, from across the Arctic countries, have explored the "social surveillance", "prying", and "gossip" that can take place in small, intimate, rural communities; and have made (sometimes tentative) links with young people's decisions to leave these communities for larger towns and cities in which they can feel more anonymous. For example, Haugen and Villa (2006), discussing the situation in two rural communities in central Norway, observed that:

> "The risk of being 'talked about' in a negative manner prevents many from doing what they otherwise would have done. In this way, the transparent countryside and its perceived informal social control constrain their freedom. In comparison, the city is perceived as a place where it is easier to hide away from supervision, allowing more individual freedom and 'otherness'." (p.214)

Some evidence exists that young women feel the negative effects of such gossip more keenly than young men, particularly when their romantic lives and interests are the subject of the conversations; and that this can contribute to the 'female flight' discussed in Section 3.7 of this report (e.g., Yndigegn, 2003; Haugen and Villa, 2006; Pedersen and Gram, 2018; Jonsson *et al.*, 2020). However, when exploring the impact of "love-life gossip" on the migration intentions of rural youths in Iceland, Johannesdottir *et al.* (2021) found *no* gender differences. They did, though, find that around one in five of their respondents (both young men and women) named gossip as an important reason for leaving their local community within the next 2-3 years.

In the Scottish Highlands and Islands context, whilst there has been some research on the effects of gossip in small communities, these have focused on people living with cancer (Leung *et al.*, 2016) or with mental health issues (Parr *et al.*, 2004; Philo *et al.*, 2017; Skerratt *et al.*, 2017). Any impact on young people, and on their decisions to leave or remain in rural communities, has rarely been explored. The exceptions are the aforementioned studies of Scotland's LGBT community by LGBT Youth Scotland (2017, p.7) and Crowther *et al.* (2020), with the latter highlighting the:

> "…complexities around close/small communities/village mentality/parochial attitudes and a lack of anonymity and privacy as well as community support vs 'gossip' and feelings of stigma." (p.59)

With our Scottish stakeholder interviewees, meanwhile, although there was a belief that social surveillance and gossip may influence some young people's decisions to leave, it was felt that this would only be in a minority of cases:

> "I think there *are* individuals that will move away. It'll influence their decision to go to uni, and potentially not come back. So there will be some. But whether it's on a large scale, and whether that's the tipping point... They would have gone anyway, but it's maybe just cemented the decision to go." (Interviewee 4)

3.10 Stigma associated with remaining in rural areas

As has already been noted in this report, in some Arctic and Nordic countries (particularly Denmark), there is something of a stigma associated with living in the more rural and peripheral regions. Several authors have observed that young people who decide to remain in rural communities perceive there to be a similar stigmatisation: that success (or at least potential success) requires moving away from your home place, and that staying behind represents failure. For example, in their study of Canadian rural youths, Malatest *et al.* (2002) found that rural living was equated with "little or limited economic or social standing", whereas urban living was equated with "financial success, educational opportunity and high social status" (p.iii). Meanwhile, Pedersen and Gram's (2018) study of Danish rural youths found that they had a strong urge to leave "in order to become somebody", and avoid being perceived as "country bumpkins, underachievers or even losers, who 'never move on and don't do much but hang around in the town at night'" (p.626).

These feelings are by no means universal, however. As was already noted in the country-specific summaries in Section 2 of this report, Adams and Komu (2021) found a group of "conscious and content stayers" in their study of the youths in a small northern Finnish town; while Forsberg's (2019) young Swedish respondents asserted their right to make a rational decision to continue living and working in a rural area. Furthermore, in a study conducted in Russian West Siberia, Kay (2011) found that young people "who rejected the glamour and material attractions of the big city and were willing to work in agriculture and participate in household production were referred to with pride as 'local patriots'" (p.49).

From our Scottish stakeholder interviewees, there was a suggestion that a correlation between leaving the Highlands and Islands and perceived success still exists, at least to a certain extent. Although it was emphasised here that the situation has improved dramatically since the establishment of the University of the Highlands and Islands (UHI; see also Section 4.3 of this report):

> "Given the situation pre-UHI, where there was no option if you were going on to further or higher education, generally. You would *have* to leave. I think that perhaps it's still there a bit. I think what's helped it is the [improved] offer that UHI has to give people." (Interviewee 3)

> "Certainly, from when I was growing up here in the 80s it was, if you didn't go to uni you were seen as a bit of a… Everything was based around your academic ability than anything else. Now, you have the ability to stay and *do* more." (Interviewee 4)

3.11 Mental health issues

Poor mental health amongst young people in the Arctic and Nordic regions is a recurring theme throughout much of the literature. For example, in the foreword to a report by Kolouh-Söderlund and Lagercrantz (2016, p.3), it is claimed that:

> "More and more young people in the Nordic region are saying that they are suffering from mental ill health issues, and we have young people who risk ending up in vulnerable situations on account of a range of factors. The growing level of mental ill health among young people is one of the greatest challenges facing public health in our Nordic societies."

The focus of much of the literature has been on the mental health of indigenous peoples. Across the Arctic, a raft of studies has highlighted the significantly poorer mental health of, for example: the Sámi in Finland, Norway and Sweden (e.g., Omma *et al.*, 2012; Spein *et al.*, 2013; Finnish Government, 2021); the Inuit in Canada and Greenland (e.g., Kielland and Simeone, 2014; Karsberg, 2017; Sargeant *et al.*, 2018); the Alaskan Natives (e.g., Trimble *et al.*, 2019); and the Nenets in Russia (e.g., Sumarokov *et al.*, 2014). As the literature reports, this manifests itself in higher levels of: suicides and attempted suicides; suicidal thoughts; depression; self-harm; domestic violence and sexual abuse; alcohol and substance misuse; and young people dropping out of education.

While there is a large body of literature on the mental health issues facing young people in the Arctic, these are rarely linked to migration behaviour. In Finland, Lankila *et al.* (2013) found that, among young rural adults, the likelihood of moving to urban areas was associated with "dissatisfaction with current life and with lifetime morbidity, especially psychiatric morbidity". They speculated that these moves would be connected to the better health and support services available in urban areas; and, also, to the stigma associated with psychiatric conditions, which might be less pronounced in "more tolerant urban areas" (p.174). In complete contrast, in their study of suicides in the Nenets Autonomous Okrug in Russia, Sumarakov *et al.* (2014) found higher suicide rates amongst those indigenous Nenets with a university education. One possible explanation they offer is that the better-educated Nenets typically move to Russia's larger cities, "far removed from their traditional nomadic lifestyle". They may then have difficulties integrating into Russian urban culture, "and as a result may become rootless and alone" (p.6).

A rather bleak picture is also painted of the mental health and other challenges facing young Sámi reindeer herders in Swedish Lapland, in a series of studies by Kaiser *et al.* Here, it would appear, out-migration is rarely, if ever, considered by these young people. For the young *male* Sámi, the decision to remain in the region as a reindeer herder:

> "…is a privileged position that also implies many impossibilities and unjust adversities they have no control over, and that there is nothing they can do but ''bite the bullet or be a failure'' (Kaiser *et al.*, 2013, p.1).

For the *female* herders, meanwhile:

> “The only option for the women is therefore to endure and cope… The young reindeer-herding women tolerate a situation that is almost impossible to bear” (Kaiser *et al.*, 2015, p.69).

With regard to the situation in Scotland, a 2017 study by Skerratt *et al.* looked at mental health issues across the wider rural population, although 15% of their survey respondents were in the 16-24 age group. They recommended that there be an increased focus on the needs of children and young people, particularly in relation to self-harming (p.6). No links were made to the out-migration of young people, however.

Our stakeholder interviewees, meanwhile, did not feel qualified to comment fully on youth mental health issues and any relationship with migration decisions. It was noted that there were some alcohol and substance misuse issues in the Northern Isles. But it was also felt that local people with mental health problems would be more inclined to stay in the area, because they will probably have some form of local support network. Some anecdotal evidence was also provided of Orkney attracting people “who are maybe trying to escape something elsewhere”. Their stays, however, can be short-lived:

> “So we do get some migration out, but usually the migration out is the people that have migrated in to try and escape something that they thought they would be able to leave behind them but haven’t.” (Interviewee 4)

3.12 Migration embedded in culture

A small number of authors, from across the Arctic, argue that rural youth out-migration is now embedded in local cultures, partly because attending upper secondary school may involve a move away from home:

> “In many circumpolar regions, students can attend primary school in their home community but must go away to a residential program to attend upper secondary or high school. This is true in Greenland and the Faroe Islands, as well as for parts of Iceland and the Russian Far North.” (Hirshberg and Petrov, 2014, p.356)

Consequently, in Greenland, youth out-migration is described as “normative” (Connell, 2016, p.475); in northern Norway, “it is simply the way it has to be and it goes without saying” (Bæck, 2019, p.71); and, in the Faroes, “almost taken for granted” (Gaini, 2016b, p.67) and “a defining characteristic of growing up” (Hayfield, 2017, p.3). Hayfield further observes that:

> “Migration is embedded in cultural and social life in the Faroe Islands and viewed as a natural part of life. For young people, growing up and moving away is seen as a natural aspect of every individual’s development.” (Hayfield, cited in Oddsdóttir *et al.*, 2014, p.66)

In response, our Scottish stakeholder interviewees believed that this was also true, to a certain extent, in the Highlands and Islands. Although it was believed that increased local

opportunities, particularly in Orkney, had tempered the expectation that leaving was the norm:

> “I think there's still a fair bit of that. Probably in the sort of west coast Highlands, north-west Highlands, where there is this desire there for, ‘Well, why can’t I have that too? Why can't I access the things that other people are accessing?’ Which is entirely understandable.” (Interviewee 3)

> “I think we still see quite a lot of youngsters, it’s the expectation that they will go away and study at uni… But there are more options than there were previously. So that's keeping some people here [in Orkney] because they don't need to go away… There are more opportunities here, so there is less, ‘What do you mean you're not leaving?’, because people can see there's more going on.” (Interviewee 4)

3.13 Climate change: ‘climigration’

Increasingly, the literature is turning attention to the impact (actual and potential; direct and indirect) of climate change on migration patterns across the Arctic. Here, the term “climigration” is sometimes used to describe such movements (e.g., Heleniak, 2014; Larsen and Fondahl, 2014; Hamilton *et al.*, 2016). This term was originally coined by Bronen (2009, p.68) to describe the “forced permanent migration of [Alaskan indigenous] communities due to climate change”.

As Vincent (2020) points out, Arctic climate change is affecting northern communities in multiple ways, all of which might influence the movement of individuals. It can hamper the pursuit of traditional livelihoods, such as reindeer husbandry (e.g., Furberg *et al.*, 2011; Finnish Government, 2021, p.36); it can affect food security, particularly for communities reliant on subsistence lifestyles (e.g., Hendriksen and Jørgensen, 2015; Rozanova, 2019); it can make local mobility more hazardous, particularly over traditional river ice and coastal sea ice routes (e.g., Ford and Goldhar, 2012; Stephenson, 2017; Olsen *et al.*, 2021); it can have detrimental structural impacts on buildings and infrastructure (e.g., Hovelsrud *et al.*, 2020; Kaltenborn *et al.*, 2020); it can have negative effects on burgeoning tourism industries (see Section 4.6 of this report), particularly nature-based tourism and ski resorts (e.g., Moen and Fredman, 2007; Brouder and Lundmark, 2011; Rauken and Kelman, 2012); and it can further impact upon the already fragile mental health of many Arctic residents, particularly amongst indigenous peoples (e.g., Van Voorst, 2009; Hovelsrud *et al.*, 2020; Finnish Government, 2021, p.36).

Equally, however, there are those who identify *opportunities* that climate change might bring to the Arctic, in terms of economic development. For example, with tourism, several authors point to the growth in “last chance tourism” to the Arctic, where tourists wish to see geographical features such as glaciers and ice shelves, and species such as polar bears, before they disappear, or are irrevocably transformed (e.g., Lemelin *et al.*, 2010; Bjørst and Ren, 2015; D’Souza *et al.*, 2021). It has also been suggested that climate change will result in more favourable climatic conditions that will attract greater numbers of tourism to the southern and eastern parts of the Nordic region (Nicholls and Amelung, 2015). While in

terms of *ski* tourism, Demiroglu *et al.* (2020) note that those resorts located in high latitude and altitude areas in Arctic Sweden will have a competitive advantage over other ski destinations throughout the country.

In Greenland, it is argued that the country's melting icecap will be conducive to the expansion of farming in the southern regions, and will also expose oil and mineral fields that can then be more readily exploited (Van Voorst, 2009). It is also noted that higher water temperatures have lured new species north, providing new opportunities for Greenland's fishing fleet (Rosen, 2016).

In the Scottish context, while the Scottish Government (2019b & 2020) is clearly aware of the challenges, risks and opportunities that face Scotland's remote and islands communities because of climate change and a transition to net zero emissions, any potential impacts on out-migration or population movements do not appear to have been considered directly. For our Scottish stakeholder interviewees, meanwhile, any potential for climigration in the Highlands and Islands had not been brought to the fore. Although one interviewee suspected that it might become an issue in the future:

> "I think the one element where we'll see potentially climate migration — It won't be anytime soon, it'll be over 20-30 years in the future — is when we get to the point where some of our low lying areas, or some of our islands, will get to where it's not sustainable. Sea level rises and various things… But that'll be a chunk in the future yet." (Interviewee 4)

Instead, our Scottish stakeholders focused on the potential opportunities that the response to climate change may bring to various sectors, particularly renewables:

> "I think, in the Highlands and Islands, we're seeing it much more as an opportunity, round about green jobs and our positive energy focus to address net zero." (Interviewee 3)

4. Types of intervention discussed in the literature

In this section of the report we consider the types of policies, programmes and interventions, from across the Arctic and Nordic region, that have been designed to counter rural youth out-migration or to contribute to wider regional development, and have been reported in the literature. For each type of intervention, we also discuss the responses from our Scottish stakeholder interviewees, in terms of the potential relevance and transferability of these to the Scottish Highlands and Islands.

4.1 Large-scale, country-wide or regional, rural development or settlement/ resettlement programmes

Across the Nordic countries, the last 30 years have seen a general shift from exogenous, top-down approaches to regional development, towards more endogenous, bottom-up, place-specific methods (e.g., Karlsen and Dale, 2014; McMorran et al., 2019; Sotarauta and Beer, 2020). It would appear, however, that these efforts have met with mixed success in encouraging regional growth and discouraging depopulation (it should be emphasised here that any *direct* impacts on rural youth out-migration are rarely discussed in the literature).

In Norway, for example, Carlsson *et al.* (2014) examined the long-term effects of ten regional restructuring programmes from the period 1994-2003, and found that all ten cases demonstrated growth in employment and “enhanced resilience”. Angell *et al.* (2015) discussed various initiatives designed to improve the quality and attractiveness of peripheral locations (see also Section 4.15 of this report) and noted that the success of these had been very much contested. These included the short-lived *Bolystprogram* (see also Knudsen, 2018). Meanwhile, McMorran *et al.* (2019) argue that national, sectoral policies are not always well integrated with local/regional development plans, which can lead to complexities in the delivery of services.

In Iceland, a number of authors have discussed the country’s ‘Fragile Communities’ development programme, which was launched by the Icelandic Regional Development Institute in 2012 (e.g., Baldursdottir and Halldórsson, 2018; Byggðastofnun, 2018). Kokorsch and Benediktsson (2018b) describe the Fragile Communities programme as having limited success, and indeed describe Iceland’s regional policy efforts as being “rather weak and ineffective (p.5). In Finland meanwhile, Voutilainen and Wuori (2012) found that rural development has been weakest in the more sparsely populated areas in the north and the east of the country. Indeed, Finland’s regional development approaches have been described as “inefficient” (Lehtonen and Tykkyläinen, 2014) and “hardly sustainable and mostly plastering over the increasing difficulties for the worse off regions” (Fina *et al.*, 2021, p.16).

In Arctic Russia, as was noted in Section 2.8, there have been various government resettlement programmes aimed at encouraging older, less economically-active citizens to move south, thus retaining a younger Arctic population, but these appear to have had limited success. For example, Thompson (2004) reported that “too many middle-aged and younger residents, and too few older-aged pensioners” took advantage of the resettlement offer,

therefore accelerating the out-migration of exactly the population local officials had wished to retain (p.78). In some cases the resettlement programmes included the provision of new housing in the south. Bolotova and Stammler (2010) note that many of the older candidates for relocation transferred the flats and other relocation benefits to their children, in the hope that they would then have better education or employment opportunities in the south. More recently, Fondahl *et al.* (2020) discussing Russia's Arctic-specific policies, noted that "minimal attention is paid to improving the capacity and capability of northern populations" (p.212). Similarly, Ivanova *et al.* (2022) observe that Russian policy relating to both Arctic and youth issues is rather fragmented and therefore "does not tackle the problem of youth outmigration in a satisfactory way" (p.164). However, Simakova *et al.* (2022) indicate that a new Russian Arctic development strategy aims to create 200,000 new jobs in the region by 2035, and that key elements of this will be the retention of young people already living in the Arctic, as well as attracting others from elsewhere in the country.

In response to these points, our Scottish stakeholder interviewees acknowledged the need for a place-based, bottom-up approach, but for this to be applied at a very granular, individual community level:

> "Whilst we can look at the West Highlands, including the Outer Hebrides and Argyll and Bute, but you actually then start to look at Uist, and then you actually have to start looking at Loch Boisdale. So you have to get right down to the places and make sure the interventions are able to be developed specifically for these places." (Interviewee 3)

The point was also made, however, that if a specific place-based development plan was advanced, the community would then be faced with an array of potential funding opportunities and mechanisms to pursue and master. It was suggested here that a single, all-encompassing "place-based funding pot" would be more appropriate.

The importance of community involvement in, and input to, these processes was also stressed:

> "Moving from top-down to place-based, that's easy to say, but it's difficult to do, because you still have all the top-down policy you have to fit within. And things like planning… place-based is fine, but it's no longer a planner in Edinburgh that's making the decision, it's a planner in Kirkwall. It's not the community. It's still an official, giving their personal opinion, which is then signed off by councillors… A planner in Edinburgh or a planner in Kirkwall has no right to tell a community that they can or cannot grow. If that community wants to be sustainable, it should be allowed to be sustainable. They should help facilitate that in a sustainable way." (Interviewee 4)

4.2 International immigration: 'demographic refill'

As a means of addressing rural depopulation and ageing populations, some municipalities from across the Arctic have focused on attracting younger international immigrants, in a process known variously as "replacement migration" (e.g., Sanchez Gassen and Heleniak,

2016) or “demographic refill” (Hedberg and Haandrikman, 2014). This development, we believe, is an approach that is probably worthy of a study in its own right. We are also conscious, of course, of the Scottish Government’s (2021a) national population strategy, and of the recent work of the Scottish Government Expert Advisory Group on Migration and Population; in particular their 2021 report on a potential pilot scheme for migration to remote and rural areas of Scotland, the “rural visa” pilot scheme (Gougeon, 2022). Given that our focus is very much on ways of addressing rural youth out-migration, as opposed to attracting replacement in-migrants, this type of intervention will only be touched upon briefly here.

Opinions on the suitability and success of demographic refill strategies across the Arctic and Nordic region are decidedly mixed. In Sweden, for example, Hedberg is a clear proponent of demographic refill, arguing that it “holds the potential for the development of rural and small-scale areas in Sweden (Hedberg, 2010, p.32); that it “constitutes an important demographic opportunity to counterbalance the ageing population structure in the countryside” (Hedberg *et al.*, 2012, p.128); and that it will contribute to a “dynamic and transnational countryside” (Hedberg and Haandrikman, 2014, p.128). In contrast, Rauhut and Kahila (2012) claim that international immigrants are reluctant to move to peripheral areas in Sweden; while Hedlund *et al.* (2017b) found that a large share of those initially drawn to rural areas subsequently leave for urban areas, thus “contributing to (rather than easing) the pressures of increasing urbanisation and rural–urban demographic divides” in Sweden (p.410).

Meanwhile, Sanches Gassen and Heleniak (2016), exploring the potential of large-scale replacement migration across the Nordic region (i.e. in both urban *and* rural areas), argue that:

> “They would lead to unprecedented population booms in all countries and create enormous, perhaps impossibly large, demands for housing, infrastructure, integration measures, welfare support and strain on the environment. Within a few decades, the current host populations living in these countries would become minorities. For this reason alone, replacement migration to maintain age balances is likely to be socially unjustifiable.” (pp.14-15)

In discussing demographic refill as a potential intervention in the Highlands and Islands, our Scottish stakeholder interviewees were both receptive to the idea. The point was made that, in the past, the Highlands and Islands had benefitted from European labour migration, but that Brexit had, frustratingly, negatively affected the current situation. The point was also made, however, that should international immigration be considered as a means of boosting Scotland’s rural population, the existing housing problem in the Highlands and Islands would be exacerbated:

> “The issue we have again comes back to the housing. We would love to be going out to Ukrainians, or to the young Russians who are looking to leave and say, ‘Come here, we've got jobs. We've got stuff. Our climate, it's warmer than yours.’ But we've got nowhere to put them. We've got an offer. We've got the jobs, we've got the training, we've got the lifestyle a lot of these people are looking for. We just do not have the housing facilities to be able to accommodate them.” (Interviewee 4).

4.3 Regional universities and the provision of distance learning opportunities

The 1960s saw the beginning of a trend towards the regionalisation of higher education institutions throughout the Nordic region (Hedin, 2009). Today, almost every jurisdiction across the Arctic has a post-secondary institution of some kind, although educational opportunities are more extensive in northern Europe and Russia than in the far north of Canada and the United States. The Russian North has the most extensive network of institutions, although the student numbers attending these are relatively modest. Many of the institutions across the North are now also part of a cooperative network, the University of the Arctic (UArctic) (Larsen and Fondahl, 2014, section 9.2). They include several institutions that largely serve indigenous peoples (e.g., Larsen and Fondahl, 2014, p.391; Kuklina, 2017; Joona and Keskitalo, 2022).

Several authors point out that these regional institutions are expected to contribute to regional development (e.g., Arbo and Eskelinen, 2003; Lindqvist *et al.*, 2012; Kotavaara *et al.*, 2018). However, they also go on to argue that these expectations are difficult to meet, or that their impact is difficult to measure. Lindqvist *et al.* (2012) looked at eight case study institutions from across the Nordic region and found that very few specific strategies for regional development were in place. Others, however, appear more positive. In Finland, Tervo (2005) believed that the long-term economic development effects in those regions with a university was far greater than perhaps was ever imagined when the regional institutions were first created, noting that many have become hosts to important technological and research and development initiatives which have increased training opportunities and jobs in the regions concerned. A more recent study of the economic contribution of the Finnish universities (BiGGAR Economics, 2017) found, for example, that: towns and cities with universities had experienced a population growth rate twice that of the national average; that the universities were “active contributors to the wider economic, social and commercial life of the country” (p.1); and that they play a “vital role in supporting long-term economic growth” (p.4).

In terms of attracting and retaining students, Coates and Holroyd (2020b) argue that the ‘brain drain’ from the north to the south in the Arctic is offset by a “highly significant ‘brain gain’ connected to the impressive northern universities” (p.300). However, the situation throughout the region would appear to be rather more complex. Certainly, some success stories are reported. Discussing UiT The Arctic University of Norway, which is located in Tromsø, Husebekk *et al.* (2020) note that more than 70% of its students have remained in northern Norway after graduation. Similarly, they note that in the Finnmark University College in Alta (which later formed part of UiT), 33% of its students were recruited from Finnmark county, and 66% sought employment in Finnmark after graduation, contributing to a net influx of highly qualified individuals to the county. Despite this, however, Husebekk *et al.* observe that the general picture is still that a majority of municipalities in northern Norway lag behind the rest of the country in terms of attracting university graduates (p.137). A further issue reported in the literature is the higher dropout rates of indigenous students. As a result, educational attainment gaps persist between the indigenous and non-indigenous populations across the Arctic (Larsen and Fondahl, 2014, p.393).

Part of the issue in attracting students is the limited range of courses that the relatively small institutions are in a position to offer. In Greenland, for example, Karsberg (2017) notes that the country's only university is in Nuuk, and has limited study options. As a result, many of those young people who have the resources to study move abroad, primarily to Denmark. As Dahl (2010) observes:

> "With a total population of little more than 50,000, Greenland has never been and will never be able to host all the types of higher education necessary to run a modern nation. To become a doctor, nurse, lawyer, engineer, electrician, dentist, economist, etc., young people have to learn Danish and sometimes English, and often have to spend years outside Greenland." (p.136)

A similar situation exists in the Faroe Islands, where, despite the presence of the University of the Faroe Islands, which has a growing number of study options (Hovgaard, 2016), "there remain many professions that it is impossible to train for within the islands" (Alexander *et al.*, 2020, p.68). Even when regional universities *do* cater for the degree subjects in which local young people are interested, it has been found that many still prefer to study elsewhere, either further afield within their own country, or abroad. This phenomenon has been noted in, for example, the Faroe Islands (Hayfield *et al.*, 2016) and northern Sweden (Rauhut and Littke, 2016; Chudnovskaya and Kolk, 2017).

Furthermore (and in contrast to the situation reported at UiT in Tromsø), some authors, report the subsequent out-migration of graduates of the regional universities, again either abroad or to larger towns and cities within the same country. This mobility behaviour appears to be reported more frequently in Finland. For example, Haapanen and Böckerman (2017) argue that the creation of higher education institutions in the more peripheral areas of the country has failed to address 'brain drain', simply because local job opportunities for the now more highly educated graduates are lacking (see also Böckerman and Haapanen, 2013). Similarly, while Haapenen and Tervo (2012) describe the Finnish regional universities as being "very successful", they note that out-migration is much higher among graduates in the more peripheral universities, such as Lappeenranta, Joensuu, and Rovaniemi, than in the growth centres, particularly Helsinki.

Perhaps surprisingly, the provision of online distance learning in the Arctic is discussed rarely in the literature, at least in terms of it being seen as a way of addressing out-migration. Lindqvist *et al.* (2012) observe that distance learning has become an increasingly important part of the higher education system in Iceland, with most institutions offering online courses in particular areas of study; and some more specific Icelandic examples are given elsewhere (e.g., Benediktsson, 2009; Júlíusdóttir et al., 2013; Johnsen and Perjo, 2014). Meanwhile, McMorran *et al.* (2019) briefly discuss some opportunities available in northern Sweden, and Kull *et al.* (2020) does likewise for most of the Nordic countries. Coates (2020) strikes a more pessimistic note by observing that:

> "Because of limitations of northern Internet, many of the communities that could benefit the most from e-education approaches do not have access to the best technologies and applications, adding to the educational and training divide" (pp.180-181).

In considering the regional approach to higher education adopted throughout much of the Arctic, our Scottish stakeholder interviewees indicated that much more could be done, in this regard, in the Highlands and Islands. Two key points were made here: 1) that there should more opportunities locally for young people to undertake studies in topics, such as physiotherapy and radiotherapy, that can currently only be conducted outside the region; and 2) that the number of "unique" or "niche" offers currently available in the region should be boosted, to make the Highlands and Islands a more appealing location, to which young people from other parts of the country, and elsewhere, will travel to study:

> "Until we address that we will continue to bleed young talent to our Scottish cities and provide them with the economic drive and the energy that our young people are taking there." (Interviewee 3)

> "We're seeing an increase in people in their early-20s, because we've got Heriot Watt doing renewables. We've got Orkney College doing archaeology, which is world renowned. Same with northern studies. So we're seeing that bit of a bounce already, where we're pulling in people earlier because we're importing people in that early-20s." (Interviewee 4)

Again, though, our interviewees returned to the issue of housing, and argued that it would be pointless attracting new students to the region when there is no suitable accommodation for them in which to live:

> "Student accommodation is a major issue, I'm just banging on about constantly and not quite solving." (Interviewee 3)

> "But the issue again comes back to housing. I know of dozens of students who would have come here, but can't find the housing to do so. And if they have managed to get a house for doing studies, they can't find a house to stay on in [after graduating] either. So it all comes back to that housing question." (Interviewee 4)

On the subject of online distance learning, our interviewees pointed to the opportunities that exist currently, with one relating his own experience of studying remotely at a Central Belt university without ever leaving the Northern Isles.

4.4 Economic diversification: large-scale, industrial projects

In efforts to encourage economic diversity, several regions or municipalities from throughout the Arctic countries have established (or have attempted to establish) large- or medium-scale industrial projects in rural areas, which have explicitly been labelled as "job creation schemes", or at least schemes that will facilitate local or regional development. These have included aluminium smelters (e.g., Jóhannesson *et al.*, 2010; Seyfrit *et al.*, 2010; Hansen and Rasmussen, 2013), hydropower schemes (e.g., *Carson et al.*, 2016b; Sæþórsdóttir and Saarinen, 2016), new or reopened mines (e.g., Suopajärvi, 2015; Taagholt and Brooks, 2016; Tano *et al.*, 2016), manufacturing plants (e.g., Bjørnå and Aarsæther, 2009; Aasetre *et al.*, 2020), oil and gas exploration and extraction facilities (e.g., Boersma and Foley, 2014;

Loe and Kelman, 2016), nuclear power plants (Adams *et al.*, 2022), renewable energy projects (e.g., Sæþórsdóttir and Saarinen, 2016; Okkonen and Lehtonen, 2017; Rudolph and Kirkegaard, 2019), and aquaculture (e.g., Tiller *et al.*, 2015; Zaikov *et al.*, 2020).

As can be seen, most of these projects and schemes are based on the extraction and utilisation of natural resources. As Carson *et al.* (2016a) argue, such schemes can bring many benefits to rural and peripheral areas:

> "Resource-led development can also attract new people (including international migrants) to live in otherwise declining regions, arresting population ageing, and encouraging young people to stay in town to engage in new economic opportunities. New developments also often lead to the provision of new infrastructure (roads, railways, telecommunications), access to new potential markets, and access to new skills and knowledge which can be used to attract and keep entrepreneurs in a variety of fields." (pp.14-15)

It would appear, however, that not all of the industrial schemes discussed in the literature have been entirely successful in attracting young people or facilitating local and regional development. These 'failures' (or at least 'part-successes') are attributed to a range of factors. For example, it has been observed that several of these projects have something of a gender bias, attracting and employing more men than women and doing little to address female flight (e.g., Jóhannesson *et al.*, 2010; Knobblock and Pettersson, 2010; Kuisma and Suopajärvi, 2017; Forsberg, 2019). It has also been noted that much of the workforce in the larger-scale industrial projects can come from outside of the local area, sometimes operating on a 'fly-in-fly-out' basis. As a result, the impacts on local job creation, youth retention, and economic development can be negligible (e.g., Jóhannesson *et al.*, 2010; Carson *et al.*, 2016a; Pitkänen *et al.*, 2017).

With some projects, tensions with, or negative impacts upon, traditional indigenous lifestyles can arise (e.g., Suopajärvi, 2015; Carson *et al.*, 2016a; Beland Lindahl *et al.*, 2018; Suopajärvi and Kantola, 2020). And there can also be tensions or conflicts with local tourism interests, which, as will be seen in Section 4.6, are also considered important in promoting local and regional development (e.g., Sæþórsdóttir and Saarinen, 2016; Lesser *et al.*, 2017; Beland Lindahl *et al.*, 2018).

In Denmark, Rudolph and Kirkegaard (2019), observe that corporate developers of inland wind farms have "sometimes unwittingly and sometimes strategically" mobilised the 'Rotten Banana' stigma associated with rural Denmark in order to obtain access to marginalised areas, purchase land, demolish buildings, and displace individuals and small communities (p.644), whilst ignoring the opportunity of a "fruitful co-existence" through local involvement and (co-)ownership (p.655). In Norway, meanwhile, the failure of strategies to attract manufacturing industries to rural areas is attributed to the exogenous, 'top-down', regional policy approaches adopted at the time (Dale, 2002; Bjørnå and Aarsæther, 2009; Karlsen and Dale, 2014).

In the Scottish context, similar opportunities for, and challenges to, rural diversity were identified in recent research conducted by Savills, on behalf of the Scottish Government (Dalglish *et al.*, 2020). For example, it identified opportunities in renewable energy,

aquaculture, and food and drink production; but also found challenges, for example with limited job opportunities for women, and tensions between the construction of renewables infrastructure and landscape and tourism interests. With our Scottish stakeholder interviewees, meanwhile, the emphasis was again on the potential of renewable energy industries, although aquaculture and vertical farming were also mentioned. In terms of renewables, however, the issue surrounding a lack of affordable rural housing was also raised, with the fear expressed that this might result in a 'fly-in-fly-out' workforce:

> "Looking at offshore wind, there are massive opportunities. But there again the issue is, unless we can get the housing and accommodation situation sorted, we will become a very large offshore oil rig where guys are flown in, and they do their two weeks based here. On the boats that go out to the turbines, or in camp-style accommodation, and then they go home again, and they're replaced with other guys that come in for two weeks. To sustain our community, we want to draw in those people and their families to live here. But if we don't have the housing available, that's not possible." (Interviewee 4)

4.5 Economic diversification: research and development

A small body of work has discussed the opportunities that can exist via research and development. In northern Sweden, for example, Dubois and Carson (2017) highlight the case of Malå Geoscience, a ground-penetrating radar research and development company that had its origins in servicing the now almost vanished mining industry in the area. In Iceland, the work of Kokorsch (Kokorsch, 2017; Kokorsch and Benediktsson, 2018a & 2018b) discusses how former fish processing premises in small coastal communities have been transformed into marine biotechnology research field stations; while Þorgrímsdóttir (2012) argues that research and development activities are important to the economy in many areas of the country, including the West Fjords. In Finland, the Government (2021) has highlighted the high-quality, Arctic-related research that goes on across the country, although it acknowledges that this can be fragmented and siloed (p.59).

In discussing the potential impact of research and development on regional development, the literature rarely relates this directly to rural youth out-migration or population movements more broadly. The major exception is the growing body of work that discusses the Arctic research community on Norway's Svalbard archipelago, particularly in the former mining settlement of Longyearbyen. Here, Norwegian nationals are in the minority during the peak scientific season of July to August, and overall the population is rather transient, with a high annual turnover of people and the average residence time for inhabitants being around seven years (Grydehøj *et al.*, 2012; Roberts and Paglia, 2016; Saville, 2019; Hovelsrud, G.K. *et al.*, 2020; Zhang *et al.*, 2021).

In the Scottish context, the aforementioned Savills research (Dalglish *et al.*, 2020) touches upon small-scale rural innovation in, for example, food production. Our stakeholder interviewees, meanwhile, pointed to the existing work of the European Marine Energy

Centre[7] and Heriot-Watt University's International Centre for Island Technology,[8] both of which are located in the Orkney Research and Innovation Campus in Stromness[9] (together with other research actors, including Robert Gordon University); and to the research conducted by the University of the Highlands and Islands Orkney College in Kirkwall.[10] The work at the European Marine Science Park[11] in Dunbeg, Argyll was also mentioned here. Our interviewees also acknowledged, however, that this work (as in Finland) was fragmented, and should probably also be applied on a bigger scale.

4.6 Economic diversification: *friluftsiv*, nature-based tourism, and the experience economy

Of all the interventions discussed in the literature, the development of tourism has received the greatest attention. A vast body of work exists which argues (or at least discusses the argument) that tourism can provide significant opportunities for job and income generation, and can assist in addressing depopulation in rural and peripheral areas. In a review of 20 years of Nordic rural tourism research, Helgadóttir and Dashper (2021) sum up the thrust of these arguments:

> "Rural tourism provides employment opportunities in rural regions, which can be an important contributor to economic sustainability… Rural tourism is often positioned as an opportunity for diversification in the face of declining agricultural employment opportunities for rural residents…" (p.64)

In the Nordic countries, the discussion around rural tourism is often related to the Scandinavian concept of *friluftsliv*, or 'outdoor life' (see Gelter, 2000). Varley and Semple (2015, p.81) describe this basic philosophy as being about "simple, basic outdoor life, living comfortably in and with nature: staring at the flames in a fire, or listening to the waves crashing on a beach. Just being, outdoors." They argue that this sort of "slow adventure tourism" fits well with the people, landscapes, cultures and skills of the Nordic region (p.87). With these points in mind, the literature surrounding Arctic or Nordic tourism typically encompasses a range of activities, such as: skiing; hiking; kayaking; cold-water surfing; dogsledding; farm tourism; horse riding; cruise-ship tourism; wildlife watching; angling and hunting (for moose or grouse); northern lights tourism; and attending indigenous and cultural festivals. In some cases, authors describe the growth of such tourism as a move towards an "adventure economy" (e.g., Pristed Nielsen *et al.*, 2020) or an "experience economy" (e.g., Glass *et al.*, 2020; Kull *et al.*, 2020; Interviewee 1).

Árnadóttir (2019) presents an overview of the tourism policies and strategies in each of the Nordic countries, together with some country-wide facts and figures relating to tourist numbers and expenditure, bed nights, employment levels, etc. He notes, for example, that tourism employs 25,000 people in Iceland, which accounts for 14% of the Icelandic

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[7] See https://www.emec.org.uk/
[8] See https://www.hw.ac.uk/uk/schools/energy-geoscience-infrastructure-society/research/iles/icit.htm
[9] See https://www.orkney.com/life/energy/oric
[10] See https://www.orkney.uhi.ac.uk/
[11] See https://europeanmarinesciencepark.co.uk/

workforce (p.26); that the Faroe Islands receives around 100,000 visitors annually (p.36); and that tourism accounts for an 11.7% share of Greenland's economy (p.38). This all appears positive, although Árnadóttir does also discuss some of the challenges facing the Nordic tourism industry, the biggest being its seasonality (p.57). However, in the other literature reviewed for this present report, several other barriers and tensions are identified, which perhaps bring into question the perception (of some) that tourism is a panacea for rural depopulation and youth out-migration in the Arctic. These are discussed in further detail in the sections that follow.

Seasonal, low-skilled, low-paid work, unattractive to local youths

Many authors confirm Árnadóttir's observation that tourism in the Arctic and Nordic region is largely seasonal. For those employed in the tourism sector, therefore, there is usually a need to combine their tourism work with other jobs or trades throughout the rest of the year (e.g., Hjalager *et al.*, 2008; Amundsen, 2012b; Wennecke *et al.*, 2019; Prince *et al.*, 2021).

Several authors also argue that the Arctic tourism industry relies largely on low-skilled, low paid service work, which is of little interest to local youths (e.g., Saarinen, 2007; Tuulentie and Heimtun, 2014; Pedersen, 2017). As a result, tourism-related service jobs, particularly in the northern ski resorts, are frequently occupied by in-migrants (from abroad or from other parts of the country), with the added concern that many of these seasonal workers do not regard their rural residence as permanent (e.g., Carson *et al.*, 2014; Möller *et al.*, 2014; Pitkänen *et al.*, 2017). This position is perhaps best summed up by one of Villa's (2019) research participants:

> "The former 'scrubber boy' described today's local youth as spoiled and not interested in the low paid, unskilled work that is available in the local tourism industry and contrasted them with international labour migrants, whom he saw as more industrious. He said he was 'pretty sure there are very few with Norwegian passports making the beds at the hotels today'" (p.707).

In the Scottish context, some similarities can be found. For example, Visit Scotland (2019, p.4) have identified that around 80% of tourism-related jobs in Scotland are in restaurants, hotels and beverage services. While the Scottish Tourism Alliance (2018) established that in (pre-Brexit) 2016, 47% of employment within the tourism sector was part-time; that over 40% were in "elementary occupations" (i.e. waiters and waitresses, bar staff, cleaning staff, etc.); that 59% were aged between 16 and 34; and that over 9% were non-UK EU nationals, with a further 3% being non-EU nationals. Meanwhile, one of our Scottish stakeholder interviewees, discussing the situation on Orkney, recognised some of the problems associated with seasonal and relatively low-paid tourism-related work:

> "I certainly see some of the barriers there. Seasonal work, low-skilled, low-paid. Definitely. But the issue is everybody wants the staff at the same time. Summer season is the peak season for retail. It's the peak season for your cafes. It's the peak season for all of your tourism-related stuff. So those are definitely areas that struggle to attract folk. And when you've got a very tight labour market, making it increasingly difficult for the people at the bottom end of the thing, who can't pay the highest wages… So your seasonal tourism work, your retail, your cafes, they're struggling. Because there's nobody available." (Interviewee 4)

While much of the literature perceives tourism-related employment in the Arctic to be low-skilled, there are some exceptions. Several authors point to the local knowledge and multiple skills required for *guiding* roles in adventure and nature-based tourism. These include 'hard', technical skills such as navigation, first aid and wildlife identification, and also 'soft' social and interpersonal skills (e.g., Rantala and Valkonen, 2011; Valkonen *et al.*, 2013; Varley and Semple, 2015). Indeed, the literature discusses some of the specialist education and training programmes that are now available across the Arctic, including the adventure guide education programme at Campus Kujalleq in Greenland (Tay, 2020), which is based on an Icelandic model[12]; and the Arctic nature guide programme at Svalbard in Norway (Andersen and Rolland, 2018). In this regard, one of our Scottish interviewees highlighted the growth of the outdoor adventure programme offered by the School of Adventure Studies at the West Highland College UHI, in Fort William.[13]

Family-run SMEs and 'lifestyle entrepreneurs', providing few employment opportunities

Much of the literature also discusses the fact that the vast majority of tourism-related enterprises across the Arctic are very small microbusinesses, offering few job opportunities.[14] Here, three strands to the literature can be identified. Firstly, several authors indicate that many businesses are family-owned, and rarely employ anyone from outside immediate family members (e.g., Pettersson and Cassel, 2014; Engeset and Heggem, 2015; Keyim, 2018). Secondly, many tourism business owners are regarded as 'lifestyle entrepreneurs', whose focus is on pursuing their own personal interests and passions, rather than making profits or growing their businesses (e.g., Lundberg *et al.*, 2014; Broegaard, 2020; Prince *et al.*, 2021).

Thirdly, several authors point to the fact that many tourism entrepreneurs are international immigrants, and believe that this can create additional barriers to employment and rural development, as well as tensions within rural communities. This literature largely draws on research conducted in Sweden. For example, Carson *et al.* (2014), drawing on Lundmark *et al.* (2014), argue that foreign-born tourism entrepreneurs tend to have lower levels of education, and their businesses are largely in low-skilled industry categories (e.g., restaurants and accommodation), and therefore may have limited potential to stimulate economic renewal in peripheral areas. Carson and Carson (2018) and Mattson and Cassel (2020) suggest that immigrant tourism entrepreneurs make limited contributions to networks, collaborations, and knowledge exchange with tourism stakeholders in local and regional public bodies, partly due to exclusive immigrant networking and to lower levels of trust and reciprocity; therefore their contribution to rural development at the broader regional level is limited. Furthermore, a study by Carson *et al.* (2018) identified a "sense of temporariness and expected onward migration among migrants, raising questions about the longevity" of rural tourism enterprises. Eimermann *et al.* (2019) also identify tensions that can exist

[12] Believed to be the Adventure Guide Certificate programme offered by Thompson Rivers University (Canada) and Keilir Health Academy (see https://www.keilir.net/health/moya/news/apply-now-for-adventure-guide-certificate-program-in-iceland)

[13] See https://www.whc.uhi.ac.uk/study/school-of-adventure-studies/

[14] Around 65% of the tourism enterprises in Scotland are micro-business with 1-9 employees (Scottish Tourism Alliance, 2018, p.15)

because of cultural differences, particularly in a lack of awareness amongst international entrepreneurs of the Swedish tradition of *allemansrätt* (see below).

Conflicts with other traditional land uses and subsistence economies

Across the Arctic, various authors have observed the conflicts that can arise between prospective nature-based tourism enterprises and other, more traditional land uses. Central to these tensions in the Nordic countries is the concept of 'everyman's right' (*allemannsrett* in Norway, *allemansrätt* in Sweden, *jokamiehenoikeus* in Finland), which allows citizens to freely roam the countryside, and to pick wild flowers, berries and mushrooms, without explicit permission from landowners, provided that no damage, disturbance or excessive exploitation of the land is involved (e.g., Sandell and Fredman, 2010; Matilainen and Lähdesmäki, 2014; Øian and Skogen, 2016). Conflicts can arise here from tourism businesses wishing to commercially exploit a 'utility' – the countryside – that is traditionally free to all (e.g., Lundmark *et al.*, 2014; Eimermann *et al.*, 2019). Similarly, in north-west Russia, and in north-east Finland near the Russian border, some tensions have been caused by efforts to establish tourism initiatives in or near the (largely indigenous) communities that are still partly reliant on traditional subsistence economies. Although some successes are also reported, when these traditional subsistence activities have been incorporated into the tourism offering (e.g., Puhakka *et al.*, 2009; Stolton and Dudley, 2015; Pashkevich *et al.*, 2016).

Indeed, a certain level of reluctance amongst indigenous peoples to become involved in tourism entrepreneurship has been observed across the Arctic. Amongst the Nenets in northern Russia, for example, Pashkevich and Keskitalo (2017) found that reindeer herders were suspicious of tourism activities, due partly to the need to 'commodify' themselves by wearing traditional clothing and eating traditional food; although the women were more willing to devote part of their day to serving tourists. In Sweden, Müller and Huuva (2009) argued that a Sámi reluctance to enter the tourism industry was down to cultural traditions and norms, as well as legal obstacles. In the Norwegian Sámi communities, meanwhile, internal conflicts concerning indigenous identity and land use have been cited as a significant barrier (Olsen, 2016). In a further study, this time of Sámi *youth* across Finland, Norway and Sweden, Olsen *et al.* (2020) found that none saw tourism as a central opportunity for their future working life, instead highlighting their concerns about the development of mass tourism in the Nordic region, which they did not want to see (p.24).

Despite these reservations, the potential for the Sámi to become better involved in tourism has been highlighted by several observers. The OECD (2019) identified sustainable Sámi-led tourism industry as "a growth opportunity in Northern Sweden" (p.23); a study of young Sámi by Mathisen *et al.* (2017) found potential for "interesting work opportunities" in tourism and cultural entrepreneurship; while the work of Leu (Leu and Müller, 2016; Leu *et al.*, 2018; Leu, 2019) argues that tourism can be a valuable diversification strategy for the Swedish Sámi, that can complement their traditional occupation of reindeer husbandry.

As was indicated in Section 4.4 of this report, tensions can exist between the implementation of large- or medium-scale industrial projects in rural areas and the development of a nature-based tourism industry. While some authors suggest that the tourism sector can benefit from the infrastructure that has already been put in place to support industrial developments (Hall

and Saarinen, 2010; Sæþórsdóttir *et al.*, 2011), the tourists and tourism businesses, themselves, believe that their coexistence is difficult, if not impossible. For example, Sæþórsdóttir and Saarinen (2016) found that the presence of power plants had a negative effect on the "wilderness experience" of travellers in the Icelandic Highlands; while Suopajärvi, argued that the introduction of new mining projects in Finnish Lapland was having a detrimental impact on the "pristine environment" that draws tourists to the region.

Several authors also highlight the conflict that can arise between two different facets of the Arctic tourism industry, wildlife watching tourism and hunting tourism. Gössling and Hultman (2006) argue that hunting tourism is largely an ecologically sustainable form of tourism in Scandinavia, but it faces significant challenges in becoming "culturally sustainable" (see also Matilainen, 2007; Svensson, 2009). Meanwhile, Matilainen *et al.* (2016) note that "other uses of wildlife, such as wildlife watching and tourism based on viewing," may influence the extent to which hunting tourism companies receive hunting licences, before concluding that "the decisions on what benefits should be prioritized and whether they can be balanced is ultimately political" (p.218)

Strained local infrastructure and local environment

Several authors highlight the poor accessibility and infrastructure (e.g., accommodation, roads and other forms of transportation) across parts of the Arctic, that can prevent particular locations taking fuller advantage of the development opportunities offered by tourism (e.g., Maher *et al.*, 2014; Garipov, 2020; Tay, 2020; Zhang and Lundmark, 2020). Equally, there are those who observe that rising tourist numbers are putting a strain on existing infrastructure, and the local environment, which threatens the long-term sustainability of these locations, both as tourist attractions and as desirable places to live (e.g., Baldacchino *et al.*, 2015; Øian et al., 2018; Árnadóttir, 2019). In this regard, our Scottish stakeholder interviewees believed that the Highlands and Islands region was very well placed to optimise its experience economy potential; although references were made to the challenges faced by the Isle of Skye, and to the growing cruise-ship tourism sector in Orkney, where the impact of the arrival of 200 ships this year will be observed with interest (cf. Olsen *et al.*, 2020, re cruise ship tourism in Svalbard, Norway; and Tay, 2020, re cruise ships in Greenland).

Overall, then, while there is an ever-growing policy and research interest in the opportunities provided by tourism across the Arctic, there are several barriers that prevent tourism being a cure-all answer to rural depopulation and economic decline. As Brouder (2012), discussing the situation in Sweden, concludes:

> "Tourism has become synonymous with regional development in rural and peripheral areas… While the notion of tourism as a panacea for rural and peripheral areas has been debunked by researchers, and by the experience of many communities, tourism remains an important policy tool dedicated to the change, development and reconstruction of the social and physical environment. (p.334)

4.7 Entrepreneurship and business start-up support: accelerators and 'decelerators'

A relatively small body of work exists that considers the need for, or provision of, business start-up support in the peripheral areas of the Nordic region. Coates (2020), discussing the Arctic as a whole, notes that

> "Producing a steady stream of entrepreneurs requires the creation of a substantial and creative innovation eco-system… There is no easy path to the creation of an Arctic entrepreneurial culture, but it helps to discuss openly the need for such an effort and to build Circumpolar connections to facilitate Arctic-based commercial innovation." (p.188)

Coates's comments reflect the disjointed and variable response to entrepreneurship development reported in the country-specific literature. In Russia, for example, Garipov (2020) describes an "unfriendly" regulatory environment for potential entrepreneurs, and "very low levels of confidence" in the public authorities providing start-up support or advice. A similar mistrust of formal institutions was found amongst the "reluctant entrepreneurs" in Russia's Far East studied by Ventsel (2017); and also amongst rural entrepreneurs in Finland (Kujala *et al.*, 2021). Also in Finland, Keyim (2018) argued that the financial support available to small rural entrepreneurs was "unfavourable" when compared with that in neighbouring Norway.

In Norway, some studies (e.g., Furunes and Mykletun, 2012; Iversen and Jacobsen, 2016) have examined the start-up experiences of rural tourism entrepreneurs, finding that most had received financial support from the public body Innovation Norway[15] (*Innovasjon Norge*). Angell *et al.* (2015) provide an overview of Innovation Norway's key initiatives in terms of rural development. Meanwhile, Arethun *et al.* (2017) discuss the generally positive effects of entrepreneurial training in rural Norwegian high schools, which is a mandatory activity on vocational programmes, but optional on general studies. Despite these existing opportunities, however, the North Norway Youth Panel (2020, p.22) argue that there is too little capital available for potential entrepreneurs in northern Norway, and that there is a need for more and better entrepreneurship education.

Some literature has focused on the start-up support and advice given to women entrepreneurs. Pettersson (2012a & 2012b), for example, compared provision across five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden). She found that all of the countries had a programme or action plan to support women's entrepreneurship, but that they varied in their underlying paradigms and rationales. Pettersson placed Norway at one end of the spectrum, because its policy programme was most clearly influenced by a feminist empowerment paradigm intended to transform and/or tailor the existing support system through various measures. At the other end of the spectrum was Denmark, which focused more on economic growth in line with a neo-liberal paradigm. Danish service provision to rural women lifestyle entrepreneurs, was also explored by Herslund and Tanvig (2012). They found that *local* women were unaware of the existence of advice and support services; and that *in-migrant* women who did use the service found a mismatch with their needs (a finding echoed in a study by Broegaard, 2020) and a perception that they were not

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[15] See https://www.innovasjonnorge.no/

being taken seriously. In contrast, a business start-up course aimed specifically at rural women in Iceland was found to be an unqualified success, with participants indicating that they had become more self-confident and focused on the profitability of their businesses (Olsen, 2011).

Another, more recent development in Iceland is that of the Blue Bank[16] (*Blábankinn*), in the small town of Þingeyri, in the Westfjords Region. Founded in 2017, the Blue Bank is an innovation and community hub (see also Section 4.12), but is also described as a start-up *decelerator*. Here, the entrepreneur is provided with high-tech facilities, but in a slower-paced, stress-free environment. Its 'Innovation Week' programme combines start-up and entrepreneurship workshops and lectures with an opportunity to get "under the skin of Icelandic village life" through activities such as hiking, swimming in the sea, or berry and mushroom gathering (Hróbjartsson, 2019; Lapakko, 2019; Startup Iceland, 2020; Interviewee 2).

From the Scottish Highlands and Islands perspective, our stakeholder interviewees pointed to the support that is currently available from the Business Gateway[17] network and from Highlands and Islands Enterprise.[18] UHI's Catalyst programme[19] was also mentioned here. There is, as Interviewee 4 observed, "lots of really good support there." However, the potential for UHI, and other Scottish universities with a Highlands and Islands presence, to become further involved in some way was also suggested:

> "The regional universities playing a role would be an interesting one. UHI and various things, and how they could potentially get involved in that. Because I don't think that's done. Obviously UHI have got that Catalyst programme, but it'll be interesting to see if there was another way - other ways of getting the universities involved in some of that as well." (Interviewee 4)

4.8 Location-independent public sector jobs and catering for 'digital nomads'

Throughout many of the Arctic countries there is evidence of initiatives that have seen public sector or government jobs being distributed throughout the more peripheral areas, rather than being located in a capital city or a large regional administrative centre. The success of these schemes appears to have been variable.

In Iceland, for example, the late 1990s saw some back-office functions and routine data processing of central government ministries and other national public agencies transferred to smaller towns in the periphery. This appears to have been ineffective, however, due to a lack of interest and "downright resentment" from the institutions concerned (Benediktsson and Skaptadóttir, 2002, p.13). Þorgrímsdóttir (2012) and Magnússon (2013) briefly mention similar efforts. More recently, a regional branch of Iceland's unemployment agency was transferred to the coastal village of Skagaströnd, giving employment to 15-20 people

[16] See https://www.blabankinn.is/
[17] See https://www.bgateway.com/
[18] See https://www.hie.co.uk/
[19] See https://www.inverness.uhi.ac.uk/news/funded-training-available-for-small-business-owners-and-sole-traders.html

(Kokorsch and Benediktsson, 2018b). Most notably, though, the Icelandic Parliament (*Alþingi*) in 2018 approved a resolution to ensure that, by 2024, 10% of all jobs in the Icelandic ministries and government institutions will be advertised as being without a specific location (Alþingi, 2018; Finnsson, n.d.). We were also advised by Interviewees 1 and 2 that, following the election of a new Icelandic Government in September 2021, this arrangement now applies to *all* government jobs, but we could find no English-language documentary evidence of this.

In the Faroe Islands, Pristed Nielsen et al. (2020) report that various public sector organisations have been relocated from the capital Tórshavn to the island of Suðuroy. Examples include the Faroese official transportation organisation, SSL (responsible for national public transport, i.e. buses and ferries) and a division of the tax revenue office (TAKS). In Sweden, six government agencies were relocated in 2005 from Stockholm to the small town of Östersund in the northern Swedish inland. As most existing employees chose to resign rather then relocate, this offered opportunities for a young, well-educated (and mostly female) workforce from the north. Sjöstedt Landén (2012a & 2012b) argued that "In a way, the practice of relocation encouraged the counteraction of common images of female brain drain in peripheral regions." In Denmark, meanwhile, the prospect of relocation of government administration jobs from Copenhagen to 'Outskirts-Denmark' saw numerous resignations by existing staff, who were then offered "psychological assistance to deal with a personal crisis" (Rudolph and Kirkegaard, 2019, p.649).

In responding to these points, our Scottish stakeholder interviewees referred to the Scottish Government's (2021a) national population strategy and its commitment to consider its "workforce footprint" and what opportunities there might be for a "more location neutral workforce" (p.77). Both interviewees agreed that this would be a positive development, particularly for policy-related positions:

> "One of the aspirations I have, if we *do* get job dispersal across the Scottish Government, is actually that, instead of 300 out of 10,000 employees being in the Highlands and Islands, we actually increase that number so that people developing these policies live in the parts that they're in. Still isn't a perfect fix, in terms of getting that community voice, but it's certainly a move in that direction." (Interviewee 3)

> "The Scottish Government have got to get into this, of allowing more of their jobs to be based in rural areas. Partly because they need more rural influence in their decision making, and policy direction. But it's folk in Edinburgh and Glasgow writing policy, who have only got experience of Edinburgh and Glasgow. Why is somebody in Glasgow writing an economic development plan that massively restricts Highlands and Islands areas, when they've never been here either." (Interviewee 4)

With regard to remote working, some of the most recent Arctic literature has discussed the Covid-19 pandemic and the opportunities it has brought to light, as well as the possibilities that remote/home working might bring in helping to address rural depopulation. For example, Lundgren *et al.* (2020) argue that:

> "During the Covid-19 crisis, a large proportion of employees and employers have adjusted their routines to enable distance working from the employees' homes.

> These changes within the labour market may be long-term, allowing remote working to happen to a greater extent even after the Covid-19 pandemic. As a result, restructuring and the more efficient use of distance spanning technologies could also contribute to a change of employees' preferences regarding residence, which would in turn revitalise the processes of counter-urbanisation and counteract the brain drain from peripheral areas to urban centres." (p.20)

The potential here was recognised by our Scottish interviewees, with one noting that "the cat's out the bag" in terms of home and remote working. Although there were also concerns about the quality and reliability of broadband services in the Scottish islands. Here, the Scottish Government's R100 programme[20] was mentioned; and while it was acknowledged that "things have moved on somewhat", it was also suggested that "we need to try and do different things" in terms of broadband.

The Arctic literature has also recently turned some attention to the concept of the 'digital nomad'. The term digital nomad first emerged in 1997 and has been attributed to Makimoto and Manners. Hensellek and Puchala (2021) define digital nomads as

> "…individuals who pursue a work-leisure lifestyle by working remotely leveraging digital technologies whilst on the move, which enables them to work independently from anywhere in the world. They typically perform digital work through flexible work arrangements and place a high value on mobility in order to integrate both traveling/ leisure and working. Despite their individuality and mobility, their intrinsic motivations and goals, in turn, create a shared identity and global community with other people that follow the same lifestyle." (pp.202-203)

Some small towns and villages in Norway, Iceland and the Faroe Islands, have begun concerted efforts to attract digital nomads, as a means of invigorating their communities and perhaps persuading them to become more permanent residents. For example, in the small town of Vágur, on the Faroese island of Suðuroy, the 'Faroe Islands Coworking Adventure'[21] initiative provides a coworking space and invites digital nomads to Vágur "to work, live and go on adventures" (Glass *et al.*, 2020, p.29; Interviewee 1). Similarly, the aforementioned Blue Bank, in Þingeyri in Iceland's Westfjords, provides a coworking space for digital nomads (Hróbjartsson, 2019; Lapakko, 2019; Interviewee 2).

A key resource here is the *In Residence in the Arctic* platform,[22] which is a tool for small, remote communities to invite people to become part of these communities for a short or longer period of time, which might also result in new residents on a more permanent basis. The aim is to attract skilled workers, remote workers or families that give "something" to the community while they are in residence. The creation of the platform was inspired by discussions in the North Atlantic Thinktank, which forms part of NORA (Nordic Atlantic Co-operation).[23]

[20] See https://www.gov.scot/publications/reaching-100-superfast-broadband/
[21] See https://faroeislandscoworking.com/
[22] See https://www.inresidenceinthearctic.com/
[23] See https://nora.fo/

One Scottish stakeholder interviewee was very receptive to the idea of attracting digital nomads to Orkney. Again, however, a lack of appropriate accommodation for these temporary (and potentially permanent) residents was cited as a major barrier:

> "Digital nomads, it's something we'd love to do. We have opportunities that digital nomads could jump at. I think there is certainly demand in some of our outlying island communities, particularly. Even on mainland where you'd want to draw in more of these younger folk who would base themselves here for six months and then may think, 'Actually, you know what, I really like it' and stay. The one issue we've got is just lack of accommodation. There's no point in advertising something if they know full well right now they can't house anybody who comes." (Interviewee 4)

4.9 Housing services

As was noted in Section 3.4 of this report, a lack of affordable rural housing was only rarely mentioned in the Arctic literature, in terms of youth out-migration decisions. An overabundance of empty and/or low-price houses in the more peripheral areas of the Arctic appeared to be viewed as the more immediate housing challenge (Eliasen *et al.*, 2020). Unsurprisingly, then, there is also a dearth of literature that explores any policies or interventions designed to address the issue of affordable housing for young people. The work of Eliasen *et al.* is a rare point of reference here. They talk broadly about *national* measures to address housing issues, largely through the provision of financial support, via loans, guarantees or subsidies. They also talk about ways in which housing issues are mitigated at the *local and municipal* level across the Nordic region, occasionally through providing financial assistance in the form of loans or guarantees, but more usually in terms of spatial planning. In discussing five Nordic case study municipalities, the specific housing challenges faced by some young people are mentioned, but details are not provided on what, if any, approaches have been taken to address these challenges.

In response, our Scottish stakeholder interviewees reiterated the extent to which they believed housing to be the most pressing issue for young people in the Highlands and Islands. Indeed, they described it as a "multifaceted" and "wicked" problem. One interviewee noted the Scottish Government's commitment to produce a Remote, Rural and Islands Housing Action Plan (Scottish Government, 2021b, p.94), and they mentioned some of the points that they had been communicating to the Scottish Government in its development. For example, they discussed what was described as a "market failure of housing provision":

> "You've got a housing market that is looking for the right scale of development projects. And that doesn't involve a 2,3,4-house development — that becomes really expensive to do. So ultimately all roads lead them back to a small town. So rather than put 10 houses in Glenfinnan, they'll put 40 in Fort William, because that's the easiest and the best way to do it. Which has a double whammy effect, because what we're actually doing is accelerating that rural depopulation by creating the housing in Stornoway, as opposed to the north of Lewis." (Interviewee 3)

A similar point was made by Interviewee 4 who, discussing the preparation of National Planning Framework 4 (NPF4),[24] expressed concerns that it will be used to limit housing development outside of major settlements:

> "And for rural and island areas, that's a real killer. Because I don't want our main settlement to grow by 1,000 houses, neither does the vast majority of other people. But that's exactly what's going to happen, unless a much longer term view is taken."

On Orkney, it was noted that the population had increased incrementally over the last 20 years, and, as a result, housing demand was far outstripping supply. It was argued that the in-migrants have traditionally been older people who have had the necessary capital to purchase a home on the islands; although during the Covid-19 pandemic, more professionals who can work remotely have been seen to arrive. As a result:

> "Younger folk, who can't keep up with house price increases, who can't find somewhere to build because 'Planning' have restricted development in their community, are the ones who are really, really struggling. And we're just saying to the Council and others, we need significant, mid-market rent, low-cost home-ownership development, because that is the two tenures that help those young local people." (Interviewee 4)

The Scottish house-buying process, particularly the 'offers over' system, was also described as a significant barrier to young people looking to buy their own home:

> "I think the Scottish offers over system knackers us as well… Most, it's 15-20% over the asking price, but there's some with £85,000 over, £90,000 over. And again, it's just people coming in from outside: 'I want that house and I will pay whatever it takes because, well, to be honest, I've sold something nowhere near as nice for twice as much'… But again, supply is being outstripped by demand, so it's those who've got the money can buy. Those who don't, 'Sorry, you're not getting a chance'." (Interviewee 4)

For rented property, too, rental prices were viewed as being unaffordable to young people:

> "Even for a new-build, rented house in Orkney, you're paying £1,000 pounds a month. 'What, £1000 a month rent for a 3-bed house?' There's no way the mortgage on that house is anything over a grand. Not a chance. So how's your young folk going to compete with that. They're just not. They're just going to live with parents or go somewhere else." (Interviewee 4)

4.10 Transport infrastructure improvements

Several authors have considered or measured the socioeconomic impact of transport infrastructure improvements in particular parts of the Arctic, or have modelled the *anticipated*

[24] See https://www.transformingplanning.scot/

impact of new or forthcoming transport infrastructure. In rural mid-Norway, for example, Rye (2018) reports that local road improvements, primarily designed to support the aquaculture industry, have had wider societal benefits in terms of providing improved access to employment and leisure opportunities. In Iceland, Þorgrímsdóttir (2012) outlines the social, business and tourism benefits of transportation improvements (i.e. to roads and harbours) in the more peripheral areas of the country; while Magnússon (2013) discusses the relative advantages afforded to the villages and small communities located closest to Iceland's Route 1 (or "Ring Road"). In contrast, however, Karlsson (2015) established that transportation improvements in Iceland had significantly increased rural-urban migration.

Some literature has focused on the actual or potential impact of fixed links (bridges or tunnels) connecting island communities with the mainland. In Iceland, for example, Bjarnason (2021) established that the opening of a large-scale road tunnel in the north of the country coincided with a break in the long-term population of the area. In the Faroe Islands, Pristed Nielsen *et al.* (2020) discovered mixed opinions amongst young residents regarding the proposed construction of a subsea tunnel linking the island of Suðuroy to the island of Sandoy (where another tunnel, linking Sandoy with the capital Tórshavn, is already under construction, with completion expected in 2023). While many acknowledged that a new tunnel would improve participation in the central educational and labour market, others felt that they would miss the social nature of ferry travel, where the vessel was regarded almost as an extension of Suðuroy as a place (p.72).

In Norway, meanwhile, the socioeconomic impacts of fixed links on island communities appear to have been mixed. Tveter *et al.* (2017) found that there was population growth in, and increased commuting from, islands connected by fixed links to more urban areas. Andersen *et al.* (2018) found a growth in housing prices, population, commuting and employment on the islands; but also that growth was less pronounced in the more remote island communities, particularly when tolls were applied (see also Gutiérrez *et al.*, 2015 Andersen *et al.*, 2016; Nilsen *et al.*, 2017).

In the Scottish Highlands and Islands context, perhaps the most obvious comparator is that of the Skye Bridge. In an evaluation of the economic and social impacts of the Skye Bridge, conducted on behalf of Highlands and Islands Enterprise and HITRANS (2007), the focus was more on the *in-migration* of people to the island. Although it was acknowledged that Skye had been successful in attracting people to the area, the extent to which this had been affected by the bridge and the removal of bridge tolls was "not clear" (p.40). In discussing the potential impact of fixed links, particularly to or within the Northern Isles, Interviewee 4 suggested that the only one that would "make sense" would be one between Caithness and Orkney; although it was believed that the capital costs involved would be too restrictive. It was suggested instead that extending and upgrading the runways at Kirkwall and Sumburgh Airports (which, although difficult, would allow larger planes with greater passenger capacities to land in the Northern Isles) might be more beneficial, in terms of attracting both tourists and potential residents.

4.11 Other infrastructural improvements

As was discussed in Section 3.5 of this report, a recurring theme throughout much of the Arctic out-migration literature is poor local infrastructure in peripheral areas, and a lack of lifestyle opportunities for young people. In terms of lifestyle opportunities, young people's concerns about their local area typically relate to a lack of sports, social or cultural facilities and venues, and a lack of "things to do". It was noted, in particular, that the North Norway Youth Panel had declared that "These are the kinds of things that will make us stay" (2020, p.10).

With these points in mind, some of the literature reports on efforts to improve or create new social and recreational facilities for young people and the wider population. In Norway, for example, Lysgård (2016) examined the culture-based development strategies of four rural municipalities, and found an emphasis on building infrastructure, such as sports facilities and community meeting places. Bjørna and Aarsæther (2009) also looked at the development strategies of two northern Norwegian municipalities, one of which had focused on new business development, the other on developing cultural and sports facilities and services. The authors observed, however, that it is "hard to conclude that the municipalities have a demographic success, and even harder to say that their relative success is entirely due to the implementation of the strategies" (p.230).

In Iceland, Sigurjonsdottir (2020) discusses the municipality of Árborg, in the south of the country, which has placed an emphasis on developing its sport and leisure facilities. She observes that this strong focus on sporting activity is "greatly appreciated" by the local community and helps to support social cohesion (p.41). It is also believed that these help to attract new families with children to the municipality. A similar approach and conclusions can be found in the Faroese municipality of Vágur in Suðuroy, where a new Sports High School was established in 2014, and where new sports facilities, including a multi-use indoor sports hall and the Faroe Islands' only Olympic-sized swimming pool, have been constructed. Community involvement has been an important factor in the development of these facilities, both in terms of financial contributions and in community members working as volunteers during the build. And while Pristed Nielsen *et al.* (2020, p.70) observed that not all members of the local community had welcomed these new ventures, they have generally been regarded as very successful (Glass et al., 2020; Kull and Refsgaard, 2020; Interviewee 1).

In considering this form of intervention, one of our Scottish stakeholder interviewees observed that Orkney already has some very good sports and social infrastructure, such as the Pickaquoy Centre in Kirkwall and the Pier Arts Centre in Stromness (It was also noted that Shetland had perhaps even better facilities). Other relatively new infrastructure on Orkney was also mentioned, including the Kirkwall Grammar School and the Balfour Hospital, also in Kirkwall.

4.12 Community, creative, and/or co-working 'hubs'

Allied to the provision of new infrastructure is the creation or adaptation of existing community hubs of various kinds. As McMorran *et al.* (2019) observe, these can provide communities with an opportunity for both socialising and knowledge exchange.

For example, in the Mountain Region of Norway, Flognfeldt (2006) discussed the work of the 'Generation Change' project in the municipality of Vågå, which was designed to encourage both in-migration and return migration to the area. It included the renovation of a traditional meeting building to create a new multi-use, social, cultural and seminar facility. Also in Norway, Bjørna and Aarsæther (2009) discussed the creation of the Aja centre in Kåfjord, which was designed as a cultural centre for coastal Sámi communities, and which was found to have "tangible benefits" for these communities. In the Faroe Islands, a building in Vágur houses a co-working space for digital nomads, and also a distance learning centre; the latter being available to distance learning students who would have otherwise moved away from the island to complete their courses, and to students who study abroad, when they come home for holidays (Glass *et al.*, 2020; Kull and Refsgaard, 2020; Interviewee 1).

In Iceland, Kokorsch and Benediktsson (2018b) discuss developments in the northern coastal community of Skagaströnd, where former fish processing premises were converted into places of research, small business, and creative and cultural activities (including an artists' studio). The authors do, however, emphasise that out-migration has not stopped. Also in Iceland, the Blue Bank in Þingeyri (discussed already in Sections 4.7 and 4.8), is described as both an innovation and a community centre (Interviewee 2). Named because of the colour of the building, which used to permanently house the town's bank, the Blue Bank has a co-working space and has also reinstated previously lost banking, postal and library services. It has also hosted small cultural events. Elements of the Blue Bank model have now been adopted in other community centres in the Westfjords Region, including Skúrin,[25] in Flateri; Djúpið,[26] in Bolungarvík; and Muggstofa,[27] in Bíldudalur.

In discussing the potential for such hubs in the Scottish Highlands and Islands, one of our stakeholder interviewees observed that, in Orkney, there were already several creative-hub-type arrangements throughout the islands, in the form of studios and galleries. Regarding co-working hubs, the same interviewee believed that there might be some scope for such facilities on Orkney, particularly for local authority employees. It was argued here that, to prevent all council employees travelling to Kirkwall on a daily basis, some small co-working units might be established in other, smaller communities, thus also allowing officials to do more "*in-community*" work.

[25] See https://skurin.is/
[26] See https://www.djupid.net/
[27] See https://vesturbyggd.is/stjornsysla/stofnanir/muggsstofa/ and https://www.facebook.com/muggsstofa

4.13 Youth involvement in decision-making

Across the Arctic, a need for young people to be better involved in the policy- and decision-making processes has been widely recognised. The Arctic Council Conservation of Arctic Flora and Fauna Working Group (2021) declares that:

> "The global policy framework is increasingly acknowledging the importance of youth engagement. Youth offer unique perspectives and they approach challenges and opportunities in different ways than other groups. They also hold a critical stake in ensuring long-term community resilience…When decision-makers engaged in Arctic policy and development authentically engage with young people of the Arctic in support of their leadership, learning, and professional development skills, it will also increase youth influence and personal stake in the Arctic community. When Arctic youth are given access to diverse learning opportunities in which they feel that their perspectives and expertise are valued and respected, they can use their individual and collective power to help shape a better future for the Arctic." (p.5)

Throughout the individual Arctic countries, there is evidence of the existence of youth parliaments, youth councils, youth panels, and other 'youth voice' fora that represent the interests of young people in rural and peripheral areas (e.g., Wattar *et al.*, 2012; Johnsen and Perjo, 2014; European Network for Rural Development, 2019; Ivanova *et al.*, 2022). The effectiveness of these bodies does, however, appear to be variable. In northern Sweden, for example, Jonsson *et al.* (2020) found that youth councils, instead of acting as pathways to 'real' influence, were often consultative only and reduced to the arrangement of social events. In small coastal communities in Iceland, regional planners and local authorities were found to typically reject the ideas of local youth in favour of those of outside 'experts', leading to the optimism of the young people being "dampened" (Kokorsch and Benediktsson, 2018b, p.108). In Russia, meanwhile, each of the nine Arctic regions has created a youth parliament, but these are described as having "varying degrees of effectiveness" (Ivanova *et al.*, 2022, p.150).

In Norway, however, Wolf *et al.* (2004) note that "youth participation is an absolutely central feature of youth policy", and that Nordland has been described as "the most youth-friendly county in Europe". It is interesting, then, to observe that a dedicated youth panel – the North Norway Youth Panel – was set up by the Norwegian Government in preparation for developing its Arctic Policy. Many of the Youth Panel's recommendations (North Norway Youth Panel, 2020) now appear in the Norwegian Government's (2020) policy.

In discussing youth participation in the Scottish Highlands and Islands, our stakeholder interviewees noted the existence of the Scottish Youth Parliament, and of other youth councils and fora at the more local levels. But the influence and effectiveness of these bodies was brought into question:

> "There needs to be more youth involvement, but I don't see the senior generations giving that up yet, in terms of decision making, I think there's a 'Yes, we need young people involved, but, well, they're young people, so we'll still make the decision. Thank you for your input. We'll now go and do what we want to do'. (Interviewee 4)

4.14 Support networks for rural LGBT+ communities

As was discussed in Section 3.8 of this report, there is some evidence that living in rural areas across the Arctic can provide additional challenges for LGBT+ individuals. It was also noted that there has been a call for more research in this area (Hayfield *et al.*, in Arctic Council, 2021). In rural Scotland, Crowther *et al.* (2020, p.40) has argued that there is a need for better access to services, safe spaces, support, and LGBT groups.

Our literature search revealed that there have been *some* efforts to establish networks and other mechanisms that are specifically designed to support LGBT+ individuals who live or work in rural areas, including in Scotland and the wider UK. In Norway, for example, the organisation Norwegian Rural Youth (Norges Bygdeungdomslag) conducted a project entitled 'Gay in the Countryside', which was designed to develop the self-confidence and self-direction of rural LGBT youths (Wolf *et al.*, 2004; Maras, 2008). In the UK, Agrespect is a support network for LGBTQ+ people, which aims to demonstrate that "the countryside and rural careers can be vibrant, tolerant and welcoming places for everyone irrespective of gender, ethnicity or sexual orientation".[28] In Scotland, meanwhile, Agrespect, in partnership with LGBT Youth Scotland, held a virtual event, in 2021, entitled 'Queer in the Country', the aim of which was to highlight the need to "normalise conversations around the kitchen table to ultimately improve the visibility and acceptance of young LGBTQ+ people in rural places".[29] This event formed part of the wider 'Rural Youth Project'.[30]

4.15 'Vitality policy', place narratives, and the dissemination of 'good news'

In considering approaches to demographic change in the Nordic countries, Johnsen and Perjo (2014) discuss the concept of "regional attractiveness", which they define as "integrated cross-sectoral policy processes to increase a region's appeal as a place to live, to visit, and to do business" (p.45). In the Norwegian literature, this 'attractiveness' is frequently discussed using the word *bolyst*, which has many different translations but which can perhaps be described as "a desire to live" in a particular community (e.g., Lysgård, 2016; Valestrand, 2018; Interviewee 1).

The ways in which Arctic communities have attempted to instil bolyst, amongst existing or potential future residents, are discussed in a small body of literature. In the Nordic countries, these efforts have often taken the form of 'place branding' or 'place marketing' campaigns (e.g., Eimermann *et al.*, 2017; Aasetre *et al.*, 2020; Gulisova *et al.*, 2021), with Finnish municipalities labelling their approaches as *elinvoimapolitiikka*, or "vitality policy" (Makkonen and Kahila, 2021). Variations on the place marketing approach are also discussed in the literature. In the municipality of Guldborgsund in Denmark, local residents were encouraged to take part in a 'Love Storm' Facebook campaign, to promote the more positive aspects of

[28] See https://agrespect.com/
[29] See https://www.ruralyouthproject.com/blogs-news/queer-in-the-country
[30] See https://www.ruralyouthproject.com/

living in the area (Bentzen *et al.*, 2020). Similarly, in response to continuous negative press coverage, relating to business closures and job losses, the municipality of Vágur in the Faroe Islands began systematically releasing positive news releases about the area on a fortnightly and then monthly basis. (Glass *et al.*, 2021; Kull and Refsgaard, 2020; Interviewee 1).

The impacts of these efforts to encourage bolyst appear to have been mixed. In the Faroes, it is certainly believed that perceptions of life on the island of Suðuroy are now more positive, both locally and nationally (Glass *et al.*, 2021; Kull and Refsgaard, 2020; Interviewee 1). In Denmark, the study of place branding in eleven rural municipalities, by Gulisova *et al.* (2021), found some evidence of the reversal of population and economic decline. In contrast, a previous Danish study, of the place branding campaign for Bornholm, found that it had failed to attract its target group of educated return migrants (Hansen, 2010). In central Sweden, meanwhile, Eimermann (2015) found "no general evidence of success" from marketing campaigns aimed at European (largely Dutch) lifestyle migrants. Indeed, in a later study, Eimermann (2017) found that, of those Dutch people who *had* moved to Sweden, around half had since left, that "none of them is entirely happy with their move", and that there had been a "mismatch of post-migration reality with the migrants' ambitions and expectations invoked by the municipality's efforts to attract new residents" (p.131).

In discussing the potential relevance of the positive 'place narrative' approach to the Highlands and Islands, the Scottish stakeholder interviewees believed that this was an approach that *had* been used, in varying degrees, in the past. Again, though, both interviewees emphasised that the major stumbling block was the lack of suitable infrastructure, particularly housing, to meet existing residents' and potential new residents' needs:

> "Lifestyle I think is increasingly becoming more attractive... Imagine what we could do if we were actually able to satisfy simple things like giving people a house, and broadband, and having the ferries that work in a relatively consistent manner." (Interviewee 3)

> "Attracting somebody is fine. We've got people coming out our ears that want to live here, but there's nowhere for them to live… With younger people, we need to be able to say, 'Here's somewhere to live. Here's how you get on the property ladder. Here's the career pathways that are there for you'. But if they can't find somewhere to live, and they don't think there's a job or a longer-term career opportunity, they will go somewhere else." (Interviewee 4)

5. Conclusions and recommendations

This report has interrogated a wide range of literatures that seek to explain the complex array of motives and circumstances that guide rural youth out-migration. We found several universal findings across the Arctic region. In all contexts, changes in established and traditional industries provided the backdrop for increased youth mobility. The collapse, or decline, of what had been the main source of employment reordered the identity and social cohesion of a community. It meant that the securities and taken-for-granted assumptions of the past no longer existed to bind young people to place.

Education provided another disembedding mechanism that further increased mobility among the rural young. It did so in two ways. Firstly, by providing the qualifications that make new forms of professional employment possible and the resource to access further education. Both of which are found elsewhere in urban locations. Secondly, education unintentionally created a culture that prioritised an urban culture and stigmatised rurality. Not to leave becomes a sign of failure and leaving a sign of success.

What for Scotland? What is necessary here to alter patterns of youth out-migration?

Housing emerged as both the prime problem and the main solution for rural youth migration. Scottish interviewees emphasised that without the material resource of housing the retention or attraction of young people to the Highlands and Islands would be highly challenging. The lack of housing is a combination of affordability plus the low level of housing stock. More housing needs to be built. An adequate housing supply would provide the necessary material base for the creative projects that have worked elsewhere in the Arctic region to be enacted. For example, attracting digital nomads would become possible as they would have a place to stay while they engage in their projects.

A new narrative of rurality. Common across all the literature was the depiction of rurality as being inherently problematic, boring, or inferior to urban living. Rural locations are frequently described negatively, as, for example, being in crisis, failing or left behind. A negative narrative posits moving away as a sign of success and staying as indicative of failure. It also dissuades returners, as moving back can be construed as failure. A new rural narrative built on positive features is therefore required.

A positive narrative could emphasise features of rurality not available in urban locations. For example, closer connections and access to nature and the environment, a vibrant place to begin a young family, enhanced quality of life, unique cultural activities and traditions, as well as examples of stayers and returners who have created new businesses, cultural pursuits or found happiness that was not possible elsewhere. This positive narrative assists in reducing place-based stigma of staying and returning.

A place-sensitive curriculum at primary and secondary school level should support and develop a positive narrative of a locality to reduce issues associated with 'learning to leave' (cf. Corbett, 2007). Areas where young people had been either attracted to return, to stay or

to relocate from urban centres created narratives that centred a positive narrative of rural living.

Scottish rurality is additionally framed by the historical legacy of Walter Scott's romanticism. The Highlands of Scotland are wrapped in a Brigadoon nostalgia of the past rather than as a site of modernity and progress. Creating a new narrative for rural Scotland could therefore assist in altering youth out-migration. It could extol the Highlands and Islands not just as rural idylls but as locations that are energetic, vibrant, creative hubs integrated into global flows of information, industry, new technologies and innovation.

The new narrative also entails thinking about communities and populations differently. A move away from fixity and permanence in understanding what a community is and how young people are situated in a community to a perspective based on fluidity and change is suggested by the literature. Mobility is a feature of late modernity, and globalisation has intensified mobility even more with many (but not *all)* rural young people perceiving and seeking opportunities to learn, work, develop lifestyles and identities elsewhere. Those with the requisite educational and cultural capital can find higher education, professional jobs, and locations for lifestyle and identity projects in larger urban settings both in the home nation or abroad facing relatively few barriers in doing so.

Working against mobility is therefore no longer a useful approach in attempting to retain or attract young people to rural locations. It is perhaps better to work with it and harness the various flows of culture, people and technologies that move around the world. Fluidity should be embraced, and policies created and enacted that result in rural locations attracting and retaining young people, but where that young people demographic is heterogenous and constantly changing. That young person demographic could consist of local stayers, returners, short- and medium-term visitors in addition to young people from elsewhere who wish to permanently relocate.

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