

**The Islands (Scotland) Act 2018: Evidence needs for
improving outcomes for Scotland's island communities**

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Executive Summary

- In May 2018, the Scottish Parliament passed the historic Islands (Scotland) Act 2018. The Act introduced a number of measures to underpin the Scottish Government's key objective of ensuring that there is a sustained focus across Government and the public sector to meet the needs of island communities, now and in future.
- Amongst other things, the Act required the Scottish Government to write a National Islands Plan. The Proposed Plan, with its 13 Strategic Objectives, was presented to the Scottish Parliament in early October 2019. The Plan also imposes a duty on certain authorities to undertake Island Communities Impact Assessments and preparatory work is ongoing to inform this process.
- Alongside the National Islands Plan will be an Implementation Strategy, which will contain a set of indicators for measuring progress against the Objectives. Good data is required about Scotland's islands to inform the indicators, but the Plan acknowledges that there is currently a lack of appropriate, robust socio-economic data (particularly publishable data) at island and sub-island level.
- This project set out *"To identify key evidence gaps for Scotland's island communities and to provide recommendations for how these could most appropriately and effectively be addressed"*.
- Data on small rural and island communities is often lacking for a number of reasons, including: a lack of awareness of data availability; a lack of skills relating to data access and analysis; poor, out-of-date websites which use unhelpful jargon and inaccessible language; data not collected at small enough geographical scale, perhaps because it is more expensive to collect and/or due to confidentiality and anonymity issues, leading to the aggregation up of data and therefore a masking of local diversity; an urban bias amongst researchers and policy-makers leading to rural and island communities/issues being overlooked and poorly understood; and attending training events (usually in urban centres) is more expensive and time-consuming.
- Information on evidence gaps and how they might be filled was collected through: a desk-based review of relevant information from Scotland and beyond; reviewing the reports from the island consultation events which took place during summer 2019 to inform the writing of the Proposed National Islands Plan; an online survey asking people about current data availability, data gaps and how they might be filled; and a workshop session at the annual gathering of the Scottish Islands Federation on Grimsay in the Outer Hebrides in early October 2019.
- Scotland's islands and their communities are hugely diverse, yet a number of common advantages and challenges to living on islands can be identified from the island event consultation reports, about which up-to-date, accurate and local data is required: (good) health and wellbeing; (strong) sense of community but limited local involvement in decision-making; (good) potential for renewable energy generation; depopulation and a need to maintain or (sustainably) increase population levels; challenges of physical transport infrastructure and digital connectivity; high levels of fuel poverty; and limited affordable housing. Issues prioritised at the Grimsay gathering event were: demographic change; poverty, health and wellbeing; and community empowerment.
- In addition to identifying from the event reports the key issues on which data is required, a number of data-related themes can be distilled:
 - For issues to be considered in ways that are driven, or at least informed by, the voices of island communities, communities themselves need to be involved in generating the underlying data;

- Reflecting their diversity, evidence requirements will vary between different islands, depending on their priority opportunities, needs and challenges;
- Issues in Scotland's islands need to be considered holistically, requiring a joined-up evidence base;
- For national, regional and local policies and strategies to be adequately island-proofed requires an accurate, up-to-date evidence base;
- Creative and new approaches to gathering, analysing and presenting data may be required, for example, measuring the importance of transport infrastructure not only in monetary terms but recognising the value of 'lifeline services';
- Grouping islands due to their geographic proximity may not always be helpful; a more intelligent approach may be required, for example, through creating a new island typology.
- There may be appropriate learning from 'good practice' examples of data collection, analysis and presentation, from outwith Scotland. The 'Big Data for Small Places (BD4SP)', 'Community Accounts' and 'Vital Sparks' projects in Canada may be worthy of further investigation, as might the 'Waypoints' project in Maine, USA.
- Based on the evidence gathered in this project, a number of recommendations can be made in order to tackle the data gaps that exist in relation to Scotland's island communities and improve the evidence base, ultimately in order to improve the outcomes for Scotland's island communities now and in future:
 - **Recommendation 1:** Local capacity, skills, expertise, etc. need to be built, through a variety of different approaches (such as training, mentoring, etc.), to ensure that local people and community and voluntary sector groups are able to independently access, use, manipulate, analyse and present data appropriately and accurately.
 - **Recommendation 2:** Increased collaborative working is required to ensure that the islands evidence base is improved, including between researchers, statisticians, policy-makers, practitioners, community groups, etc. It may be appropriate for one organisation to take overall responsibility for encouraging and maintaining such collaborative working (providing resources are made available to do so), such as the Scottish Islands Federation.
 - **Recommendation 3:** More and better data is required at local level in order to explore differences within islands, between island groups and between island and mainland locations. This may require 'creative' approaches to overcome (but not compromise) confidentiality and anonymity challenges. It may be worth considering the development of a new islands classification or typology, which may help to draw out the key similarities and differences between islands in order to inform policy approaches.
 - **Recommendation 4:** Collation of information in one place about all the data currently available on Scotland's islands would be useful, whether this be via a publicly accessible online portal or a more straightforward database. This would help to raise awareness of, and improve access to, the data that is available for all potential users.
 - **Recommendation 5:** Online data sites and portals need to be accessible and user-friendly for a diverse set of users. Further work to identify good practice data web portals from elsewhere might be useful, as might testing of different approaches with a range of users to find out more about 'what works best'. It may be worth following the design and launch of the new online mapping tool for local level data for rural areas (informed by the survey work reported in Hopkins et al. 2019) which is being led by researchers at the James Hutton Institute. However, it must be acknowledged that using an online approach may not always been appropriate as many rural and island dwellers lack adequate broadband skills,

speeds and reliability to be able to view and download (often even small quantities of) data.

- **Recommendation 6:** Recognising the validity and value of different kinds of data is important. While large-scale quantitative data can enable comparisons between places and the measurement of change over time, using data generated locally is often the only way to fully understand local lived experiences, contexts, histories, etc. Often this local data is less valued – or not valued at all – but there needs to be a shift in attitude to ensure that, where it is collected transparently and robustly, its value is recognised.
- **Recommendation 7:** Recognising the value of networking with islands and island organisations elsewhere in Europe and beyond is important. There are many island networks that already exist that Scotland’s islands could usefully tap into to share information and learning.
- **Recommendation 8:** Clear planning from the start regarding the data that is required on a particular issue or action is important, involving all stakeholders. This will help to ensure that appropriate data is available and accessed from the outset and throughout a project.

1. Introduction

1.1 Introduction to the Project

In May 2018, the Scottish Parliament passed the Islands (Scotland) Act 2018¹. The Act introduced a number of measures to underpin the Scottish Government's key objective of ensuring that there is a sustained focus across Government and the public sector to meet the needs of island communities, now and in future.

As required by the Act, the Scottish Government presented a Proposed National Islands Plan to Parliament in early October 2019. Alongside setting out the Government's 13 Strategic Objectives for islands, the Plan highlights the requirement for good data to sit behind the indicators that will be used to monitor the outcomes of these objectives. However, it also acknowledges that currently there is a lack of appropriate, robust socio-economic data (and particularly publishable data) to do this at island (and sub-island) level.

Through desk-based research, consultation with stakeholders and working closely with external partners, particularly the Scottish Islands Federation, this project explored the key data needs of Scotland's island communities, where the main data gaps are, and provided recommendations for how they might be filled so that the Plan's Strategic Objectives and the indicators that sit behind them can be measured with robust data.

The project was funded by SEFARI (the Scottish Environment, Food and Agriculture Research Institutes) Gateway's Think Tank – Spark Proposal Funding stream².

1.2 The Islands (Scotland) Act 2018

In May 2018 the Scottish Parliament passed the Islands (Scotland) Act 2018, with the Act subsequently receiving Royal Assent in July 2018. The Act is designed to support and help meet the unique needs of Scotland's islands now and in the future, and to create the right environment for sustainable growth and empowered communities.

The Act contains several (related) elements, but perhaps the two key ones are the introduction of a National Islands Plan (NIP) and Island Communities Impact Assessments (ICIAs). The Act commits Scottish Ministers to prepare a NIP to set out the main objectives and strategy for improving outcomes for island communities; this NIP was presented to the Scottish Parliament in early October 2019. It contained 13 Strategic Objectives, relating to population levels, sustainable economic development, housing, fuel poverty, digital connectivity and arts, culture and language, amongst other things.

¹ For more information, please see: <http://www.legislation.gov.uk/asp/2018/12/enacted>

² For more information, please see: <https://sefari.scot/sefari-gateway>

The Act also imposed a duty on certain authorities to undertake ICIA. Preparatory work is currently ongoing to inform the ICIA process, including the design of guidance and/or templates, with a view to these assessments becoming a legislative requirement from the end of 2019. ICIA require relevant authorities to take into account island communities from the outset (where possible) when they are designing or planning to introduce a policy, strategy or service. An ICIA must be carried out when, in the authority's opinion, the policy, strategy or service is likely to have an effect on an island community which is significantly different to its effect on other communities.

An up-to-date and accurate evidence base is critical to both of these core elements of the Act. In terms of the NIP, evidence is needed to measure and monitor progress on the Plan's Strategic Objectives for Scotland's diverse island communities. In relation to ICIA, evidence is needed to inform decisions about (a) when one should be undertaken; and (b) the content and impact of the ICIA itself.

These needs are recognised in the Islands (Scotland) Act 2018 itself, which acknowledges the importance of *"measuring (whether quantitatively or qualitatively) the extent to which outcomes for island communities identified in the Plan are improved"*. The Proposed NIP explains that an Implementation Plan is being prepared to sit alongside it, including work to identify appropriate indicators for each Strategic Objective to measure whether or not (quantitatively or qualitatively) the outcomes for island communities identified in the Plan are being improved. These indicators will be linked to the National Performance Framework and the Sustainable Development Goals. As the Plan (2019, p. 60) goes on:

"Robust indicators require good data. In fact, the latter is vital to underpin meaningful monitoring of progress on outcomes for our island communities. Currently there is a lack of robust disaggregated socio-economic data at the island level, particularly publishable data. Better local data is key to understanding the specific challenges facing island communities, both in terms of demographics and economic development. This is important in assessing the effectiveness of policy measures taken so far to address these challenges; informing where more targeted interventions may be required; and responding to the evolving needs of island communities."

More broadly, however, the Scottish Islands Federation, amongst others, have argued that the need for adequate data goes beyond the NIP. It is required in order to fully identify and understand: all of the economic, social and environmental characteristics, opportunities and challenges of Scotland's island communities; how they differ from mainland locations and from one another; how they are changing over time (thus requiring baseline data from which to measure change); the most appropriate responses and solutions; and how the impacts of interventions can be monitored to ensure positive effects on the future sustainable and inclusive growth of Scotland's islands. Data will help to improve the understanding both of those living and working on Scotland's islands, as well as those off-island who often lack knowledge of the nature of island life, but may be making decisions on service provision or other policies/strategies for island communities.

2. Project Aim, Objectives and Methodology

2.1 Project Aim and Objectives

Project Aim: To identify key evidence gaps for Scotland's island communities and to provide recommendations for how these could most appropriately and effectively be addressed.

Project Objectives:

- To undertake a brief review of the existing evidence base for Scotland's islands;
- To review information gathered through the island public consultation events which relates to the current evidence base and the key gaps;
- Based on this information, to undertake interviews with key stakeholders to explore further these evidence gaps, why they exist, the implications for island communities, and recommendations for addressing them;
- To identify skills gaps (if any) amongst key stakeholder organisations in accessing, analysing and displaying appropriate data;
- To briefly explore any international 'good practice' examples of improving the quantitative and qualitative evidence base on island communities (e.g. the work of the Island Institute in Maine, USA and the Institute of Island Studies at University of Prince Edward Island, Canada);
- To develop a set of recommendations, based on the evidence collected;
- To 'sense-check' the recommendations through a workshop (webinar) to which key stakeholders are invited;
- To write up a project position paper and a SEFARI blog and/or case study write-up;
- To explore, with SEFARI and the project co-leads, the potential for a follow-on SEFARI Fellowship to implement the project's recommendations.

This project proposal was drawn up by researchers in the Rural Policy Centre (RPC) at Scotland's Rural College (SRUC), in collaboration with colleagues at the James Hutton Institute, the Scottish Islands Federation (SIF) and the Scottish Government Islands Team (SG Islands Team). Representatives of SIF in particular provided ongoing input to the project, including guidance on the emerging findings and recommendations.

SRUC staff also drew on their international island connections to inform the project, some of which have resulted from the programme of island webinars which SRUC staff are currently running³, which has included speakers from Finland, Australia, the USA and Canada. In particular, these connections were used to identify international 'best practice' approaches to gathering, analysing and/or displaying islands-related data (see Section 3.5.2 of this report).

³ For more information, please see here: https://www.sruc.ac.uk/homepage/1259/island_webinar_series

2.2 Project Methodology

The project included a number of different stages, each designed to address the aims and objectives identified above.

Stage 1: A desk-based review of relevant information relating to the lack of data for island (and rural) communities was undertaken. This included information gathered as part of research being undertaken within the Strategic Research Programme, for example, work on place-based policy and its evidence requirements⁴. Other relevant reports and documents were also reviewed, including the recent SCDI Rural Commission report which discusses the challenges associated with a lack of evidence and the recently published 'State of Rural Canada III' report (2019) which focuses on similar challenges of accessing data relating to rural Canada (though the focus here is not islands specifically). SIF staff and Board members also provided some input to this initial stage of the project in terms of their experiences of data gaps relating to Scotland's islands. The Islands Revival project blog⁵ was also reviewed to identify any points made there about data requirements and limitations.

Stage 2: The reports (available online) from the island consultation events undertaken during summer 2019 by the Strathclyde Centre for Environmental Law and Governance (SCELG), the SG Islands Team and SIF, to inform the writing of the NIP were reviewed. These events focused firstly on discussing the things that make living on Scotland's islands great, and then, secondly, on the challenges of living on islands, with the key challenges identified and discussed in more detail. Participants identified some potential solutions and who might be responsible for leading them and when. The reports were reviewed to distill key issues on which data may be required, and for each issue, to dig a little deeper as to what sub-themes might be important.

Stage 3: An online survey was issued asking for people living and working in Scotland's islands to answer a set of questions on data availability, gaps and ways of filling those gaps. Some participants at the Islands Revival Workshop in Skye in late August completed the survey, it was sent to a group of island-based organisations (including community councils and development trusts) as provided by the Scottish Islands Federation, and it was made publicly available through the RPC Twitter account (@RuralPolicySRUC) and was re-tweeted by others several times. The survey was available for several weeks during autumn 2019.

Stage 4: Using Zoom technology, the lead researcher participated remotely in a session focusing on islands data organised at SIF's annual gathering in Grimsay in early October 2019. At the session, SIF staff started by setting the context for the project and then the lead researcher provided an introduction to the research project, and discussed some of the data gaps that had been identified in the early stages. Participants were asked initially to identify which of the key

⁴ See for example, Hopkins, J., Wilson, R. Atterton, J. and Copus, A. (2019) Stakeholder views on the small area-level evidence base for place-based policy in Scotland (March). Available online: <https://sefari.scot/research/objectives/place-based-policy-and-its-implications-for-policy-and-service-delivery>

⁵ For more information, see: <https://islandsrevival.org/>

issues that emerged from the island consultation events were most critical in terms of missing data. They were then asked to discuss where they currently accessed data when they required it, and to highlight recommendations for improving the evidence base.

Stage 5: The final stage of the project was the write-up of this report. A draft version of the report was shared with key contacts in the SG Islands Team and SIF and then a final report was submitted to SEFARI, incorporating any comments received.

This project ran from early August until the end of November. The NIP was presented to the Scottish Parliament in early October, with the final document to be published before the end of 2019. Once the NIP is formally adopted by the Scottish Parliament, work will begin on the Implementation Strategy and it is anticipated that this project can particularly inform this work.

This project links closely with work being undertaken within the Scottish Government's Strategic Research Programme 2016-21 on place-based policy and the data requirements that underlie such a policy approach. This includes information gathering with stakeholders to find out about rural evidence gaps and the design and creation of a new, easily accessible online data and mapping tool for use by a range of different stakeholders. It also links with 'Islands Revival', a SEFARI Responsive Opportunities Fund project exploring examples of population turnaround in Scotland's islands⁶. A workshop was held in Skye in late August as part of the Islands Revival project and an 'Islands Declaration' was subsequently produced (in September 2019), which highlights evidence of positive population change in the Scottish islands, identifies what is driving this change, and makes recommendations for how policy can support sustainable island populations.

2.3 Why do we often lack data on small rural and island communities?

Before discussing the findings from this project, it is perhaps just worth reflecting on some of the reasons why we may lack data on small rural and island communities.

Recent survey work by Hopkins et al. (2019⁷), focused on the data requirements for place-based policy, highlighted priority areas that stakeholders felt were most important to their local area – including economic, transport, housing and service access issues, plus community strength and personal wellbeing. The survey also highlighted various challenges relating to data at local level, including relatively low awareness of local level data availability, in particular relating to communities and wellbeing. Moreover, the study found that some stakeholders may not have the

⁶ For more information, see: <https://islandsrevival.org/>

⁷ Hopkins, J., Wilson, R., Atterton, J. and Copus, A. (2019) Stakeholder views on the small area-level evidence base for place-based policy in Scotland, RESAS 3.4.2 Place-based policy and its implications for policy and service delivery in Scotland, Objective 5.3i (March). Available online: https://www.sruc.ac.uk/downloads/file/4306/342_stakeholder_views_on_the_small_area-level_evidence_base_for_place-based_policy_in_scotland

skills to access alternative data from other sources (for example, when national level data is not available), and/or to identify and modify proxy indicators that may be available.

Respondents also felt that websites often hindered easy access to the data, that data was distributed across several resources rather than being accessible in one place, that unhelpful jargon and technical language was often used, and that data was not available at small enough, or the most useful, geographical scale. In relation to the latter, community council areas, wards and islands were mentioned as potentially more helpful than datazones, for example. The survey also highlighted that, while some stakeholders had knowledge and experience of accessing and analysing data, creating maps, etc., many stakeholders from third and community sector organisations did not, although most reported that they had viewed statistics online.

Several data challenges for rural and particularly island communities were highlighted in the SCDI Rural Commission's recent report (SCDI Rural Commission 2019⁸), which included a section on the need for a '*better understanding of rural economies*' (p. 4-5) and in the State of Rural Canada III report (CRRF 2019⁹) which focused on "*Bridging Data Gaps*". The challenges identified included:

- Researchers and policy-makers often have an urban bias and so rural areas may be overlooked or their specific challenges and opportunities not understood. Often, due to a lack of understanding, it is the challenges of rural and remote areas that are over-emphasised, while their assets and opportunities are under-recognised, leading to a predominantly negative narrative.
- The small size of populations (including of people, businesses, etc.) mean that confidentiality, anonymity and privacy issues are often more challenging than in places which are more densely populated, and/or that sample sizes are too small to make reliable generalisations. Data therefore has to be aggregated up (for example, to local authority level) which masks local diversity (either between islands or between island and mainland locations), or there is a reliance on one-off case studies which makes replication and comparison difficult.
- The distance of rural and island places from major centres often means that data is more costly to collect, plus poor broadband makes digital data collection and access problematic.
- The capacity of rural and island places (referring to communities but also smaller local authorities with fewer resources) to access, analyse and communicate data may be lower due to financial and/or skills issues, meaning that it is less likely that this data can appropriately inform policy.
- Attending (usually urban-based) training in data access, analysis and 'translation' (e.g. appropriate presentation) may be more costly due to the greater distances involved. Those distances also contribute to a lack of regular relationships with researchers and policy-makers may make it harder to communicate effectively.

⁸ SCDI Rural Commission (2019) *An Economy for All of Scotland – Harnessing Our Potential for Everyone, Everywhere*, SCDI Rural Commission (September). Available online: <https://www.scdi.org.uk/ruralcommission/>

⁹ Canadian Rural Revitalization Foundation (CRRF) (2019) *State of Rural Canada III*, CRRF (October). Available online: <http://sorc.crrf.ca/>

- There are challenges of identifying differing underlying causes when data may superficially look similar.
- There are limitations with GDP and GVA measurements in capturing local and regional level economic and social activities and impacts.
- Added difficulties have been created by the decision taken by the UK Office for National Statistics to round to the nearest five (SCDI Rural Commission 2019, p.4). This has the effect of making smaller data samples less accurate, with island groupings often failing to be recognised as a result of statistically insignificant numbers.

As a result of these factors, the State of Rural Canada III report concludes that: *“the data gaps and deficits [rural and remote places] face are more detrimental to their effective development than found in most urban places”* (CRRF 2019, p.6). This is a particular challenge when it comes to informing urban-based residents and policy-makers about the characteristics and specific challenges, opportunities and potentials of these rural and remote places, or about the ways in which a particular policy or programme may have different impacts here, or require different modes of delivery. More often than not, rural places have to rely on information which is aggregated over large geographical areas and therefore masks diversity, or is derived from one-off case studies making comparisons difficult.

3. Project Findings

3.1 Introduction

This Chapter forms the main part of the report. It presents and discusses the key findings according to a number of key sections. Section 3.2 starts by reviewing the benefits and challenges of living on Scotland's islands that were mentioned at the NIP consultation events. Following on from distilling the key (either positive or negative) issues from the event reports, Section 3.2 then notes any particular data-related issues that were raised at the events.

Based on the long list of issues in Section 3.2, and the discussion in the event reports on each issue, Section 3.3 then provides more detail on each issue and the particular data requirements of each. The top three priority issues are also identified based on discussion at the Grimsay workshop (see Chapter 2 for more information on this). Section 3.4 then discusses the data needs in relation to the ICIA process, while Section 3.5 concludes the Chapter by listing some places from which those living and working on islands currently access data (Section 3.5.1), and identifying some 'good practice' approaches to collecting, analysing and presenting data from overseas (Section 3.5.2).

Chapter 4 of this report builds on the data presented in Chapter 3 to provide recommendations for filling the data gaps.

3.2 What data is required about Scotland's islands?

Between April and July 2019, Strathclyde University's Centre for Environmental Law and Governance (SCELG), the SG Islands Team and SIF organised consultation events across many of Scotland's inhabited islands, as a requirement of the Islands (Scotland) Act 2018 and to inform the NIP. These events, which were open to anyone to attend, focused on discussing the factors that make the island a great place to live and the current challenges and concerns of the community, with the key challenges identified and discussed in more detail. Participants were asked to identify proposed solutions to the key challenges, next steps, and who should undertake these next steps and when. A short report from each event is available online¹⁰ and these were used as the basis for the information presented here.

¹⁰ These reports are available here: <https://www.strath.ac.uk/research/strathclydecentreenvironmentallawgovernance/ourwork/research/labsincubators/eilean/islandsscotlandact/consultations/>

Although each of Scotland's islands is different – and there are significant differences between islands within designated island groups in some instances - it is possible to distil a core set of factors which were mentioned in (at least) several places as being factors which make islands a good place to live. These are listed in Box 1 below.

Box 1: Common factors which make Scotland's islands a good place to live

- A strong sense of community/community spirit;
- High quality environment, scenery, wildlife and landscape;
- High quality of life and good health and wellbeing;
- A safe and peaceful environment with a low crime rate;
- Good place to raise a family;
- Actual/potential for renewable energy generation.

The same applies in terms of key challenges, with many different issues identified, but it is still possible to distil a set of key challenges common to (at least) several islands. These are shown in Box 2 below.

Box 2: Common challenges faced in Scotland's islands

- Depopulation and a need to (sustainably) increase population levels;
- Transport limitations and, amongst other things, the need to upgrade infrastructure, address timetabling limitations, and better integrate different modes of transport on- and off-island;
- Limited housing supply and unaffordable housing stock for rent or purchase, which is often in poor condition and not suitable for local needs (e.g. for young families);
- A limited economic base, and a need for to diversify and attract new business activity;
- Limited local involvement in decision-making and need to increase local empowerment;
- Limited island-based healthcare services and inappropriate mainland provision;
- High levels of (severe) fuel poverty and wider health, wellbeing and poverty issues;
- Poor digital connectivity;
- A concentration of land ownership in private hands (although this is changing in some islands with increased community ownership);
- Inappropriate policies across all sectors which are designed for mainland locations and do not take specific island circumstances into account.

Understanding the extent of the challenges (and positive factors) identified above, how they have changed over time, how they affect different groups, what appropriate responses/solutions might be, and measuring the impacts of those responses, all requires an accurate, up-to-date evidence base (more detail is provided on specific evidence needs under each theme in Section 3.3). More often than not at the consultation events, participants emphasised that, alongside formal statistical evidence (or in place of it, where that evidence is inadequate for islands), 'local' evidence is

required i.e. collected at local scale and/or informed by local experience (for example in terms of housing demand, transport needs, etc.). While this does potentially present challenges in terms of the ability to directly compare across islands (when the evidence may be collected in different ways, at different times, etc.), it does mean reduced reliance on extrapolating data from mainland locations and on data from other islands, both of which are likely to be inappropriate to each island's unique circumstances.

While some of the required 'local' data is quantitative/statistical and is likely to be collected by large public and private sector organisations (such as local authorities, CalMac, etc.), some of it would be better collected through local level surveys and community engagement, and it is likely to be more 'qualitative' in nature.

In addition to the issues listed above which are either key positive features or challenges to living on islands, it is possible to identify a number of key data-related themes from the island consultation event reports:

- If issues (such as housing or transport timetabling) are to be considered in ways which are driven, or at least informed by, the voices of island communities, communities themselves need to be involved in generating the data to underlie the understanding of, and responses to, them;
- Again as mentioned earlier, Scotland's islands are hugely diverse. This is part of the rationale for improving data availability and accessibility – to highlight and ensure that stakeholders take account of this diversity – but it also means that evidence requirements will vary between different islands depending on their priority opportunities, needs and challenges;
- All of the island events highlighted the need to consider issues in the islands holistically and in a joined up way. In particular, housing, economic development, transport and digital connectivity were argued to be fundamentally inter-connected. This is also recognised in the NIP. This brings challenges but also opportunities in terms of the ways in which data is collected, analysed and presented;
- If policies and strategies at all levels of government are to be adequately island-proofed (through undertaking ICIAs as a requirement of the Islands [Scotland] Act 2018), an adequate evidence base is required to inform this process – specific policy areas that were mentioned in the events where island proofing had not been carried out included housing, transport infrastructure and timetabling, and recycling and waste management;
- Similarly, some island events mentioned specific policies or proposals affecting individual islands about which, to make an informed decision and then monitor the impacts of that decision, a detailed evidence base would be required. Two specific examples mentioned at the events were the proposal for granting Westray designated port status so that white fish can be landed there, or the proposal for a dedicated islands development agency.
- Creative and new approaches to gathering, analysing and presenting evidence may be required. For example, in terms of measuring transport not only in monetary terms (i.e. recognising the broader value of lifeline services) or in terms of collecting more thorough data and undertaking analysis of ferry/flight passenger waiting lists or standby passengers to identify unmet demand;
- It was noted in some events that some islands differ considerably from their close neighbours and so grouping islands together can be unhelpful. An improved evidence base may help to inform a more intelligent grouping of islands (perhaps even a typology or typologies) which may vary depending on the issue being investigated.

3.3 Priority topics on which data is required¹¹

Section 3.2 listed the challenges and positive factors which were frequently mentioned in the island consultation events. This section provides a little more detail on these issues, based on discussions at the events and responses to the online survey, and the evidence base required to fully understand them and to shape appropriate responses. It is important just to reiterate that these issues do not manifest themselves in the same ways and to the same extent across all of Scotland's islands as the island are so diverse, but they do represent the key issues that were raised in the island consultation events.

At the workshop on islands data availability in Grimsay, participants were presented with the full list of 10 topics below (the titles only) and were asked to rank them in terms of the extent to which data is lacking (note they were not asked to rank them in terms of their order of importance). The top three issues on which participants felt that data was lacking were:

1. Demographic change;
2. Poverty, health and wellbeing;
3. Community empowerment.

These issues are listed first below, followed by the other issues identified from the consultation event reports (which are not listed in priority order)¹².

1. Demographic change and structure:

- Including population change over time and demographic structure (i.e. age, gender, origin [e.g. locals and in-migrants] breakdown); data for each island needs to be up-to-date and not relying on 10 year old Census data (reversing depopulation/encouraging repopulation was identified as a challenge at most of the island consultation events);
- Information on 'part-time and seasonal residents' (e.g. how long they live on island for, their level of engagement in 'island life' when present, etc.);
- In- and out-migration data at local levels, including youth out-/return-/in-migration rates and reasons, return migration rates/reasons and information on the size/location of island diasporas (again available more regularly than through the 10 year old Census), if possible, information on potential returners and what is preventing them from returning;
- If possible, identification of critical/viable population thresholds for each island (including the potential to learn from other national/international work on this) to gauge which islands are potentially 'at risk' if depopulation continues, and when (discussion on this issue must include community voices – i.e. those with experience of living on the island concerned);

¹¹ Particular thanks to SIF Board members for their insights to inform this section. A review of posts in the [Islands Revival blog](#) was also undertaken to inform this section.

¹² It should be acknowledged that the views of those at the Grimsay workshop are not necessarily reflective of everyone living and working across Scotland's islands. For example, one respondent to the project's online survey felt that adequate data is available on housing and demographics for Scotland's islands, albeit not always at small enough geographical scale.

- The inter-relationships between the key issues of demographic change, housing, transport, economic development, etc.

2. *Poverty, health and wellbeing:*

- Use of Scottish Index of Multiple Deprivation (where appropriate, recognising its limitations in measuring deprivation in sparsely populated rural/island locations) and other potential indicators;
- Fuel poverty and extreme fuel poverty levels;
- NHS provision and demand/take-up levels of different services, resilience planning information (to inform future demand for health and social care services);
- Addiction, disability and mental health issues; social care needs (issues which raise particular confidentiality and anonymity challenges);
- Links between islands and mainland in terms of different types of provision; use of digital technology for consultations.

3. *Community empowerment and local governance:*

- Including democratic engagement (e.g. election voting), participation in community events, meetings, community council and development trust existence, membership and activity, council representation (including how many island based councillors on mixed mainland/island local authorities);
- Land ownership information (in relation to private, public and community owned estates), including history of ownership pattern, size, economic activity and employment levels, publicly available maps and mapping tools, etc.;
- Community ownership of other assets, including shops, halls, renewable energy installations, natural assets, and extent/type of community benefit, etc.;
- Gaelic language and culture; number/age of Gaelic speakers, usage of the Gaelic language (rather than just speaking Gaelic), etc.

Other issues distilled from the consultation event reports were:

4. *Transport:*

- Including air and ferry transport to and from islands and the mainland, as well as on-island roads (usage and maintenance) and public transport (especially buses);
- Some data is already collected for most if not all islands (although this could be done more regularly and consistently across the islands making comparisons easier), including data on ferry capacities, passenger numbers, cancellations (technical and weather-related), age of fleet, carbon footprint of service, etc. (and same for air services). A key area in which data is lacking is the extent to which there is unmet or unfulfilled demand (e.g. numbers of people on flight standby/waiting lists, or foot/car passengers who are unable to board their preferred ferry service due to it being full) and how being unable to access travel to/from islands affects residents in particular;
- Breaking down data on total island journeys to separately identify resident, freight and tourist journeys, where this information is not already collected; this links to wider questions around sustainable tourism levels for different islands;
- Exploring different ways of measuring the non-monetary value of (different kinds of) transport links would be useful, particularly in terms of creative ways of measuring the importance of lifeline services whether they be on- or off-island;
- Data to inform the future proofing and long-term planning of island transport services, including in relation to projected demand from different kinds of users and the

- implications for the transport infrastructure (e.g. on-island roads), the capacity of port/harbour infrastructure as well as the planes/ferries/buses, etc. themselves, and the carbon footprint of different services (and goods/services available onboard);
- Transport services must not be understood in isolation as connectivity is important (often vital) for island residents to access key population centres for healthcare, work and leisure. Helping to better understand air/ferry capacity/demand is critical to supporting economic activity, access to services, etc.

5. Housing:

- Island housing markets are often very different from those on the mainland and so policies/programmes on island need to be different to those in other locations.
- Particular evidence needs include:
 - Current housing stock (owned and rented), size (e.g. suitability for families), and condition;
 - Past/current/future projected housing supply, current/future demand/need¹³ (including housing waiting lists and 'unrecorded' need as well as potential incoming workers, families with young children, older households, etc.); and
 - Affordability of housing for rent/purchase, the extent of holiday/second home and self-catering cottages and empty home ownership, and impacts of these trends on the local housing market; and
 - The higher cost of house building on islands (and key reasons for it).

6. Economic structure and performance:

- Employment and economic activity, including type of work (e.g. part-time, full-time, seasonal, zero-hours contracts, etc.), underemployment and unemployment, income, skills shortages, availability of apprenticeships, home-based (remote) working, etc.;
- Sector-based information, including numbers employed and value of activity (adequately measuring activity at local level), including for tourism, food and drink, fishing and agriculture, and potential for growth/decline in these sectors; information on crofting (e.g. number of crofts and number employed);
- Businesses, including size, sector, ownership, etc. for existing and potential start-up businesses (from island or from mainland), information on business failures, access to business support/advice of different kinds (including public and private sector sources), existence of mainland-based employers on island (e.g. Scottish Government);
- Estimates of entrepreneurial potential on islands (i.e. potential new businesses amongst existing population and prospective in-migrants); the potential for/impact of business hub/incubator facilities;
- The (additional) costs of running a business on an island and ways in which island-based businesses may be better supported to overcome these; the extent to which (lack of/unreliable/slow) digital connectivity holds back new/existing businesses;
- Potential benefits/disadvantages of large-scale business developments (e.g. fish farms, renewable energy installations, etc.); and the potential impact of stronger, island-specific branding.

¹³ It was noted by one stakeholder that housing demand on island is often created by housing supply, which is the reverse of the mainland.

7. Natural environment and biodiversity:

- Extent of marine/beach pollution, water and soil quality, waste disposal, habitat and species surveys, mineral resources surveys;
- Key is to create a consistent baseline across all islands, to begin to enable the measurement of change over time.

8. Community facilities and service provision:

- Availability and use information is required; an annual auditing exercise would be very useful;
- Including general baseline data on the existence of basic services/facilities on island (perhaps via an annual audit), and their provision (i.e. services on offer within them, including education, social classes/events, etc.), usage levels, etc.
- Should include:
 - Education – parent and toddler/child groups, nurseries, primary/secondary schools (including Gaelic medium provision, school roll information, taught subject information, etc.), colleges and UHI;
 - Health – hospitals, GP surgeries, nurses, dentists, mental health services, elderly care provision, mobile health service provision (e.g. breast screening, physiotherapy, etc.); if possible, data on the number of travel warrants issued for travel to mainland hospitals would be extremely useful;
 - Retail – including community, local and non-local owned, extent of online provision/usage/cost;
 - Fuel stations, banks, post offices;
 - Abattoirs and fish processing plants;
 - Transport provision on-island, including bus services, community transport and care share schemes, etc.;
 - Digital connectivity/services, including 4/5G phone provision, internet provision and speeds, etc.;
 - Energy supply, including off grid, sub-sea cable and interconnectors;
 - Waste disposal, including waste collection, waste sites, landfill arrangements, recycling provision, etc.

9. Digital connectivity:

- General level of broadband, wi-fi and phone connection on islands (and variation within islands), actual/potential demand/need levels;
- The impacts of poor digital connectivity for residents, businesses, etc. and conversely, what has been enabled by improving connectivity, etc.

10. (Renewable) energy and associated infrastructure:

- Current/potential demand levels on island to allow for future proofed planning, generation capacity now/in future, grid (and other) limitations on exporting surplus off-island, suitability of housing stock for different renewable energy options, constraints on existing fossil fuel supplies, extent of fuel poverty, etc.;
- It is worth adding that this evidence gap was highlighted in the SCDI Rural Commission report (2019, p. 20) which notes the wind, wave and tidal resources in Scotland's island communities which offer major opportunities to play an increasing role if the transmission links required are delivered to capture that resource. The report argues that, given the shift towards a net zero emission future, there must be

a strong focus on how to unlock as much of our renewable generation resource as possible.

For all of these topics, it was recognised at the consultation events and workshop and through responses to the online survey, that two things were critically important: (i) having data over time; and (b) having data from different sources.

Having longitudinal data available over time enables:

- Looking back – to see how each topic has changed over time;
- Taking stock – exploring the current situation; and
- Planning for the future and projecting forwards – exploring potential future scenarios (with or without targeted actions, for example) for sustainable, inclusive growth on Scotland’s islands.

Having data from different sources enables the triangulation (or cross-checking) of findings. Different sources might include:

- Official, usually publicly collected, national data from ‘formal’ surveys (e.g. the Census, Household Surveys, business surveys, Ofcom connectivity data, Transport Scotland data, etc.), Business Gateway (for business/economic data); or from national level private sector sources (e.g. BT for digital and mobile phone issues, fibre roll out, etc.)
- Data from regional/local organisations and service providers, including HIE, local authorities, Calmac (e.g. information on ferry services by island/island group, North Link, Loganair, Highland and Islands Airports Ltd, etc.), Scottish Islands Federation, Development Trusts Association Scotland, Scottish Rural Action, Community Land Scotland, Community Energy Scotland, Local Energy Scotland, community groups (e.g. broadband providers), etc.
- Local data and knowledge based on context and experience – this may be collected from individuals, through ‘community’ documents such as LEADER Local Development Strategies, or via regular/one-off events such as charrettes, local growth plan events, etc.

3.4 Islands Data and Islands Communities Impacts Assessments (ICIAs)

A key part of the Islands (Scotland) 2018 Act is the introduction of Islands Communities Impact Assessments (ICIAs) which require relevant authorities to take into account island communities from the outset (where possible), and how the policy, strategy or service impacts on those communities. The Act says that an ICIA *“must be prepared in relation to a policy, strategy or service which in the authority’s opinion, is likely to have an effect on an island community which is significantly different to its effect on other communities (including other island communities) in the area in which the authority exercises its functions.”*

The process of rural proofing, which has been adopted in other countries (such as England, Canada and New Zealand), can provide learning for the ICIA process. Reviewing the adoption of rural proofing elsewhere reveals the critical importance of data and urban-rural analysis of datasets (using agreed national classifications/definitions) in this process¹⁴. Without up-to-date and accurate evidence, it is not possible to identify where outcomes from a policy may potentially be different in island or rural areas compared to non-islands or non-rural areas, nor to identify how changing a policy may improve outcomes for rural/island areas, and for measuring the extent to which these positive changes actually occur following that change. Moreover, that data need not necessarily be formal, statistical data; robust and meaningful data generated at local level, including by island/rural communities themselves may also be critical.

One recent early (i.e. pre-legislation) ICIA that is perhaps particularly worth noting here is an ICIA that was undertaken for the Fuel Poverty (Targets, Definition and Strategy) (Scotland) Bill¹⁵. This ICIA focused around the measurement of fuel poverty, and particularly the need to take into account how the rural, remote rural and islands uplift to the Minimum Income Standard (MIS), which will form part of the fuel poverty definition, will reflect lived experience on the ground. The ICIA recommended that the uplift for islands should be determined separately, to reflect the particular problem with severe fuel poverty in the islands. The ICIA highlighted the importance of *“using robust island data”* to identify the prevalence of extreme fuel poverty, including data from the national level, from local authorities, and information collected through in-depth case studies. Interestingly, it also determined that, despite potential challenges with national level data *“Knowledge can be easier to obtain in the islands due to small catchment areas, closer networking and strong community ties.”*

It is also worth noting an example of the impact of a lack of island proofing which was highlighted in the SCDI Rural Commission’s report. The report notes the importance of concessionary travel schemes but the significantly higher quantity of journeys made using such schemes in urban areas compared with rural areas. The report includes data on the number of concessionary journeys made per person over 60 and shows that the lowest number of journeys was in Orkney, followed by the Western Isles, Shetland and Highland (SCDI 2019, p.14-15). Therefore, while such schemes may be important, their impact is significantly reduced in places where the number of journeys made using them is limited.

¹⁴ It is perhaps worth noting that the Department for the Environment, Food and Rural Affairs in Westminster is currently revising rural proofing activities in England and responsibility for doing so now lies with the Head of Rural Statistics and Policy.

¹⁵ The full ICIA is available online here: <https://www.gov.scot/publications/island-communities-impact-assessment-fuel-poverty-targets-definition-strategy-scotland-bill/pages/7/>

3.5 Accessing islands data and ‘good practice’ approaches

3.5.1 Current access to islands data

The rise of open data principles arguably means that access to (largely quantitative) demographic and socio-economic data about people and places has never been easier through portals such as statistics.gov.uk and data.gov.uk, the Understanding Scottish Places tool, and new Inclusive Growth Diagnostics Tools that are in development. Due to resource limitations in this project it was not possible to undertake a comprehensive survey of all of the data that is available for Scotland’s islands, from Scottish and UK Governments, relevant local authorities, private companies such as Calmac, etc.

However, discussion with participants at SIF’s Annual Gathering on Grimsay in October 2019 revealed a number of places from which islands data is currently sought and accessed, including:

- Poverty, health and wellbeing:
 - o SIMD data – participants acknowledged that it is used, particularly by local authorities, but recognised that its usefulness may be limited in many island contexts;
 - o HIE minimum income standards work.
- Housing:
 - o Rural Housing Scotland was recognised as having the data and methodology to undertake more local level work on housing need and add to/complement the work undertaken by local authorities, but the organisation lacks the resources to do so;
 - o Local Authority Housing Needs Surveys and the Highland Small Communities Housing Trust;
 - o The Improvement Service.
- Economic and enterprise information:
 - o HIE collects a range of (mainly economic) information for the Highlands and Islands region and for local areas within it, including travel to work areas;
 - o Social Enterprise census;
 - o Agricultural and Crofting Censuses – provide information on agricultural holdings, including smallholdings and crofts.
- Community development and empowerment:
 - o The Development Trusts Association Scotland;
 - o Community Development Plans and other community events (such as charrettes), consultations and surveys (which often contain a huge amount of data but are not fully utilised); although some respondents in the online survey for this project commented that surveys, data gathering etc. are often done by/with communities as a result of gaps and a lack of sub-island information in formal survey work.
- Language and Culture:
 - o Bord na Gaidhlig;
 - o Creative Scotland.

Various other sources of general and specific data were also mentioned by participants, including the Census (accessed through various web portals), Scottish Government statistics, and rural academics and researchers, including at SRUC, the James Hutton Institute (particularly their Socio-Economic Performance (SEP) Index work¹⁶ and the recent Islands Revival project), the University of the Highlands and Islands (particularly the Centre for Remote and Rural Studies, the Centre for Rural Health and the Centre for Northern Studies), and individual researchers working on rural issues.

However, despite accessing islands data from a variety of different sources, there was a strong message in the consultation reports and amongst participants at the Grimsay workshop that more and better local-level islands data is still required. The final part of this Section outlines four 'best practice' approaches to accessing and making available rural and/or islands data from the USA and Canada which may offer useful learning for Scotland.

3.5.2 'Best practice' approaches to islands data from Canada and the USA

Big Data for Small Places (BD4SP), Canada¹⁷

This project was set up as a result of recognition that small places are often overwhelmed by big, open access data, but are required to access, analyse and present data for funding applications, progress reports and performance indicators, and often lack the capacity to do so effectively. Relying on external consultants can help with 'running the numbers' but they rarely have enough local knowledge to interpret them accurately.

The 'BD4SP' project was set up as a capacity-building programme in data access and analysis for rural community development. An initial pilot included the testing and production of a participant's workbook. The programme is designed to allow working groups – including local government (municipalities in Canada) and community groups, but also potentially graduate students and researchers who are specialists in the particular subject matter - to focus on a current issue and access a wide-range of data-related resources to address a specific challenge. The programme is typically hosted by the administrator in a municipality or community organisation, who begins by working with BD4SP facilitators. The core programme then consists of three full day workshops featuring subject-matter experts, relevant data and analytics resources, networking and coaching, and guest speakers and online resources depending on the nature and needs of the group. The group meets between the workshops to progress their specific

¹⁶ For more information, see the research note here: [http://www.hutton.ac.uk/sites/default/files/files/SEP%20Research%20Note%20Aug%202015\(2\).pdf](http://www.hutton.ac.uk/sites/default/files/files/SEP%20Research%20Note%20Aug%202015(2).pdf) and the full research report here: <http://www.hutton.ac.uk/research/groups/social-economic-and-geographical-sciences/mapping-rural-socio-economic-performance>

¹⁷ This information was taken from the 'Economy, Demography and Workforce' section in the State of Rural Canada III report (p.17-8). Available online: <http://sorc.crrf.ca/sorc3/>

task through the application of the BD4SP content and process. A follow up session with each group is designed to help move from analysis to action.

In short, the programme stimulates evidence-based decision-making and builds internal capacity for small communities to use public data for informed decision-making. The programme organisers argue that government agencies and departments that promote Open Data initiatives should look beyond simple data availability by supporting similar initiatives that can make data more useful for individuals and communities, in particular by building their capacity to access and use data more effectively over the long-term.

Community Accounts, Canada¹⁸

In 1998, the provincial government of Newfoundland and Labrador developed a new Strategic Social Plan (SSP) to guide social policy. The rationale for the SSP was to assess how effectively social programmes such as education, healthcare, and other services were meeting the needs of these communities, and to better understand the factors affecting the wellbeing of the provincial population. The SSP recommended undertaking a comprehensive social audit of wellbeing in the province and this audit gave rise to the System of Community Accounts, which was designed to allow citizens to access public data from sources such as the Census in a simple, user-friendly online tool.

Within a holistic framework (informed by academic work on welfare economics and different frameworks for assessing community wellbeing), Community Accounts aggregates and makes available a wide range of data on social, demographic, economic and cultural factors. The site has a variety of tools to allow the user to compare their community to others in the province and a wide variety of socioeconomic indicators. The site is maintained by the provincial statistics agency, which updates its database with data from Statistics Canada and other sources on a regular basis.

The model is one that has been and could be adopted in other provinces (and countries – although recognising the ‘infrastructure’ varies) to make public data more accessible to residents, practitioners, researchers, etc. through a user-friendly interface. It thus helps to democratise community data, thereby creating informed communities with a better understanding of trends affecting their economic and social wellbeing.

¹⁸ This information was taken from the ‘Economy, Demography and Workforce’ section in the State of Rural Canada III report (p.19-20). Available online: <http://sorc.crrf.ca/sorc3/>. More information about Community Accounts is available online here: www.communityaccounts.ca

Vital Signs, Canada

Vital Signs is Canada's most extensive community-driven data programme. It is spearheaded by Community Foundations of Canada (CFC) and led by Community Foundations¹⁹ in Canada and around the world. Those taking part produce Vital Signs Reports and host 'Vital Signs conversations', amongst other activities.

According to the Vital Signs website²⁰: *"Vital Signs uses local knowledge to measure the vitality of a community and support action towards improving collective quality of life. Local data gathered through the programme is used to support evidence-based, locally-relevant solutions to improve the quality of life at the community level. Vital Signs aims to inspire civic engagement, to provide focus for public debate and to help a range of actors take action and direct resources where they will have the greatest impact."*

The role of CFC is to provide Community Foundations across the country with access to national data sets on a wide range of quality of life indicators, which Foundations typically then complement with local surveys, public programming and events that mobilise community knowledge and help identify local priorities.

It is also worth noting that CFC has started in recent years to align national datasets with Agenda 2030, the UN's Sustainable Development Goals, meaning that local Canadian data can be measured against common global indicators and communities around the world.

As one example of a Vital Signs publication, the 'Newfoundland and Labrador's Vital Signs' 2018 report is a collaborative publication by the Community Foundation of Newfoundland and Labrador and Memorial University's Harris Centre. The authors describe the publication as: *"...a community check-up conducted by community foundations across Canada that measures the vitality of our communities and identifies significant trends in a range of areas critical to quality of life."*

The report is published on an annual basis, and this fifth report in 2018 reflects back on the changes since the first report, including highlighting some of the positive trends which are happening in the province, such as in relation to increased innovation, invention and collaboration, a growing technology sector and more cross-sectoral partnership working.

At its start, the authors of the report encourage people to use it in a variety of ways, including: to start conversations about how the province is doing and where it should go from here; to share it with friends, colleagues, family and elected officials; to learn about organisations/individuals

¹⁹ Canadian Community Foundation organisations are a national network of public foundations created by and for urban and rural communities to provide lasting support for local priorities. Community Foundations are recognised sources of knowledge about local issues and are trusted for their ability to expertly manage donors' funds. Community Foundations are one of Canada's largest grantmakers. For more information, see: <https://www.communityfoundationgreybruce.com/about/foundations/>

²⁰ For more information, see: <https://www.communityfoundations.ca/initiatives/vital-signs/>

working in the province and ask how to help; to connect people who do wish to work to make a difference; and to use the report as a starting point for action.

The publication itself is in the form of a newspaper and it contains many infographics (usually visually illustrating particular statistics), maps and photos alongside 'stories' and case studies of particular businesses, community groups and initiatives. It appears very accessible and easy to read.

A number of newly released 2019 reports for many different parts of Canada have recently been uploaded to the CFC website²¹.

Waypoints - Community Indicators: Livelihoods on Maine's Coast and Islands, USA

The Island Institute in Maine, USA²² works to sustain Maine's island and coastal communities, and exchange ideas and experiences to further the sustainability of communities here and elsewhere: *"The Island Institute works alongside coastal and island leaders in Maine to catalyse community sustainability in the state's 120 island and coastal communities and share what works amongst these diverse communities and beyond."*

In 2017 the Institute produced the first edition of 'Waypoints: Community Indicators for Maine's Coast and Islands' which highlights the economic, community and environmental indicators which reflect the priorities of the community partners and trustees that the Institute relies on to steer their work as an organisation. The second edition, published in July 2018, focused on quantifying the way that coastal Mainers make a living, presenting data on income levels, the prevalence of self-employment, the impacts of fisheries and the seasonality of the labour force, and exploring the ways in which these factors define the economic and cultural landscape of the region.

The July 2018 edition includes a statement from the Island Institute Community Research Team saying: *"We hope that these data and stories will inform local leaders as they initiate community-driven change, while helping state and federal leaders understand the unique economic challenges facing Maine island and coastal communities."*

The hard copy of the 'Waypoints' report also points users to the Waypoints website²³ (from which the full publication can be downloaded, and data tables are also available) and asks for feedback on the information provided, how the publication is being used, and how future editions can be made as useful as possible.

Waypoints includes 'formal' US Government Census Bureau American Community Survey (ACS) data from 2011-2015 presented at county subdivision level (similar to municipalities) and it does include a caveat that data for small communities and/or certain variables should be used with

²¹ These can be found here: <https://www.communityfoundations.ca/initiatives/vital-signs/>

²² For more information see: www.islandinstitute.org

²³ For more information, see: www.islandinstitute.org/waypoints

caution as the margins of error can be quite large. The magazine is published in colour, and includes easily-readable maps, charts and other graphics, including photos, as well as quotes from people living on Maine's islands and references to 'case study' people, businesses and community 'stories' which help to bring the statistics to life.

More broadly, the Island Institute website contains information on how the Institute works with partners to provide data and undertake research on Maine's islands²⁴. Their website states:

“Reliable, accurate community-scale data is important for local decision-making, but often difficult for Maine’s island and remote coastal communities to access. The Island Institute works with partners at the county, state, and federal level, as well as the academic and private sectors, to gather and analyze data to meet the needs of these communities. By providing easy access to quality information, our goal is to allow community leaders to invest more of their limited time and resources in action, and empower them with hard data so they can hold informed discussions, guide local planning processes, weigh in on policy initiatives, and anticipate future concerns.”

In addition to the Waypoints magazine, the website includes links to a report (available online only) entitled 'Island Indicators 2015' which is the most recent in a series of reports on the situation and opportunities and challenges facing Maine's 15 year-round island communities. The editions provide information on the current situation as well as allowing for changes over time to be reflected and to identify trends.

Interestingly in the context of this work, the introduction to the 2015 edition states that: *“In this update, we expand our focus beyond our traditional data sources, which have been largely government data sets. Some of this new material is anecdotal and much has been taken from community conversations and informal surveys. This new information is intended to reveal the trends in these small communities that are often easily overlooked by larger data gathering efforts like the U.S. Census.”*

The 2015 edition includes data from a variety of sources on population (including projected population levels), age, educational attainment, library usage, economic trends and affordability trends (including housing, fuel and ferry transportation). Included in the narrative is some commentary on the data itself. For example, in relation to island population data, it is noted that islands tend not to conduct annual population surveys and one reason is that the definition of year round population/resident differs from one island to another. The US Census counts the number of people residing in each household or location on 1st April of the Census collection year, but one of the limitations of this process is that people self-report their place of residence and the process may not include people who are off-island (e.g. students and people who winter off-island). Alongside the US Census data, Island Indicators 2015 includes information from an informal survey of at least three community members from each island in April 2015 and notes that while

²⁴ For more information, see: <http://www.islandinstitute.org/program/data-and-research>

“these estimates do not reflect a formal census process, they do provide a sense of the population of the islands as viewed by islanders.”

The Island Indicators 2015 report also includes data collected by Island Institute Fellows who were asked to buy an identical set of items from on their own island and report back on prices enabling useful cost comparisons to be made.

4. Project Recommendations

4.1 Introduction

Building on the data presented here, a list of recommendations is provided in this final Chapter of the report. These specifically focus on how the data priorities presented earlier can be addressed, the data gaps filled, and lessons learned from the ‘good practice’ approaches to island and rural data collection, analysis and presentation that are cited here.

To reiterate, the need for good islands data is arguably greater than ever with the general shift towards place-based policy in Scotland and, in particular, the passing of the Islands (Scotland) Act 2018, with its Proposed NIP and establishment of the ICIA process. Such place-based policies and legislation require a good underlying evidence base to, first, demonstrate the need for such tailored approaches, and then, second, to monitor and measure the impacts of such policies to ensure outcomes are being met, and if not, to inform decisions about how policies should be changed to ensure that they are.

4.2 Recommendations to improve the evidence base about Scotland’s islands

4.2.1 Capacity-building for local people and community groups

At a time of improved access to data through the web, as well as more data being available than ever before, it is important that people in local areas across Scotland – not just rural areas and islands – have the skills and expertise to access and use that data as and when they require. These may be individuals working on specific projects, community groups seeking funding for a specific project and being required to demonstrate need, or a voluntary group needing to demonstrate the impact of the service they provide. All require, not only robust and accurate data, but the skills, confidence and expertise locally to use that data, particularly in cases where issues are complex and multiple data sources may be needed to fully understand them. This may help to reduce the over-reliance on external consultants which some people felt had become a problem in some places, as they usually do not know the local context well enough.

There may be useful learning from programmes such as ‘Big Data for Small Places’ in Canada regarding how this local capacity can be built through training and upskilling programmes and collaborative working with data specialists, for example. In particular, it may be worth exploring whether training could be provided to community groups on new methods of data analysis, such as social return on investment (as has been used by Dumfries and Galloway LEADER, for

example²⁵) or social audit (as has been used on Shapinsay in relation to housing, for example, and in Canada through the Community Accounts project mentioned in Section 3.5.2). Some potentially useful guidance materials already exist in Scotland, such as the Scottish Community Development Centre's guide for community-led action research²⁶ and Argyll and Bute's guidance on community-led action plans²⁷. Using the same methodology in different places would help to ensure that comparative work could be undertaken, but still enable local characteristics and nuances to be uncovered.

Recommendation 1: Local capacity, skills, expertise, etc. need to be built, through a variety of different approaches (such as training, mentoring, etc.), to ensure that local people and community and voluntary sector groups are able to independently access, use, manipulate, analyse and present data appropriately and accurately.

4.2.2 Collaborative working

Hopkins (2018) identifies “...a clear need for researchers to consult practitioners, policy makers, community groups and several other stakeholders, to identify the most important issues and subjects which affect Scotland's rural areas and small towns, and to assess whether small-area data are available to measure them.” In addition, as highlighted by the recent SCDI Rural Commission report, greater collaboration in analysing and presenting data would be useful. The recent State of Rural Canada III report (CRRF 2019, p.6), reiterates the need for collaborative working to ensure that identifying and filling gaps is a collective process where everyone – including community representatives, practitioners, policy-makers, researchers and statisticians (including within Scottish Government) – bears some responsibility for ensuring that data is available, accessible and understandable. Taking a collaborative approach to developing new ways to undertake data collection would also be useful, to ensure that all voices are heard regarding the things that would be useful to measure, why and how. Three particular issues were raised during the island consultation events: measuring the wider impacts of rural businesses beyond their economic/employment roles; capturing the full value of lifeline ferry services; and

²⁵ See also the work of [Professor Paul Courtney](#) at the Countryside and Community Research Institute, University of Gloucestershire who has worked with social return on investment in a number of recent projects.

²⁶ For more information, see: <https://www.scdc.org.uk/what/supporting-communities>

²⁷ For more information, see: <https://www.communitytoolkit.net/>

achieving more accurate measurements of local housing need, particularly by incorporating local knowledge and experiences.

Recommendation 2: Increased collaborative working is required to ensure that the islands evidence base is improved, including between researchers, statisticians, policy-makers, practitioners, community groups, etc. It may be appropriate for one organisation to take overall responsibility for encouraging and maintaining such collaborative working (providing resources are made available to do so), such as the Scottish Islands Federation.

4.2.3 Working to improve the availability of data at local levels

Ensuring anonymity and confidentiality are likely to be ongoing challenges when it comes to statistical data collection and availability for small rural and island places as the number of people, businesses, households, etc. living in these places is small. However, notwithstanding these challenges, more and better data is required at local levels, and at appropriate intervals, in order to fully understand the range of issues affecting Scotland's (diverse) islands and sub-areas within them, and how the Proposed NIP and ICIA process can help to address some of the local challenges and increase the local opportunities. Chapter 3 of this report has highlighted some of the priority areas where more data is required. A range of public, private and voluntary sector stakeholder organisations will need to act together in order to help improve the availability of local data, perhaps working with researchers and/or statisticians who can advise on how best to overcome confidentiality and anonymity challenges. Stakeholders in this project placed particular emphasis on the important role of local authorities (and other community planning partners) in collecting, analysing and making available regional and local data (including to inform ICIA's that they will likely have to undertake in future). However, they also recognised that budget cuts in local authorities recently had reduced their capacity to do some of this data and analysis work.

While the Scottish Government has its six- and eight-fold urban-rural classifications²⁸, which classify accessible, remote and very remote rural areas, these do not differentiate islands so it may be worth considering whether, in addition, a specific islands classification, or perhaps an islands typology would be useful. Further work would be needed to explore what form this could take, but such a typology could be used when users are looking to explore particular issues within Scotland's islands. Either way, being able to separate island and mainland locations (e.g. Skye from the Highland Council mainland area, or Arran from the remainder of the North Ayrshire Council area) or different islands when they are combined in the same datazones (e.g. the Small

²⁸ For more information, please see: <https://www2.gov.scot/Topics/Statistics/About/Methodology/UrbanRuralClassification>

Isles) when analysing data is very important²⁹. It may also be possible to build on the work undertaken at the James Hutton Institute on defining Scotland's Sparsely Populated Areas³⁰.

Recommendation 3: More and better data is required at local level in order to explore differences within islands, between island groups and between island and mainland locations. This may require 'creative' approaches to overcome (but not compromise) confidentiality and anonymity challenges. It may be worth considering the development of a new islands classification or typology, which may help to draw out the key similarities and differences between islands in order to inform policy approaches.

4.2.4 Raising awareness of data that is available

Feedback from SIF staff and others during the course of this project highlighted a number of organisations that were believed to hold data but there was a lack of certainty and information around this, and a lack of detail as to the focus, timescales, geographies, etc. of any data that was held. Organisations included: BT regarding fibre rollout information and local broadband providers (e.g. Hebnet or Tiree Broadband); Skills Development Scotland and Education Scotland; Calmac, North Link and Transport Scotland for transport infrastructure and service related information; Community Energy Scotland and Local Energy Scotland for energy related data; Community Land Scotland for information about community owned land and estates; Ofgem for registered renewable energy installations; the Crofting Commission for crofting-related information; Business Gateways for business related information.

If an online islands data portal were to be established this would be a valuable 'collection point' for data from a wide range of organisations so that it is all held in one place – or at least a collection point for meta-data (i.e. explanatory information) about data held by others with links where appropriate. Even if a portal was not possible, again assuming adequate resources were made available, an organisation like the SIF could be tasked with setting up and maintaining a central database of the data available and some key information (i.e. meta-data) about its characteristics (such as frequency of collection, geography of data collection/availability, etc.).

Recommendation 4: Collation of information in one place about all the data currently available on Scotland's islands would be useful, whether this be via a publicly accessible online portal or a more straightforward database. This would help to raise awareness of, and improve access to, the data that is available for all potential users.

²⁹ There was an interesting discussion on Twitter recently about this issue. For more information, see: <https://twitter.com/i/status/1158728292914147328>

³⁰ This work has been undertaken as part of the Scottish Government Strategic Research Programme 2016-21 and more information is available here: <https://sefari.scot/research/objectives/demographic-change-in-remote-areas>

4.2.5 Improving the quality and accessibility of web-based data sources

Discussion at the data workshop session at the SIF Annual Gathering in Grimsay demonstrated that stakeholders living and working on islands are accessing some existing web-based sources. However, feedback at this session suggested that the data was not always easy to find, download and use, nor was it always the most up-to-date. These challenges were also found by Hopkins et al. (2019), who also noted that data is usually not all available in one place but was rather scattered across multiple websites, with signposting between them at best not particularly effective, or at worst, non-existent. Moreover, unhelpful jargon and technical language is too often used making the data even more inaccessible. All those organisations responsible for collecting data and making it publicly available have a responsibility to ensure that it is easily accessible and readily usable for those who are involved in designing and inputting to place-based policies and who are working at local level. Online resources should cater for users with diverse (data and digital) skillsets, expertise levels and different needs – and of course, as far as possible, varying broadband speeds and reliability. Improved communication, relating to both the interface design and language used, and clarity over the areas which data is relating to, are also important (Hopkins et al. 2019).

It may be worth exploring the possibility for an academic organisation to set up a secondment or fellowship arrangement with an organisation like SIF³¹, to support the creation of an online islands data portal, mirroring the James Hutton Institute-led rural data portal³², and building on the recommendations from this project. This could start off, at least, by building up a set of core indicators (perhaps guided by the issues listed in Section 3.3 of this report, but again recognising the diversity of important issues across Scotland's islands), with further indicators added over time and chosen by key stakeholders (including communities) depending on what will be most useful, and additional functionality enabled. There may also be a key role for Scottish Government statisticians/researchers in devoting some time and resources to improve the availability of islands

³¹ SEFARI has organised a number of Fellowships with public sector organisations in the last couple of years, linked to the Scottish Government-funded Strategic Research Programme, which may be a model which is worth exploring here. A PhD project may also be worth considering.

³² This is being prepared as part of a project on place-based policy within the Scottish Government's Strategic Research Programme 2016-21. More information is available here: <https://sefari.scot/research/objectives/place-based-policy-and-its-implications-for-policy-and-service-delivery>

data in order to fulfil the monitoring and reporting requirements of the Proposed NIP and ICIA process.

Recommendation 5: Online data sites and portals need to be accessible and user-friendly for a diverse set of users. Further work to identify good practice data web portals from elsewhere might be useful, as might testing of different approaches with a range of users to find out more about ‘what works best’. It may be worth following the design and launch of the new online mapping tool for local level data for rural areas (informed by the survey work reported in Hopkins et al. 2019) which is being led by researchers at the James Hutton Institute. However, it must be acknowledged that using an online approach may not always been appropriate as many rural and island dwellers lack adequate broadband skills, speeds and reliability to be able to view and download (often even small quantities of) data.

4.2.6 Recognising the value of many different kinds of data

A strong message to emerge from stakeholders in this study, including through the island consultation events, is the importance of consistently valuing local, often qualitative, data which is collected from sources other than ‘official’, large-scale, national surveys (which tend to generate quantitative statistical data). While the latter can provide a robust picture of the situation relating to a particular issue, often allowing analysis of change of time and comparisons between places, it may not always provide a detailed picture of that situation at local level (particularly if data is only available at larger geographical scales and/or with large time intervals). This challenge was explored further through the Islands Revival project which explored ‘green shoots’ of population revival across some of Scotland’s islands, which appeared to be in contrast to the more formal population data that was available³³. Local data, perhaps generated by local communities or specific groups within communities (such as young people), for example, through local, community-led housing needs surveys, or through more creative methods such as films, theatre or story-telling or citizen science or citizens assemblies, may not be replicable in different places or over different time periods in the same way, but it is based on local lived experiences and informed by local history and current context; it can therefore help to answer some of the ‘why?’ questions, while the former can answer more of the ‘what?’ questions. It can also be much more up-to-date than formally collected data and can paint more accurate pictures of the current situation. For example, in addition to data on the numbers of people in employment, it may be important to understand more about their experiences of employment, such as their levels of pay, other benefits and contractual terms, the characteristics of the types of businesses and places in which they are working, job satisfaction, etc. This information may only be available by speaking to employees. Some standardisation across different areas is important so that local data which is accepted in one place is also accepted in another so that there is consistency between

³³ For more information, see: <https://islandsrevival.org/>

geographic areas. It is also important to be aware of the potential for survey fatigue if multiple organisations are collecting data locally.

The Waypoints magazine produced by the Island Institute in Maine, USA (see Section 3.5.2), provides an interesting approach which could be considered in Scotland, whereby local 'stories' are used as a way of framing formal statistical data in relation to specific topics/islands. Similarly, the recent Islands Revival project and blog³⁴ demonstrates, first, the value of local evidence of population change and, second, that this may differ from formal statistical evidence but it is equally valid. Building on this project through recognising these multiple data sources and their validity is vital to appropriately informing policy. Again, this could be an area of work taken forward through an academic Fellowship model.

Recommendation 6: Recognising the validity and value of different kinds of data is important. While large-scale quantitative data can enable comparisons between places and the measurement of change over time, using data generated locally is often the only way to fully understand local lived experiences, contexts, histories, etc. Often this local data is less valued – or not valued at all – but there needs to be a shift in attitude to ensure that, where it is collected transparently and robustly, its value is recognised.

4.2.7 Incorporating Scotland's islands into European and international island networks

While learning from those who are effective at data collection and analysis close to home is useful, learning from further afield can also be extremely beneficial. This can be achieved through linking Scotland's islands and islands groups into wider European and global island networks (recognising that some of these links already exist). Appropriate networks might include the European Small Islands Network (ESIN), the International Small Islands Association (ISISA), Island Dynamics, and the Observatory on Tourism for Islands Economy (OTIE). This report has already highlighted four 'good practice' approaches to data collection, analysis and presentation from the USA and Canada (see Section 3.5.2 of this report).

Recommendation 7: Recognising the value of networking with islands and island organisations elsewhere in Europe and beyond is important. There are many island networks that already exist that Scotland's islands could usefully tap into to share information and learning.

³⁴ For more information see: <https://islandsrevival.org/>

4.2.8 Planning ahead with regard to data requirements

No matter what the issue or topic, or the methodology being adopted, it is best that a strategy for data collection is put in place from the start of any project, to ensure that appropriate and accurate monitoring can take place from a designated time point and baseline. While this may take time at the outset, there is considerable value in making this investment. Again, collaborative working to decide on the most appropriate data, indicators etc. to use, and then involving different stakeholders in that data collection and analysis, is the best approach. It may be worth considering, for example, how islands data needs and other issues could be effectively addressed through a future Scottish Government-funded Strategic Research Programme from 2021 onwards.

Recommendation 8: Clear planning from the start regarding the data that is required on a particular issue or action is important, involving all stakeholders. This will help to ensure that appropriate data is available and accessed from the outset and throughout a project.

5. Conclusion

In light of the passing of the Islands (Scotland) Act 2018, the recent presentation of the Proposed NIP to the Scottish Parliament, and the ongoing work to prepare for the introduction of ICIAs, the need for up-to-date, accurate, local level and easily accessible data on Scotland's islands has never been greater. Through consultation with various stakeholders, this project has explored the key evidence gaps that exist in relation to Scotland's islands, and provided some recommendations for how those gaps might be filled.

The project is particularly well-placed to inform thinking on the Implementation Strategy which will sit alongside the NIP and which will set out how the 13 Strategic Objectives and 104 commitments in the NIP will be addressed. A key aspect of developing the Implementation Strategy is the development of indicators (based on the National Performance Framework and the UN's Sustainable Development Goals) for measuring (quantitatively or qualitatively) the extent to which outcomes for island communities are improved.

As the NIP itself observes, robust indicators and the meaningful monitoring of progress on outcomes for island communities require good data. This project has explored some ways in which such 'good' data on islands could be collected, analysed and made available. Key to this work is collaboration, openness and the sharing of information, and capacity-building, particularly amongst individuals and community groups on islands, so that they can fully engage in the design and subsequent measuring and monitoring of outcomes that aim to improve the sustainability of Scotland's diverse islands.

This study was designed as a small-scale scoping study to begin to explore the data gaps and how they might be filled. It would be worthwhile to build on this work, through more long-term research or arrangements such as research secondments or fellowships, to further explore these issues and to continue to inform the NIP as it is implemented and is regularly reviewed.