

*Small Island Societies, Livelihoods,
Challenges and Opportunities during
the Covid-19 Pandemic in Sweden*



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Highlights:

1. Small-island societies are limited, or empowered by island context, peripherality and remoteness.
2. Island communities were affected by new institutions that emphasized restricting the accessibility of islands.
3. Social capital and the ability to mobilize collective action made a positive difference during the pandemic.
4. Digital infrastructure and digital knowledge can help reverse the negative population trend on islands.

Abstract: Covid-19 increased the social and economic vulnerability of island societies. Swedish islands are key tourism destinations but are also home to many island residents. Previous studies have highlighted the impact of Covid-19 on core areas, but our knowledge of its impact on island communities is lacking. We use phenomenology to analyse how communities in small Swedish islands perceive the impact of Covid-19. We use institutional theory and the concepts of social capital and accessibility in the analysis. Data were collected through semi-structured interviews and focus groups with islanders and representatives of local organizations on sampled islands. Pandemic regulations affected island communities differently. Authorities and shipping companies strove to discourage people from visiting islands. This affected tourism negatively in some islands, whereas tourism increased in others. Informal institutions established a basis for good community relations; enabled the mobilization of social capital, especially given action by local agents who were endorsed by the community. Cooperation was a key to reducing negative impact. Accessibility increased on islands with well-developed and expanded IT-infrastructure that enabled holiday homeowners to work from their holiday islands. This helped create a sustained positive economic trend for grocery stores and the construction industry.

Keywords: Island societies; Covid-19; institutions; social capital; accessibility.

Pequeñas sociedades insulares, medios de subsistencia, retos y oportunidades durante la pandemia de Covid-19 en Suecia

Ideas clave:

1. Las sociedades de las islas pequeñas están limitadas o potenciadas por el contexto insular, la periferia y la lejanía.
2. Las comunidades insulares se vieron afectadas por nuevas instituciones que hicieron hincapié en restringir la accesibilidad de las islas.

3. El capital social y la capacidad de movilizar la acción colectiva marcaron una diferencia positiva durante la pandemia.
4. La infraestructura digital y el conocimiento digital pueden ayudar a invertir la tendencia demográfica negativa en las islas.

Resumen: La Covid-19 aumentó la vulnerabilidad social y económica de las sociedades insulares. Las islas suecas son destinos turísticos clave y hogar para muchos isleños. Estudios anteriores destacan el impacto de la Covid-19 en áreas centrales, pero nuestro conocimiento sobre su impacto en comunidades insulares es escaso. Usamos la fenomenología para analizar cómo las comunidades en pequeñas islas suecas perciben el impacto de la Covid-19. El trabajo realizado emplea conceptos de teoría institucional, capital social y accesibilidad. Los datos se recopilaban vía entrevistas semiestructuradas y grupos focales con empresarios y representantes de organizaciones locales. Las regulaciones de la pandemia tuvieron un impacto diferente según islas. Las autoridades y las compañías navieras actuaron para que el público se abstuviera de visitar las islas. Esto afectó negativamente al turismo en algunas islas y positivamente en otras. Las instituciones informales que llevaron a buenas relaciones comunitarias, posibilitaron la movilización de capital social, especialmente cuando agentes activos avalados por la comunidad actuaron. La cooperación fue clave para reducir el impacto negativo. La accesibilidad aumentó en las islas con buena infraestructura de IT y permitió que isleños y dueños de casas de veraneo trabajaran desde sus respectivas islas. Este último hecho creó una tendencia económica positiva sostenida en los sectores de alimentación y construcción.

Palabras clave: Sociedades insulares; Covid-19; instituciones; capital social; accesibilidad.

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1. *Introduction*

A global survey of islands and Covid-19 (Sindico et al., 2020) concluded that island geography and stringent regulations helped limit the spread of SARS-CoV-2 on islands worldwide. However, the vulnerability of island populations increased since livelihoods were threatened during the pandemic. Several published articles and reports have combined the socio-economic effects on a pandemic on island populations. Including emerging post-Covid-19 realities. Most such research has focused on large islands, island nations, and islands located in countries that implemented lockdowns as an important element of their pandemic strategies. Sweden adopted a different strategy with compulsory recommendations, but no lockdowns and fewer limitations on personal freedom than in other countries. Swedish island geography differs from that of island nations. Sweden is the country with the most islands in the world, having more than 260,000 small islands and several archipelagos along its coastline (Statistics Sweden, 2014). Examining how the pandemic has affected communities in small islands can offer important knowledge to help us handle future crises.

The economic, social and cultural distance between physically remote island communities and the mainland can be substantial (Kinossian, 2019). Island and archipelago communities share some of the challenges that affect other peripheral areas, such as ageing and decreasing populations. Declining population inevitably mean that public services such as schools, healthcare services and cultural activities are relocated

to the mainland. In the last century, tourism has become central to local livelihoods on islands (Widholm, 2019). Economic and commercial activities face challenges as the summer months mean considerable economic activity whereas winter often means economic dormancy (Baldacchino & Fairbairn, 2006; Hjerpe & Sysner, 2014). On islands without a permanent connection to the mainland, people face many challenges (Armstrong & Read, 2004; Burnett & Danson, 2017). For example, going to work, school, and the dentist, and doing everyday errands are often limited by the travel windows that boat traffic offers. Logistical challenges facing island communities give rise to limitations that hamper local markets (Gaini & Priested Nielsen, 2021).

These challenges are reinforced by island geography (Baldacchino & Fairbairn, 2006). The geo-spatial, institutional and economic conditions on islands negatively influence local development (Armstrong & Read, 2004). Depending on the quality of local social capital, the remote context of islands can also empower and mobilize the local community, promoting local development (Rytkönen et al., 2019; Malherbe et al., 2020).

Island studies focus on the specific geography-related peripherality that creates challenges for everyday life on islands. Island geography counteracts economic agglomeration, leading to limited labour markets and economic, social and cultural peripherality. In theory, this is denominated as "islandness" (Hall, 2012). In the Swedish context it is also relevant to highlight the multi-level and polycentric nature of power relations (Gaini & Priested Nielsen, 2021). Island communities are influenced by different priorities, resources and practices and often by conflicting interests at the local/municipal level, at both regional and national levels. While two islands might physically be very similar, differences in available resources and social capital might lead to prosperity in one island, and stagnation in the other (Rytkönen et al., 2019). The Covid-19 pandemic is an exceptional event that affected the entire world. By studying how the pandemic has affected island communities, we can build our knowledge of small-island communities' challenges and opportunities, their everyday lives and how exceptional events affect their livelihoods.

2. Theoretical basis

The collective ability of communities to deal with risks and uncertainties due to external changes is often studied by focusing on so-called dynamic capabilities (Teece

et al., 2016), a framework often used to study the abilities of communities and organizations to survive and adapt to turbulent changes, or crises. This approach has been applied in previous studies of responses to the Covid-19 pandemic (Alonso et al. 2022). In this article we consider proactive strategies and responses as dynamic and reactive responses as non-dynamic.

This study applied an inductive approach. When the results were categorized, a key conclusion was that to explain the variety of strategies used by small island communities to address the challenges of Covid-19, it was essential to highlight the following theoretical concepts, namely institutions, social capital, and accessibility. These concepts are also in line with previous research (Baldacchino, 2005; Baldacchino & Fairbairn, 2006; ESPON 2011; Hall, 2012; Rytönen, et al., 2019; Gaini & Priested Nielsen, 2021).

2.1 Institutions

Institutions are a key element of social structures. They consist of the rules, norms, schemes, traditions, and established practices that are transformed into well-established guidelines for human and societal behaviour (Scott, 2004). The institution concept is applicable to all spheres of society and institutions can be formal or informal rules, regulations, or constraints shaping human behaviour. In this case, new national regulations and frameworks developed to limit the impact of the pandemic have played a key role in how local island communities have coped with the pandemic. Formal and informal institutions have been equally important in this. The latter consist of belief systems and social norms, and are difficult to grasp (Green & Zinda, 2013; Rytönen, et al., 2019). Once established, informal institutions become locked in via path-dependent self-reinforcement. This explains why informal institutions have an enduring grip on the conduct of a society and why they shape social behaviour (Williamson, 2000).

Informal institutions and local cultures vary between island communities (Rytönen, et al., 2019; Gaini & Priested Nielsen, 2021). Bertram and Poirine (2007) argued that institutions in the context of islands translate into "the ability to achieve and sustain community-wide strategic consensus around a particular development" (p. 323). Informal institutions are closely related to how local communities have responded to the challenges of Covid-19 and to pandemic regulations and restrictions. Informal institutions affect the quality of social capital in island communities. They are also central to understanding the boundaries within which social capital thrives or weakens (Baldacchino, 2005; Boettke & Coyne, 2009).

2.2 Social capital

Social capital in the context of islands is defined as “the resourcefulness of a people to respond positively, collectively and responsibly to an identified challenge” (Baldacchino, 2005, p. 32). Coleman (1988) coined the term “social capital” to explain how social networks and their structures influence individuals’ choices. He conceptualized social capital as the beneficial outcomes of social relations. Social capital includes reciprocity, shared values and trust. It is a type of capital generated by the actions of people creating public goods and value for society (Coleman, 1988). Social capital emerges in face-to-face interaction; it can be “bonding”, i.e. the “glue” that binds networks and communities together, promoting local development through the quality of social ties and “bridging” i.e. the social “lubricant” that helps communities develop and progress, creating linkages between individuals, groups and networks across economic and social boundaries (Martikke, 2017).

The notion of “embedded agency” (Garud et al., 2007) evolved as a means of describing and identifying knowledgeable active agents in a social system. Active agents have the capacity to engage and utilize institutions and available resources. The social system offers constraints and opportunities, and the outcomes of active agency can be both intended and unintended. Recent research on agency and social capital in rural contexts (Elkafrawi et al., 2022) and island communities (Malherbe et al., 2020) indicates that social capital reflects the ability of agents to establish local forums and create platforms for identifying and pursuing common goals. Embedded active agency is essential for reducing vulnerability in everyday life and when facing challenges. Examples from Sweden show that island communities can generate strong and dynamic local development, establish cooperation and horizontal and vertical linkages between stakeholders with similar interests and resources, as well as between actors with different conditions and resources (Rytkönen et al., 2019).

2.3 Accessibility

Spatial aspects influence the accessibility of and communication through infrastructure, such as ferries, IT-infrastructure, social service and healthcare (Müller and Korsgaard, 2018). Accessibility is a key concept when studying how peripherality and remoteness influence everyday life and local development on islands (Baldacchino, 2006; ESPON 2011). Accessibility is often described as quality of being able to be (easily)

accessed. The extent to which places, resources and infrastructure are possible to access plays a key role in spatial and societal planning (Karampela et al., 2014).

In island studies, the accessibility concept is used to analyse distances between places via different transportation modes (Karampela et al., 2014) highlighting islanders' access to other islands and the mainland, and vice versa. After studying how the pandemic and mobility restrictions affected small-island Greek tourism, Paraschi (2020) proposed that future island studies should include a broad perspective on accessibility.

If healthcare is not available on an island, the accessibility of healthcare would be low because the time and financial cost of accessing healthcare could be higher for islanders than for mainland inhabitants (Spilanis, et al., 2012; Karampela et al., 2014). Accessibility can increase through digitalization, especially as digital information and social communication becomes more available. Lai and Widmar (2021) found that the limited availability of digital infrastructure restricted the opportunities of peripheral areas during Covid-19.

In this study we problematize whether and how institutions, social capital and accessibility influenced the responses of island communities during the pandemic by highlighting: 1) *institutions*, for example, pandemic regulations and existing formal and informal institutional structures and their effect on the actions of local communities; 2) *social capital*, for example, bridging and bonding social capital, reciprocity and shared norms, and the existence and role of active agents; and 3) *accessibility*, for example, infrastructure, especially transport, access to healthcare and enabling technologies.

3. Purpose, methods and sources

The purpose of this study is to learn how the pandemic influenced communities on small islands. Theoretically, we problematize how institutional aspects, social capital and accessibility influenced the strategies adopted to cope with the pandemic.

Q1. What were the main responses of small island communities in Sweden to the challenges faced during Covid-19? What were the underlying causes of the responses?

Q2. Starting from institutions, social capital and accessibility, what conceptual lessons can we draw from the studied experience?

We used phenomenology, a method suitable for systematizing, interpreting and understanding human experience in relation to events that deviate from the ordinary, a "phenomenon". Covid-19 classifies as a phenomenon. A key point in phenomenology is that theoretical concepts and conclusions are derived from empirical results. Phenomenology requires sensitivity to the context in which the phenomenon takes place (Eberle, 2014; Khan, 2014). Phenomenology helps the researcher understand the meaning of a phenomenon rather than focusing on the phenomenon itself, in this case, we explored the meaning of Covid-19 for communities on small Swedish islands. We followed well-established practices in phenomenology to identify and verify central themes (Eberle, 2014). Data were collected through:

- Focus groups with 42 islanders exploring eight topics: general impact, impact on tourism, transport issues, sustainability, relation to and communication with authorities, cooperation within the island, economic impact and firms' responses and local community responses.
- Open-ended group interviews with five representatives of local organizations.
- A workshop held by "Skärgårdarnas Intresse och Kontaktorganisation" (Archipelago Interest and Contact Organisation) with 22 islanders from the Stockholm Archipelago.
- Literature review of public documents, newspapers and information letters (from island communities and shipping companies).

During the interviews and focus groups informants were encouraged to raise additional topics. Interviews and focus groups were recorded and transcribed. The transcripts were analysed in the following steps: 1) initial analysis by thoroughly reading and identifying descriptive and conceptual themes in the data; 2) labelling of labelling identified themes; 3) clustering themes into overarching categories; and 4) overview of overarching categories and themes (see Table 1). Each overarching category was analysed and linked to theory through an analysis of main categories and themes found in previous research in the field of island studies. Data from interviews were verified through triangulation based on the results of interviews, focus groups and a systematic review of available written sources.

Table 1.
Overview of main themes, sub-themes and identified relationship to theory

Overarching categories	Themes	Identified relationship to previous research and theory
General and selective regulations and immediate responses	Relevant recommendations and regulations Immediate responses Islands as safe havens	Mainly empirical
Institutions and implementation of Covid-19 regulations	Reluctant municipalities Regulations and information Changing perceptions of holiday homeowners Subsidies, self-employment and livelihoods	Institutions
Social capital, local responses	Changing tourist categories Livelihoods, societal challenges and opportunities Collective action and social communities	Social capital and livelihoods
Accessibility, transport, social welfare and digital infrastructure	Passenger transports and freight Restrictions on restaurants Healthcare infrastructure IT-infrastructure	Accessibility
Reflections on 2021	n/a	Mainly empirical

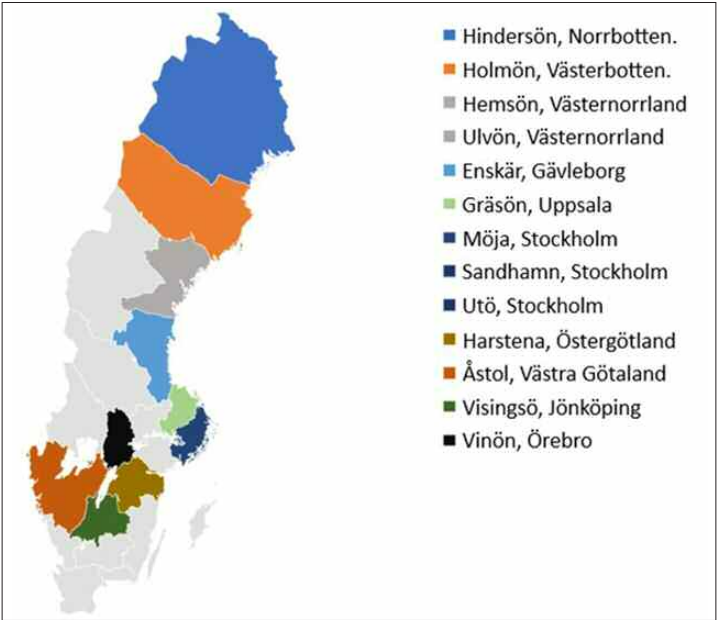
Source: Own elaboration.

3.1 The sample

The population consists of communities (i.e. permanent residents and local business owners) in small islands without permanent connection to the mainland across Sweden. The geographical distribution of the sample is illustrated in Figure 1. The sample includes island communities in ten Swedish regions (Statistics Sweden,

2019). Most sampled islands are in Stockholm and Västra Götaland and five are located in northern Sweden. We also included two inland-lake islands located in two of the largest lakes in Jönköping and Örebro. The population density on selected islands ranges from 15 to 730 inhabitants. Five islands are reached by car ferries and seven by liner traffic. Four islands are located in leading economic regions (i.e. Stockholm and Gothenburg) and two in an economically lagging region (i.e. Västernorrland): the economic activities in the other included regions is neither lagging, nor leading.

Figure 1.
*Geographical distribution of the sample
 (provinces where sampled islands are located)*



Fuente: GeoNames, Microsoft, TomTom.

4. Results

The results are organized according to the overarching categories and themes identified and described in the previous section. A common denominator of the sampled island communities is that tourism is important for local livelihoods, but other sectors such as construction and social services are also notable. Communities in the sample have coped with Covid-19 in different ways. The islands in the sample are located in different regions with variations in degrees of economic growth and available public resources. The sampled communities face diverse conditions and contexts.

4.1 General and selective regulations and immediate responses

Pandemic management in Sweden was initially composed of regulations (in 2020) and mostly based on recommendations to the public. According to Swedish Administrative Law, public health recommendations are mandatory. From the beginning of 2021, new legislation was adopted to prevent the spread of the disease covid-19 (Klein et al., 2020).

4.1.1 Relevant recommendations and regulations

In retrospect, Sweden did not implement a lock-down, or mandate the use of surgical masks. The adopted recommendations and regulations were as follows:

- Avoiding crowding and keep two metres apart in public spaces.
- Limit the number of people per square metre in public spaces, shops, restaurants and other facilities.
- Limit the opening hours of restaurants, cafés and places of recreation.
- Upper secondary schools should provide mixed Internet-based and presence-based education; universities should shift to Internet-based education and workplaces should enable teleworking if possible (from March 2020).
- Temporary prohibition of public meetings, events and gatherings.
- In March 2020, travel recommendations were issued asking the population to refrain from travelling; in May 2020, travel was limited to one or two hours

from a traveller's hometown by car. These recommendations were abolished on 17th June 2020.

- Other countries' travel restrictions (Klein et al., 2020; Folkhälsomyndigheten, 2021).

4.1.2 Immediate responses

Two immediate effects of regulations were increased awareness of the threat of Covid-19 and fear of a possible lock-down in early 2020. Islanders accordingly limited their travel frequency to the mainland. Moreover, holiday homeowners, mostly retired people and white-collar workers who could work from home, moved to "their islands". In a normal year, holiday homeowners leave by the end of the summer, but after March 2020 the number of long-staying residents increased on many islands. In 2021, the Archipelago Foundation published data on mobile phone traffic on islands in the Stockholm Archipelago indicating a 12 % increase in population during the pandemic in 2020 and 2021 (Skärgårdsbarometern, 2021). The data also indicate large variations between islands in the number of visitors. Our informants validated the pattern of long-staying holiday homeowners, although the sample island communities differed from one another in this.

Holiday homeowners who stayed for longer periods generated positive spillover effects; especially as local grocery stores increased their sales throughout the year. However, the increase in the number of temporary off-season residents met with some resistance. Islanders felt safe if those who moved to the island stayed there, but conflicts arose when holiday homeowners commuted to the mainland on a daily or weekly basis.

4.1.3 Islands as safe havens

No available data capture the extent of Covid-19-related infections on the sampled islands, although our results indicate that the spread of Covid-19 seems to have been more limited on the islands, at least in 2020. Most Covid-19-related deaths in Sweden up to June 2021, were of people over 70 years old, many of whom resided in nursing homes. At the same time of the interviews, it was reported that in the only island community in the sample with a nursing home, no residents had been infected and died from Covid-19.

In the Southern Gothenburg Archipelago, a meeting of church choirs on an island led to a cluster outbreak that spread to several islands in June 2020. This archipelago is served by liner traffic, which increased the risk of Covid-19. This negatively affected island tourism and therefore also livelihoods in all islands in the area for the rest of

2020. At the start of the pandemic, many island communities were already hesitant and had diverging views of whether tourism businesses should stay open and receive tourists from the mainland in 2020. When the summer season started, island communities prepared in different ways to receive summer visitors in a safe way. Some island communities developed practical solutions to handle the stream of visitors from arrival to departure, while other communities adopted were more reactive.

4.2 Institutions and implementation of Covid regulations

4.2.1 Reluctant municipalities

Many municipalities with inhabited small islands were afraid of the potential consequences of the pandemic for the municipality. Municipalities are forced by law to offer healthcare and home care to people who are temporarily staying in the municipality. In normal years, this gives rise to financial challenges for municipalities with many islands because many holiday homeowners demand care services, but they don't help pay for it. The pandemic threatened to impoverish the municipalities in question (Kennedy, 2020; Dehlin, 2020; Bergman, 2021a). Therefore, municipalities sought to persuade the Government to pass a temporary legislation. But, as the Government refused, many municipalities decided to deny home care services to non-permanent residents. They also propagated that people should refrain from travelling to the islands (Sundberg, 2020).

4.2.2 Regulations and information

Information campaigns driven by public health authorities and shipping companies were implemented between March 2020 until 1st April 2022 (when pandemic regulations were abolished). The message was that the public should refrain from travelling to islands (Blanco, 2020). This was especially important in 2020, when shipping companies limited the number of passengers and passengers risked getting stranded on the islands (Waxholmsbolaget, 2021).

The three key authorities handling the pandemic (The National Board of Health and Welfare; the Public Health Agency of Sweden and the Swedish Civil Contingencies Agency) jointly developed an information campaign with recommendations to avoid the spread of disease. Municipalities were responsible for distributing information material to public offices and establishments open to the public. Many informants argue that mentioned material was not sent to islands, instead islanders were forced to travel to the mainland to get it. Some island communities produced their "own

information material to inform the public and help avoid congestion". Informants were also critical to the lack of solutions to test islanders for Covid-19. It was first in 2021 that authorities managed to organise testing of suspected Covid-19 cases on islands. Informants see this as a symptom of a "top-down" view about island communities "as marginal and therefore not important".

4.2.3 Changing perceptions about holiday homeowners

Many holiday homeowners continued to stay for longer periods on islands, especially as teleworking became more accepted. Teleworking is a national trend triggered by the pandemic. It has made people reevaluate their life and move from the cities to rural areas (Svensk Fastighetsförmedling, 2021). Islanders have changed a previously well-established idea about holiday homeowners as "summer residents only", or "people who take the best and leave nothing behind". Now holiday homeowners are referred to as "part-time inhabitants" and "an asset for future development". The new semantics are driven by the appreciation for the contribution of holiday homeowners to local economies as demand in local grocery stores has increased and local construction companies experience an unprecedented economic boom when holiday homeowners have hired them for home renovations or new constructions. Holiday homeowners have also become more involved in local island community life and local associations.

4.2.4 Subsidies, self-employment and livelihoods

The Swedish government established subsidies to help companies cope with the pandemic. Most island-based businesses are characterised by self-employment, diversified and small-scale businesses, therefore they were not qualified for the "Covid subsidies". The lack of support to small-scale island businesses has affected local livelihoods negatively. Some informants highlighted that: "the only reason why I didn't go bankrupt is that I own the property in which my business is located". Many informants argue that they had shifted the focus of their economic activities to generate "at least some income".

4.3 Social capital, local responses and livelihoods

4.3.1 Changing tourist categories

The pandemic led to substantial variations in the stream of tourists. Islands are dependent on different kinds of visitors and one important category that disappeared in the summer of 2020 were foreign private boat tourists from Finland, Germany and

Norway. Travel restrictions made it impossible to travel to Sweden. In addition, events such as concerts and sporting events were cancelled, which further contributed to a reduction in the total number of tourists. Another important customer segment is organised group trips, a type of tourism that in normal years offers some income stability as trips are planned a long time in advance. All mentioned changes forced islanders to focus their economic activities on spontaneous guests. Some local firms were unable to manage this unpredictability, while others found creative ways to adapt their offers and appeal to a new segment of visitors.

Swedish tourists who normally travel abroad found their way to the islands. Cottage rentals and camping tourism increased on several islands. Tourists also stayed longer and/or returned several times during the year. These newcomers differed from previous tourists by demanding not only accommodation, but also a variety of activities to choose from. Several informants argued that they were unprepared for this. The increased number of domestic tourists helped to limit the fall in local income in many islands. The concept of 'staycation' was coined as an upcoming environmental trend a few years earlier (de Bloom et al., 2017), but the pandemic led to its breakthrough.

People's desire to seek refuge motivated many people to buy a boat during 2020 especially in Stockholm and Gothenburg (Redéen, 2020). The lack of boat skills amongst new boat owners led to many maritime incidents and a high number of emergency sea rescue services in 2020 (Sjöräddningssällskapet, 2020). Boat owners came ashore to refuel and refill food supplies, but the number of Swedish boat owners only partially compensated for lost income from foreign boat owners.

4.3.2 Livelihoods, societal challenges and opportunities

The few existing large tourism businesses were immediately affected in 2020 mainly due to long-term contracts and fixed costs that are difficult to cut down in the short term. Business conferences and large events, such as wedding parties and Christmas dinners, were all cancelled in 2020. There are few large hotels, however, these have the capacity to create positive trickle-down effects by buying services and goods locally and providing employment opportunities. Large hotels are also locomotives for large investments in island communities. Eventually, large businesses developed new strategies and focused on new market segments, but there was a time gap before new strategies generated effects. In normal conditions large businesses rely on local services and products generated by small-scale local businesses. Thus, the negative impact of the pandemic can be seen at businesses level, but also at island level.

For most businesses it was difficult to plan for the summer, at least in 2020. Many grocery stores dismissed staff or cancelled temporary employment contracts because they feared falling demand. However, the influx of holiday homeowners and the increased domestic tourism led to unexpectedly high sales. Business owners in other sectors partially lost their livelihoods, because they could not use their full capacity. One B&B owner, for example, argued that: "My B&B is small, and visitors have to share the kitchen and common areas, therefore I could only book one household at a time. My income fell by half."

Flexibility and adaptation are mentioned as a strategy in all interviews. Challenges spurred informants into finding new societal solutions and livelihoods. Some ideas and investments that were in the planning stage when the pandemic broke out became delayed or cancelled. New ventures that could benefit from new demand patterns were realised. For example, a reinforced demand for local food stimulated the establishment of several new food firms. Restaurants developed take-away menus and combined offers, for example take-away with a digital concert.

4.3.3 Collective action and social communities

Most island communities developed new forms of collaboration and mobilised local forces to address challenges. Entire communities, local associations and businesses helped each other to solve problems, to maintain and apply pandemic regulations and to avoid the spread of disease. One example from the Stockholm archipelago concerns the establishment of a temporary vaccination centre on one island. In the beginning of 2021 regional authorities planned to force all islanders over 70 years of age, who were isolated due to the risk of becoming severely ill with Covid-19, to travel to a vaccination centre on the mainland. An islander spent months trying to convince authorities to send a nurse out to the islands with vaccines. But when vaccines became more stable, the islander initiated a community effort with people from several islands to establish a vaccination centre on one of the islands and organise safe transport solutions provided by boat owners from the entire archipelago to all who were first in line to get the vaccine. The venue was provided by a tourism agency and many people volunteered to make this happen (Bergman, 2021b).

Ferry crews phoned business owners on the islands to inform them about the number of passengers on board. This enabled them to mobilise local volunteers, local guides and ushers on ferry line queues who helped maintain a safe distance between people. Local business owners started to collaborate and help each other maintain livelihoods. Many informants developed "visit two businesses and get discount offers".

Business owners and local organisations collaborated with home deliveries of groceries and medicines and doing errands for people with high risk of severe infection. Social responsibility took many expressions. Some informants made special offers for which generated income did not always cover the working costs, but that the extra service could "reduce people's loneliness", especially during holidays.

4.4 Accessibility, transport, social welfare and digital infrastructure

4.4.1 Passenger transports and freight

There are distinct regional differences between the effects of restrictions on the number of passengers to the islands. Ferry line companies in the North of Sweden sent some of their ferries to Stockholm where a larger number of passengers was expected. The number of seats was halved as an effect of pandemic restrictions. Islands reached by car ferries had a higher influx of tourists, people were safe in their respective cars, or with their bikes outside on deck while travelling to their destinations (from June 2020).

In most regions the number of seats in the ferries were reduced. Tourism businesses on the islands tried reasoning with ferry line companies to find other solutions, but their pleas remained unheard. Tourists could wait for hours on the quays to take the ferry, and many cancelled their trip.

Islanders in inland lake islands were, for the first time, forced to obtain priority boarding, because the number of tourists in line for the ferry was overwhelming. An overall observation is that islands that were easy and safe to access were not affected by regulations. Islands with more complicated and unpredictable connections between different transportations systems had a decrease in visitors in 2020. Inconsistent traffic solutions, lack of connecting traffic and problematic parcel deliveries (Rytkönen et al., 2019), became more noticeable than before.

4.4.2 Restrictions on restaurants

In most of 2020 and 2021, restaurants were forced to close at 8.30 PM and stop serving alcohol at 8.00 PM. This caused conflicts in many restaurants. Many tourists went to boats anchored in the local harbour to continue to party in the evenings. The control over restrictions imposed on restaurants was supposed to be carried out by municipalities and the County Administrative Board (Krisinformation, 2021). On some islands, controls

were performed by the police. Islanders describe that the presence of the police had a largely negative effect on their establishments and the image of their island.

4.4.3 Health infrastructure

Investments in health infrastructure and public services are decisive for how island communities were influenced by the pandemic. On islands located in the North of the Baltic Sea, general cut-downs in healthcare and emergency services limited the transport options for sick people. In Västernorrland for example, there is only one ambulance helicopter available. It can take several hours before it arrives, and it can only fly in good weather conditions. Thus, safety can be a real challenge for island communities. Additionally, there were no solutions for transporting people with Covid-19 symptoms to a testing centre. Authorities in various parts of Sweden asked ferry line operators to separate sick people from other passengers with a curtain. Informants from the Southern Gothenburg Archipelago highlight how "there is a lack of understanding from municipal and regional authorities for the realities of islands". There, authorities suggested that sick islanders should be transported to medical care facilities in small boats during the winter. Ferries are old, and too small to carry modern ambulances.

4.4.4 IT-infrastructure

A recent expansion of digital infrastructure on many islands was important for livelihoods during the pandemic. High-speed fibre improved conditions for island businesses as it enabled holiday homeowners to work from their holiday homes on islands. In one island in the sample the internet cable was drawn to the island, but only three households/businesses were connected to the cable. Businesses without high-speed internet missed bookings from people who wanted to seek refuge on the island in 2020. They also had fewer bookings from summer tourists. Inland-lake islands have relatively high internet coverage, while there is a wide variation between coastal islands (Post och Telestyrelsen, 2021).

Results indicate that internet infrastructure can empower island communities and offer solutions for maintaining local services, such as schools. But it also makes teleworking possible. The government allocated substantial resources to support the expansion of digital infrastructure in recent years (SOU, 2017). To benefit from mentioned subsidies island communities need to establish an economic association to apply for subsidies and manage the involved work. This is often done on a voluntary basis. Thus, islanders need to mobilise local forces. In one of our examples, several households refrained from connecting to the internet cable because they had a feud

with those who negotiated the installation of the high-speed cable. Thus, bringing stakeholders together to promote development is important, but not always easy.

4.5 Reflections about 2021

During the summer of 2021 pandemic restrictions were less severe than in 2020 and foreign boat tourists returned (Riksföreningen Gästhamnar, 2021), which helped many businesses recover. The upswing in sales experienced by grocery stores remains. Therefore, many stores signed contracts with wholesalers with a larger assortment. Now they can offer their customers the possibility of more options. New forms of collaboration between islanders and new partnerships that were developed during the pandemic remain. The 14th of February 2022 most of the pandemic restrictions and recommendations were removed. Informants are optimistic about the future and on most islands, most communities were strengthened by the pandemic. In the November workshop, informants highlighted that "it is time for a new direction".

5. Discussion and conclusions

Empirically we concluded that while pandemic regulations, e.g. formal institutions, on paper, were designed equally for all of society, their implementation on islands carried big differences. This is related to authorities' lack of understanding of what an island context is and a lack of a coherent national island policy. Findings indicate that the risk of infection fueled changes in the strategies of communities in small islands to cope with the pandemic. People travelled less, and several holiday homeowners permanently moved to their respective holiday homes on islands to escape from the risk of infection and they discovered that they can stay permanently on "their island". Pandemic regulations, in turn, influenced livelihoods and pushed island communities to explore new actions.

The main causes behind island communities' responses can be found in the exploration of formal and informal institutions and how they influence social capital and accessibility. This is highlighted below.

5.1 Formal and informal institutions

The pandemic visualized how institutional arrangements adopted to handle issues in society in general, can generate unpredictable challenges for island communities. A key result is that the heterogeneity of communities in small Swedish islands was made visible by the pandemic. Mentioned heterogeneity is not considered in policies, and there is limited mention of it in previous research (Rytkönen et al., 2019). A future focus on the differences between islands and their underlying causes could make a substantial contribution to the conceptualization of island studies in Sweden.

While a negative impact of pandemic regulations and of the virus itself on local development and local livelihoods was expected. There were also some unexpected positive sectoral effects. The most relevant institutional change is the shift of perception of the attitude of islanders towards holiday homeowners. Indeed, as informal institutions are difficult to change, it is relevant for future studies to investigate if this new perception became sustained over time and if island communities have or will capitalize on this change.

Previous studies about island communities point out social capital as a key to local island development and a main force behind dynamic responses. This study visualises how informal institutions, especially local traditions, the characteristics of local relations and local culture and history were essential for the emergence of bonding social capital, which in turn could help promote dynamic strategies and constructive solutions to daily challenges. Thus, the quality of social capital is dependent on the nature of local institutions.

5.2 Social capital

Most solutions adopted by communities in our sample implied cooperation between two or more stakeholders. Thus, bonding social capital was important for local strategies. In this case, bonding social capital within island communities can be translated into readiness to mobilise forces and solve problems at 'grassroot level'.

A large degree of reciprocity and shared norms within island communities was found in most islands in the sample. A situation of "us against the world" arose, which led to stronger ties amongst local inhabitants. Thus, insularity can help mobilise social capital in a time of crisis. In some ways, the economic, political and social gap between island communities and mainland society became wider. But, as holiday

homeowners spend more time on their respective islands, they have become involved in the island community. They contributed economically and through their involvement they contributed to narrow the gap between island communities and mainland society.

Active agents play a constructive role, whether these are individuals, groups of people, a company, or an association that generates opportunities for others. Active agents generate a high degree of reciprocity and common goals that benefit the community.

On islands with weaker presence of active agents, the lack of common goals made dealing with the consequences of the pandemic difficult. Active agents need to be legitimised by the local community and share the goals of the local community. Another conclusion is that social capital on small islands is a vehicle for social entrepreneurship. Social entrepreneurship has not been highlighted in island research, nor in this project, but our results indicate that it should receive more future attention.

5.3 Accessibility

Factors like availability of passenger transports and high-speed internet infrastructure were critical for island communities to cope with the pandemic. Bottlenecks in infrastructure, especially concerning transports have been problematic. Accessibility to healthcare was challenged and, in some areas, it was relatively low. Many challenges concerning information, testing and vaccination were solved through the actions of active agents. To some degree local island communities were forced to compensate for lack of public solutions. One perhaps more unexpected conclusion is that in addition to making life easier for local communities, the expansion of digital infrastructure also enabled communities in remote locations to connect to people with other parts of the world by live broadcasts and internet-based marketing. Thus, digital infrastructure, but also digital solutions offer future opportunities.

Theoretically, accessibility is tightly connected to what previous research denotes as the economic, cultural and social gaps between island communities and mainland society (Hall, 2012). Enabling technologies, such as the expansion of IT-infrastructure might reduce previously mentioned gaps. However, the adoption of enablers is influenced by the quality of social capital, the ability to reach local agreements and local agents who are willing to work for the good of the island. This is in turn related to the nature of local institutions.

5.4 Theoretical implications and future research

Results show that local institutions play a key role for local development and for the adoption of dynamic strategies on islands. Institutions influence both social capital and accessibility. This needs to be further conceptualised in future research. A fruitful approach for doing so is to implement a contextual perspective when studying island communities and embracing the variety of contexts on different islands (Baker and Welter, 2020). A focus on institutions and context can also add a deeper meaning to the study of vulnerability and marginalisation of island communities (Kinossian, 2019; Hall, 2012). Although this was not the purpose in this study, we realise that a future focus on social entrepreneurship (Peredo and McLean, 2006) can contribute to a further conceptualization of island entrepreneurship.

Accessibility needs to be furtherly conceptualised. Informal institutions and social capital are decisive for the adoption of enabling solutions and local informal institutions and lack of social capital can disable local action and obstruct solutions that can reduce the economic, social and cultural gap between island communities and mainland society. We argue that exploring and conceptualising possible enablers and disablers, their nature and aspects deciding whether a solution disables or enables a local community and how this influences accessibility is an important task for future research.

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Conceptualization	34 %	33 %	33 %	0 %
Data curation	25 %	25 %	25 %	25 %
Formal analysis	40 %	25 %	25 %	10 %
Funding acquisition	40 %	30 %	30 %	0 %
Investigation	25 %	25 %	25 %	25 %
Methodology	50 %	30 %	10 %	10 %
Project administration	100 %	0 %	0 %	0 %
Resources	0 %	0 %	0 %	0 %
Software	0 %	0 %	0 %	0 %
Supervision	34 %	33 %	33 %	0 %
Validation	34 %	33 %	33 %	0 %
Visualization	0 %	0 %	0 %	0 %
Writing – original draft	40 %	30 %	20 %	10 %
Writing – review & editing	40 %	30 %	20 %	10 %

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