



Nordregio

Rethinking population shrinkage

Smart adaptation
for Nordic
municipalities
and regions

Elin Cedergren
Hilma Salonen
Lumi Tomren

NORDREGIO POLICY BRIEF 2025:19

Contents

Introduction	3
What is smart adaptation and why is it relevant?	4
Suggested policy action for smart adaptation	6
Conclusion	14
About the project	15
References	17

This publication is also available online in a web-accessible version at:
<https://pub.nordregio.org/pb-2025-19-rethinking-population-shrinkage>



Photo: Miia Itänen

Introduction

Population decline is likely to become the new normal in many locations throughout Europe. Many municipalities and regions of the Nordic countries face significant challenges due to changing demographic trends involving shrinking, ageing and spatially uneven population developments. Overall, these demographic shifts are deepening existing inequalities, leaving some municipalities at a significant disadvantage in terms of economic sustainability, service provision and infrastructure development.

Shrinkage has been coined an “undesirable disease” that politicians and local governments are reluctant to address due to a long tradition of emphasising growth (Sousa and Pinho 2015 in Syssner 2015; Heleniak & Sanchez Gassen 2020). However, large demographic trends generally fall outside municipal control. Therefore, national, regional and local governments should also focus on strategies that acknowledge and adapt to these realities. Smart adaptation offers a way to rethink resource allocation, adjust service delivery and foster innovative solutions suited to shrinking populations. Rather than treating population decline solely as an issue, smart adaptation can provide a proactive approach that reframes the narrative, leverages local strengths and builds community resilience.

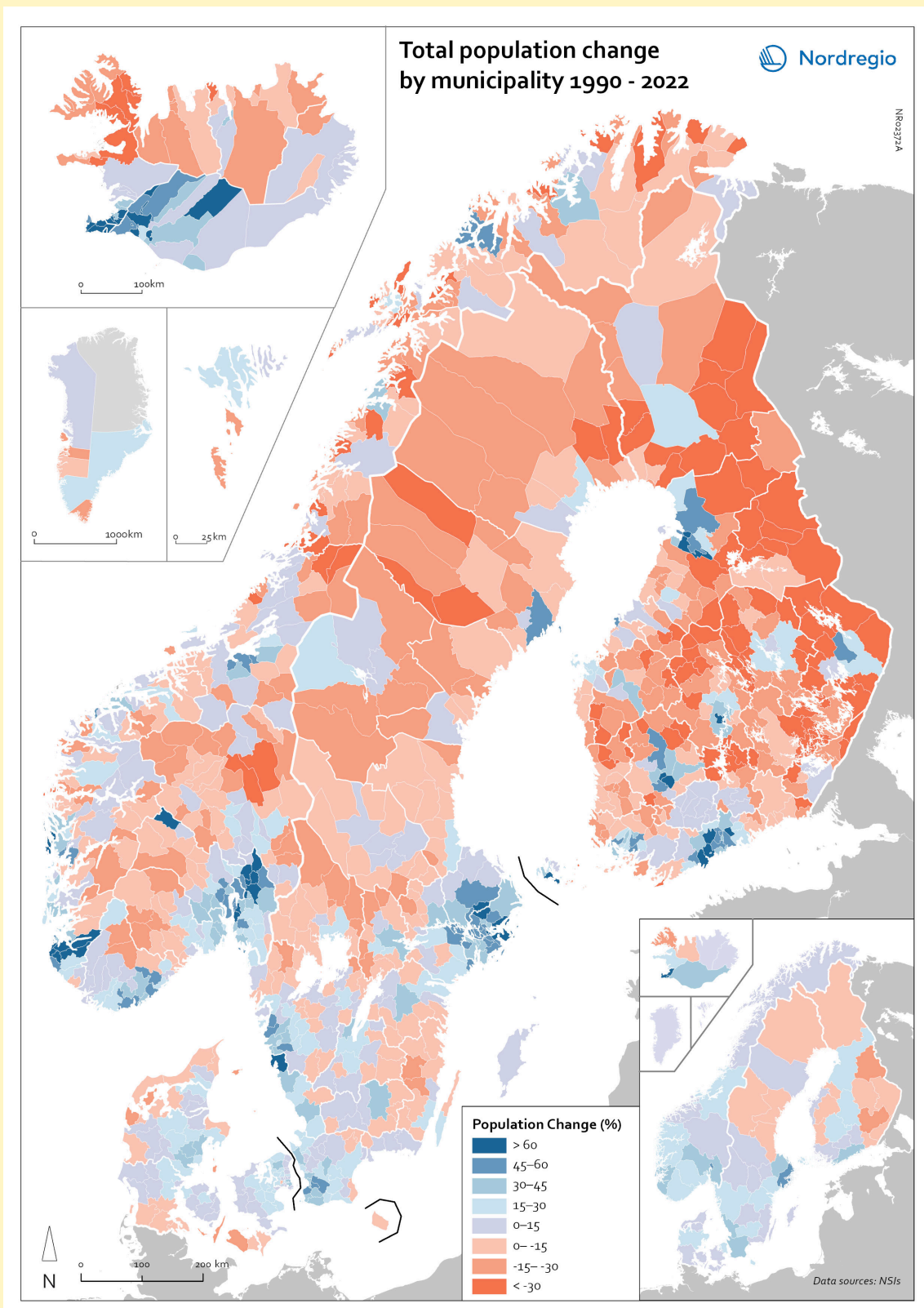
This policy brief explores the key principles of smart adaptation and its application in policy and practice. It examines potential pathways for policymakers and planners in Nordic municipalities, regions and at the national level to implement adaptive strategies for addressing population shrinkage and demographic change.

What is smart adaptation and why is it relevant?

The demographic development of the Nordic Region is marked by spatially unbalanced distribution. Population growth has during the last decades largely been concentrated around certain large and medium-sized cities and their surrounding regions, while population decrease is more dispersed over larger areas. Many smaller, rural and/or more sparsely populated areas face long-term population shrinkage, though this trend is not limited to rural areas (Stjernberg et al., 2024). Map 1 illustrates the percentage change in total population for all municipalities in the Nordic countries from 1990 to 2022. This total population change accounts for both natural change (births minus deaths) and net migration.

Shrinking populations affect municipal public services, infrastructure, revenues and planning. As population bases shrink, revenues from tax income and fees decrease. The Nordic countries typically feature long distances and extensive rural areas, posing challenges for the municipal and regional sectors. Infrastructure systems become oversized to current and future population size and its distribution, while management and reinvestments remain necessary to maintain statutory societal services (Grundel & Magnusson, 2022). Depopulating areas also struggle with managing vacant housing, as well as a lack of suitable housing for specific needs (Eliassen et al., 2020). A reduced workforce, capacity challenges in public administration and governance and education planning as pupil numbers decrease are other well-known issues (Slätmo et al., 2024; Carson et al., 2022). Furthermore, as the population collectively ages, the demand for elderly care and healthcare intensifies (Heleniak & Sánchez Gassen, 2020). Finally, shrinkage can also affect social dynamics and how places are experienced (Syssner, 2024).

Although political institutions at supranational, national and regional levels address demographic decline in various ways (Copus et al., 2021), Nordic policymakers have continued the established practices of planning for population growth (Syssner, 2022). However, literature also identifies “hybrid” approaches, where municipalities or regions officially commit to growth but include adaptive elements in day-to-day decisions (Kahila et al., 2022; Hagen et al., 2023). In the Nordic Region, inter-municipal cooperation is a common strategy for efficiently redirecting resources to meet shrinkage challenges. Other examples include optimising infrastructure and service plans, innovative solutions for labour shortages and focusing on the needs of remaining residents (Kahila & Teräs, 2021; Syssner, 2022). Smart adaptation as an approach entails proactively adjusting policies, resources, and services to align with shrinking and aging populations. Tackling demographic realities by means of adaptive responses can open new opportunities for municipalities and regions in place-making, organisation of services and community dynamics.



Map 1: Total Population Change by Municipality in the Nordic countries, 1990–2022 (1992–2022 for Iceland due to the lack of available data prior to 1992). The smaller map in the bottom right corner highlights the total population change at the regional level across the Nordic countries.



Photo: Miia Itänen

Suggested policy action for smart adaptation

This policy brief presents action points for seven policy areas for smart adaptation to population shrinkage in the Nordic region. The policy action points are based on a series of eleven workshops bringing together municipal, regional and national planners, rural development officials, policymakers and experts from Sweden, Finland, Norway, Iceland and Denmark. The discussions were aimed at informing policy recommendations and culminated in an onsite Nordic workshop. While the project did not identify established or tested cohesive smart adaptation strategies ^[1], the policy action points offer valuable insights for exploring future adaptive pathways to population shrinkage in the Nordic Region and beyond.

1. **Reframing the narrative on shrinkage**
2. **Developing knowledge on shrinkage, demographic changes and their effects**
3. **Communicative planning and the benefits of being small**
4. **Social infrastructure and land use planning**
5. **Multi-level governance and collaborative approaches**
6. **Funding for long-term adaptation and future-oriented planning**
7. **Policy responses to shrinkage coupled with the green and digital transitions**

1. With the exception of the Regional Strategic Programme of North Karelia 2022-2025, which has adopted a smart adaptation approach: <https://pohjois-karjala.fi/wp-content/uploads/2023/02/Brochure-POKAT2025-21x21-web.pdf>



Photo: Laura Karlin/norden.org

1. Reframing the narrative on shrinkage

Shrinkage is often stigmatised, leading to reluctance to address demographic decline openly. Many municipalities still prioritise policies oriented around population growth, fearing that acknowledgement of population decline will undermine their attractiveness or political support. Shifting the focus from population growth as the key measure of success towards well-being, resilience and quality of life can help municipalities develop forward-looking strategies that align with demographic realities of shrinkage. Municipalities that emphasise the benefits of being small – such as closer-knit communities, greater governance flexibility and easier citizen engagement – can build local confidence in adaptation measures.

Actions for local and regional policymakers:

- Acknowledge demographic changes in strategic policies and ensure transparency about the challenges and trade-offs of shrinkage.
- Complement mitigation efforts with adaptive solutions that focus on sustaining liveability and economic resilience.
- Engage citizens and local stakeholders in cross-sectoral and future-oriented governance to ensure legitimacy and democratic support for adaptation measures.

Actions for national policymakers:

- Provide guidance for municipalities and regions on how to integrate smart adaptation into long-term planning.
- Support awareness campaigns to normalise discussions around shrinkage and adaptation in public policy.



Photo: Mads Schmidt Rasmussen/norden.org

2. Developing knowledge on shrinkage, demographic changes and their effects

Municipalities often lack the detailed demographic data and comparative insights needed to plan for shrinkage effectively. Strengthening data collection, scenario planning and interdisciplinary collaboration can equip regions and municipalities better to anticipate demographic changes and develop tailored strategies.

Actions for local and regional policymakers:

- Improve demographic monitoring and scenario planning at local and regional levels.
- Participate in learning networks to exchange insights with other municipalities and regions facing similar challenges.

Actions for national policymakers:

- Ensure fine-grained demographic and territorial statistics are readily available to municipalities. Comparative systems and analytical methods across municipal and regional borders are also needed, as shrinkage often has cross-border implications across municipalities and regional boundaries.
- Establish cross-municipal data-sharing platforms to enhance knowledge exchange.
- Support municipalities and regions in developing expertise in demographic analysis to ensure that data can be better translated into practice.



Photo: Miia Itänen

3. Communicative planning and the benefits of being small

Shrinkage is often framed negatively in public discourse, leading to resistance to adaptation strategies. This can also reduce community engagement and limit opportunities for proactive planning and adaptation. Citizens can also offer important insights on how locations undergoing shrinkage are valued, used and experienced and potential ways forward.

Actions for local and regional policymakers:

- Strengthen participatory planning processes to engage residents in shaping and fostering a sense of ownership and pride in local and regional adaptation efforts.
- Leverage small-scale advantages, such as community cohesion, quality of life etc.

Actions for national policymakers:

- Support capacity-building programmes that train municipalities in effective public engagement and communicative planning.



Photo: Miia Itänen

4. Social infrastructure and land use planning

Many shrinking municipalities struggle with oversized infrastructure and declining service accessibility, resulting in inefficiencies and financial burdens. At the same time, poorly planned reductions in services can negatively impact quality of life and community cohesion. A strategic approach to land use and service planning – such as multi-functional service hubs and repurposed spaces – can optimise resource allocation while ensuring accessibility is maintained. Investing in public spaces, housing and community facilities helps sustain liveability in shrinking areas.

Actions for local and regional policymakers:

- Adapt land-use and infrastructure plans to align with changing population needs.
- Invest in multi-functional service hubs that improve accessibility while reducing costs.
- Develop strategic housing and public space policies that enhance quality of life.
- Map the locally accessible services needed by vulnerable groups living in remote locations, including solutions such as mobility and transport services.

Actions for national policymakers:

- Provide funding mechanisms to support municipalities and regions in repurposing infrastructure.
- Ensure that national planning frameworks allow flexibility for municipalities and regions to adapt services and land use to demographic realities.



Photo: Miia Itänen

5. Multi-level governance and collaborative approaches

Shrinkage does not align with administrative boundaries, yet municipalities often compete rather than cooperate when it comes to attracting residents and investments. Many also lack the institutional capacity to manage long-term adaptation strategies effectively. Stronger inter-municipal and regional cooperation can improve service efficiency, enhance policy coordination and create economies of scale. National governments play a key role in removing legislative barriers to cooperation and incentivising collaboration.

Actions for local and regional policymakers:

- Develop cooperative solutions to share resources, services and administrative capacity at the local and regional level.
- Establish joint strategic planning frameworks between municipalities (and regions) to address common challenges.

Actions for national policymakers:

- Ensure legislative frameworks that facilitate inter-municipal and regional cooperation, while respecting specific local and regional characteristics and perspectives.
- Provide authorities/agencies in charge of regional development with support to help municipalities implement adaptive strategies.



Photo: Elin Cedergren

6. Funding for long-term adaptation and future-oriented planning

Funding mechanisms often prioritise population growth, making it difficult for municipalities to secure financial support for adaptive measures. Flexible funding structures that support adaptation – rather than being tied to growth metrics – can enable municipalities to invest in sustainable solutions. National policies should encourage planning based on long-term scenarios in order to future-proof local development strategies.

Actions for local and regional policymakers:

- Ensure local budgets reflect long-term adaptation needs rather than short-term fixes.
- Leverage regional cooperation to secure joint funding for shared services and infrastructure.

Actions for national policymakers:

- Establish long-term adaptation-oriented funding schemes to support municipalities and regions transitioning away from population growth-based models.
- Provide seed funding for Smart Adaptation Living Labs, enabling municipalities to test and implement innovative adaptation strategies at scale.
- Ensure national financial equalisation systems consider the specific challenges of shrinking municipalities and regions.



Photo: Miia Itänen

7. Policy responses to shrinkage coupled with the green and digital transitions

Smart adaptation needs to be closely integrated with other significant transitions facing Nordic municipalities and regions today, such as the green and digital transitions. Aligning smart adaptation with sustainable development policies can create synergies that strengthen both initiatives. For example, for those remaining in the shrinking area it can make a significant difference to see that the municipality is actively participating in future-oriented action, even if it is not growth-oriented. Participation in activities related to the green transition and digital transition may also help diversify the job and education possibilities offered in the area. However, smart adaptation aligned with the green and digital transitions depends on an inclusive design and ensuring place-based benefits can be captured.

Actions for local and regional policymakers:

- Sustainably leverage local natural resources for local and regional development and explore local-level tax options to retain more benefits from investments and new developments.
- Engage in new networks and opportunities related to the green transition to foster a sense of planning for the future

Actions for national policymakers:

- Provide guidance and support for municipalities and regions that helps them to integrate smart adaptation with digital and green transitions in their long-term planning.
- Promote policies that ensure that local resources better benefit municipalities, enhancing local economic resilience and liveability.
- Ensure policies that facilitate inclusive digital connectivity and decentralised employment opportunities, allowing residents to remain in rural areas.



Photo: Elin Cedergren

Conclusion

Key themes identified include the importance of redefining success to include social well-being, active community participation and environmental sustainability. The workshops stressed the need for cohesive and flexible planning approaches that integrate realistic population projections and scenario planning. One way forward is to integrate smart adaptation with the green transition in regional and municipal long-term planning.

Collaboration between municipalities and adequate staffing remain crucial for improving service delivery and governance. Regional and national policies should support inter-municipal cooperation and provide funding that focuses on adaptation and improvement in quality of life rather than population growth. Public participation and investment in social infrastructure are essential for building political capital and fostering successful, locally anchored pathways to address population decline. Multi-functional service facilities and digital solutions can present opportunities to increase efficiency and accessibility.

The project concluded that smart adaptation offers a pathway for regions and municipalities to tap into opportunities presented by demographic transitions, with political commitment at the national level being essential for proactive and cohesive approaches. Municipalities with shrinking communities have the potential to lead the way in adapting to population shrinkage, leveraging their resources to improve the lives of their residents.

About the project

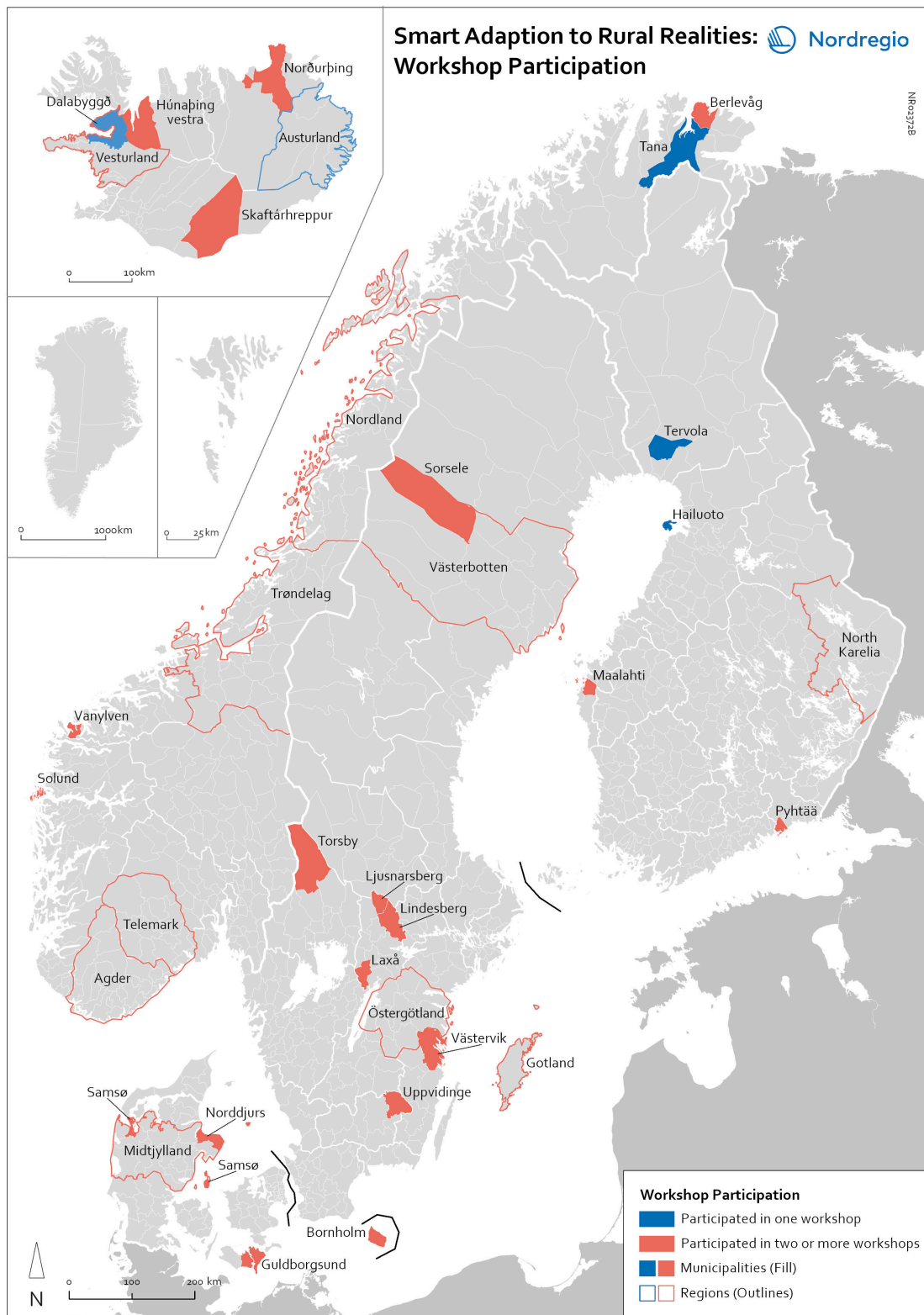
This policy brief has been developed under the project “Smart Adaptation to Rural Realities: Approaches and Practices in Nordic Municipalities and Regions” (2023–2025). The primary aim of the project is to identify and describe smart adaptation and its governance implications in the Nordic region. Additionally, the project seeks to facilitate the sharing of knowledge on potential smart adaptation strategies among Nordic municipalities, regions, and at the national level.

The research activities included a review of Nordic and European literature on shrinkage and smart adaptation, published in journals and by research institutions, public authorities, and associations. A background study was also conducted on Nordic regional and rural development policies, as well as national support initiatives addressing population decline. Ten country-specific workshops were organised (2023–2024) with municipal representatives, regional and national public officials and experts, and local politicians from Sweden, Finland, Norway, Iceland, and Denmark. Additionally, an onsite physical Nordic workshop was organised with participants from all country networks, discussing challenges associated with population shrinkage, local and regional development potentials beyond population growth, and suggesting adaptation pathways for managing population decline at various levels.

The workshop participants were selected based on those municipalities with the highest population decline (1990–2022), focusing on the ten municipalities per country with the largest percentage loss. Regions were chosen according to their composition of shrinking municipalities. While most of the selected municipalities experienced consistent decline, additional municipalities were selected with minor shrinkage. Some also had small population growth over the selected years. The selection was designed to reflect a variety of experiences and perspectives on demographic challenges. Diversity in terms of geography, size, and demographics was prioritised, though the outcome leans towards municipalities that are smaller in population but cover larger geographical areas.

Acknowledgements

The results and policy action points in this policy brief were developed based on the contributions of the workshop participants, under the auspices of Nordregio. We would like to thank the representatives of municipalities, regions, national level authorities and ministries as well as policy experts who actively participated in workshops and provided their insights and knowledge throughout the project.



Map 2. Illustration of which municipalities and regions in Sweden, Norway, Finland, Denmark, and Iceland participated in the project workshops. The legend indicates number of occasions each municipality or region had one or more representatives participating.

References

Copus, A., Kahila, P., Dax, T., Kovács, K., Tagai, G., Weber, R., Grunfelder, J., Meredith, D., Ortega-Reig, M., Piras, S., Löfving, L., Moodie, J., Fritsch, M., & Ferrandis, A. (2021). European shrinking rural areas: Key messages for a refreshed long-term European policy vision. *TERRA. Revista de Desarrollo Local*(8), 280-309. <http://dx.doi.org/10.7203/terra.8.20366>

Qvist Eliassen, S., Ormstrup Vestergård, L., Sigurjónsdóttir, H., Turunen, E., & Penje, O. (2020). Rural housing challenges in the Nordic region. *Nordregio Report 2020:7*. <http://doi.org/10.6027/R2020:7.1403-2503>

Grundel, I., & Magnusson, D. (2022). Planning to grow, planning to rock on – Infrastructure management and development in shrinking municipalities. *European Planning Studies*, 31(6), 1184–1202. <https://doi.org/10.1080/09654313.2022.2108311>

Hagen, A., Higdén, U., & Övervåg, K. (2023). Planning to meet challenges in shrinking rural regions: Towards innovative approaches to local planning. *Fennia - International Journal of Geography*, 200(2), 175–190. <https://doi.org/10.11143/fennia.119752>

Heleniak, T., & Sanchez Gassen, N. (2020). The demise of the rural Nordic region? Analysis of regional population trends in the Nordic countries, 1990 to 2040. *Nordic Welfare Research*, 5(1), 40-57. <https://doi.org/10.18261/issn.2464-4161-2020-01-05>

Kahila, P., & Teräs, J. (2021). Mitä on älykäs sopeutuminen? Valtioneuvoston kanslia, Valtioneuvoston selvitys- ja tutkimustoiminnan artikkelisarja 26/2021 (policy brief). <https://tietokayttoon.fi/documents/1927382/2116852/26-2021-Mit%C3%A4+on+%C3%A4lyk%C3%A4s+sopeutuminen.pdf/a1314c89-f051-8d1b-5bc2-1cce3bbb5690/26-2021-Mit%C3%A4+on+%C3%A4lyk%C3%A4s+sopeutuminen.pdf?t=1633947450947>

Kahila, P., Hirvonen, T., Jolkkonen, A., Kurvinen, A., Lemponen, V., Makkonen, T., Rautiainen, S., Copus, A., Teräs, J., Turunen, E., Lebbing, J., Vester, L., & Meijer, M. (2022). Mitä on älykäs sopeutuminen? Valtioneuvoston selvitys- ja tutkimustoiminnon julkaisusarja 2022:42. https://julkaisut.valtioneuvosto.fi/bitstream/handle/10024/164165/VNTEAS_2022_42.pdf

Stjernberg, M., Vasilevskaya, A., & Penje, O. (2024). Towards a grid-based Nordic territorial typology: A new tool for spatial analysis across the urban-rural continuum. *Nordregio Report 2024:9*. Nordregio, Stockholm. <https://norden.diva-portal.org/smash/get/diva2:1845364/FULLTEXT01.pdf>

Sousa, S., & Pinho, P. (2015). Planning for shrinkage: Paradox or paradigm. *European Planning Studies*, 23(1), 12-32.
<https://doi.org/10.1080/09654313.2013.820082>

Syssner, J. (2015). Planning for shrinkage? Policy implications of demographic decline in Swedish municipalities, *Journal of Depopulation and Rural Development Studies*. <https://doi.org/10.4422/ager.2015.14>

Syssner, J. (2018). Dealing with urban and rural shrinkage: Formal and informal strategies. In G.-J. Hospers & J. Syssner (Eds.), *Dealing with urban and rural shrinkage*. LIT Verlag.

Syssner, J. (2022). What can geographers do for shrinking geographies? *Fennia*, 200(2), 98–119. <https://doi.org/10.11143/fennia.120536>

About this publication

Rethinking population shrinkage: Smart adaptation for Nordic municipalities and regions

Elin Cedergren, Hilma Salonen, and Lumi Tomren

This policy brief presents findings from the “Smart adaptation to Rural Realities: Approaches and Practices in Nordic Municipalities and Regions” project. It is based on a review of Nordic and European literature on population shrinkage, a background study on regional and rural development policies and interviews with experts. The project involved workshops with municipal, regional and national representatives from Sweden, Finland, Norway, Iceland and Denmark. The brief explores smart adaptation strategies to address demographic changes, focusing on rethinking resource allocation, adjusting service delivery and fostering innovative solutions for shrinking populations. It provides policy considerations for local, regional and national policymakers in the Nordic Region on the potential of using adaptive strategies to address demographic change.

Nordregio Policy Brief 2025:19

ISSN: 2001-3876

<http://doi.org/10.6027/PB2025:19.2001-3876>

© Nordregio 2025

Layout & communication: Miia Itänen, Nordregio

Maps: Daniel Pils, Nordregio

Cover photo: Carl Tronders/Unsplash

Photos: Miia Itänen, Elin Cedergren, Laura Karlin/norden.org, Mads Schmidt Rasmussen/norden.org

Nordregio

Nordregio is a leading Nordic and European research centre for regional development and planning, established by the Nordic Council of Ministers in 1997. We conduct solution-oriented and applied research, addressing current issues from both a research perspective and the viewpoint of policymakers and practitioners. Operating at the international, national, regional and local levels, Nordregio's research covers a wide geographic scope, emphasising the Nordic and Baltic Sea Regions, Europe and the Arctic.

Nordregio

Holmamiralens Väg 10

Skeppsholmen

Stockholm, Sweden

www.nordregio.org