## Infrastructure management and development in shrinking municipalities

Lecture for the Nordplus course: Sustainable transition strategies and development for depopulating and peripheral localities in the European North, 11<sup>th</sup> of April 2025





#### Half of Swedens municipalities are shrinking

#### Hälften av kommunerna krymper

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Bygatan i värmländska Storfors, en av landets alla krympande och åldrande kommuner. Foto: Tommy Pedersen

Minskad invandring och sjunkande födelsetal fördjupar krisen för svenska kommuner. 147 av 290 kommuner väntas krympa till 2040.

– Det finns ingenting som tyder på att det här radikalt skulle förändras, säger S-veteranen Sven-Erik Österberg som vill se att kommuner slås ihop. Den lågintensiva krisen är alltjämt en ständig följeslagare. Sedan 1980 har Storfors krympt från 5 500 till 3 800 invånare.

Förr om åren var rörverket bygdens största arbetsgivare. För några år sedan drog tillverkningen av aluminiumrör sin sista suck, efter en lång tids nedgång som började på 1980-talet. Arbetslösheten är i dag högre än riksgenomsnittet.

Liknande öden står att finna runtom i landet. Sverige kryllar av krympande och åldrande kommuner. Många har hoppats kunna rida ut krisen genom att locka nya invånare. Så har det mycket sällan blivit. På den punkten talar siffrorna sitt klara språk.

Enligt den senaste befolkningsprognosen från SCB beräknas Storfors att krympa ytterligare till 3 500 invånare år 2040, varav nästan en tredjedel väntas vara 70 år eller äldre.

Bortom dystra siffror finns alltjämt krafter som vill dra sitt strå till stacken. Dit hör gänget hos Arne Nilsson AB, ett familjeföretag i Storfors som renoverar fönster.

Företaget är specialiserat på äldre fönsterbågar och har elva anställda. I verkstaden doftar det av linoljefärg, från nystrukna fönsterbågar som ska till en skola i Göteborg.



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Mikael Mossfeldt och Henrik Mossfeldt håller i trådarna hos Arne Nilsson AB, Eoto: Tommy Pedersen



## Looking back: "The country on the outside"

"In May 2010, as this is being written, another decade has passed and the political will from the central government has become even more lackluster. The traditional voice of the countryside, the Center Party, seems to have cut its roots and is fighting for big city voters in the same small room as the other established parties. Rural issues lack a strong voice in national politics. This has created an unguarded room, which local parties of discontent can use." "(Mattson, Kristina (2011) Landet utanför. Ett reportage om Sverige bortom storstaden. Stockholm: Leopard, p. 192)

#### The country on the outside...

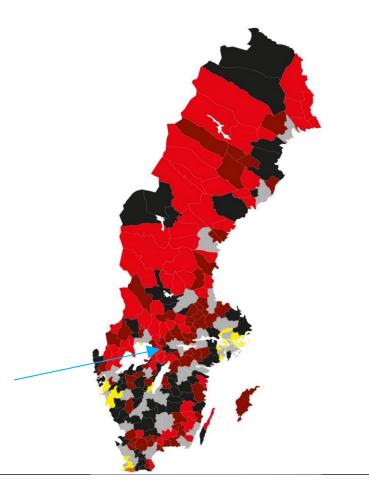
Konsum has closed down, as has Matxtra, only Ica remains. Now there are more funeral homes than grocery stores.

"Laxå is on the outskirts of the periphery. Between Stockholm, Gothenburg and Oslo, but not close to anything," says Bo Rudolfsson.

When researchers and statisticians examine Sweden's development, Laxå is part of a group of municipalities that are characterized by a shrinking population, an increasing proportion of elderly people, a low level of education, high rates of ill health and many students who graduate from compulsory school without upper secondary school qualifications.

During the major municipal reform in the 1970s, the goal was that no municipality should have fewer than 8,000 inhabitants. Today, 48 municipalities have it. Laxå is one of them, and now has just over half as many inhabitants as in 1970.

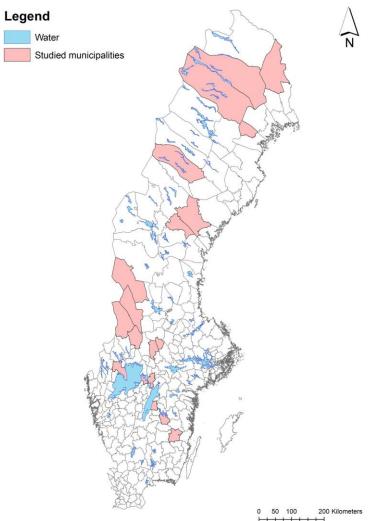
Source: http://www.dn.se/nyheter/oron-vaxer-over-klyftornamellan-sma-och-stora-orter/





## Planning to grow, planning to rock on...

- RQ1: How do local government representatives relate to the responsibilities they have regarding critical infrastructure and in relation to what resources they have access to?
- RQ2: How do local government representatives understand existing infrastructure in the light of limited resources?
- RQ3: How do local government representatives relate infrastructure investments to growth strategies?





#### Points of departure

Sociotechnical perspective on infrastructure systems and what Hodson and Marvin (2010) call 'critical infrastructures' such as WaS, DH, electricity, roads, telecommunications, and FOGs.

Infrastructure closely related to society, and the institutions that regulate and manage it (Kaijser, 1994; Jonsson, 2000). Changes in either the organizational or the technical parts of these systems may have large effects in society, as they, once they are built have clear geographical and spatial dimensions. For example, management and organizational changes, together with changing ownership, can affect the local access of citizens to basic infrastructure and affect its pricing and terms of service.

There is a close relationship between such effects and uneven geographical development that produce and reproduce spatial inequalities (Harvey, 1996) which in turn can lead to the inclusion or exclusion of certain groups and geographies and increase tensions between more rural and urban areas (Pike et al. 2019).



# Increasing disparities between municipalities

"It's like thinking that shrinking doesn't cost anything. It's exactly the opposite; shrinking can absolutely be done, but it often creates side effects. I have to run a school even if I only have ten students. I can't close the school or reduce a teacher because the students need to learn all day. There are many such things that involve being able to adapt our organization. The difficulty lies in that a municipality cannot become too small, because the legislation requires that a large number of functions must exist within the municipality."



#### **Overdimensioned infrastructure**

"We used to be almost 12,000 inhabitants and now we are about 4,700. But we have not been able to, for example, dismantle kilometers of roads. We still have the same number of roads, and we still have the same number of conduits to transport water and sewage. [...] and it gets more and more expensive the fewer we are to share the costs. We can't just shut down the streets and roads; they remain and become more expensive as we become fewer (Interview 26, politician)"





# Increasing costs for reinvestments and maintenance

"In all budget preparations, the WaS network is like a ticking bomb. Everything was built during the 50s, 60s and 70s, just like in all of Sweden actually, and now pipes are getting old and in need of maintenance. They were built for 30,000 in a municipality which now has 19,000." (Interview 38, politician)





#### Privatization

We sold our part of the DH company, we had 49 percent, and 51 percent was owned by X company, that in turn is owned by different kinds of venture capitalists. [...] We sold in 2017 or 2018 and that was simply because we knew they were going to make investments and that for us would mean around SEK 130 million, and we do not have that money. (Interview 41, municipal official)



Now they are closing down the copper net, also in the main town, and that relates to another aspect of accessibility, because somehow access to the network is as important as access to electricity and water, and now we do not have complete cover for the mobile network in the municipality. And that is very serious, the operators are not doing what they should when they are getting their frequencies. There is no market-based reason for building masts in the municipality, but the operators should take responsibility and they are not, and that is serious. (Interview 41, municipal official)



We have companies and citizens where the copper net has been dismantled and who do not have mobile coverage and therefore cannot use their phones and they do not have access to fiberoptics. And that is a great challenge. We have a person in charge of this, but no tools to develop it. We can only support, and try to find external funding, maybe also to build municipal mobile masts in the future. We have tourism entrepreneurs who have to take their cars to check if they have any bookings in the booking system since they don't have coverage in their facilities. (Interview 23, municipal official)

### Planning for growth

I am a bit unsure of how new developer agreements have been agreed upon with new players in the remote villages and especially in (ski resort Y). How much costs they have taken in the fiber extension, but the municipality has been incredibly generous. It is clear that there is a vision that more and more people would want to become permanent residents in (ski resort Y), because you have every opportunity in the world to work from there. (Interview 46, politician)

In Gällivare, a minimum scenario is seen with a labor need of at least 2000 people that could lead to a total population growth of about 4000 people, but also a maximum scenario has been painted where 3600 jobs could give a population growth of about 7000 people. (Gällivare kommun, 4)



#### Concluding discussion and consequences:

- Important societal functions have been concentrated in urban areas and metropolitan regions Increasing disparities in terms of average income, education level, health, labor market, and services (see also; Enflo, 2016; Björling & Fredriksson, 2018) between urban and rural areas.
- The main challenges in many rural areas is the possibility to maintain and preserve services, both public and private, e.g. retail stores, pharmacies, healthcare, schools and other public service, bars and restaurants.
- The fact that some places are "shrinking" can lead to significant adjustment costs regarding infrastructure, i.e., the systems that enable the flow of goods and people (transport systems), water and sewage, electricity grid, fiber, and district heating, etc. might also increase the differences in access to basic infrastructure between rural and urban areas.





# What does this mean for Sustainable transition strategies and development in depopulating areas?



50 years of free thinking shaping the future

#### Thanks for listening! Ida Grundel, ida.grundel@liu.se



