Multiple meanings and boundaries of growth in shrinking regions in East and North Finland

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Growth stands out as a key development object in contemporary green economy policies. It is particularly interesting in the Nordic context such as in East and North Finland, where many regions are rich in natural resources, but also shrinking and lagging. Therefore, their regional development is simultaneously framed by an expected sustainability transition that alternates between green growth and degrowth agendas, and the socio-economic phenomenon of shrinkage. This article examines how growth is understood and framed among regional development actors, with special interest placed on different meanings, possible critics, and the boundaries of growth. The interviewed actors are positioned as intermediaries who possess special knowledge regarding regional development. The interviews show that the understanding of growth in this context requires various framings that combine global, regional, and local perspectives on sustainable development, as well as the burdens of shrinking and lagging regions balanced against cohesive and inclusive promises of green growth. The hegemonic frame is approached through a lens of green growth, yet the shrinking population remains in the background. Growth appears as a favoured means to tackle societal problems, which reflects a mission-oriented goal setting. Critical statements are directed at growth policies and funding instruments that do not seem to promote cohesive and inclusive growth. The clearest boundary for growth relates to nature, but it is far too early to make interpretations on an intentional degrowth agenda. From the regional actors' perspective, setting boundaries for growth in a context of long-term shrinkage, sparse population, and extensive natural surroundings seems trivial. Handling the peripheries' societal problems related to shrinkage and their struggle for resources appears as the more relevant mission that also requires growth in various forms.

Keywords: regional development, socio-economic shrinkage, growth, sustainability, green economy, natural resources

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Introduction

The current national policy programs in Finland follow European and global policies centred around growth and sustainability objectives (UNEP 2011; EC 2019; Finnish Government 2019, 2021). The typical claim is that the green economy could be used to address ecological or social crises and challenges by way of increased efficiency and innovations that also create new growth (OECD 2011; Jacobs 2012; Dale *et al*. 2016; Hickel & Kallis 2020). Similar growth and sustainability objectives are embraced in regional policies such as the Smart Specialisation policies of the European Union (EU) (e.g. McCann & Soete 2020). For example, the joint Smart Specialisation strategy of East and North Finland (ENF) (2019, 1) states: "The sustainable use of natural resources and smart technological solutions promote growth and well-being in the entire East and North Finland".

Growth appears as a fundamental part of any development objectives typically phrased as 'green growth' under the 'green economy'. The promotion of growth is an interesting objective for regions such as East and North Finland for two reasons. Firstly, these regions are rich in terms of natural resources due to which green growth appears as a promising direction for development. Secondly, many municipalities within these regions are lagging in terms of economy, and shrinking in terms of demography, which highlights the need for alternative development trajectories. To understand the context in which the regional actors are promoting growth requires taking into account both sides: valuable natural resources and deep shrinkage.

Shrinkage is deep, firstly, because the economic downturn and deep unemployment due to structural changes has been a long time, even decades in some cases (Andreasson *et al*. 2020; EC 2021; Makkonen *et al*. 2022). Most are also demographically shrinking in terms of their population that are ageing and becoming increasingly centralised (Grunfelder & Roto 2013; Roto 2013; Jokinen & Cuadrado 2020). Centralisation manifests as growing urbanisation in regional centres and their surroundings, while extensive sparsely populated areas are shrinking (Helminen *et al*. 2020). A relevant framework for shrinkage can be determined through the observations of similar Nordic rural or relatively small urban patterns (Syssner 2020).

The multidimensionality of growth is highly interesting because regional development is simultaneously framed by the socio-economic phenomenon of shrinkage, and an expected sustainability transition that fluctuates between green growth and degrowth agendas. The question of growth as a prevailing development agenda is discussed in literature on shrinkage (e.g. Reverda *et al*. 2018; Syssner 2020) and sustainable development (e.g. Dale *et al*. 2016; Hoffman 2016; Sandberg *et al*. 2019), but rarely presents their interrelation with regional development (Donner-Amnell 2020). This is identified as a research gap, which this paper seeks to fill. Growth itself is an essential research focus in regional and economic geography, including several approaches to growth (Capello 2019). The multidimensionality of growth has been manifested in outputs based on theorisation, a synthesis of research findings, and the empirical measurement of growth (e.g. Makkonen & Inkinen 2015; Capasso *et al*. 2019; Capello 2019; Coenen & Morgan 2020). However, qualitative, contextualised and actor-based approaches have received less attention, although they are crucial for creating knowledge on the different frames that shape regional growth tendencies.

This paper contributes to regional growth research by scrutinising the qualitative interpretations that concern the reasoning and questioning of growth in a specific Nordic context of shrinking resource regions. The main question that the paper sets out to explore is, how regional development actors understand and frame growth, specifically in relation with regional development, shrinkage and natural resources. My interest is on the different meanings, normative statements, possible critics, and boundaries of growth. The interviewed development actors are seen here as regional intermediaries who are presumed to have unique but wide-ranging knowledge and perceptions on regional development in this specific context. Therefore, I expect them to provide different types of framings, which reveal the multidimensional meanings of growth. As a means to understand the discourses of development, analysis of frames enables the assessment of the situations or circumstances in which growth is presented (Flanagan *et al*. 2021).

Growth, sustainability, and shrinkage in regional development

Towards green and inclusive growth?

In general, growth appears as a favourable target for regional development, and a new growth path is seen as a sign of renewing the development (Martin & Sunley 2015; Grillitsch & Sotarauta 2018; MacKinnon *et al*. 2019). In modern theories, growth refers to an increase in the production capacity of a region and its ability to maintain the increase, which is usually achieved by high levels of competitiveness and innovation (Capello 2019). The interest and debates have typically concerned different sources of growth, and the role of technology, markets, institutions, knowledge and diversification in the promotion of growth (Farole *et al*. 2011; McCann & Ortega-Argilés 2015; Ketterer & Rodríguez-Pose 2016; Balland & Rigby 2017; Dall'Erba & Fang 2017). Recently, increasing interest on the combination of environmental and economic perspectives, and the role of green economy as a desirable potential, has occurred. For rural-like regions, potential appears through their natural endowments and specialisation in resource-based industries that are seen as crucial for the transition to a low-carbon economy (OECD 2020a). However, the form that green economy should take and how it should be promoted remains unclear (Gibbs & O'Neill 2017).

Capasso and others (2019) have identified the conditions that influence green growth. According to this synthesis, skills, technologies, markets, policies, and institutions reflect the basic conditions for any economic growth, whereas the availability of natural resources and economic feasibility, due to transport distances, influence specifically the promotion of green growth. In addition, questions whether growth is green anymore and when the 'planetary boundaries' will be crossed are raised (Rockström *et al*. 2009, also Capasso *et al*. 2019). Thus, a very basic question has remained the same since the 1970s, as to when the limits of growth will be reached if global growth trends of industrialisation and resource depletion continue their current trajectory (Meadows *et al*. 1972, 23). Against this, green growth has understandably faced criticism, and has been presented as "a project with a utopian charge" which allows "business as usual" to continue (Dale *et al*. 2016, 1, 19). The climate change mitigation agenda under the prevailing Gross domestic product (GDP) growth paradigm and finding sustainable renewable energy sources to compensate fossil energy have been seen as highly problematic (Hoffman 2016). According to the degrowth agenda, the only sustainable way to harness the environmental crisis is the managed decline of fossil fuel production, and a reduction in natural resource use through diminished production and consumption (Sandberg *et al*. 2019; Eaton 2021).

In all, green growth is full of struggles between tackling the environmental crisis and social inequity while still boosting economic growth (Parr 2016), which in rural regions are seen as three interdependent objectives (OECD 2020a). The struggle appears when assessing the justice of the distribution of social, economic, and environmental costs or benefits resulting from green growth (Parr 2016; Ciplet & Harrison 2020). Socio-economic (in)equity is also a critical approach employed for assessing the circumstances in which growth is acceptable or unacceptable. This question is typically raised when assessing whether and to what extent poorer societies (most commonly referring to the developing South) should have an acceptable right to boost their growth over richer societies (mostly referring the global North) that have remarkably accelerated the environmental problems (Hoffman 2016). The idea that some regions would have more acceptable rights to strive towards growth than others is interesting in the geographical context of this paper, although the gap between lagging and more prosperous regions in Finland is nothing compared to the gap between the global South and North. In the OECD (2020a) report on rural development, the just transition is seen referring to a development which contributes to job creation and social justice, which for example in rural resource regions can be promoted by finding new ways to add value to natural resources.

Another question is how well the current economic environment enables and creates possibilities for lagging regions to grow. Smart Specialisation[1] has been raised as a major driving concept through which innovation-led growth and cohesion between regions should be achieved, which necessitates the promotion of the economic development of weaker regions in particular (McCann & Ortega-Argilés 2015). However, Hassink and Gong (2019) note that exemplary cases of Smart Specialisation tend to represent structurally strong regions, rather than structurally weak regions. They conclude

that even if these strategies should promote the economies of structurally weak regions, they are incapable of doing so precisely due to their structures and institutional capacity, which in turn only deepens regional inequalities. As an example, depopulation is presented as a typical weak structure, which has resulted in difficulties in entrepreneurial discovery (Ghinoi *et al*. 2021).

Towards a normative turn through new ends, missions, and modesty?

McCann and Soete (2020, 19) argue that if Smart Specialisation would work as a "Smart Specialisation strategy for sustainable and inclusive growth", a shift in logic is necessary. According to them, any top-level guidance (including funding) should be more closely linked to the central objectives of the EU's growth strategy Green Deal "that aims to transform the EU into a fair and prosperous society" (EC 2019, 2). This would mean the framing of innovations and economic growth through their intermediate role, which reflects a shift towards mission-oriented policies (Mazzucato 2018; Wanzenböck *et al*. 2020). When taking the mission-oriented approach, the promoted innovations or industrial performance are not seen as end objectives but means to tackle economic, social, or environmental challenges (Wanzenböck *et al*. 2020) and ways to respond to social needs often framed by ideological norms and values (Coenen & Morgan 2020).

Climate change is a grand challenge that affects all societies. Yet flaws in sustainable and inclusive growth and demographic challenges, such as ageing (Mazzucato 2018; Coenen & Morgan 2020), are of particular concern for regions examined in this study. These problems are regarded as 'wicked', meaning that they are complex and interconnected, and thus difficult to handle (Mazzucato 2018). Although many societal problems are globally shared, their contextuality and place-sensitivity regarding their regional and local manifestations should be noticed (Wanzenböck & Frenken 2020). Furthermore, the nature, identification and significance of these problems vary because places and regions approach environmental and societal problems through specific contextual frames (Flanagan *et al*. 2021).

Hospers and Syssner (2018) present an illustrative example of how shrinkage appears as a problem in Nordic peripheries, and how its meaning can vary only by changing the perspective. As they note, many shrinking peripheries can provide social services only with the assistance of an equalisation system of funding, which allocates resources from prosperous to lagging regions. When changing a frame of social services to one of regional development, and a frame of equality to one of effectiveness, funding resources tend to be allocated to the most successful places in terms of their existing or expected growth (*ibid*.). As a consequence, the described approach of growth-favouring allocation seems to widen the gap between prosperous and lagging regions, rather than promote inclusiveness of regions.

The problems and rhetoric concerning shrinkage appear highly similar, whether seen in economic or population terms. Despite arguments in favour of degrowth, it remains a marginal perspective, whereas green growth has been given a dominant role in handling environmental and societal challenges (Sandberg *et al*. 2019). Growth, as the leading principle, manifests success, progress, development and opportunities, while the idea of shrinking portrays its undesirable opposite, raising images of decline, regression and failure (Reverda *et al*. 2018; Capello 2019). Therefore, the strategies for counter-shrinkage that result in partial growth (see Kotilainen *et al*. 2015) can be problematic, since the possible signs of renewing development stay hidden under the shroud of shrinkage (Halonen 2019).

No easy way for accepting and adapting to shrinkage has appeared, although it has been identified as the most suitable long-term strategy for urban and rural areas (Hospers 2014; Syssner 2020). In some cases, shrinking may only be a transition phase towards a yet smaller but stable and better condition (Humer 2018). As Reverda, Hermans and Maurer (2018) argue, regrowing 'smaller' may in suitable circumstances lead to a flexible and sustainable status, which requires a reasonable, pioneering spirit from the actors driving the development. But even if such a spirit may arise among a group of actors, values like modesty seem overlooked in the prevailing culture of growth (Reverda *et al*. 2018), and concurrently traditional instruments seem unsuited for non/degrowth strategies (Humer 2018). As a further consideration, questions like what regional value actually is, how it is framed, and by whom need investigation (see Uyarra *et al*. 2019).

Framing through the interviews of East and North Finland

Description of the empirical area

The context of East and North Finland (ENF) exemplifies Nordic regions that have been defined as peripheral and sparsely populated for a long time. East Finland has even been referred to as the most extreme case of dispersed settlement patterns in North Europe (Gløersen *et al*. 2006). In total, ENF consists of seven provinces (*maakunta*): Central Ostrobothnia, Northern Ostrobothnia, Lapland, Kainuu, Northern Savonia, North Karelia, and South Savo. Population and economic activities are highly concentrated in regional urban centres, their surroundings, and a few local centres in rural areas, while the major part of the regions is classified sparsely populated areas with the lowest category of economic activity (Fig. 1; Helminen *et al*. 2020).

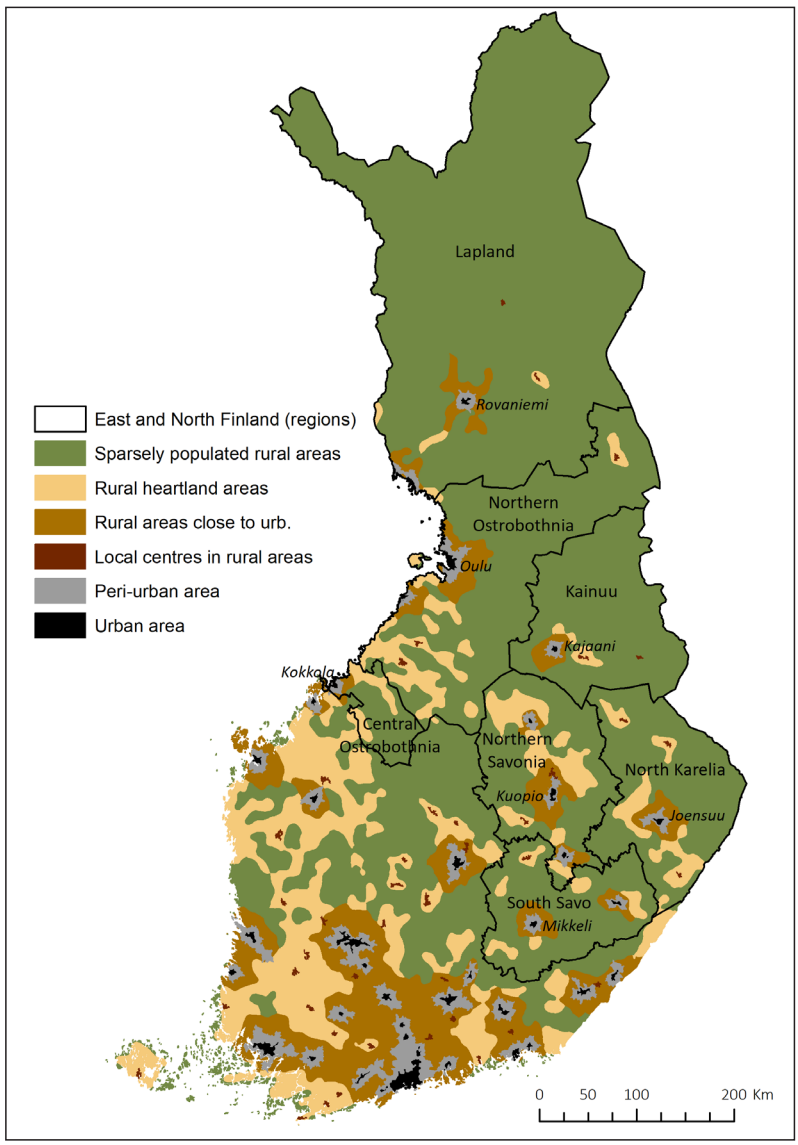

Fig. 1. Spatial structure of the regions (*maakunta*) and regional centres of East and North Finland. (Data sources: SYKE 2013; NLS & Ek 2021).

ENF (2019) regions have identified an ageing population, economic restructuring, the supply of skilled labour, and the availability of services as common challenges in remote areas. Although many characteristics are common for all the regions, there is some variation between them. Especially, Northern Ostrobothnia and occasionally Central Ostrobothnia stand out as exceptions when comparing the development or structures of the examined regions (also Makkonen *et al*. 2022). For example, while most of the ENF regions have depopulated for decades, in Northern Ostrobothnia the population has increased (Fig. 2). In terms of elderly dependency rate, ageing is less severe in Northern and Central Ostrobothnia compared to other regions in the ENF (OECD 2020b). Variation exists also within these exceptional regions, where better economic performance and dense population structure concentrate especially in the western and coastal surroundings of the regional centres of Oulu and Kokkola, while the deeper shrinkage is mainly associated with sparsely populated inland areas (Makkonen *et al*. 2022). According to recent population projections, in all ENF regions, most municipalities will lose people, except for the regional urban centres, their surrounding municipalities, and other individual exceptions (Sánchez Gassen & Heleniak 2019).

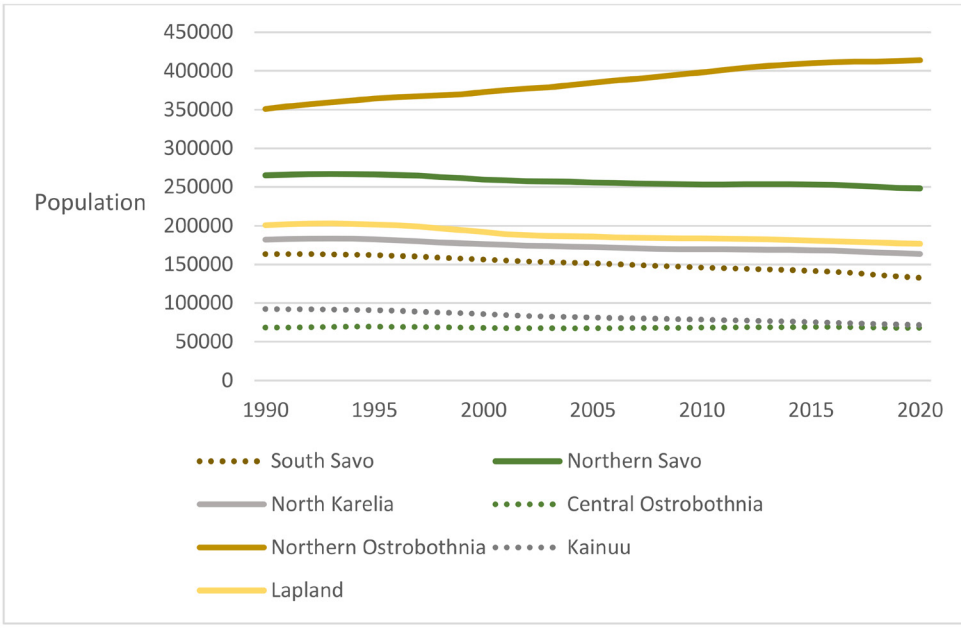

Fig. 2. Population by region (*maakunta*) in 1990–2020 (Source: Statistics Finland 2022).

Interview data of regional development actors

The data is based on interviews with 20 directors or managers in regional or subregional development organisations. The interviewees are responsible for broad regional or subregional development. 'Regional' refers to organisations (interviews 1H1–1H7) established by the municipalities of the whole province, and 'subregional' to organisations (interviews 2H1–2H13) commonly established by a few neighbouring municipalities, or exceptionally by one municipality.

The interviews were carried out in 2020–2021 and the data covers all regions in ENF (as in Fig. 1), including at least one regional and one subregional interviewee. The interviews were conducted in Finnish, and quotes have been first translated by me and then proofread by a professional proof-reader. The interviews were semi-structured according to the main themes of the research, but specific questions were tailored on the basis of the region of the interviewee (e.g. due to the type of economic or population structure, or location). Half of the themes and questions focused on general perspectives regarding regional development and the rest were more closely connected to Smart

Specialisation strategies (addressing the whole of ENF and individually by region). Growth was raised as part of several themes by the interviewees, but issues regarding favourability and the boundaries of growth were asked by the interviewer.

I see interviewees as development actors who possess special professional expertise and knowledge regarding the development of their regions, which is why I expect that their statements have a high level of meaningfulness and credibility in their regional context (see van Lente *et al*. 2020). I also regard interviewees as intermediaries due to their 'in-betweenness' in different scales, arenas, and actors (also Medd & Marvin 2007; Moss 2009). More precisely, I understand them as translators of the strategies, providers of guidance, and supporters of innovations and funding, and thence crucial links between policy and practice (Howells 2006; Medd & Marvin 2007; Inkinen & Suorsa 2010). Respectively, I expect them to be able to assess a range of alternatives, and provide normative values and judgements (Kivimaa *et al*. 2019; Flanagan *et al*. 2021), which are valuable for the framing analysis.

Framing through discourses

The statements of the interviewees are seen here as composing of discourses, which construct the objects of knowledge, conceptual frameworks, and the relations between them (Fairclough 1995, 39). Typically, hegemonic discourse dominates the way of thinking, and any challenge by alternative discourses has been difficult (Shepperd 2000). However, through framing, development actors may link elements of development together, set goals, and reveal contesting approaches (Benford & Snow 2000). In practice, framing can include the bridging of different yet related frames (e.g. lagging and shrinking), the clarification of existing values or beliefs (e.g. values behind the (un)favourable growth), and the transformation of old meanings or the creation of new ones (e.g. meanings beyond growth in terms of GDP) (*ibid*.). By Flanagan, Uyarra and Wanzenböck (2021), framing the problem is expected to clarify its complexity, and to reveal the boundaries and expectations of what should be assessed and legitimated. I understand describing, linking, and bridging as a part of the analytical framing, whereas setting goals, contesting, valuing, and statements on how things should be as a part of the normative framing (Rothman 2011). According to Syssner (2020), both frames should at least be considered and adjusted, and in the interviews, the normative framing is occasionally clearly expressed (e.g. the justification of (non)growth), but typically the goal or what is regarded as favourable is presented more implicitly.

The analysis is based on sections and expressions of the interviews which focus either on growth exclusively, or wider approaches relevant to growth. The phrases, sentences and paragraphs of the interviews formulated the text units for the analysis, and were organised according to the following analysis process (see Table 1, the quotes from one interview are used as an example). In phase 1, the text units were divided under two main frames: those expressing meanings of growth, and others that expressed its boundaries. In phase 2, the text units under the main frames were organised further into subframes according to the following framing analysis: 1) hegemonic descriptions (under the growth frame), 2) practical bridging and necessary reasoning (under the growth and boundaries frames), 3) statements of justification, inclusion and/or justice (under the growth and boundaries frames), 4) questioning of growth (under the boundaries frame). Finally, these subframes were named based on the content of the interviews.

Multiple meanings and boundaries through different frames

Meanings of favourable growth

Hegemonic green growth frame. The green growth agenda is well adopted and taken as an acceptable norm among the regional development actors. The Green Deal of the EU is explicitly presented as a possibility for growth in regions that hold rich natural resources in terms of wide forests, clean water, arable land, and minerals. In the interviews, the boost in forest bioeconomy (any kinds of forest utilisation but especially forest-related industries that can replace plastic products or fossil-based energy), is most commonly raised as a favourable basis for new growth, while the

Table 1. The process of frame analysis.

PHASE 1	
Main frames	
Meanings of favourable growth	*Practical and normative boundaries of growth*
PHASE 2	
Subframes	
Hegemonic descriptions: The Green Deal of the EU... It's very good for us [for the region] ...Forest, food, and water are our advantages now and in the future in Finland and globally... Top technologies and innovation platforms are developed based on them. (1H1) -> *Hegemonic green growth frame*	
Bridging and reasoning: The starting point for our economic development is that when turnover increases, the smart solutions increase, and the well-being and wealth of people increase. Then we would be in quite a good state. (1H1) -> *Virtuous cycle growth frame*	Bridging and reasoning: New things are going on in the field of the wood industry ... which positively influences our otherwise problematic economic development and loss of other activities. ... This is the kind of development that when one field declines, another grows. (1H1) -> *(Re)balancing growth frame*
Statements of justification: We could benefit from Smart Specialisation if we could use natural resources better without destroying them more. ... With R&D and otherwise increasing the product range, which would increase the value added and thence turn over, rather than just cutting [more] wood. (1H1) -> *Spatially inclusive and sustainable growth frame*	Statements of justification: It is a dangerous policy in a country like Finland if the state only invests in three, six, or nine centres. Then the state turns its back on other centres and their potential. (1H1) -> *Spatially unjust growth frame*
	Questioning growth: We are modest in a way. ... We have little willingness to grow and much more settle for getting a livelihood. ... The kind of willingness to grow and develop could repair the regional development, well-being, and vitality. ... This mentality is different in eastern than western Finland. (1H1) -> *Growth boundaries for shrinking regions are trivial frame*
	Questioning growth: [Without global assessment, the risk] is that no environmental benefit will be gained. ... E.g., if cuttings of wood will be decreased in Finland and Sweden, it does not help for climate change if they are increased in Brazil. (1H1) -> *Global growth boundaries are necessary frame*

utilisation of other resources is more bound to the specific conditions and characteristics of the regions. For example, arable land is mentioned especially in the western and southern regions of the ENF, clean water specifically in inland water areas, and minerals as scattered spots in different regions according to their existence. Even the sparsity of population and wide land areas are presented as enabling characteristics for new growth potential, which among others, enables the growth of wind parks for energy production and a non-refined utilisation of nature such as recreation and well-being-related use more widely.

In the interviews, wind parks were mainly raised in western parts and in some inland parts of the ENF. More recently, the interest and willingness to boost wind power have increased, and this has induced a debate on the spatially unjust potentials to benefit from space and wind since the construction of wind-turbines is limited in some parts next to the eastern border area due to defence (radar) reasons. Although most references to green growth are related to possibilities that might increase competitiveness, using the strengths and specific capacities of the regions, the Green Deal is also seen as favourable since it is connected to the aims of cohesion and inclusiveness between the regions. As described by the development actors, in an ideal scenario, research, innovations and economic activities assist in managing the global challenges regarding climate change and energy. By being part of that development, the ENF regions are expected to get a share from that green growth. Exemplifying quote:

> The main idea is sustainable development, sustainable growth. […] Of course, when someone produces solar panels for energy, the production and transport to the customers causes more pollution than if they were not produced at all. However, if those solar panels replace more polluting sources of energy, their use will [result in] savings or be more sustainable. […] When looking at our strategy for Smart Specialisation and the growth it pursues, I would consider it seeks to promote growth that is based on the principles of sustainable development. (1H3)

Virtuous cycle growth frame. In this frame, regional and subregional development actors bridge multiple growth goals together. They largely repeat typically favourable forms of regional growth, such as turnover and tax revenue. These are most often bridged with growth of other objectives, like competitiveness, internationalisation, innovation, investment, earnings, and the regional economy in terms of employment, population, services, or development in general. Preferably, growth can refer to both quantitative and qualitive conditions such as the wellbeing of people in general, specific groups like inhabitants and workers, or the environment. The interviewees stress that some kind of change is ongoing in the relations of growth and development, and point out that it may also require the abandonment of some previous values.

However, qualitative growth may be difficult to measure and set clear values for. At this point, change is expressed more like an early change in mindset rather than a turning away from the hegemonic growth orientation. In the expressed framing deployed in the discourses, the growth of turnover appears mostly as a means to the other goals such as employment or services. To some extent, growth is framed through microlevel development by concentrating on the ability of businesses to survive in global competition. More commonly, growth is framed through the whole regional system, which is seen as requiring growth from many linking aspects, in order to achieve a positive cycle of development. The favourable growth conditions remain close to Myrdal's 'virtuous cycle' that is reached by the 'cumulative causation' of 'positive feedbacks' (see Fujita 2007; Pressman 2014). In this frame, no singular mode of growth rises above another, and all are a crucial for the system to function, develop, and to be vital. Exemplifying quote:

> If we think of most top businesses, the aim is the economic growth of the business […] because, in the long term, it influences the lower scale, too. […] If we consider the aims of Smart Specialisation, the growth aim also concerns the increase in innovation and wider development activities, rather than the growth of a single area. Not only the growth of the economy, but in the general strengthening of the development of our regions. So our innovation structures and business actions would be more robust. Through those, our population base would strengthen because our attraction would be better, and we could gain a more [suitable] population which could then strengthen the innovation activities, livelihoods, and other things. The strengthening of a kind of circle in which every sector will grow and become more robust. Not just one, but all together. (1H4)

Spatially inclusive and sustainable growth frame. Regional and subregional development actors seem to justify green growth by inclusive regional development yet not always explicitly. Instead, the way that expectations are expressed or the wider context infer the idea. The most striking growth expectations focus on the value added of natural resources, which is presented as a way to balance the distribution of the economic value gained from natural resources. Compared to prosperous regions, the examined regions appear as lagging resource frontiers since they mainly provide resources, and the majority of the further processing is executed and the value added gained outside the region. The expectations towards the value added of production are hoped to be increased by adding further processing of the main commodities, and also the side streams typical of an industrial-based circle economy.

According to the interviewees, more support should be directed towards the effective use of natural resources and the increase of turnover rather than the sales of the wood. Thus, these statements reproduce the approaches to green growth as a solution for socio-economic challenges, without deepening environmental crises. Value added is rarely presented as the end goal itself, but as a way to improve human skills, employment, earnings and the regional economy of the weaker regions, which further supports the provision of services and the wellbeing of citizens. Therefore, the overall mission seems as a struggle of a 'lagging resource hinterland'. In regional centres, the mission appears surprisingly similar, although they have a relatively good grounding in terms of innovation potential, skills, and the overall economic and demographic structure.

To some extent, Smart Specialisation as a policy tool was regarded as a way to promote such goals and actions. However, critical voices towards Smart Specialisation were also pointed out – especially from the side of the most peripheral subregional interviewees who regarded their institutional power and type of economic actors as too minor or weak to boost economic development. Against this background, the Smart Specialisation does not necessarily balance but deepens the regional inequalities (also Hassink & Gong 2019). While some regions may already present examples of concrete steps regarding new green growth, others express only a wish to change the deep vicious cycle followed by the long-term regression. Exemplifying quote:

> The increase of value added, so more money would stay and bring benefits for the regional economy. So not only the raw material would exit, but also value added products. It would make more sense economically, but also from perspectives [such as] employment, more employees, and more educated and skilled persons. [...] If we develop further in general, we could get more jobs which require higher skills, and this would diversify the employment structure of our region further. (2H1)

Practical and normative boundaries of growth

(Re)balancing growth frame. In the interviews, specific growth needs are commonly identified when crucial pieces are missing, which in turn prevents the balanced function of the system and ultimately impacts the wellbeing of the inhabitants. Ageing is a typical characteristic related to the need to achieve growth. The growth of a suitable workforce is needed in social and health services to fill the many jobs that have become available due to retirement, and to boost the growth of turnover to increase tax euros needed for the provision of services. The growth of suitable, specialised and well skilled employees is also needed to meet the demand for labour in new growing businesses, to compensate for employment losses due to economic restructuring.

Yet the overall growth of the population or economic activities are not necessarily presented as the main goal. The processes of slowing population decline or job losses and balancing the dependence ratio are regarded as being in rather a good state already. However, if the population grows, restrained growth is seen as more favourable than experiencing a wave of new inhabitants. Nevertheless, the declining population structure is still presented as a severe problem for regional development, and as a boundary for economic growth in the long term. Exemplifying quote:

> When populations decline, the amount and volume of the services diminish. The big question concerns [...] social and health [services] because here it is a sick [elderly] population which increases by age structure. So, more care and health care will be needed in the future, but our

> other age groups are decreasing. There will not be enough workforce for social and health services. The option is to get a workforce from outside or abroad, but will there be enough money for that? Or will efficiency, robots, remote technology, and other technological solutions solve it? (1H2)

Spatially unjust growth frame. The most critical framing regarding the skewed growth-centric views relates to prevailing policies that seem to favour large size and expected growth numbers in terms of population, users, or economic measures. Through this framing, the interviewees present that the allocation of funding for investments, infrastructure and innovation activities are not completely in-line with the principles of cohesive and inclusive growth policies (e.g. direct national investments, funding sources of the EU and Business Finland, or loans from Finnvera). Instead, the allocation funding resources are seen as an example of wider processes that polarise and increase disparities. According to the most critical interviewees, the purpose of the allocations should not be based on the regional position only but be directed towards those investments and actions that are realistic to execute, and which support favourable regional development. Especially, the location in a shrinking region should not be regarded as a barrier for funding if the remaining criteria are otherwise fulfilled.

In some circumstances, the funding criteria for innovation activities seem to favour the economic environment close to main research units, driven by high-tech industries, and possessing critical mass in terms of economic performance. These are typical of the biggest centres in Finland and some of the regional centres in the ENF. Similar problems regarding the absence of critical mass seem to concern improvements in infrastructure that tend to follow higher centralisation and the amount of people and businesses, and thus the expected volume in traffic. Paradoxically, the absence of critical mass may even be intentional if the aim is to develop nature-based tourism in a way that is also sustainable for the local environment – which mostly refers to a smaller number of people using nature such as walking, hiking, fishing, skiing, or something else. A problem arises if these tourist destinations need support for infrastructure or other purposes, and are considered too minor compared with mass tourism locations such as the biggest ski-based resorts in Lapland or tourist centres in more dense or accessible destinations in southern Finland. On the whole, some development actors argue that public funding should be better allocated to actions which reduce the barriers of regional development (namely in the lagging regions), instead of re-boosting the growth of regions which are already in a better position in terms of infrastructure, research centres, the market environment, or critical mass. Exemplifying quote:

> It is a dangerous policy in a country like Finland if the state only invests in three, six, or nine centres. Then the state turns its back on other centres and their potential. I have described development potential from the perspective of our region, but it is also rather meaningful for the growth of Finland. [...] These R&D - the investments for the innovations are really minor in regions like ours [...] Compared to [the so-called growth triangle of] Tampere-Turku-Helsinki, with the weight in population and business volumes, investments are minor in the regions of East and North Finland. This can easily escalate into a vicious cycle. [...] The Smart Specialisation is needed especially in these kinds of regions which do not have everything, but which can be specialised based on their strengths, and debottlenecking issues which prevent strengthening. For example, [the capital city] Helsinki does not need [extra support] because it already has diversified education and research institutes supported by the state. (1H1)

Growth boundaries for shrinking regions are trivial frame. This framing emphasised a region-centric point of view on setting possible boundaries. Development actors pondered whether limits should be set for growth or not, and how relevant the question is for regions which have been lagging and shrinking for such a long time. These statements aptly serve to unwrap the multidimensional interrelation of shrinkage and sustainable development, and their peculiar manifestations in the studied regions. The amount of people and human activities were regarded minor compared to the wide natural environment where any limits for growth were yet to be achieved (or even in the near future), even if growth would occur in some fields.

These types of answers were slightly more common for the regions in eastern rather than western Finland. These regions were thought to be deeply lagging, shrinking, and sparsely populated which is why the development actors were more concerned about the modesty of economic actors and their possible unwillingness to pursue growth, rather than the need to set boundaries for growth. In

terms of a cultural turn towards nongrowth, this modesty could even be interpreted as a favourable condition for sustainable development. Instead, modesty manifests mainly as a hindrance for new green growth and as a mark of a lagging region. Especially in those regions where regression has been severe and has lasted for a long time, even imagining the boundaries for growth appeared to be trivial. Exemplifying quote:

> I would like to think that we will raise, and our vitality will grow. I would not like to think we will only decline because we have been declining, and if we go with the flow, we will certainly decline. [But] if we fight against it – now there are signals and a spirit that the direction of development could improve a bit. [...] We probably do not have boundaries for growth in this kind of region as the basic industrial activities are rather small, and we do not have any massive industries. (2H3)

Global growth boundaries are necessary frame. When changing the framing from a lagging and shrinking regional perspective to a global perspective, setting boundaries for growth appeared highly relevant and as a norm among the development actors who reflected different scales of growth and related boundaries. While they could begin their responses with the rather jargon-laden rhetoric typical of development actors, the deeper content became explicit as they linked boundaries to concrete examples. The jargon manifests as loose references to the triangle of social, economic, and environmental sustainability, or to the general theorems of PPP (profit, people, planet), which were felt as important guiding aims in any development and economic actions, although they were difficult to achieve.

The development actors' motives varied depending on the approach taken. From an economy-centric perspective, the image of the region would suffer significant damage if its natural resources would be used beyond their limits. From an environmental perspective, the clearest boundaries were related to nature that is crucial for the region. Although the development actors were favourably disposed towards forest bioeconomy in general, they would still set boundaries for new mills and other operations even if these could lead to an overuse of the forest either locally or totally. Lessons were learned from the mining operations in *Talvivaara* (a mining area in Kainuu) that escalated a nature crisis in 2011–2013 due to serious leaks in the gypsum sediment basin and the pollution of water (Sairinen *et al*. 2017). This type of nature catastrophe seems to be firmly in mind when any boundaries for activities close to fundamentally important water areas were considered.

The setting of exact boundaries turned out to be outside their area of expertise, however, the development actors argued that especially in these types of important water cases, the issues of economic growth should be valued below environmental values, and boundaries should be set based on that perception. Similarly, the continuous growth of mass tourism was regarded as an economic activity for which boundaries should be set for the sake of nature preservation. The interviewed development actors would set boundaries at least for the construction of massive tourist centres near fragile nature areas, in favour of the growth of visitors by an extension of the seasons. Overall, boundaries seemed difficult to set from a regional development perspective, although it was seen necessary to do so. Exemplifying quote:

> Globally, the boundaries of growth were already crossed quite some time ago, maybe since the 1970s or even earlier. If we now consume the natural resources of the world three times more than the carrying capacity of the globe, in principle, the boundaries of growth have been crossed everywhere. [...] Even economists have been asking what we will do with the endless growth if there is no planet where we can live. [...] If I think of our top fields [...] primary production, mining minerals and forestry need to match global criteria to an increasing extent in the future. (1H7)

Discussion on the complexities of multiple frames of analysis

The understanding of growth in the context of shrinking regions and in the vicinity of natural resources requires framing that combines global, regional, and local perspectives on sustainable development, as well as the burdens of shrinking and lagging regions on one side, and cohesive and inclusive promises of green growth on the other. Growth is explicitly framed through the lens of green growth, while the issues of a shrinking population remain in the background. In general, the hegemonic framing of green growth reproduces the discourses of prevailing policy agendas such as the Green Deal and national programmes (e.g. EC 2019; Finnish Government 2019, 2021), and growth-centric

views common among researchers in this field (e.g. Martin & Sunley 2015; Grillitsch & Sotarauta 2018; MacKinnon *et al*. 2019). In the interviews, growth appears to be framed and favoured as a means to tackle societal problems and not only growing economic parameters, and thus resembles a process of mission-oriented goal setting (see Mazzucato 2018; Wanzenböck *et al*. 2020).

The regional problems covered in this study reflect challenges typical of Nordic sparsely populated regions, and the overall mission of the examined regions seems to be to change their position as a lagging and shrinking resource hinterland, through the means of green growth. Whilst this study focused on Nordic shrinkage and resource regions within the EU context, similar types of policy processes and mission settings can also be found from Scotland where shrinkage and lagging regions are common phenomena (see Scottish Government 2022).

So far, the realisations of green growth are in the very early stages, although the difficulties common for weaker regions are highlighted (also Hassink & Gong 2019). The interviewed development actors also offered critical statements regarding current growth policies and funding instruments, which in these cases do not seem to promote cohesive or inclusive growth. So far, the shift in logic and top-level guidance towards a "Smart Specialisation strategy for sustainable and inclusive growth" (McCann & Soete 2020, 19) appears unrealised as the implementation lacks a full consideration of local or regional characteristics and available resources. It is insufficient to balance the gap caused by other innovation or investment policies. Framing through effectiveness is presented as a dominant way to allocate funding, but one which reasserts the gap between prosperous and weaker regions – thus affirming the findings of previous research (e.g. Hospers & Syssner 2018; Hassink & Gong 2019).

As long as growth manifests the leading principles of success, progress, development and opportunities, shrinking decline reflects an undesirable opposite of growth, with regression and failure (Reverda *et al*. 2018; Capello 2019), and the examined regions seem to have no other option than to strive for growth in any form. Favourable growth indicators though vary, from numeric changes in population, employment, and regional economy, to abstract and qualitative changes in knowledge, ways of acting, and wellbeing. Growth may be seen as either total or partial when something is expected to grow, but simultaneously, something else may be expected to decline. Depending on the type of reasoning, growth appeared as possible, plausible, or sometimes as wishful thinking that only reproduces the current growth-centric jargon. When assessing the relevance of growth, arguments wavered between necessary and unnecessary growth, which relates to balanced or imbalanced regional structures. Herein, growth is having a clear value if it creates balance and supports continuity. From this framing, the end goal is a stable and better condition for the region rather than growth itself, which hints towards the idea of adapting to at least seeing the state as a smaller place, yet perhaps not so intentionally as Hospers (2014) or Humer (2018) have presented.

Shrinkage in terms of population, economy and employment loss were regarded as issues that raise boundaries and present a need for growth. The question of sustainable boundaries appears to be multidimensional in the context of lagging and shrinking regions, and reveals a political struggle which concerns conflicts between the environmental crisis, social equity, and economic growth (also Parr 2016). Through the frames of regional socio-economic equity, the justification for growth is surprisingly similar when compared to the acceptance of growth in poorer and richer societies (see Hoffman 2016). The gap between the lagging and prosperous regions in Finland cannot be compared with the gap between the poorer and richer societies globally, but the basis for argumentation is much the same. Accordingly, the ultimate goal should be a cohesion and inclusiveness of the regions involved, and thus the growth of lagging regions appears to be more acceptable than the further growth of more prosperous areas. Development actors also identify environmental crises as severe problems, and try to set boundaries for both general growth, as well as growth within their region. The clearest boundaries for growth in ENF related to nature, which is crucial for the region. However, it is far too early to make any interpretations on intentional degrowth based on the research data.

Conclusions

As a conclusion, I suggest that frame through which growth is approached and the specific context in which regional development takes place should be acknowledged when assessing the acceptability

and necessity of growth. Whilst different viewpoints on growth and the questioning of its rationality manifest especially in the context of shrinking, sparsely populated, rural, and/or peripheral regions, the findings also reflect the need for a reconsideration of growth in the wider context to which these regions belong. Growth does not fall easily between simplistic lines of good or bad growth, or (green) growth or degrowth, and further studies should consider when, where and under which circumstances growth could be regarded as a relatively justified necessity, and when it may not. More generally, growth appears as a vague concept which should be defined better in policies, and its conceptual flexibility in different contexts needs to be acknowledged. Above all, the content of the growth should be comprehensively discussed, and carefully assess of the overall appropriateness of using growth instead of alternative concepts such as development, well-being or functional capability.

Notes

[1] Within the "Cohesion policy of the European Commission, Smart Specialisation is a place-based approach characterised by the identification of strategic areas for intervention based both on the analysis of the strengths and potential of the economy … It is outward-looking and embraces a broad view of innovation…" (EC 2022).

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