



Smart, green and fair revitalization?

EXPLORING THE POTENTIAL OF THE GREEN ECONOMY FOR THE REVITALIZATION OF SHRINKING RURAL REGIONS IN EUROPE



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Master's Thesis

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ABSTRACT

Worldwide urbanization has been draining people from rural regions into metropolises, leaving behind shrinking rural regions. Shrinking rural regions can be witnessed across worldwide, but ever more prevalent in Europe. The traditional and most common policy response to shrinkage, aims at restoring population- and economic growth in these regions. Shrinking rural regions are often deprived of the benefits of the current economy model as they struggle to find their place in competitive world markets. Hence, in recent years there has been increasing recognition in policymaking for the need of a paradigm shift to a more sustainable way of adapting to shrinkage, with a focus on increasing well-being. Through this discourse, the concept of the "Green Economy" (GE) arose as a potential alternative pathway for the revitalization of shrinking rural regions in Europe. The GE is promising in this context as it provides the opportunity to reinvigorate the importance of spatial distributions beyond the traditional, growth-oriented context of rooted political structures. Furthermore, it places the well-being at its core and can be seen as an opportunity for fundamental societal transition, preservation of rural environment and a break from growth-oriented development pressures.

Hence, through two case studies namely, in Zeeland (the Netherlands) as well as Thuringia (Germany), this research explored the current political strategies on shrinkage by examining the two strategies on mitigation (growth-oriented) and adaption (well-being oriented) focused revitalization. There it was analysed to what extent policymakers have already shifted to an adaptation-focused policy strategy and how these relate to the concept of the GE. Furthermore, an analysis on the current role of the GE in revitalization was conducted. Lastly, lessons learnt from both case studies were applied in the European context in order to recommend further steps for other European shrinking regions.

Overall, findings showed that there can be witnessed a shift in adaptation-oriented policies regarding shrinkage in both case studies. In regard to the connection of the concepts of the GE and adaptation-focused revitalization, there has been no clear connection found on policy level. Due to the complex nature of shrinkage, the GE is not a universally applicable concept which can lead to adaptation- focused revitalization. However, through bottom-up initiatives the concept of the GE has been identified as a driver for increasing citizen empowerment as well as a way of reconnecting local actors to their local resources, which can lead to an improvement of well-being. Nevertheless, the GE has been criticized due to its broad definition as well as growth-perspective which has been identified as not being progressive enough for the long-term transition needed in shrinking regions. In order to increase the implementation of the GE as a driver for adaptation focused revitalization, there is need for flexible governmental funding as well as the stimulation of educational trainings. Further research should aim at monitoring societal change and well-being as well as looking into more ambitious ways of increasing a local economy such as concepts of de-growth.

Key concepts:

Shrinkage; Green Economy; Revitalization; Growth-Paradigm; Well-being Framework;

PREFACE

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3

Table of Content

PRE	FACE	3
1.	INTRODUCTION	7
1.1	Societal Background to the Research Problem	7
1.2	Research Gap	8
1.3	Research Aim	8
1.4	Research Question	9
1.5	Scientific and Societal Importance	9
2.	THEORETICAL FRAMEWORK	11
2.1.	Shrinking Rural Regions	11
2.1.1	1. New Policy Approaches - Mitigation and Adaptation	12
2.2.	Understanding and defining the Green Economy	14
2.2.1	1. Defining the Green Economy	14
2.2.2	2. Social Dimension of the Green Economy	15
2.2.3	3. Socio-economic transition initiatives for the Green Rural Economy	16
2.3.	Regional Well-being	17
3.	METHODOLOGY	20
3.1.	Operationalization	20
3.2.	Data Collection and Sampling	20
3.3.	Data Analysis	22
3.4.	Data quality	22
3.5.	Study Limitations	23
3.6.	Ethics	23
3.7.	Research framework	24
4.	RESEARCH CONTEXT	25
4.1.	Case Study 1: Zeeland, Netherlands	25
4.2.	Case Study 2: Thuringia, Germany	28
5.	RESULTS I - Policy Responses to shrinkage- Adapting or mitigating?	31
5.1.	Policy Responses in Zeeland, the Netherlands	31

5.2.	Policy Responses in Thüringen, Germany	37
6.	RESULTS II – The role of the Green Economy in revitalization	42
7.	RESULTS III – Comparative Case Study Analysis	49
8.	RESULTS IV – Lessons learnt	51
9.	DISCUSSION	53
9.1.	Limitations	54
9.2.	Further research	54
10.	CONCLUSION	56
REF	FERENCES	57
App	pendix I. Project Sheet Information Form	65
App	endix II. Interview Consent Form	67
App	pendix III. Interview Guides (example Zeeland)	68
APP	PENDIX IV. List of Interviewees	70
APP	PENDIX V – List of Webinars Attended	71
APP	PENDIX VI – List of Policy Document Content Analysis (Zeeland)	72
APP	PENDIX VII – List of Policy Document Content Analysis (Thuringia)	73

List of Acronyms

BBE Biobased Economy

CE Circular Economy

DEVCO International Cooperation and Development

EC European Commission

EEA European Environment Agency

ENRD European Network for Rural Development

EU European Union

ESPON European Spatial Planning Observation Network

GDP Gross Domestic Product
GRP Gross Regional Product

GE Green Economy

IRDP Integrated Rural Development Program

OECD Organization for Economic Co-operation Development

SDGs Sustainable Development Goals

SME Small and Medium-sized enterprises

TMIL Thüringen Ministerium für Infrastruktur und

Landwirtschaft

UNEP The United Nations Environmental Program

1. INTRODUCTION

1.1 Societal Background to the Research Problem

Regional shrinkage is a common, contemporary phenomenon throughout the world (Oswalt, 2005; Richardson, 2014). Worldwide urbanization has been draining populations from rural towns to their outlying urban cities (Brown, 2019) and has left *shrinking rural regions*. Such regions are usually characterized by population loss, economic downturn, a decline in employment and social crisis (Brown, 2019). With ongoing urbanization and expected growth of 68% of the world population living in urban cities by 2050, the problem of rural shrinkage is expected to increase (Eurostat, 2016; Brown, 2019). Rural depopulation and marginalization are phenomena which are not entirely new and can be witnessed across the whole European continent (Hospers & Syssner, 2018; Dax & Fischer, 2018). In Europe alone, 75% of the population is living in urban areas, whereas the inhabitants of primarily rural regions are estimated to decrease by 7.9 million by 2050 (Eurostat, 2016; ESPON Policy Brief, 2017).

The traditional response to shrinkage, which is still the most prevalent, aims at compensating shrinkage through restoring population and economic growth (Hollander & Németh, 2011; Kotilainen et al., 2015; Küpper, 2011; Sousa & Pinho, 2015). However, many years of business as usual in rural development and regional policies have not been able to reverse the negative trend, despite large amounts of money invested (Küpper, 2017). In recent literature on shrinkage, there is an increasing consensus that the development planning perspectives should focus on how to shrink in a smart and sustainable way (Syssner, 2020; Wiechmann et al., 2015; Hollander, 2018). New planning theories are emerging, often referred to as "planned shrinkage", "smart shrinkage" as well as "adaptation strategies to shrinkage" (Panagopoulos & Barreira, 2012; Syssner, 2020). These propose a paradigm shift in which shrinkage is not seen as a disadvantage, but as an opportunity for fundamental societal reorientation (ESPON Policy Brief, 2017; Pallagst et al., 2013).

One alternative approach, which could fit within the new paradigm of societal transformation for shrinking rural regions, is the concept known as the Green Economy (GE) (Brown, 2019). The GE has been launched as a framework for the operationalization of sustainable development principles and as defined by the UN, it "improves human well-being and builds social equity while reducing environmental risks and scarcities" (UNEP, 2011). The GE is promising in the context of shrinking rural regions as it places the well-being at its core and can be seen as an opportunity for fundamental societal transition, preservation of rural environment and a break from growth-oriented development pressures (ESPON Policy Brief, 2017; Pallagst, 2013).

In this research, the focus lies on *adaption-focused revitalization* strategies, which result in accepting shrinkage and adapting to its economic and social consequences, while focusing on increasing well-being. Hence, amidst the emerging new paradigm on revitalization with a focus on well-being, the concept of the GE could potentially act as a driver for the adaptation-focused revitalization strategy of shrinking rural regions in Europe.

1.2 Research Gap

Despite the fact that rural shrinkage is a common phenomenon, most studies in academic and policy agendas have been developed in the urban context (ESPON Policy Brief, 2017). The phenomenon of rural decline has received far less attention (Humer, 2018). Although the symptoms of urban and rural shrinkage might be similar, the potential of different approaches and strategies in the context of rurality remains unclear (ESPON Policy Brief, 2017; Syssner & Meijer, 2018). Hence, there is a need for new innovative and transformative strategies on how to deal with rural shrinkage (Brown, 2019). Currently, most of the academic literature on shrinkage overlooks the role of a sustainable perspective in shaping revitalization strategies. Due to the complex character of rural shrinkage, more empirical research that acknowledges the synergies between sustainable development and regeneration needs to be done (Oritz-Moya, 2020).

Furthermore, although the concept of the GE seems promising in the context of revitalization, it has been increasingly criticized in academic literature (Cook et al., 2012) for not including all three components (economy, society, and the environment) of sustainability. There is a gap in the literature regarding whether and to what extent the social dimension is created within GE strategies (OECD, 2016; Skanberg et al., 2014).

1.3 Research Aim

The aim of this research is to explore the challenges and opportunities of adaptation-focused revitalization strategies and how, and to what extent the GE can act as a driver for a fair transition. This research is not only driven by the need of new pathways for revitalization in regional planning policymaking but likewise exploring whether or not the concept of the GE is currently being implemented.

As the adaptation-focused revitalization strategy is an emerging policy field, it is not clear yet how the concept has been picked up in policy documents and negotiations and how, and if this aligns with the concept of the GE. By examining the interrelations between the GE strategies and current revitalization development, the research hopes to contribute to additional understanding about whether and how these can lead to increasing well-being in shrinking rural regions. Hence, the ambition of this research is not to provide a guideline on how to orchestrate the transition to a GE in shrinking rural regions. Rather, the approach is to provide an overview in the most general form in order to demonstrate the potential of GE as a tool for adaptation focused revitalization.

By reviewing strategies in two different case studies in Zeeland (the Netherlands) and Thuringia (Germany), the research aims to compare the current revitalization strategies consisting of policies, documents as well as regional pilot projects on the regional level (NUTS-2). In this research, "regions" in Germany refer to federal states (i.e. Thuringia), and to provinces in the Netherlands (i.e. Zeeland). Comparing both regions could identify insightful lessons for future adaptation- focused revitalization approaches for other European shrinking regions.

1.4 Research Question

RQ: How, and to what extent, do Green Economy strategies act as a driver for adaptation focused revitalization in shrinking rural regions in Europe?

<u>Sub- Q1:</u> What are the current main revitalization strategies led by regional governments of Zeeland and Thuringia?

<u>Sub-Q2:</u> What is the approach and role, if any, of Green Economy strategies in the revitalization of Zeeland and Thuringia?

<u>Sub-Q3:</u> What are the similarities and differences in policy approaches as well as role of the Green Economy between the two case studies, and how can these be explained?

<u>Sub-Q4:</u> What learned lessons do the cases of Thuringia and Zeeland offer for the implementation of a Green Economy-driven revitalization strategy in other European shrinking regions?

1.5 Scientific and Societal Importance

Although in many countries population decline is more prevalent in rural areas, in academic literature "urban shrinkage" tends to attract most attention (Synsser, 2020; Hospers & Reverda, 2015). This is problematic as the development of rural shrinkage is expected to increase as nearly 7 out of 10 people in the world are expected to live in metropoles by 2050 (Bhardwaj et al., 2020).

On the European level growing concern about demographic development has led to the "Europe 2020 Growth and Jobs" strategy adopted by the European Council in June 2010. In this report demographic change - along with globalization, resource scarcity and climate change has been identified as a central challenge to which answers must be found in shaping "smart, sustainable and inclusive growth" (EC, 2010). In the third demography report of the European Commission (EC) in 2015 the urgency of further research into shrinkage was stated. Moreover, the comparison as well as exchange of shrinking practices and approaches was recommended to the Member Stated in order to learn from each other (EC, 2015; TMIL, 2016).

Moreover, the traditional policy responses (mitigation-focused) to decline has a focus on economic growth and strong territorial, rather than social foundation. This strategy has led to increasing regional disparities (Farole et al. 2018), leaving rural regions with poor development prospects and an increasing manifestation of inequality (ESPON, 2020). There are political consequences of not paying sufficient attention to spatial inequalities of economic and social development (Roriguez-Pose, 2018; ESPON, 2020) Hence, it is necessary to seek out new economic models that address these disparities (ESPON, 2020) and focus on research on how the GE could unlock factors of adaptation-focused revitalization.

Additionally, this research adds to the current EU Program "WELCOMING SPACES' in Europe: Revitalizing shrinking areas by hosting non-EU migrants" a program funded by Horizon2020. The main aim of WELCOMING SPACES is combining two policy challenges:

how to contribute to revitalization of shrinking areas while also offering space for the successful integration of non-EU migrants in line with the SDGs "leaving no one behind". Researchers from five different countries are involved namely the Netherlands, Germany, Spain, Italy and Poland. The program aim is to investigate how local initiatives can stimulate integration of non-EU migrants, and how these initiatives can revitalize shrinking region (EC, 2020).

2. THEORETICAL FRAMEWORK

2.1. Shrinking Rural Regions

There are different interpretations when it comes to shrinking rural regions, however, there is no universally accepted definition (Campos-Sánchez et al., 2019). As shrinkage is a complex concept, opinions differ on its distinguishing features. Nonetheless, considerable accordance exists on specific drivers and symptoms. In this paper, rural shrinkage is broadly understood as "a demographic and economic phenomenon which results from an interplay of population loss, gradual weakening of economic potential, a shortage of investment capital, demographic or settlement systems, environmental hazards, or changes in political or administrative systems" (ESPON Policy Brief, 2017; Haase et al., 2014; Rink et al., 2009; Küpper et al., 2017; Wirth et al., 2016). This results in a complex "vicious circle" of interconnected economic and social factors (Figure 1). Hence, intensifying the inherent disadvantages of rural areas and rotation of a downward spiral of demographic decline, leading to declining fertility rates and an enforced aging of the remaining population (ESPON Policy Brief, 2017; Elmqvist et al., 2013).

Circle of declining rural regions

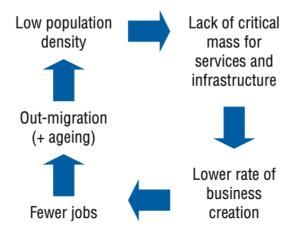


Figure 1: Circle of declining rural regions (Source: OECD, 2006, p. 32).

Figure 1 shows the vicious circle of shrinking rural regions. It displays the different components of demographic decline, out-migration as well as infrastructure-related problems and the weaker economy. As can be seen in Figure 1 as well as often in research literature, depopulation is used as one of the primary causes. Although this indicator is helpful for the identification of demographic trends, depopulation is the symptom rather than the cause of shrinkage (ESPON Policy Brief, 2017; Haase et al., 2007). A "concept of shrinkage" has yet to be developed as a real concept to overcome its current focus on a collection of symptoms (Sousa & Pinho, 2015).

In Europe, rural shrinkage has been interpreted as part of wider trends of territorial restructuring and industrialization of agricultural sector, which has caused a series of problems for rural employment (Brown, 2019; ESPON Policy Brief, 2017). The agricultural sector was once a crucial part of rural economies. Less-labor intensive agriculture lead to a decrease in employment opportunities, which often results in the outmigration from particularly younger and well-educated workers, from rural to urban regions (ESPON Policy Brief, 2017; OECD, 2006). This often leads to persistent depopulation and a negative natural population balance.

Although regional ecosystems and economies are mostly presented as the main concern, the decline of rural regions is also accompanied by cultural landscape loss. Rural regions contribute to traditional values and local heritage, which are vital in order to maintain regional and national identities. Therefore, innovative thinking is required to address the direct and indirect consequences of rural decline (Brown, 2019).

2.1.1. New Policy Approaches - Mitigation and Adaptation

The traditional response to shrinkage, which is still the most common one, aims at reversing shrinking trends by restoring economic growth and stimulating population migration (Hollander & Németh, 2011; Küpper, 2011; Sousa & Pinho, 2015). However, policy makers are increasingly realizing, that existing revitalization strategies, which are focusing on growth to reverse negative trends, prove unsuitable for economically weak and peripheral regions (Küpper et al., 2013). In recent literature there has been a great support for a shift of paradigms in planning and a critique of the fact that the hegemony of traditional approach in planning can actually "intensify the problems of depopulation" (Hollander, 2018, p.8; Syssner, 2020). The OECD identified three main factors which influenced these major shifts in policy making: 1) increased focus on natural and cultural amenities; 2) recognition of the limits of agriculture policy and international pressures to reform it; and 3) decentralization and new trends in regional policy (OECD, 2012, p. 14-15).

More and more innovative strategies are emerging and becoming relevant, known as "smart decline", "planned shrinkage", "shrink smart" or the "Integrated Rural Development Program (IRDP)" (ESPON, 2020; Panagopoulos & Barreira, 2012; Syssner, 2020). The new and innovative approaches suggest that while managing shrinkage the focus should not be on growth, but rather on the acceptance of shrinkage and adaptation to its economic and social consequences. At the same time, attention should be given to sustaining the quality of life for the remaining population and focusing on nature conservation (Hollander & Németh, 2011; Sousa & Pinho, 2015, Küpper et al., 2013).

To address these emerging trends policymakers, have two policy strategies: (1) "going for growth"/*mitigation*—reverse shrinking trends and stimulate population growth; (2) "coping with decline"/*adaptation*—accept shrinkage and adapt to its economic and social consequences (ESPON Policy Brief, 2017).

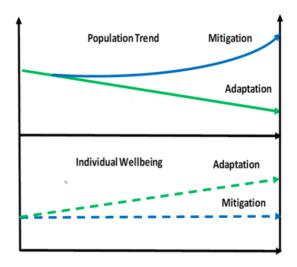


Figure 2a: Mitigation and Adaptation Policy Approaches (Source: ESPON, 2020)

As can be seen in Figure 2a, there is a clear distinction between mitigation- and adaptation policies. The blue lines represent the traditional, growth-oriented approach, which aims at breaking the cycle of demographic decline, and deliver population growth. Adaptation policies, on the other hand (green lines in Figure 2a), seek to accept as well as adapt to the inevitability of continued shrinking, by increasing individual wellbeing (ESPON, 2020).

Figure 2b below illustrates the "vicious cycle" of rural shrinkages as well as elements of both policy responses. *Mitigation policies* tend to have two components, (1) measures to enhance territorial governance, and (2), place- based policy which promotes the valorisation of territorial assets, in order to better exploit the regional potential. *Adaptation policy*, on the other hand, seeks to compensate for shrinking by managing the effects on shrinkage and focusing on well-being (ESPON, 2020).



Figure 2b: Mitigation and Adaptation Policy Approaches (Source: ESPON, 2020)

2.2. Understanding and defining the Green Economy

In the last decade, heads of state and policy makers have acknowledged that economic growth through GDP, which is still viewed as the main indicator for well-being, was accompanied by scarifices of natural resources, the environment and social disparities (Guo et al., 2017). With the ever-increasing exaerbation of resource depletion and environmental pollution (Guo et al., 2017), the message of scientists is that it was time for a transition to a new "narrative with an unprecedented turn in our approaches to all three dimensions of sustainable development" (Bina, 2013; IISD, 2012, p. 22). As a result, the GE emerged - as a new way of green growth, which highlighted fostering economic growth and development and simultaneously assuring natural assets which continue to provide resources and environmental services on which our well-being relies (ENRD, 2017; OECD, 2011; Guo et al., 2017).

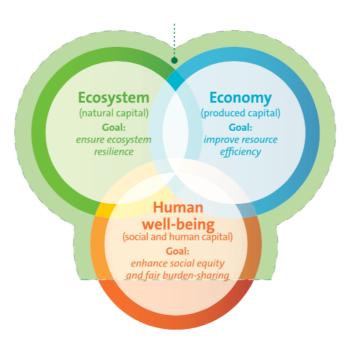


Figure 3: Conceptualization of the Green Economy (Source: DEVCO, 2018a)

2.2.1. Defining the Green Economy

The "green economy" is not a scientific concept with a concise and academically agreed definition (ESPON, 2013). By the EU the GE is defined as an "economy that secures growth and development, while at the same time improving human well-being, providing decent jobs, reducing inequalities, tackling poverty and preserving the natural capital upon which we all depend." (European Commission, 2011, p. 5). The main aim of the GE is to restructure, how we have seen economic growth and therefore should rather be seen as a "new engine of growth" by generating decent jobs (UNEP, 2011).

Table 1: Definitions of the GE by different organizations and institutions (own representation based on Sun et al., 2017).

Institution/Org anization	Definitions of the Green Economy
The	"About fostering economic growth and development while ensuring that natural assets continue to
Organization for	provide the resources and environmental services on which our well-being relies. It is also about
Economic Co-	fostering investment and innovation, which will underpin sustained growth and give rise to new
operation and	economic opportunities." (OECD, 2011, p.114)
Development	
(OECD)	
The United	"a green economy as one that results in improved human well-being and social equity, while
Nations significantly reducing environmental risks and ecological scarcities." (UNEP, 2011,	
Environmental	
Program (UNEP)	
The European	"An economy that secures growth and development, while at the same time improving human well-
Commission	being, providing decent jobs, reducing inequalities, tackling poverty and preserving the natural
	capital upon which we all depend." (European Commission, 2011, p. 5)
United Nations	"A green economy can improve human well-being and social equity while greatly reducing
Conference on	environmental risks and ecological scarcity." (RIO+20, 2012)
Sustainable	
Development	

2.2.2. Social Dimension of the Green Economy

In comparison to other currently mainstreamed concepts, in academia and policy making, namely the Circulair Economy (CE) as well as the Biobased Economy (BBE), the concept of the GE has been found to act as an "umbrella" concept (see Figure 4) (D'Amato et al., 2017).

As can be seen in Figure 4, the concepts of the CE and BBE are rather resource-focused, whilst the GE research, focuses on additional sustainability aspects oriented towards the social dimension (D'Amato et al., 2017). Furthermore, D'Amato et al., (2017) found through an comparison of all three concepts that the GE is likewise most inclusive regarding aspects of the social dimension at local level, which included (e.g. eco-tourism and enterprises, education). Hence, the GE is the only narrative, in comparison to the other concepts, to specifically address the sustainable development features of justice and public participation (D'Amato et al., 2017).

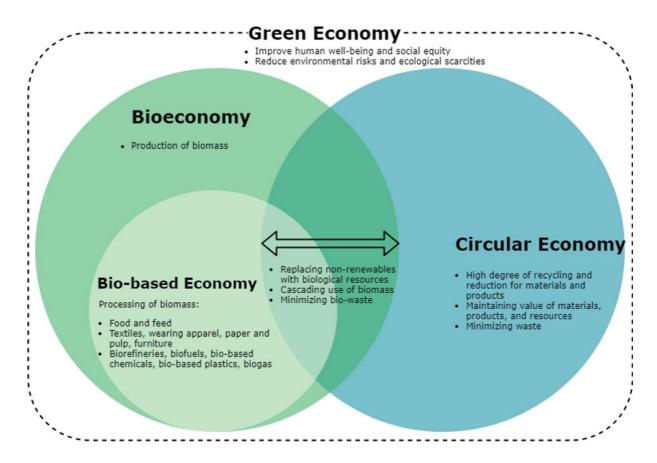


Figure 4: The Green Economy in relation the CE and BBE (Source: Kardung et al., 2019)

However, in the current discourse about the GE the question arises whether and to what extent the concept, which is intended to serve as a blueprint for societal transformation processes, take various dimensions of sustainability into account (Stoffel, 2014). During the Rio+ 20 there was an increasing recognition of the absence of the social component alongside the economic and environmental dimension (Cook & Smith, 2012; Merli et al., 2018). As the GE is meant to be based on three pillars, the social aspect remains weak and marginalized in some critiques. What is often missing is an analysis of the social and political institutions and relations that ultimately determine distributional, welfare and justice outcomes (Cook & Smith, 2012). Therefore, it is necessary to research to which extent the social dimension is incorporated in the GE and how this can increase social well-being.

2.2.3. Socio-economic transition initiatives for the Green Rural Economy

The transition to the GE in rural regions involves the improvement of people's lives and livelihoods while at the same time, stabilizing natural resource use with maintaining incomes (ENRD, 2017). Using the GE as the basis of fundamental social reorientation, requires a process of structural change (Pallagst, 2013). This process in major societal subsystems are called *transitions* (Meadowcroft, 2011). The GE is a sustainability related transition. These are characterized by long-term, multi-dimensional as well as fundamental process through which socio-economic system change to more sustainable production and consumption (Markard et al., 2012). Hence, a sustainability transition implies not only a systemic change but likewise an extreme transformation of cultures (Hartz-Karp & Gorissen, 2017). One element of a

sustainable transition is the broad range of actors involved and the needed corporation of working together in an integrated way (Markard et al., 2012). In a sustainable transition, the cooperation of actors across different sectors is needed – such as researchers, private companies and local authorities as well as at landscape level. Hence, bringing social, economic and environmental interests together to achieve benefits for all (ENRD, 2017, p. 28). Especially in sustainability transitions, the guidance and governance often play an important role (Smith et al., 2005). The subject of promotion and guidance of the sustainability transition has collected increasing attention in the policy arena (OECD, 2011; UNEP, 2011) and in social-science research (Frantzeskaki & Loorbach, 2010; Grin et al., 2010; Smith et al., 2005). Transition initiatives reshape the logic of value creation of our everyday lives. By changing the direction, we relate to one another as well as the relationship with our environment. They can achieve this in multiple ways; one being through demonstration how local governance can be changed (Hartz- Karp & Gorissen, 2017; Diaz et al., 2013). Achieving the transition to the GE in rural areas requires action on many fronts such as political will, technological developments and assistants from market pressures (ENRD, 2017, p.6). A fundamental social reorientation needs to happen progressively through a sequence of steps (ENRD, 2017, p.6).

2.3. Regional Well-being

Many factors that influence people's well-being come together on the local/regional level (OECD, 2013; OECD, 2014). Measuring regional and local well-being includes the comprehension of what matters to people while at the same time taking into account region specifics conditions and their impact (OECD, 2014). The OECD Better Life Initiative identified dimensions that play a role in individuals well-being and provide a set of indicators to measure them. This allows for a cross-country comparison, which is suitable for this research. As can be seen in Figure 4, the framework provides a comprehensive conceptual framework of the well-being metrics. The framework incorporates 1) material conditions and 2) quality of life in regions. Through the assessment of well-being metrics, current GE and revitalization can be assessed in order to raise social awareness of policy objectives or specific issues, to promote change and increase governments' accountability, which can help and improve future policies identify potential synergies between the GE and revitalization strategies.

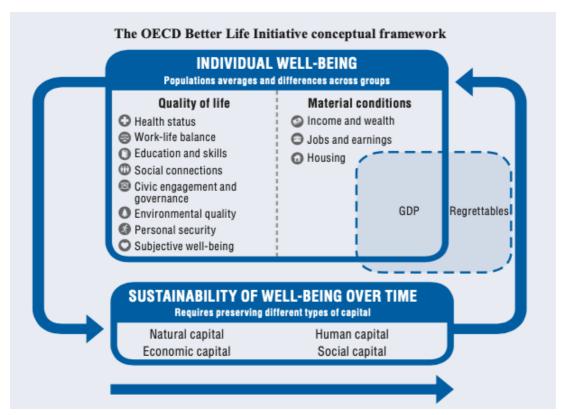


Figure 4: Well-Being metrics based on OECD Better Life Initiative (Source: OECD, 2014)

Conceptual Framework

The conceptual framework provides an overview of the concepts which guides this explorative research. It entails the concepts which this study intends to explore and the relationship it expects to exist between the adaptation- focused revitalization strategy and the GE.

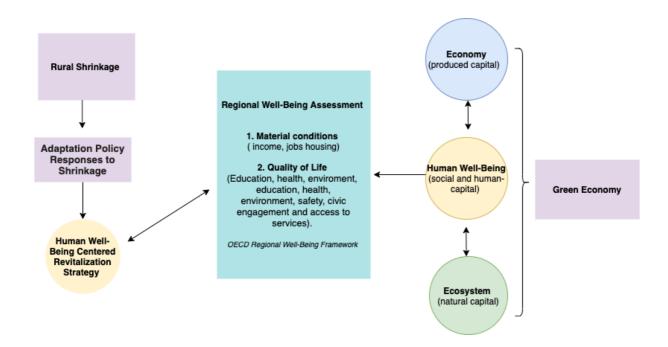


Figure 5: Deductive conceptual framework for research on the potential for the GE on revitalization

As can be seen in Figure 5, the conceptual framework offers a graphical representation of all theoretical concepts used in this research. It connects both concepts of rural shrinkage policy as well as the GE under the lens of increasing social well-being. Both the GE strategies as well as emerging adaptation polices of shrinkage lie their main focus on improving human well-being. Hence, the main societal impact aim of this research is to examine how, and to what extent these two concepts might intertwin and reinforce each other. Through this potential interrelationship synergies might emerge which can be used for policy recommendations on revitalization approaches on increasing well-being.

3. METHODOLOGY

This research is developed through an exploratory comparison of two case studies. This methodology is a useful tool when it involves the analysis and synthesis of the similarities, differences and patterns across two or more cases. When case studies share a common focus such as how and why certain strategies or policies are successful while others are not (Goodrick, 2014). It is therefore deemed a suitable method, as the aim of this research is to obtain in-depth information in a specific context. Through this cross-case comparison the study acknowledges that each regional shrinkage dynamics are unique and hence, planning and policy responses vary greatly. Still, comparing both regions could identify insightful lessons for future policy approaches for other European shrinking regions which allows for a better understanding for future policy interventions and to ensure coherence among them.

Yin (2009) identified three conditions under which case study research is a preferred research strategy: 1) the form of the research question, whether control of behavioural events is required, and whether the research focuses on contemporary events, 2) in case the form of the research question starts with why or how, no control of behavioural elements is needed, and 3) if there is a focus on contemporary events, the case study method is a relevant method to use (Yin, 2009).

3.1. Operationalization

In order to gather and analyse the necessary data and information to operationalize the conceptual framework and answer the research questions a qualitative research method approach is used. The main methods will be the collection and analysis of primary data (interviews with selected actors) and secondary data (policy documents, webinars). The qualitative method approach is useful in the context of rural shrinkage due to the exploratory nature of this research.

To answer the research question as well as sub-questions, the research process is divided into three phases: The **first phase** consists of data collection through desk research as well as interviews. This includes literature review of the concepts of shrinkage and the GE, as well as the identification of related policy documents, pilot projects at the EU, national and regional levels, which is also retrieved by asking the interviewees. These two methods will be used to answer sub-question 1 and 2. The **second phase** consists of data collection through (online) semi-structured interviews with selected actors. The interviews are important in order to examine how the role of GE is perceived, and the current position of the GE in revitalization strategies in the regions of Zeeland and Thuringia. The semi-structured interviews provide answers for all the sub-questions. The **third part** is the analysis of the data collected and the comparison of both case studies (SQ3). This is useful to identify which lessons can be learnt from the two regions and hence be applied to other European areas (SQ4).

3.2. Data Collection and Sampling

There are two types of data which are used for this research. On the one hand, primary data is collected through interviews. On the other hand, secondary data is used in the form of policy

documents, academic literature as well as webinars. Academic literature is used to in order to define the concepts that are used in this study. Scientific theory and literature are examined via search engines such as Google Scholar and Scopus.

As this research is exploratory in nature, semi-structured interviews are used. These types of interviews allow flexibility and freedom for both the interviewer and interviewee in terms of contents, as well as retrieving in-depth information (Hollway & Jefferson, 1997; Hennink et. al., 2015). Interviews with policy makers (i.e. public officers and politicians) represents the core method of this data collection strategy, as the focus lies on public strategies at the regional level. However, in order to triangulate collected information and ideas from the main research subject, other actors are selected as well. In this research "research subjects" are referred to state and societal actors. State actors include politicians, from different departments and/or levels of government than the regional (i.e. local, national or transnational-EU). Furthermore, societal actors include civil society representatives (NGOs/CSOs and businesses) and scholars.

In order to select respondents, the sampling strategy of this research follows the purposive sampling (Barrat et al., 2015). To ensure relevant interviewees, the sampling does not take place randomly, but follows a strategic guideline (Gentles et. al., 2015). Thus, a diverse selection of research subjects is included in the research in order to focus on a wide range of opinions and experience on different levels. Purposive sampling is deemed an appropriate strategy, as this research intends to provide an information-rich analysis. Furthermore, through collaboration with the research project "Welcoming Spaces", "gatekeeper" participants on the regional level are identified and from there on snowball sampling strategy is applied in order to select relevant stakeholders (Hennink et al., 2015). When the main stakeholders are identified, semi-structured interviews are held online through e.g. Microsoft Teams or Skype.

Besides interviews, secondary data is used in this research in the form of academic literature and policy documents, in order to ensure triangulation. Secondary data, in the form of policy documents and academic literature, are retrieved both through asking the relevant research subjects interviewed for access to policy documents and through online search.

Table 2: List of interviewees

	Name	Position	Medium	Region, Level	Date
1.	Program Manager Quality of Life	State actor (Ministry of Zeeland)	Zoom	Zeeland	28.09
2.	Regional Economy Advisor to the Province of Zeeland	State actor (Ministry of Zeeland)	Zoom	Zeeland	18.10
3.	Programme Manager Frisian Social Planning Office & Honorary Professor of Regional Vitality and Dynamics	Scholar/ State actor (Groningen/Friesland)	Zoom	Netherlands	28.10
4.	Senior Policy Officer Housing & Demography	State	Zoom	Zeeland	26.10
5.	Senior policy officer circular economics	State/ SME	Zoom	Zeeland	04.11

6.	Senior Economic Policy Advisor (Biobased Economy) at Provincie Zeeland	State/ SME	Zoom	Zeeland	05.11
7.	Project Manager Circular Economy and Energy Transition	SME((Impuls Zeeland)	Zoom	Zeeland	12.11
8.	Social Geography and Planning	UU, Scholar	Zoom	Netherlands	17.11
9.	Project Manager Innovation	State/SME	Zoom	Thüringen	21.10
10.	Spatial and environmental planning and infrastructure	Scholar (FH Erfurt)	Phone call	Thüringen	27.10
11.	Head of Department at Leibniz Institute for Regional Greography	Scholar/ State Actor	Zoom	East- Germany	01.12
12.	Thuringian Ministry for Infrastructure and Agriculture	State (TMIL)	Phone call	Thüringen	04.12
13.	Board member of the German Ecovillage Network and co- founder of Climate protection project Ilmatal	NGO/SME	Zoom	Thüringen	01.12
14	Project Manager Kulturhanse	NGO	Zoom	Thüringen	03.12
15.	Sustainable energy and resource Manager	State/SME	Zoom	Thüringen	05.12
16	Scientific Coordinator of ESPON ESCAPE	Scholar	Zoom	EU	19.11

3.3. Data Analysis

The data analysis is completed through a content analysis of interviews and policy documents. Content analysis refers to: "A method to classify written or oral materials into identified categories of similar meanings." (Cho & Lee, 2014, p. 3). Content analysis requires the identification of themes through coding (Cho & Lee, 2014). NVivo is used to code the data collected, in the form of transcripts or policy documents. When respondents had given their consent, interviews were recorded to allow for transcription. Policy documents are screened for statements about mitigation- as well as adaptation-focused revitalization strategies which is based on the theoretical framework. Furthermore, policy documents are screen for key words of the "Green Economy" as well as "well-being". Moreover, GE strategies will be classified according to the well-Being metrics based on OECD Better Life Initiative.

3.4. Data quality

The quality of this research is assessed through its internal- and external validity. Internal validity is defined as "a concern with the question of whether a finding that incorporates a causal relationship between two or more variables is sound" (Bryman, 2012, pp. 713). Hence, internal validity addresses the causality between concepts. As this research is based on an cannot be firmly defined.

Conversely, external validity is defined as "a concern with the question of whether the results of a study can be generalized beyond the specific research context in which it was conducted" (Bryman, 2012, pp. 711). The research design of this study is based on two case studies and hence, should not be generalized. Nevertheless, the research does attempt to derive generalized theory from comparing both case studies as this could identify insightful lessons to future approaches for other European shrinking regions and GE initiatives which allows for a better understanding for future policy interventions, which increases the external validity of this research.

3.5. Study Limitations

As any research methodology, this research likewise has its limitation, in terms of aim and data collection. The first limitation relates to the data collection process and the essence of the research subjects analyzed. As public officers and societal actors might guard specific interests, the interviews done with those interviewees could be biased. To account for this, interviews will likewise be conducted with scholars who are believed, to be neutral to a certain degree. Furthermore, both concepts, the GE and regional shrinkage, are broad in nature as they include all different dimensions of policy making. For this reason, only the major policy documents were chosen due to the limitation of time and scope. Furthermore, as in both case studies the native language is Dutch and German, policy documents had to be translated to English if these were not available in English. The constrained time frame likewise only allows for an analysis of two case studies. Consequently, the contextual variations derived are limited. The results can, thus, only be generalized to the European context. Even more attentiveness is vital when generalizing the findings of this research to a developing country context. Furthermore, in light of the current COVID-19 pandemic, this study follows the safety restrictions imposed by the government. A proper research about the impact of the GE on adaption focuses revitalization would be much improved with field visits to both shrinking regions.

3.6. Ethics

As qualitative research often includes the discussion of sensitive and confidential subjects and is based on a trust relationship between researcher and participants, ethical considerations are taken into account for this research (Hennink et al., 2015). When conducting interviews, it is important to inform the research subjects that they are participating in a research study, which they participate voluntarily beforehand and that they give informed consent. When conducting research, it is always important to ensure that the participants do not experience any negative consequences from taking part in the study, as well as protecting their identity at all times.

Ethical considerations also include respecting the safety measures given the current COVID-19 pandemic. All interviews are scheduled online, and the initially planned field research in both research areas have been cancelled due to travel restrictions to Germany.

3.7. Research framework

In Figure 6, the research framework is presented. The framework visualizes the research design as discussed in this section. It includes the steps taken to answer the research question, including the corresponding methods of data collection and analysis.

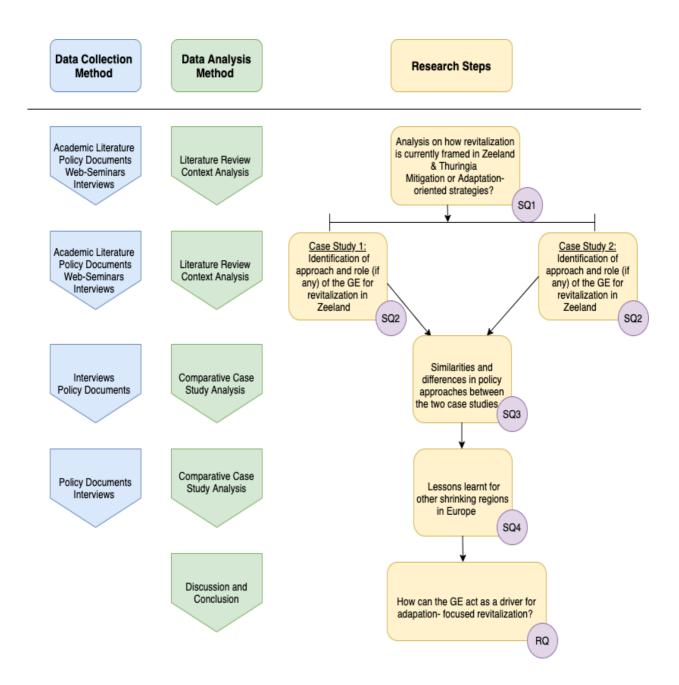


Figure 6: Research framework (author's own).

4. RESEARCH CONTEXT

As anticipated, this research involves a cross-case comparison between two regions in Germany and the Netherlands. These are the federal state of Thuringia (Germany) and the province Zeeland (Netherlands). As this thesis will be carried as part of the research project "Welcoming Spaces in Europe: Revitalizing shrinking areas by hosting non-EU migrants", the choice of these two regions were made in collaboration and discussion within the project. The data collection period for both case studies ranged between August– December 2020.

4.1. Case Study 1: Zeeland, Netherlands

The Netherlands is the most densely populated country in the EU (Eurostat, 2018). The overall population of the country rose slightly to 17 million in 2017 and is expected to growth above 18 million by 2060 (Stoeldraijer et al., 2017; Beunen, et al., 2020). Despite these growing numbers, there can be witnessed a decline in number of residents in the countryside on the borders of the Netherlands of Dutch localities (Beunen, et al., 2020). In 2015, the Dutch government began allocating designated regions as *Krimpregio* (region with population decline) (Beunen, et al., 2020). As can be seen in Figure 7, part of Zeeland is one of the nine designated "Krimpregio" in the Netherlands.



Figure 7: Classification of municipalities in shrinking regions (here: red) by the Dutch government (Source: Rijksoverheid, n.d.)

Shrinkage in Zeeland

The province of Zeeland lies is the westernmost part and is the least populated province of the Netherlands. The demographic data and forecasts show that the population in Zeeland grew between 1990 and 2005 to over 380,000 inhabitants. It is expected to fluctuate but will remain around 380,000 due to immigration (Blommaert & Van Galen, 2013).



Figure 8: Geographical location of the province of Zeeland (Source: Wikipedia, 2011)

The most concerning part regarding shrinkage in Zeeland is the province of Zeeuws-Vlaanderen. The population decline in Zeeuws-Vlaanderen has been visible before 2005. In that year there were almost 108,000 people in that region. As of 1 January 2013, the numbers have been declining. In 2040, population numbers are expected to drop until 92 000 (see Figure 9). Figure 9 illustrates the population development of Zeeuws-Vlaanderen (blue lines) in comparison to and Zeeland (green lines) as well as the national population numbers (red line) (Blommaert & Van Galen, 2013).

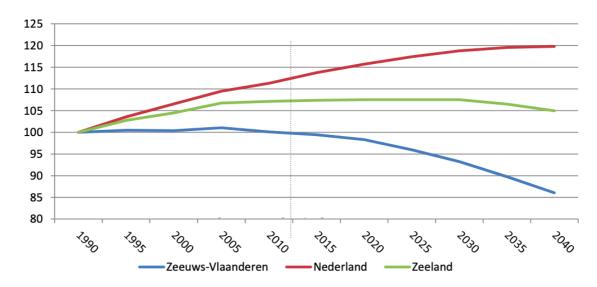


Figure 9: Population Development (1990 – 2040) Comparison between the National, Zeeland and Zeuws-Vlaanderen (region in Zeeland) (Source: Blommaert & Van Galen, 2013)

4.2. Case Study 2: Thuringia, Germany

Germany has a very specific spatial disparities which got accelerated through the reunification process, in 1990. Therefore, until now, eastern Germany is considerably lagging behind economic development than in the west of the country. Thuringia is part of which is also referred to as the "Neue Länder" (New States) (TMIL, 2016) The high population losses in the five New States, namely Brandenburg, Mecklenburg-Vorpommern, Saxony, Saxony-Anhalt and Thuringia, continue to result to a large extent from the consequences of emigration in the context of reunification (TMIL, 2016).



Figure 10: Geographical location of the state of Thuringia (Source: Wikipedia, 2009)

Shrinkage in Thuringia

Thuringia or officially the *Free State of Thuringia* is located in central Germany (see Figure 10). The free state has a total population of 2.13 million inhabitants and is therefore the sixth smallest state by area and the fifth smallest by population in Germany (Thüringer Landesamt für Statistik, 2019). According to a Eurostat projection, half of the population Thuringia will be 56 years and older in 2030 (Eurostat, 2010). Thus, the inhabitants of Thuringia reach the fifth highest median age in the comparison of European NUTS2 regions, which in Germany correspond to the administrative districts. Other eastern German regions are likewise strongly affected by ageing processes: In 20 years, with the exception of Berlin and the administrative district of Leipzig, half of the population in the whole of eastern Germany will reach an age of 53 years or more, whereas the median age in the member states of the European Union (EU-27) will be only 45 years (Fuchs et al., 2011).

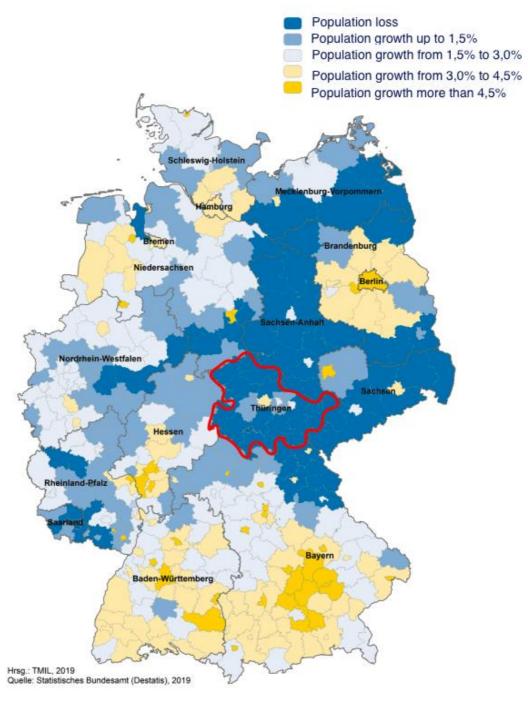


Figure 11: Population development in Thuringia in comparison with the regions and cities in Germany from 2014 - 2018 (Source: TMIL, 2020)

As can be seen in Figure 11, the severe population loss in the eastern German states is clearly noticeable here. Indeed, Thuringia is considered one of the demographic concerns among the German federal states. The strong emigration at the beginning of the 1990s and the early 2000s, as well as the significant the economic and social restructuring following reunification have left a permanent mark on the demographic situation in Thuringia. (TMIL, 2020). In addition to the population decline, the age structure of the state has changed significantly. A growing number of older people against an ever-shrinking group of children, adolescents and young adults. The migration losses of young women, in particular after the reunification, could not be not been

compensated for. As a result, the births that failed to materialize due to the emigration at that time are now missing as a potential parent generation ("demographic echo") and thus lead to a persistently negative natural balance (TMIL, 2020).

Below Figure 12 shows that not Thuringia as a whole is a shrinking region. The capital "Erfurt" as well as university cities such as Weimar and Jena are likewise still experience immigration. For several years now Erfurt, Jena and Weimar in particular have been experiencing population growth for several years, due to the attractiveness of these cities for younger generations and families (TMIL, 2020).

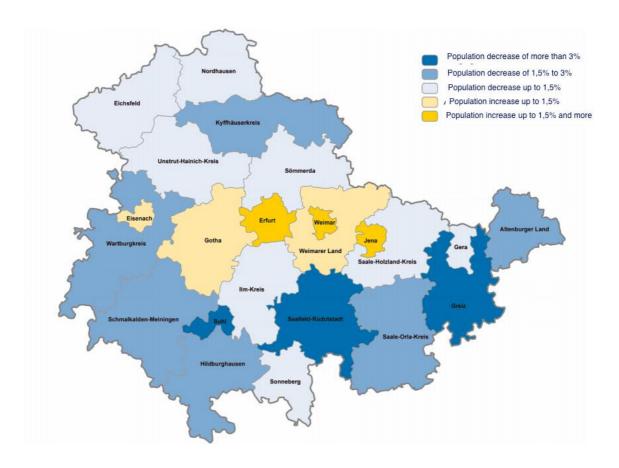


Figure 12: Development of the population of the districts and independent cities from 2014 until 2018 (Source: TMIL, 2020)

5. RESULTS I - Policy Responses to shrinkage- Adapting or mitigating?

This chapters includes the results to sub-question 1, which gives an overview of the current political angle of shrinking rural regions of the two case studies, namely Zeeland and Thuringia. It is guided by the analytical framework with the new policy approaches on shrinking rural region. Focus has been given to the two possible policy responses 1) mitigation- focused 2) adaptation-focused revitalization. Results gathered from the interviews enrich these findings.

5.1. Policy Responses in Zeeland, the Netherlands

This section explores the current policy responses to shrinkage in the province of Zeeland, the Netherlands. Generally, the policy analysis showed that adaptation-focused revitalization strategies have been acknowledged, as well as the viewpoint that population decline cannot be reversed. However, some policies still fall under the concept of the mitigation- focused strategy of shrinkage.

5.1.1. Shrinkage in the Netherlands

Shrinkage in the Netherlands in general has only been addressed it the beginning of the 21st century. Decline figures in the Netherlands are generally lower than in other more traditional areas of decline in Europe (Haarsten & Venhorst, 2009). However, the publication of the Dutch report *Structurele Bevolkingsdaling* (Structural Population Decline) published by Derks *et al.* (2006), caused planners and policymakers in the Netherlands to rethink shrinkage in their own country, and had a strong agenda-setting influence in Dutch policy making. Since the publication of the report, shrinkage, has played a more prominent role in the Netherlands (Haarsten & Venhorst, 2009).

During the period when the shrinkage was high on the political agenda (around 2005), many conferences as well as meetings were organized on national level However, after a few of years, the topic lost its prominent role in national debates (Beunen et al., 2019). Despite that, several important policy decisions were made such as the allocation of designated *Krimpregio* (shrinking regions). This likewise included the region "Zeeuws-Vlaanderen" in Zeeland (see Figure 7). Furthermore, the issue of shrinkage was assigned to the responsible regions as shrinkage is not an issue on national level (Beunen et al., 2019).

The respond on shrinkage and the unloading of responsibility of shrinking to the regional level has been leading to increasing critical voices by six shrinking regions in the Netherlands on the approach of the national governmental level in relation to shrinkage. Zeeland, Gelderland, Friesland, Groningen, Drenthe and Limburg (K6) published the position paper "All the way in the Netherlands: too small for big differences" (2020) (Helamaal Nederland - te klein voor grote verschillen) in order to raise awareness of the increasing inequality in the country. Moreover, the provinces do not feel accurately addressed outside of the Randstad (cluster of the big four cities in the Netherland) (K6 Network, 2020). This point has likewise been observed by the Senior Policy Officer (Circular Economy) in Zeeland:

"[..] if you look at the way the national government operates, they look at where the people are, that we depend on when elections are coming up. And most people live in the bigger cities. Well, I think that if you look at the actual numbers and the way that national policy is oriented, this is quite centrally oriented and Randstad" (#5, Senior Policy Officer (Circular Economy), personal communication, November 4th, 2020)

According to the document, solutions for the shrinking regions should not be lacking in the national programs that are now being written. Furthermore, the six shrinking regions argue that the proposed policy could benefits the whole of the Netherlands, also outside the Randstad (K6 Network, 2020).

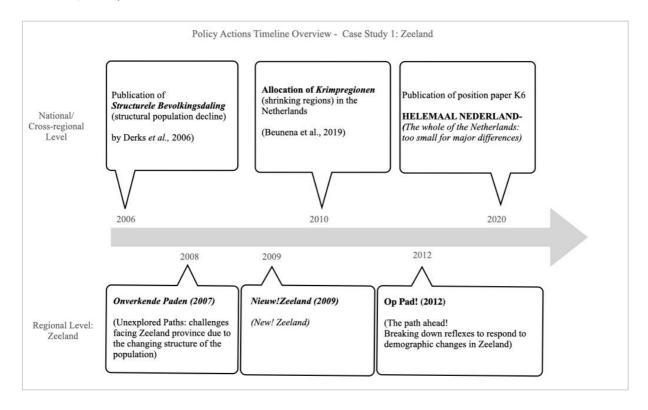


Figure 13: Timeline of Policy Actions regarding Shrinkage for this research (Source: Authors own).

5.1.2. Shrinkage in Zeeland

The media attention for the report by Derks et al. (2006) did not escape the region of Zeeland. Especially the part of Zeeland "Zeeland-Vlaanderen" had felt the consequences of decline even before that.

5.1.3. Mitigation-focused revitalization strategies in Zeeland

The first common policy response was to "solve" the problem of decline is by increasing the housing market as well as attracting more businesses through the region to attract more people (Haarsten & Venhorst, 2009). This mitigation- focused strategy is based on the assumption that an increase in the housing market will likewise lead to an increase in population. This perception further supported by the financial benefits through the Dutch *gemeentefonds*

(municipality funds) which rewards regions for the number of inhabitants (Haarsten & Venhorst, 2009). This strategy was likewise implemented by Zeeland in the early stages (#1,4).

Reframing the image of Zeeland

Two main mitigation strategies were identified which are currently still implemented. One way in which Zeeland has been trying to manage shrinking is by reframing the image of Zeeland in an appealing light through marketing campaigns (#4,6). This mitigation focused strategy is likewise being implemented in an on-going campaign "Sichtbaar Zealand" (Visible Zeeland) (#6). This strategy has been likewise referred to in multiple interviews from state actors:

"We take a lot of effort in making the image of our province better [..]. We're trying to rebuild that image of tranquillity, it is indeed more like a promotion and it is something we tried for years now, but it's not really effective and it's really difficult" (#4, Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

In the report from Zeeland "The path ahead" (2012) this strategy likewise gets mentioned as "local authorities, together with the business community, have set up special organizations to improve the image of the region as a place to live and work" (The path ahead!, 2012, p.34). The current image of Zeeland has been depicted as remote, conservative, and far distance (#6), as well as green and spacious (#5).

Attracting people through higher education

Another mitigation-focused strategy of Zeeland, which was stated by multiple interviewees is the plan of Zeeland to attract younger people through the development of Zeeland's higher education system.

"[..] we don't have many higher education institutions at the moment. Big universities are not located in Zeeland. On the other hand, that's something that you need if you want to attract the young people not to leave the region because most of them would not come back, because if you go and study in another region then you're going to live there" (#6, Senior Economic Policy Advisor Zeeland (Biobased Economy), personal communication, November 5th, 2020).

This point was likewise supported by the Program Manager Quality of life in Zeeland, who claims that Zeeland's university has to move away from a mainly technological oriented education (#1). "[...] If you are interested in, for instance, in sociology or journalism, you can't even get your education here in Zeeland. You have to move out. Same applies if you want to do a master's degree, then you have a gap and the process of leaving the region and that of course accelerates." (#1, Program Manager Quality of life Zeeland, personal communication, October 3rd, 2020).

This approach has likewise been mentioned in the policy document which tries to address the problem of shrinkage "It is necessary to promote the return of Zeeland's young people after they have finished studying" (The path ahead!, 2012, p.29). Both mitigation strategies are interlinked as in the policy document it claims, that young people are leaving Zeeland as they

"negative image" of Zeeland (remote, conservative) as well as its difficult to find employment (The path ahead!, 2012).

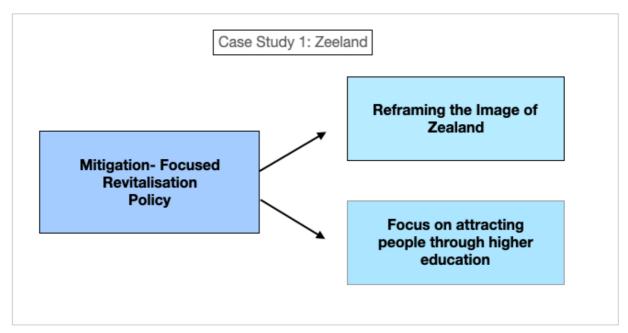


Figure 14: Overview of Mitigation-focused strategies in Zeeland (Source: authors own)

5.1.4. Zeeland's Adaptation- focused revitalization strategies

In 2007, the Provincial Councils conducted an analysis of the demographic changes in Zeeland as well as their consequences for various policy areas (Provincie Zeeland, 2008). This study resulted in the report "Uncovered paths" (*Onverkende Paden*) in 2008.

Rising awareness and involving citizens

Through this document as well as a campaign under the name "New! Zeeland" (Niew!Zeeland) the regional authorities tried to spark the broad dialogue as well as awareness of shrinkage in Zeeland by including citizens, businesses and civil society organizations (Provincie Zeeland, 2008). This was the main aim of the report, which is evident from the introduction to the memorandum itself: "This memorandum can be used as a basis for a broad public discussion on the subject of shrinkage. This discussion is necessary in order to be able to make a change in thinking in certain policy areas and, together with the partners of the province of Zeeland, to open up new unexplored paths" (Provincie Zeeland, 2008, p. 7). According to Senior Policy Officer Housing & Demography of the Province Zeeland (#4), there was a positive reaction to the contents of the report. However, there were still clear differences regarding future approaches.

"Some parties back then thought they could reverse decline, but many others did not. So, we agreed, that there should be a broad dialogue with the Zeeland citizens about the demographic developments in the province" (#4, Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

Despite the awareness campaigns, multiple interviewees raised their concerns if Zeeland or any region in the Netherlands should be considered under the term shrinking region. One main argument is the geographical location of Zeeland, which is close to bigger cities of Belgium, such as Antwerp.

"[...] you should really not forget about Belgium being so close, because Antwerp and especially again, is major economic city and they are growing at an enormous rate, for instance. [..] it's a really popular with regard to companies, highly educated people who want to live there and work there. They have a lot of the higher education there as well" (#6, Senior Economic Policy Advisor Zeeland (Biobased Economy), personal communication, November 5th, 2020).

Furthermore, economic projects regarding port extensions have been mentioned as factors which will most likely increase population growth in the future (#6). The Policy Officer Housing & Demography of the Province Zeeland, who is responsible for shrinking in Zeeland for the last twenty years, claims that "these are small glimpse of hope. People like to believe so because it's not a popular thing to be a shrinking region. So, it's more based on hope for that fact. Like a positive scenario. But that's not the most likely scenario." (#4, Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

Breaking away from growth-perspective

The second shift to an adaptation- focused revitalization strategy in Zeeland can be seen through the shifting of the growth – paradigm and to a well-being focused approach. In the policy memorandum "The path ahead!" (*Op Pad!*) the guiding theme was: "breaking down reflexes to respond to demographic changes in Zeeland" (The path ahead, 2012, p. 1).

"Zeeland is undergoing a transition, i.e. a change from growth to stabilization and shrinkage, with fewer employed people and more elderly people. [...] This 'growth mindset' and the automatic assumption of growth have become rooted in all kinds of policy and principles (The path ahead, 2012, p. 8).

Senior Policy Officer Housing & Demography Zeeland thinks that the re-orientation from growth-thinking to a more well-being focused thinking is needed as the economic sector in Zeeland are vulnerable in the long-term. Furthermore, "the problem we are facing is that we cannot keep up with the economy, and that the companies cannot attract enough people to work. And that's something we are working on from the last few years. It's a lot of effort" (#4, Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

Demand-driven housing policy

The third main adaptation-focused strategy which was identified in Zeeland is the shift of housing policy. The province in the Netherland is now trying to adapt their housing demands to the people living within the region, which are mostly elderly people. "We are currently shifting the ways houses are built. We have to focus more on what kind of houses are built, [in Zeeland] we have to build houses for the elderly people, but if you don't set the right direction, housing companies will build houses for families, but there are no families in the area" (#4,

Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

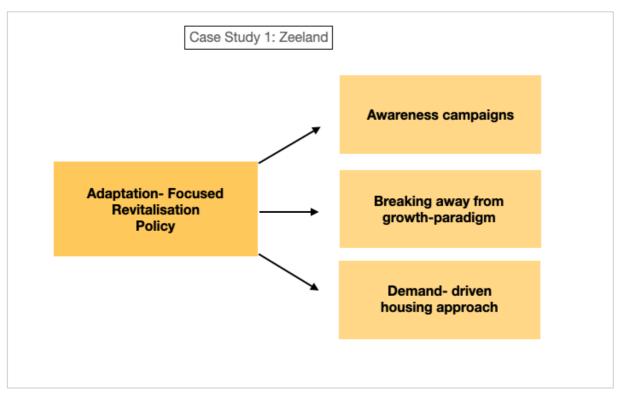


Figure 15: Adaptation focused strategies Zeeland (Source: authors own)

5.2. Policy Responses in Thüringen, Germany

This section focuses on the policy responses in Thüringen, Germany. In general, Germany, has an interesting as well as unique relationship with shrinkage due to its historic past with the reunification in 1989. As the timeline of policy responses regarding shrinkage is longer and more complex, it is more difficult to determine in which direction especially the region of Thüringen specifically is heading. The analysis finds both mitigation- as well as adaption-focused revitalization strategies in Thuringia's policy approach.

5.2.1. Shrinkage in Germany

After the reunification in 1989, planning theories as well as regional development actors aimed to improving regional competitiveness through the integration the supra-local dimension through subsidies (Beetz, Hunning & Plieniger, 2008). However, it planning actors had to realize that economic recovery took longer than expected, unemployment stagnated and emigration to the prospering regions in West Germany led to a brain drain of the younger generation (Lang, 2012). This led to a clear division of East- and West Germany.

Due to this historical context this has been implemented Into the German federal planning law (Raumordnungsgesetz). In Article 72 (2) of the German Basic Constitutional Law, the notion of "equivalent living conditions" in all parts of Germany has been sparking references for many debates. Many politicians and planners have raised criticism regarding this definition as it entails "unachievable claims" (Barlösius, 2006; Beetz, Hunning & Plieniger, 2008).

Since 2010, a more change of perspective regarding shrinkage can be noticed on national level (*Demografiestrategie der Bundesregierung*, n.d.) In April 2012, the federal republic published the report "*Jedes Alter zählt*" (Every age counts) by introducing guiding themes as well as active-solution shaping (Bundesregierung, 2012). The overarching goal was "prosperity and quality of life for all generations" as well as one guiding themes was "Promoting equality of living conditions in the regions" (Bundesregierung, 2012).

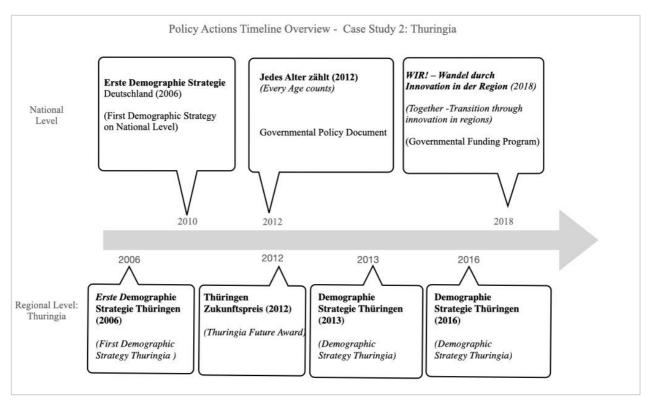


Figure 16: Timeline of policy actions in Thuringia, Germany (Source: authors own)

5.2.2. Thuringia's respond to shrinkage

Thuringia's first demography strategy was published in 2006 before a national strategy was presented in 2010 (Thüringer Ministerium für Bau und Verkehr, 2006). Through increasing recognition on the national level of the consequences of shrinkage, Thuringia implemented a "Demography Strategy" in 2013 on the regional level. This has been updated in a two to three-year cycle by the Ministry of infrastructure and agriculture. This ministry has its own department responsible for "Demographic change".

In its 2016 publication of the "Demographic Strategy", the state government in Thuringia follows the following principles as guidelines to shape shrinkage in the region (TMIL, 2016b):

- 1) Shaping demographic change is an interdepartmental task with a process character
- 2) There is no universal solution when it comes to decline
- 3) The future will bring regional competition
- 4) The central-location system is strengthened as a concept for safeguarding services of general interest in all parts of the country.
- 5) Reorganization of the provision of infrastructure facilities is needed
- 6) Flexible funding schemes.
- 7) Thuringia must position itself even more quickly and consistently as an attractive immigration state.

5.2.3. Mitigation-focused revitalization strategies

Increasing global competitiveness

The first mitigation approach in Thuringia can be witnessed through the strong approach on trying to enhance the region's competitiveness in the global economy. This becomes evident from the policy document "Growth for Thuringia" (Thuringian Ministry for Economy, Labour and Technology, 2020). The economic strategy of Thuringia is based around "Opportunities for Thuringia: using global megatrends" (Thuringian Ministry for Economy, Labour and Technology, 2020, p. 14). This strategy is explained by the Thuringian Ministry for Infrastructure and Agriculture through the fact that "Thuringia as a whole region is not shrinking. It would be fatal to mainly focus on adapting to shrinkage as opportunities can get lost there as well" (#12, Thuringian Ministry for Infrastructure and Agriculture Actor, personal communication, December 4th, 2020).

Attracting people back to Thuringia

Another mitigation-focused strategy is likewise listed as one of the seven guiding themes "(7) Thuringia must position itself even more quickly and consistently as an attractive immigration state" (TMIL, 2016b). In order to achieve this goal, the regional government set up a specialized department "Thüringer Agentur Für Fachkräftegewinnung (ThAFF)" (*Thuringian Agency for the Recruitment of Skilled Workers*) which aims at attracting and informing (prospective) skilled workers about employment study and living opportunities in Thuringia (#13; ThAFF, n.d.). This point is likewise picked up in the policy document of "Growth for Thuringia" where it got stated that

"In other areas, Thuringia still needs to catch up: from the very low investments in research and development to the struggle for the smartest minds which began long ago under the heading skills shortage "(Thuringian Ministry for Economy, Labour and Technology, 2020, p. 5).

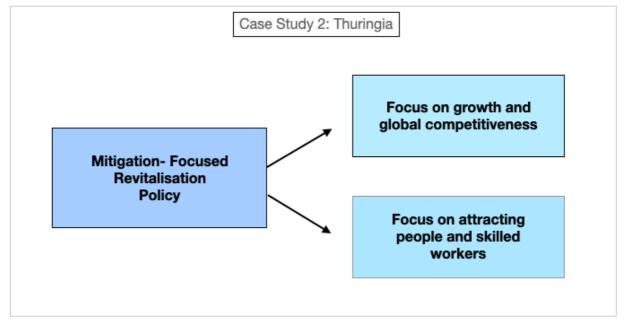


Figure 17: Overview of Mitigation-focused revitalization strategies Thuringia (Source: authors own)

5.2.4. Adaptation- focused revitalization strategies in Thuringia

The seven guidelines reflect, for the main part an adaptation-focused approach which likewise is in accordance to the viewpoint of the Spatial and Environmental Planning Professor at the University of Applied Science in Erfurt "I would say that the paradigm change has finally arrived in policies. However, I think using that knowledge and implementing it, is the real difficult task" (#10, Spatial and environmental planning and infrastructure scholar, personal communication, October 27th, 2020).

This point has likewise been supported by the Head of Department at Leibniz Institute for Regional Geography "I don't know if we can talk about the great paradigm shifts yet. As far as demographics are concerned, definitely. As far as population growth is concerned, I don't think everyone is aligned any more. Especially regions like Thuringia who have been dealing with shrinkage for 20 or 30 years (#11, Head of Department at Leibniz Institute for Regional Geography, personal communication, December 1st, 2020).

Raising awareness on shrinkage

When it comes to the themes of the Demographic policies in Thuringia there can be seen a clear focus on adaptation-focused revitalization. Through the acknowledgement that there is indeed "no universal recipe" which works in every region as well as that there is need for "flexible funding practices" (TMIL, 2016b). Furthermore, every year the Ministry of infrastructure and agriculture appoints a new topic in regard to shrinkage also called "Demographic theme year". In the year of 2019/2020 the theme was "Mobility in rural areas under the conditions of demographic change" whereas the year before it was "Care and occupation" (TMIL, 2019).

In the every two-year updated and recurring "Demographic Strategy Thuringia" (*Demografiestrategie Thüringen*) the regional government is presenting updated numbers, diagrams and policy approaches regarding shrinkage. For the "Demographic Strategy Thuringia 2030", the ministry of infrastructure and agriculture called the citizen of Thuringia for an online petition in November 2020, in order to shape and start a dialog for the demographic approach. "We have set ourselves the goal of making dialogue with the people as part of our working principle when developing a demographic strategy for the Free State of Thuringia," (Minister Benjamin-Immanuel Hoff, TMIL, 2020).

Innovative Funding Programs

The second adaptation- focused strategy aims likewise at increasing citizens participation. On the national level, the Federal Ministry of Education and Research supports innovation-based change in structurally weak regions through innovative funding schemes. Especially the support program "WIR! - Wandel durch Innovation in der Region" (WE! - Change through innovation in the region) has a innovate approach and is trying to address bottom-up strategies, which supports an interdisciplinary and cross-sectoral innovation alliances and focuses primarily on regions that are not economic and innovation centres (Bundesministerium für Bildung und Forschung, n.d.).

Through governmental funding programs, Thuringia aims at shaping their shrinking regions for citizens.

Furthermore, since 2012 the Thuringian Ministry of Infrastructure and Agriculture has been honouring new ideas, concepts and projects from all areas of life that make a sustainable and innovative contribution to shaping demographic change in Thuringia with the *Thuringian Future Award* (Thüringer Zukunftspreis) (TMIL, 2018). Other projects are likewise being funded by the government which aims at the innovative, sustainable development in the region. "Projects that serve the sustainable and long-term provision of adequate services of general interest, the improvement of the quality of life and socially just participation in society." (TMIL, 2019b, p.4)

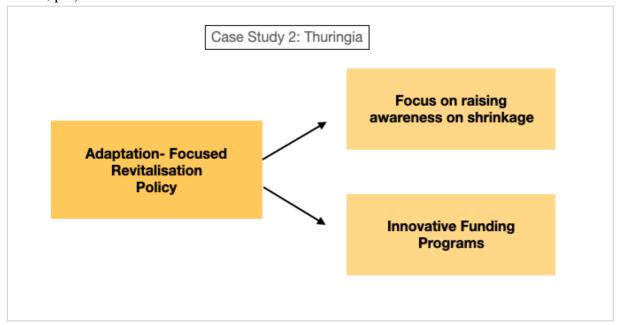


Figure 18: Overview of adaptation-focused revitalization strategies in Thuringia (Source: authors own)

6. RESULTS II – The role of the Green Economy in revitalization

Now that the current political approaches regarding shrinkage in both regions has been identified, this section will focus on how, and if, the GE has been already been implemented in relation to revitalization strategies in the two case studies region. In this section GE Initiatives are chosen in order to understand to what extend the policy points are implemented. Hence, this section will answer Sub-Q2: What is the approach and role, if any, of GE strategies in the revitalization of Zeeland and Thüringen?

6.1. The role of the Green Economy for adaptation- focused revitalization in Zeeland

This section will focus on what the approach and role the GE plays, if any, for the revitalization of shrinkage in Zeeland.

6.1.1. Policy Documents

In policy documents, the mentioning of the concept GE was not found, hence no interlinkage between the GE and revitalization can identified in Zeeland. The Regional Economy Advisor to the Province of Zeeland explains this through the argument that:

"At that time [Path ahead, 2012] the whole climate change subject wasn't a real big thing either. But when you would have done it today, I think you could combine those things more. I mean at that time we simply focused on population decline now (#4, Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

The province of Zeeland is Netherlands biggest chemical sector which explains the fact that mostly green economy approaches fall under other alternative economic models, which are also known as the "Circular Economy (CE)" or the Biobased Economy (BBE). "The chemical sector within this regional agenda and talks about greening the economy with other economic partners in the region [..], but that is at least from the perspective of growth of the economy and not in regards with the shrinking regions, so that combination has not been made yet." (#1, Program Manager Quality of Life, personal communication).

This observation was likewise supported by the Senior Economic Policy Advisor of Biobased Economy in Zeeland, which claims that the strong focus on the BBE in Zeeland is mostly due to the fact that "10 years ago the main concern was that fossil fuel would run out and that then the prices would be too high. These were the main drivers of the Biobased economy at that time, the scarcity of fossil fuel" (#6, Senior Economic Policy Advisor (Biobased Economy), personal communication, November 5th, 2020). Furthermore, he likewise claims that when the BBE economy in Zeeland started "already most people knew about climate change, but 10 years ago it wasn't a policy focus, it wasn't the most primary concern" (#6, Senior Economic Policy Advisor (Biobased Economy), personal communication, November 5th 2020).

Overall, interviewees in the region of Zeeland saw the potential of the Green Economy approach in revitalization sceptical. "[..] these words are always overlapping. The media grows tired of one buzz word and then they go to the next. The BBE is part of the CE and the CE is

part of the GE." (#6, Senior Economic Policy Advisor (Biobased Economy), personal communication, November 5th, 2020). This is in accordance to the point stated by the Senior Policy Officer Housing & Demography of Zeeland, which mainly sees the GE as a way of green washing "The green economy is only used as a way to make more money. It gets promoted in a green way but the core of it doesn't differ from the neo-liberal economy that we currently have. The motive behind it, sounds more like green washing to me" (#4, Senior Policy Officer Housing & Demography Zeeland, personal communication, October 26th, 2020).

However, not everyone saw the connection of revitalization and the Green Economy as hesitant. By connecting the Green Economy and revitalization the region is focusing on its future "[..] it has a lot of intentions and it is the combination of addressing the shrinking component in combination with how do you see the future. So that's actually a field of interest where it's quite a lot about the value orientation of the region." (#1, Program Manager Quality of Life, personal communication).

6.1.2. Green Economy Initiatives

The responses of the interviewees were likewise reflected in the research on Green Economy initiatives in the region of Zeeland. Green Economy related initiatives were only found to be through Circular Economy (CE) or Biobased Economy (BBE) projects. However, through the organization "Impuls Zeeland" and findings from interviewees two sectors with a potential for the Green Economy and revitalization were classified.

Circular Build Environment

Senior Policy Officer Circular Economy in Zeeland mostly see potential in connecting the GE within revitalization in the build environment "So bio-based materials and circular constructions, in fact, is great, in Zeeland. And we do have some very innovative projects within our region, which are, for instance, almost 100 percent circular and bio based. So I almost built with reused materials." (#5, Senior Policy Officer Circular Economy, personal communication, November 4th, 2020).

One of these projects is in corporation with the EU Funding Program "Interreg 2", Zeeland focuses on the *Circular Biobased Construction Industry*. An example of circular construction was the new to be renovated children's and youth clinic of in Zeeland. Instead of demolition the building the materials were given a new purpose. This was the first project in the Netherlands, which entirely reused material on a large scale (Circular Biobased Construction Industry, 2018).

Taking the well-being metrics based on OECD Better Life Initiative (see 2.3) into account this strategy falls under the 1) material conditions – Housing and 2) quality of life – environmental quality.

Green Tourism/ Leisure recreation

Another sector in Zeeland which the concepts of the CE and BBE are present is the Leisure recreation and Green Tourism. However, future approaches which entails the components of the Green Economy were identified, through the tourism industry promoting their green identify, as well as nature and tranquillity. "Implus Zeeland" sees the potential of greening the

tourist industry through by the fact that most tourists have different requirements for holidays for about ten years. Hence, by implementing a circular approach, Zeeland would be more quickly to respond to changing wished of the guests (*Leisure Recreation Zeeland*, n.d.).

"[..]I believe the environment, because I think that is our solution on the longer term, from a sustainable perspective, we do have to look more to nature. We are looking at biomimicry, for instance, to create the first projects. It's also on both sides the green economy and also fitting within our regional identity and the vector of our region. It's healthy, it's green. We do have a lot of space. It's also a part of our identity. So you do have an economic vision and you do have an identity reason." (#5, Senior Policy Officer Circular Economy, personal communication, November 4th, 2020).

"And of course, you do have parts of the circular economy which are very social and relevant. And we also have more project which fall under the "service economy" when you think of mobility, of sharing or sharing a bicycle, sharing. using it more in the way of the service economy. Yeah, so start not buying, but sharing, in fact, from that perspective. But I have to be honest, it is not the priority of our funding from our point of view." (#7 Project Manager Circular Economy and Energy Transition, personal communication, November 12th, 2020).

The missing link between the social component and ongoing circular economy projects has likewise been identified by the Senior Policy Officer Circular Economy "but in fact, the social aspect is not that big. I'm sorry for that, but I know is the answer. That's the missing link, I think" (#5, Senior Policy Officer Circular Economy, personal communication, November 4th, 2020).

Under the consideration of the well-being metrics the approach of Green Tourism is selected under the classification of 1) material conditions - jobs and income and 2) quality of life – and environmental quality.

6.2. The role of the Green Economy for adaptation- focused revitalization in Thuringia

6.2.1. Political approach

The clear interlinkage between the Green Economy and revitalization can be only found to some extend at the current state in Thuringia. When looking at the "Demographic theme years" there can be seen a focus on infrastructure, the health sector, and e-mobility in the past few years. The state actor in Thüringen stated that for the "Demographic change strategy Thuringia 2030", "the environmental as well as the climate will be one of the guiding themes" (#12, Thuringian Ministry for Infrastructure and Agriculture Actor, personal communication, December 4th, 2020). However, when looking at the annual topic years of demographic change in Thuringia, it becomes likewise evident that the opportunities between a green approach and tackling shrinkage has not yet been made. The state actor during the interview claims that these comes down to the "hard and soft factors of a location" (#12).

"At the end of the day, people will not move to a location because of environmental factors (soft factor), but a more important factor is a job security, family insurance and or health care. Of course, space and nature also play a role, but these are mostly secondary" (#12, Thuringian Ministry for Infrastructure and Agriculture Actor, personal communication, December 4th, 2020).

6.2.2. Green Economy Initiatives

The concept of the Green Economy in connection to revitalization can be especially found through bottom-up initiatives in Thuringia. One way in which the Green Economy stimulates adaptation-focused revitalization is through "re-connecting the people with their region".

Connecting people with the resources in their region

Through the research one specific initiative was mentioned by multiple interviewees, which concepts the concept of the GE and revitalization. Funded by the "WIR!" project from the ministry of infrastructure and agriculture, the *Climate Protection Project Ilmtal* (Klimaschutzprojekt Ilmal) was founded in September 2020. This project ties to the concept of shrinkage as it connects people again with their region. The project tries to show through tangible examples that not everything has to happen in big cities and that through creating a similar vision together connects people. One of the co-founders of the project sees the problem of shrinkage as:

"the main problem is the disassociation from your own place. Since all workers and children travel to the bigger cities to work and to go to school, social ties are slowly weakening and the sense of home is weakening, and a lot can be done about that. We can also have for example a solidarity-based agriculture, that can work, but it depends on the change of consciousness and I think that's why we need tangible examples here in the valley, where people set out to reestablish these things." (Webinar #5, "Think global, act local", Online-Webinar, December 16th).

The project is a multidisciplinary actor project which has three guiding themes 1) maintaining the basis of life, 2) biological agriculture and 3) the subject of renewable energy production. Co-founder of the project states that "the overarching aim of this project is well-being and the common good which is why the Green Economy plays an important role as well as post-growth approaches, and we would like to work with companies that are also moving in this direction, and we would also like to support many citizens and take economic enterprises into our movement, i.e. forests and energy cooperatives, etc., and to operate these things ourselves again and to leave the added value and the jobs in the region." (#13, Co-founder of Climate Protection Project, personal communication, December 1st, 2020).

Funded by the "WIR!" program from the federal state, the governmental funding program "aims to support structurally weak areas through technological, in brackets also social innovation - although that is not really prioritized, so that they basically keep up with the normal economic development. So it's definitely also to promote normal economic growth in these areas" (#13, Co-founder of Climate Protection Project, personal communication, December 1st, 2020). Despite this fact, the Climate Project got their first funding round in September 2020. "I wrote on the invitation that this project was more of a post-growth and regional green economy oriented, and that's exactly how we want to set up our concept if it gets funded and it still luckily got approved by the government " (#13, Co-founder of Climate Protection Project, personal communication, December 1st, 2020).

However, it got also stated that the topic climate change has caused disagreements, as not everyone will feel connected to it as he believes this is a very sensitive topic as many opinions vary highly and that "there are still a lot of deniers out there" (#13, Co-founder of Climate Protection Project, personal communication, December 1st, 2020).

Moreover, other critical voices have been raised regarding the Green Economy as a way of dealing with shrinkage. One common criticism was that the Green Economy itself was not radical enough in its definition for the transformation needed to reshape the growth-thinking. ".. at the end of the day it always depends on how you frame the GE. If it's through the definition by the UN, then the aim of the GE is still to be competitive and part of the global economy which would be the wrong approach for shrinking regions" (#11, Head of Department at Leibniz Institute for Regional Geography, personal communication, December 1st, 2020). Alternative economic models, especially de-growth have been mentioned more often in the interviewees (#11,12,13).

Referring back to the well-being metrics the approach of this initiative is classified through under the classification of 1) material conditions - jobs and income and 2) quality of life – and social connections, civic engagement and governance as well as environmental quality.

<u>Citizen Empowerment</u>

Another approach in which the GE was connected to revitalization was through the socially cultural initiative of "Platform EV" based in Erfurt, Thuringia. A social entrepreneur initiative with "the overarching mission to empower, to show people that they can change their reality and put their destiny in its own hands" (#14, Project Manager Kulturhanse, personal

communication, December 3rd, 2020). The initiative "Kulturhanse" is result of "Werft34" which was a three year start up by the association Platform e.V (in 2013). The main aim was to find new, alternative ways of making socio-cultural start-up projects successful (Werft34 Logbook, 2016). The project emerged as the initiative felt as all governmental funding was invested to uphold an attractive image of the city. "The majority of the funding flowed into high cultural offerings. Whether theatre, major operas, Christmas market (..) everything that attracted tourists was eligible for funding" (Werft34 Logbook, 2016, p.10).

That is why the initiative shifted "what we consider to be urgently needed and we do not want to chase after the subsidies. [..]. For us, it is really a matter of dealing with very specific issues that move our hearts, otherwise we would have to adjust to what the state funding program offers" (#14, Project Manager Kulturhanse, personal communication, December 3rd, 2020).

Both initiatives, Climate Project Ilmal and Kulturhanse, criticized the core aim of governmental support. Although the project manager of the Project Kulturhanse does not believe that there is a lack of funding in Germany, however, "there is need for a paradigm change" (#14, Project Manager Kulturhanse, personal communication, December 3rd, 2020). "The change of perspective is definitely missing, but I also see politicians who see it the same way and who are working for it, and there are probably more of them in all parliamentary groups, less in some, but they are not yet able to assert themselves compared to the very strong lobbyists from industry and the farmers' association, who of course also influence politicians and influence bills. In any case, there is still a need for a lot of civil protest. It needs people to take to the streets (#13, Co-founder of Climate Protection Project, personal communication, December 1st, 2020).

The main discrepancy, between green or social initiatives and governmental funding programs is the fact that "well-being" as well as "empowerment" or "increasing local identity" are mostly difficult to put into numbers, profit return or the results will become visible after a term in the political office. While the subsidies of streets and infrastructure might be easily calculated, investing in a small project with a high risk, needs a clear and open-minded vision of the future, which mostly is lacking in policy making. "But how would you measure well-being, in our neoliberal economic system?" (#14, Project Manager Kulturhanse, personal communication, December 3rd, 2020).

In the case of East-Germany, Project manager of Kulturhanse, correctly states that, "visionaries and entrepreneurs with the vision of having and wanting a better life, have left Thüringen and these are the people we need now. But with our project now we want to show that people can change their reality and put their destiny in its own hands through realizing their local identity. Increasing awareness around the local identity theme is likewise one of themes this project follows: "it's absolutely necessary that people get their own local interpretation of it. Because only through this you can make sure that there are the highest degree of identification and that people can also better place their vision in their own local reality." (#14, Project Manager Kulturhanse, personal communication, December 3rd, 2020). Local identity is likewise a concept which was mentioned by a scholar and Frisian Social Planning Officer "Bottom-up initiatives as well as local identity is the starting point of revitalization in my

perspective. And I believe this is already understand even by the governmental level, however, they still do not really know how to implement it" (#3, Program Manager Frisian Social Planning Office and Professor of Regional Vitality and Dynamics, Personal communication, October 28th, 2020).

The "Citizen Empowerment" strategy can be classified within the well-being metrics under the approach of 2) quality of life – and social connections, civic engagement and governance as well as education and skills.

7. RESULTS III – Comparative Case Study Analysis

This chapter analyses the similarities and differences found in shrinkage strategies in Zeeland and Thuringia as well as the role of the GE across both cases. The results will give an overview of the current revitalization approach and how the GE is currently shaped in both regions. This allows for reflection on both lessons learned for other EU countries as well as to draw conclusion in the following chapter. This section of the result will therefore answer subquestion 3.

Shrinkage

Although the consequences and effects in both regions are similar, the drivers of shrinkage in are entirely different. In Thuringia the strong emigration in the beginning of the 1990s and the early 2000s, as well as the economic and social restructuring that followed the reunification have left a lasting impact on the demographic situation (TMIL, 2016). In Zeeland, on the other hand, shrinkage is caused through multiple factors including globalization and the agglomeration of cities (Beunena et al., 2019). Overall, shrinkage in the Netherlands has been addressed to a later time than in Germany. This becomes visible in the research through the published policy strategies as well as through the level of awareness of shrinkage in both regions. Multiple interviewees raised their concerns if Zeeland or any region in the Netherlands should be considered under the term shrinking region. This was explained through the fact that shrinkage is not a popular topic, as it goes against the "growth-oriented mindset" which is embedded in our current system. When put declining population numbers into context, it has to be stated that the shrinkage in Zeeland is clearly not as severe as the numbers in Thuringia (see section 4).

Policy response

In terms of policy responses, generally, it can be said that both regions have arrived to the perspective in documents as well as through interviews that shrinkage needs to be addressed in a different way compared to the early stages of planning theories (mainly mitigation-focused). Hence, adaptation-oriented revitalization seems to summarize the most recent reactions of Zeeland and Thuringia's policy makers in responses to shrinkage. However, in both case studies, concepts on both mitigation- as well as adaption- focused revitalization were identified in policy documents. This shows that policy makers mostly do not focus mainly on one of the two strategies.

Although Zeeland addressed shrinkage through interactive policymaking by inviting civic participation into a broad discussion in the initial phase (e.g. campaign New!Zeeland), it has failed to keep the conversation going which resulted in the fact that Zeeland often is not recognized as a shrinking region. Through regularly updated documents and reports on demographic declining numbers and strategies, the region in Germany has managed to keep the topic of shrinkage more constant on the policy agenda. In general, there can be likewise seen more interactive approach as well as annually activities in the context of shrinkage such as the "Thüringen Future Award" as well as "Demographic theme years" on the regional level in Germany than in Zeeland. However, in both regions there has not been found monitoring of set

actions, as well as in indicators on how to determine whether or not the adaptation focused approach has been implemented.

A feeling with was found in both case studies, was the "feeling of being left behind" as well as neglected by national government. This has been in addressed by the federal state of Germany by implementing "equality living standards" by law, however, until now this goal has not been reached. Similarly, the K6 Network published a statement report in order to display the inequality of shrinking regions in comparison to the rest of the Netherlands.

Green Economy Strategies in Revitalization

When it comes to the connection of adaptation-focused revitalization strategies and the Green Economy, this research has found no clear connection on policy levels regarding these two concepts in Zeeland or Thuringia.

Especially in Zeeland, the concept of the Green Economy has not been picked up. Due to the strong chemical sector, mostly components of the CE and the BBE were found, which fall under the broader concept of the Green Economy, however, neglect the social pillar which is a vital component for an adaptation-focused revitalization. Especially through governmental-led projects it became visible that the social-pillar was not the main priority, which has been likewise stated by interviewees. However, as the concept of the Green Economy was not the guiding theme, including the social component was not the aim of these initiatives. The broad definition of the Green Economy has likewise been criticized by multiple interviewees in both regions.

Mainly in Thuringia, funding programs specifically aiming at tackling shrinkage through a more innovative perspective, an adaptation- focused revitalization in connection to the Green Economy could be found. Here, the government has been dealing with shrinkage for a longer period, which could explain the higher number of funding programs offered from the national and regional government. Through bottom-up initiatives, the Green Economy has been picked up with a strong focus on increasing well-being (Climate Project Ilmal). Although, programs funded by the federal government of Germany are addressing new approaches on shrinkage, the core ambition was criticised as it still remains fixed on the current growth oriented economic model.

8. RESULTS IV – Lessons learnt

As shrinkage is not a rare phenomenon in Europe, this section zooms out of the two case studies and applies the similarities and differences lessons from both region into a wider context for other European shrinking regions. As this research project works in collaboration with the "Welcoming Spaces" project, it is interesting to see how the findings of the two case studies could lead to lessons learnt in other shrinking regions in Europe. Hence, this section will answer SQ4.

When it comes to shrinkage, the socio-economic processes which drive shrinkage are diverse whilst the consequences are remarkably similar (Dax & Copus, 2018; Lang, 2012). This has often led policy makers in the past to the misleading idea that common solutions would be appropriate (Dax & Copus, 2018). A specific consideration of each individual is always vital. Hence, this section draws to general recommendation which could facilitate the implementation of a Green Economy driven revitalization. Through the comparison of both case studies, Zeeland and Thuringia, there were three main lessons identified which will aid the implementation of the Green Economy as a adaptation-focused driver for revitalization:

1) Keeping the conversation going/Interactive policy making

The establishment of debates as well as communication around the topic of shrinkage is a key contribution to a successful demographic policy. This is a crucial step in raising awareness for shrinkage. Only through awareness and a well-founded analysis of the actual situation specific, can an adaption- focused planning approach have sustainable long-lasting effects. This implies that the local identify of a region should always be taking into account. The problem with keeping shrinkage on the policy agenda was the fact that shrinkage mostly goes beyond a legislation period which adds further to the unpopularity of the topic. However, by addressing the consequences as well as opportunities, regional planners can reframe the idea that most people currently have when thinking of the term shrinkage. Which is mostly viewed as "subsidy requiring and dying places". Keeping the conversation going as well as sparking innovative ways on dealing with decline can be achieved through interactive policy making by engaging the citizens in the process of shrinkage as well as setting up funding programs which support new ideas. This strategy was found in both case studies. By engaging local citizens, the local identity gets strengthens.

2) Flexible funding programs

Interactive policy making as well as funding program are only effective in the context of the GE if they go beyond the "by the book" approach and hence, can be strengthened by more flexible institutional frameworks (Lang, 2019). Flexible government frameworks allow likewise for adaptability, which is needed in order make rural regions resilient for the future. This approach has to be correspondingly supported by new measurements on how to determine "progress" as well as a successful progress. Hence, in order to have an impact on well-being there has to be better measures of progress beyond the indicator of the GDP. Projects need to be assessed based on their increase in well-being and quality of life.

3) Trainings and educational activities

This point is likewise connected to both lessons mentioned above. The two recommendations can be enhanced by increasing and offering tools and educational activities for local actors in e.g. policy making and financial management (Lang, 2019). Trainings and educational activates could be applied within projects by the European Union, in order to maintain equal opportunities in all shrinking rural regions. As it became evident from both case studies, the financial part of the project is financed from national or EU funds, but for now no financing opportunities for training of local actors to manage the project, write applications or offer technical support for project implementation have been identified. Often local actors do not have the ability to translate their ideas into projects. Furthermore, trainings could likewise go into sustainable agriculture (e.g. permaculture) as well as education on resources in one region. Hence, governmental-led strategies should go beyond simply offering financial funding.

9. DISCUSSION

This thesis researches how the GE, an alternative economic model, can act as a driver for adaptation-focused revitalization. In this chapter, the results of the analysis are discussed by coming back to the overarching research question:

How and to what extent, can the Green Economy act as driver for adaptation-focused revitalization?

The GE's focus on growth is a productive place to begin reconsidering the commitment to growth, which has been identified as one of the main challenges of adaptation-focused revitalization through literature as well as interviews. A significant concern regarding the GE as an enabler for adaptation-focused revitalization is the fact that it is still a market-driven economy at its core. While it states that the aim is green growth, which is still argued as an oxymoron as well as growing consensus in sustainability science in regard to the ability for economies to grow in a sustainable way within the planetary boundaries (Brand, 2012). In order to promote the transition away from growth in shrinking rural region, findings of this research have shown different outcomes in regard to the Green Economy.

On the one hand, the broad definition of the Green Economy has been criticized by multiple interviewees (#4,6,11). This is problematic as it allows for exploitation of the concept. More ambitious concepts in relation to shrinkage and more transformative growth-paradigm shift have been likewise mentioned by interviewees, such as the concept of "de-growth". This concept aims at a reducing global consumption and production and advocates a socially just society within the planetary boundaries (Trainer, 2012). On the other hand, the Climate Project Ilmal has likewise used the "not so radical" approach as an advantage, as it allows for a broad audience of multiple actors. In literature, this has likewise been found to be one of the concepts strong points as the GE is explicitly avoiding taking a clear stand against "antigrowth" or "limits to growth" (Glasson 2013), and rather just floats in-between pro-growth/anti-growth discourse.

Therefore, in relation to adaptation-focused revitalization, the GE has been interpreted as an appropriate means of a first and needed step to establish links between revitalization and sustainability. In this way, positioned between well-being and societal goals, GE can be conceptualized as an "catalyst" for the needed paradigm-shift away from growth (Glasson 2013). In alliance to the findings of this research which showed that innovative initiatives are still struggling in order to receive governmental financial aids as these are mainly focused on the growth-paradigm. Hence, the opportunity here for the GE is, rather than simply rejecting economic growth, which is currently politically unfeasible, the GE can be seen as a first transition away from growth. While the Green Economy might not be the entire solution, it is most certainly the first step in the right direction. The concept of growth is so incorporated in our everyday lives, that a radical transition such as opposed by "de-growth" approach might lead to rejection instead of curiosity.

Furthermore, findings have shown that the Green Economy can act to a certain extent as a driver for well-being, within the approach of adaptation-focused revitalization. Especially in Thuringia under the framework of the well-being metrics of the OECD, the GE approaches could be classified to indicators of the well-being metrics. However, no strategy has been found to include all aspects of the metric.

Another challenge identified through the strong mitigation-focused approach in early strategies of revitalization, has been the "feeling of being left behind". This was found in both case studies and can be explained through the fact that shrinking rural regions are hardly in a position to participate in the decision-making processes as they are shaped by distance from power. The concept of the GE has been found in this research to act as driver for well-being by increasing civic engagement and governance, education and skills as well as social connections, as found in the case study of Thuringia. Hence, addressing the problem of "feeling left behind".

Although findings as well as suggestions of this research stated that local actors and civic participant is one of the key solutions in order to increase adaptation-focused revitalization, as well as enabling the Green Economy in this context, this also offers politicians the opportunity of shifting the responsibility to the local level. While local engagement is, certainly important and valuable for the shaping of the regional identity, there has to be more done than simply offering funding program. This point has been picked up in the third lesson learnt, which claims that additionally education programs should be offered (Lang, 2019). The role played by national actors is of highly important for the shift to a more well-being focused economy.

Finally, concept of the Green Economy aligns with the adaptations-focused revitalization as a tool for "reframing shrinkage". Due to the fact that shrinkage is still perceived as an unpopular term, the concept of the Green Economy could promote revitalization strategies by reshaping shrinkage and focusing on opportunities and the future-oriented approach.

9.1. Limitations

This study is prone to several limitations. The results gathered in this study are context sensitive. Furthermore, the study aimed at investigating the connection between shrinkage and the GE from a regional and national perspective, however, not all related policy documents were captured due to the limitation of time. In addition, both shrinkage as well as the GE capture broad dimensions of the political system. Therefore, this research only allowed for a generalized capture of the connection of both concepts. Furthermore, the time limitation of the research likewise only allowed for a simplified allocated of the well-being metrics. GE strategies have been classified to clear indicators, in order to provide a general overview.

9.2. Further research

Findings of this research have shown that there is more need for further research when it comes to the development of a concept in regard to rural shrinkage. Further research should enlarge the focus on specific provinces within in a region to capture a more specific picture of shrinkage in the given regions. Furthermore, as the growth-paradigm has been identified as one of the main challenges when it comes to the implementation of adaptations-focused revitalization, further research should go into pilot projects regarding more ambitious economic models,

aiming at reversing the concept of growth. In growing literature both concepts have been arising more often, however, there is need for research on more practical initiatives. Another topic which was mentioned was the potential of a "regional money system" in order to enhance the circularity of local and regional products and the insurance of profiting from the regional economy. Further research should go into the opportunities and challenges of a regional money system in selected case studies.

Furthermore, taking the current COVID-19 pandemic into consideration, the crisis might reshape how we view metropolises. This could not only change future city planning, but likewise migration pattern (#6 Webinar, "COVID-19, Inequalities, and the Future of Cities", Zoom-Meeting). Since March there can already be witnessed a rise in housing demand in more rural regions (#12). Hence, the relationship between the current crisis and the connection to shrinkage should be observed as well as how it related to the remote working in the future.

10.CONCLUSION

This study was set out to explore the potential of the GE as a new pathway for adaptation-focused revitalization. The GE arose as a suitable alternative economy model of study due to the indirect link to the growth-paradigm as well as the focus on well-being. Through the comparison of two case studies in the Netherlands and Germany, namely, Zeeland and Thuringia, this research gained insights into the current strategy employed by the two regions (mitigation/adaptation). Furthermore, the research focused on the extent to which these two concepts have already been implemented in current political discourse.

In order to answer the research question, the current political strategies on shrinkage through the mitigation- and adaption approach was examined. Furthermore, an analysis to what extent, the shift to an adaptation-focused approach has already been made and in which way the GE could fit into it as a tool for adaption-focused revitalization. Lastly, lessons learnt from both case studies have been applied in the European context in order to recommend further steps for other European shrinking regions.

First, findings showed that there can be witnessed a shift in adaptation-oriented policies regarding shrinkage in both Zeeland and Thuringia. This shift can slowly be seen around the year 2010. However, mitigation-focused approaches are likewise still visible in both strategies. Second, current revitalization strategies do not include the GE approach as a tool for revitalizing in both regions.

Third, the GE has only been partially identified as a potential driver for an adaptation-focused revitalization. Findings showed that the GE can act a catalyst in order to stimulate civic empowerment as well as increase social connections within likeminded people in shrinking rural regions. Furthermore, the GE could lead to an increase of well-being through an increase of the environmental quality. The broadness of the concept allows for an interactive initiative shaping for local leaders. At the same time, there is the concern of exploitation of the concept as a way of green washing and neglecting the well-being dimension. Furthermore, the GE has been criticized for its growth-perspective which has been identified as not being progressive enough for the long-term transition needed in shrinking regions. Hence, paradigm shift from a growth to a more well-being focused approach remains a political project. Finally, in order to increase the implementation of the GE as a driver for adaptation-focused revitalization, there is need for flexible governmental funding as well as the stimulation of educational trainings.

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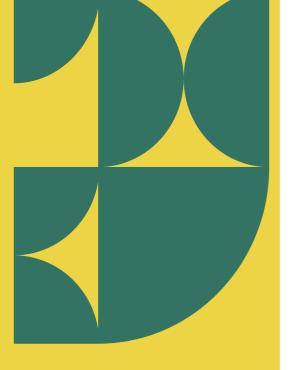
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Appendix I. Project Sheet Information Form







Smart, green and fair revitalization? Assessing the potential of Green Economy for revitalizing rural regions in Europe

This master thesis project aims at examining challenges and opportunities of Green Economy initiatives for a social well-being focused revitalization of shrinking rural regions in Europe.

The traditional respond to decline aims at breaking the cycle of shrinkage by focusing on growth. However, many years of business as usual in rural development and regional policies have not been able to reverse the negative trend. There is an increasing consensus that the development planning perspectives should focus on how to shrink in a smart and sustainable way.

The GE is promising in the context of shrinking rural regions as it places the social well-being at its core and can be seen as an opportunity for fundamental societal transition, preservation of rural environment and a break from growth-oriented development pressures Hence, this research aims at answering the following research question:

How, and to what extent, can Green Economy strategies act as a driver for well-being focused revitalization in shrinking rural regions in Europe?

In two different case studies, namely in Zeeland (the Netherlands) and Thuringia (Germany), this study will look into current Green Economy and revitalisation strategies and aims at identifying insightful lessons for other European shrinking regions. However, the study likewise acknowledges that regional shrinkage dynamics are unique and hence planning and policies responses vary greatly.

Project Information Sheet

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https://www.welcomingspaces.eu/

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Cover photo: Pistoia, Italy by Herr Bohn



Appendix II. Interview Consent Form

Project name: Smart, green and fair revitalization? Assessing the potential of Green Economy for revitalizing rural regions in Europe					
Researcher:	Tanja Vocke				
Contact details: <u>t.vocke@students.uu.nl</u>					
Institutions: Utrecht University & Horizon 2020 "Welcoming Spaces"					
mandatory. The partici	und 30 minutes and although it is preferred that they are recorded, this is not pants of the interviews will remain anonymous, their names will not be taken. es any more information, the researcher, Tanja Vocke, can be contacted.				
	have read the project information sheet and have had the opportunity to ask have been answered in full.				
2. I understand th	at my participation is voluntary, and I am free to withdraw at any time.				
	at the results of this study will be used in a research report and presentation lished online without the names or any identifying details of the participants.				
4. I agree to participate in this study.					
Signature participant	Date				
Signature researcher	Date				

Appendix III. Interview Guides (example Zeeland)

I would like to ask you to participate in an interview that will take around 30-45 minutes. The information resulting from these interviews will be used in my research into the assessment of the Green Economy for revitalization of shrinking rural regions in Europe. We will discuss concepts such as shrinkage, the Green Economy and regional well-being. Furthermore, current policy strategies as well as pilot projects and other documents regarding Zeeland's/Thuringia's will be addressed. For more information about the content and the researcher of the research, I refer to the project information sheet. Please read the sheet and the consent form and sign the latter if you are willing to participate in this interview.

Opening Questions

- 1. Please briefly present your position within the company/ministry
- 2. How engaged is your current position in the field of regional development policy/(sustainability) Green Economy strategies?

Question about revitalization strategies

3. Zeeland is officially one of the three provinces which are defined as "shrinking regions" in the Netherlands. How is Zeeland approaching/framing shrinkage in its current/ future policies?

Probe: no clear strategy; growth-oriented, well-being oriented

- 4. Where does Zeeland revitalization policies (if any) place their main focus and why? *Probe:* growth oriented; attracting more people; local initiatives; mass-tourism, attracting big companies, large capital investments; referring to specific documents
- 5. Which departments/actors are involved in the policy making process to address shrinkage?

Probe: ministry of infrastructure; agriculture; societal actors

6. In your opinion, do you think there has been a shift in revitalization strategies in Zeeland and what do you think are the reasons?

Probe: away from growth;

Questions about the Green Economy

- 7. What is Zeeland's approach towards a transition to the Green Economy? *Probe*: national policy based; regional projects; local projects;
- 8. How is the Green Economy framed in Zeeland? *Probe*: Circular Economy, Bio-based Economy; Green Growth;
- 9. What roles do state actors/ non-state actors play in the establishment of Green Economy initiatives in Zeeland?
- 10. What is the main aim/focus of this/these Green Economy strategies? *Probe*: focus environmental conservation; increasing green jobs; bottom-up; top-down approach

Questions about the Green Economy as a driver for revitalization

- 11. In your opinion, how is the well-being level in Zeeland? (in comparison to national as well as EU standards)
 - *Probe*: feeling left behind; better than the rest of the nation; more green areas
- 12. Shrinkage is often seen as a disadvantage/failure. Where do you see the main opportunity/challenges when combining the GE with revitalization?
- 13. Where and in what role do you see the Green Economy in relation to revitalization?

Closing Questions

14. Would you like to add something that you think is important for my research? Do you have any suggestions about people in the other federal ministries I should contact or related policy documents/projects?

Thank you for participating in this interview!

APPENDIX IV. List of Interviewees

	Name	Position	Medium	Region, Level	Date
1.	Program Manager Quality of Life	State actor (Ministry of Zeeland)	Zoom	Zeeland	03.10
2.	Regional Economy Advisor to the Province of Zeeland	State actor (Ministry of Zeeland)	Zoom	Zeeland	18.10
3.	Programme Manager Frisian Social Planning Office & Honorary Professor of Regional Vitality and Dynamics	Scholar/ State actor (Gronigen/Friesland)	Zoom	Netherlands	28.10
4.	Senior Policy Officer Housing & Demography	State	Zoom	Zeeland	26.10
5.	Senior policy officer circular economy	State/ SME	Zoom	Zeeland	04.11
6.	Senior Economic Policy Advisor (Biobased Economy) at Provincie Zeeland	State/ SME	Zoom	Zeeland	05.11
7.	Project Manager Circular Economy and Energy Transition	SME (NV Economische Impuls Zeeland)	Zoom	Zeeland	12.11
8.	Social Geography and Planning	UU, Scholar	Zoom	Netherlands	17.11
9.	Project Manager Innovation	State/SME	Zoom	Thüringen	21.10
10.	Spatial and environmental planning and infrastructure	Scholar (FH Erfurt)	Phone call	Thüringen	27.10
11.	Head of Department at Leibniz Institute for Regional Greography	Scholar/ State Actor	Zoom	East- Germany	01.12
12.	Thuringian Ministry for Infrastructure and Agriculture	State (Ministry fürInfrastruktur und Landswirftschaft)	Phone call	Thüringen	04.12
13.	Board member of the German Ecovillage Network and co- founder of Climate protection project Ilmatal	NGO/SME	Zoom	Thüringen	01.12
14	Project Manager Kulturhanse	NGO	Zoom	Thüringen	03.12
15.	Sustainable energy and resource Manager	State/SME	Zoom	Thüringen	05.12
16.	Scientific Coordinator of ESPON ESCAPE	Scholar	Zoom	EU	19.11

APPENDIX V – List of Webinars Attended

	Name	Level	Link	Date
1.	P10 – Green New Deal	EU/NL	https://p-10.nl/nieuws/webinar- green-deal-opportunities-for- rural-areas/	14.10.2020
2.	Kennisvoorkrimp	EU/NL	https://www.kennisvoorkrimp.nl/publicaties-over-krimp-noord-nederland/verslag-en-video-webinar-de-growth-alternatieven-voor-plattelandsontwikkeling-10-september-2020	10.09.2020
3.	EU Week of Regions and Cities	EU	https://europa.eu/regions-and- cities/	05.10 – 19.10. 2020
4.	ESPON WEEK - Just Transition and Recovery for Cities and Regions in Europe	EU	https://www.espon.eu/just- transition-and-recovery-cities- and-regions-europe	18.11.2020
5.	Think global, act local	Thüringe n	https://klimaschutzregion- ilmtal.de/?page_id=56	16.12.2020
6.	COVID-19, Inequalities, and the Future of Cities	Internatio nal	https://lse.zoom.us/webinar/regi ster/WN_CBgcv-fIRsCVU- K8VOob6w	07.12.2020

APPENDIX VI – List of Policy Document Content Analysis (Zeeland)

Name	Year	Level
Unexplored Paths: challenges facing Zeeland province due to the changing structure of the population)	2008	Regional State
Nieuw!Zeeland (New!Zeeland)	2009	Regional State
The path ahead!	2012	Regional State
The whole of the Netherlands: too small for major differences)		Transregional State

Name	Year	Level	Description		
Onverkende Paden (Uitdagingen van de provincie Zeeland door de veranderende bevolkingsopbouw) (EN:Unexplored Paths: challenges facing Zeeland province due to the changing structure of the population)	2008	Regional State	 Unexplored Paths was mainly an analytical and agenda-setting document The Zeeland Provincial Council called in 2007 for a population analysis and the consequences of the outcome for provincial policy. In February 2008, the Onverkende Paden was published Report provided a vehicle for engaging in a dialogue with the public under the banner of New!Zeeland 		
Nieuw!Zeeland (New!Zeeland)		Regional State	This broadly-based public dialogue gave administrators, civil servants, NGOs and above all the people of Zeeland an opportunity to have their say about demographic developments and their consequences		
The path ahead!	2012	Regional State	The Path Ahead! focuses on a perspective transition from no longer about quantity but about quality as well as cooperation plays key word in this document		
HELEMAAL NEDERLAND- TE KLEIN VOOR GROTE VERSCHILLEN (The whole of the Netherlands: too small for major differences)	2020	Transregional State	Position paper (provinces of Friesland, Groningen, Drenthe, Gelderland, Limburg and Zeeland)		

APPENDIX VII – List of Policy Document Content Analysis (Thuringia)

Name	Year	Level
Demografie Strategie 2016	2016	Regional State
Jedes Alter zählt (2012)	2012	National Level
Growth for Thuriniga	2020	Regional State
WIR! Wandel für die Zukunft	2018	Transregional