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Sustainable vacation home development

A discourse analysis of how climate
change mitigation and adaptation are
considered when planning for vacation
home development

A case study of Kragerø

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Preface

This master thesis presents the end of my master degree in urban and regional planning at Norwegian University of Life Sciences, and comprises one semester work.

First, I would like to thank my supervisors Jin Xue and Rasmus Nedergård Steffansen, for sharing their knowledge with me and their involvement and effort during the whole process. I would also like to thank my good friend Bethany Sutton for proofreading.

The five years as a student has passed quickly, and I would like to thank my friends and fellow students for the nice years and all the good memories, and my family for all the support.

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Maren Vermelid

Abstract

Vacation home lifestyle is regarded as part of the Norwegian culture and tradition, and the number of vacation homes in Norway has now reached the number of 431.028 units (Statistikknett 2018a). The green shift is central in the political agenda, where climate change is considered as one major global concern facing the mankind in the future. However, a steady increase in vacation homes continues in Norway, causing occupation of natural environments, increased mobility and energy consumption.

The thesis aims to investigate the cultural-cognitive dimension of the planning institution in terms of examining the extent climate change considerations are taken into account when planning for vacation home development. With this as research objective, the investigation is conducted by a discourse analysis and a case study. Kragerø is selected as case area, and the discourse analysis is based on a narrative structuring.

The narrative structuring resulted in three storylines, where the storyline Kragerø – a place to live, was analysed to be of great importance and regarded as being the dominant storyline. However, interdependence was detected to the storyline Kragerø – place to visit, and emphasised the desire of further vacation home development. The third storyline, Kragerø – a climate friendly community was analysed to be the least prominent in the planning discourse.

The thesis concludes that climate change mitigation and adaptation to increased extreme weather and changed physical conditions are considered, where climate change is regarded as current and causing uncertain consequences. On the other hand, climate change is to a limited extent regarded in terms of possibly changing the use of vacation homes in Kragerø. Finally, the thesis concludes that the planning discourse act as a barrier for climate change mitigation, as a mediator for adaptation to more extreme weather, and a barrier for adaptation for possible change in use and attractiveness caused of climate change.

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Chapter 1: Introduction

Global challenges due to climate change require conversion towards a society where development occurs sustainable, within the limits of nature. The green shift is central in the political agenda, where focus applies for protection of natural environments and reduction of green house emissions, by new technology, reduction of energy consumption and coordinated land use and transport planning. However, vacation homes continue to be built within vulnerable natural areas in Norway. Furthermore, planners face challenges related to climate change. Vacation home lifestyle is regarded as a national tradition in Norway, where it is a steady increase of about one per cent in number of new vacation homes each year in Norway. By the beginning of 2018, the total number of vacation homes was 431.028, corresponding to the amount of one vacation home per fifth residence in Norway (Statistikknett 2018a). Vacation homes provide a basis for jobs and local development in many municipalities, however they also occupy large areas of untouched and coveted natural environments by rapid expansion in plots and infrastructure. Furthermore, vacation home development is causing increased mobility and energy consumption. It is therefore important to regard vacation home development in a long-term perspective, and increase the knowledge about the impacts this sort of development has on the environment, in terms of climate change mitigation and adaptation. The fact that vacation home development causes such energy-intensive consequences indicates the current development as a barrier in the green shift, and a need for increased knowledge and change to make vacation home development more sustainable.

Therefore, it is interesting doing a discourse analysis of vacation home development in regards to what extent planners understand and ensure sustainable vacation home development. By doing a discourse analysis, different concerns, attitudes and interests in the vacation home development will be indicated, and it will be possible to see how this development is supported and argued for in different coalitions of interests and actors. This thesis will discover and emphasize prioritized and marginal arguments and interests in the society and industry sector within the discourse of vacation home development. This will contribute to knowledge among people and actors, where every

choice and development direction will have a significant impact on our environment and that changes have to be done to achieve a sustainable development.

1.1 Personal interest in the topic

Having access to a vacation home has been part of my childhood, and I have considered this as common and not necessarily unsustainable. Through the years I have been studying urban and regional planning, sustainable development has been a central concept, yet much focus has been given to urban areas, both in terms of planning of city centers, housing and transport. The whole phenomenon of vacation homes became somewhat paradoxical with increased knowledge of theories of sustainable housing. This impression has further been strengthened by experiences of brand new, large and modern vacation homes used to the smallest extent. For me, the phenomenon of vacation home lifestyle was perceived as to a great contrast to the green shift policy and to theory of sustainable development. It was therefore of great interest to investigate whether the planning of vacation home developments today complies with the green shift policies. When I was asked about writing my thesis as part of an on going research project at the university, I found it as a great opportunity, however, the selection of case areas was limited to a few. Kragerø was one of the case areas I found particularly interesting, as being a place significant affected by the 100-metres building ban, and exposed to sea level rise. I hope this thesis will, if not directly, at least encourage to increased knowledge and investigation of the phenomenon of vacation homes in terms of sustainable development and climate change considerations. Where increased knowledge of climate impacts caused of vacation homes, and how it affects societal behaviour and lifestyle, can improve development that contribute positively in the districts, without compromising on achievement of a green shift.

1.2 Research questions and objectives

This thesis investigates to what extent planning of vacation home development is sustainable, in regards to the extent climate change mitigation and adaptation are taken into account when planning for vacation homes. Adaptations for climate change are relevant both as whether changed weather and physical conditions are considered when planning for development of vacation homes, and whether the planning discourse considers climate change to have an affect in the use of vacation homes. The master thesis aims to answer the main research question:

- To what extent is climate change mitigation and adaptation considered when planning for vacation home development, and how does the planning discourse act as either a barrier or mediator for such concerns?

In order to answer the main research question, I find it appropriate to formulate some sub research questions, which are as followed:

- (1) What planning strategies can reduce the climate impacts of vacation homes and make vacation home development adapt to climate change?
- (2) What storylines can be identified within the discourse of vacation home development in Kragerø?
- (3) How is the interaction between the storylines?
 - (3.1) What are the arguments and the coalitions within each storyline?
 - (3.2) What are the interdependent and conflicting arguments between the storylines?
 - (3.3) Which storylines are dominate and subordinate, and how do this influence the vacation home development in Kragerø?
- (4) How does the planning discourse of vacation home development in Kragerø act as either a barrier or a mediator for climate change mitigation and adaptation?

The research questions intend to find a structure of storylines within the discourse, where different concerns, attitudes and interests can be indicated. Then dissimilarities

between storylines can be indicated, where it is possible to see how the development is supported and argued for by different coalitions of interests and actors, and which arguments that are the most dominate. Then it will be possible to discuss the findings with theory on sustainable vacation homes, and evaluate to what extent the planning of vacation home development in Kragerø is sustainable.

1.3 Structure

The structure of the thesis following after the introduction chapter will here be presented.

Chapter two is the theory chapter, where theoretical assumptions for the thesis are presented. This applies both to theory of the methodical approach, planning as an institutional practice, vacation homes, climate change, and theories for sustainable vacation home development.

Chapter three is the methodology chapter, where the research methods, analysis strategies and methodological reflections are presented. Furthermore, the process of data collection and selection of participants and documents for the analysis are being explained and elaborated in this chapter.

Chapter four is the case study, where Kragerø municipality is presented and its historical vacation home development. Furthermore, the climate change scenarios for Kragerø are elaborated in this chapter.

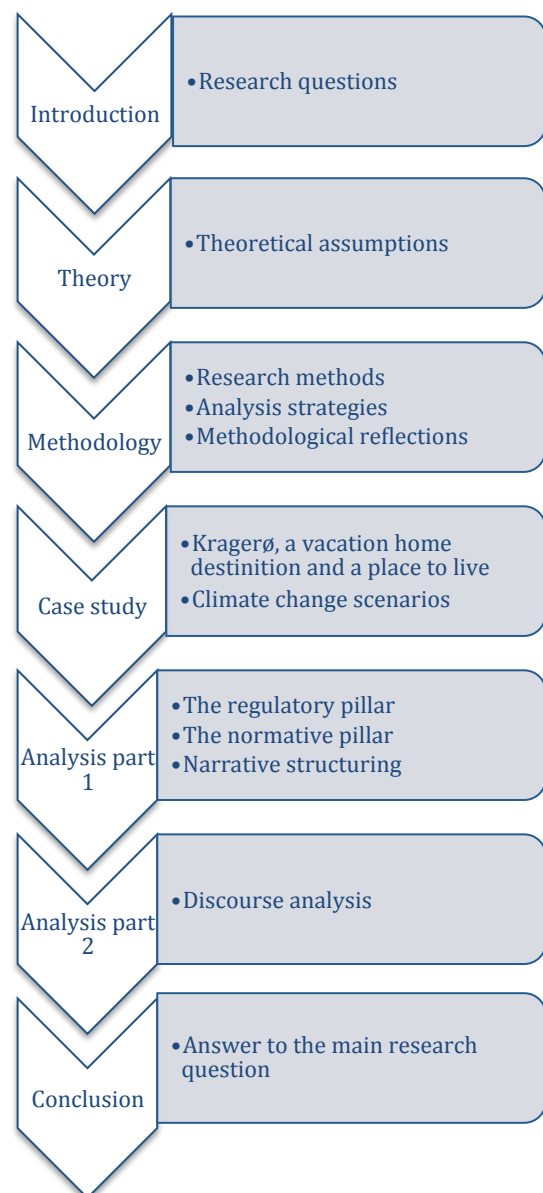


Figure 1: The structure of the thesis

Chapter five is the first part of the analysis, where The Planning and Building Act as part of the regulatory pillar, and the guidelines belonging to the normative pillar in the planning institution are presented. Followed by a narrative structuring of storylines as part of the cultural-cognitive pillar.

Chapter six is the second part of the analysis where a discourse analysis has been conducted aiming to investigate the arguments and coalitions in each storyline, what interdependences and conflicts that occur between the storylines, which storylines being dominate and subordinated, and how the planning discourse act as either a barrier or a mediator for climate change mitigation and adaptation.

Chapter 7 is the conclusion chapter, where the main research question is answered and forms a conclusion for the thesis.

Chapter 2: Theory

The theory chapter presents theories relevant for responding to the research questions posted through the thesis. The theories that are presented concern the theoretical research approach, the planning institution, and sustainable vacation home development. First the theoretical aspects of the research approach are presented, as the thesis relates to understanding and the creation of realities according to the social constructivism research paradigm, where Foucault's interest in social institutions and the role of discourse in forming social realities are explained. Institutions are further explained with regard to the practice of planning, where vacation home development is regarded as a composition influenced by regulatory, normative and cultural-cognitive processes. An understanding of the entire institution is considered relevant while investigating a component of it, where the different components influence and complement each other. In order to discuss whether climate change is considered when planning for vacation home development, theoretical perspectives of vacation home development and its impact on climate change are explained. Finally in the chapter, paradigms on sustainability are presented, and how vacation homes are considered according to these paradigms.

2.1 Theoretical approach

In this section, theoretical aspects of the research approach used for this thesis will be presented and explained. The theoretical aspects provide the basis for how the thesis relates to how opinions and understandings arise and disperse in a society. Further, followed by an explanation of how social understandings form discourses, and how discourses can be decomposed and analysed in a discourse analysis.

2.1.1 Social constructivism

Social constructivism is a research paradigm in social science, which takes into account the realities of humans as shaped by experiences and the society they live in. Through processes and interaction in a society, the society will form a common sense of reality based on a construction of experiences and situations. With a multitude of different cultures, a socially constructed knowledge will be very diverse (Burr 2015). Social constructivism has a purpose to highlight and raise awareness of unconscious assumptions and realities about the world. Social-constructive research emphasizes the interaction between people, where an understanding of reality is created through conversation and rooted in their culture and history (Moses & Knutsen 2012).

Through this master thesis, a social constructive research perspective will be used to understand the different viewpoints of the actors based on different truths about a phenomenon. By examining the discourse of vacation home development and climate change, social constructive perspective will be a fundamental argument for explaining the background of different views and perceptions of reality within the discourse. This thesis does not intend to find the objective truth, but to highlight elements of the discourse, and the interaction between them.

2.1.2 Discourse and storylines

A discourse is defined as a set of unique ideas, concepts and categorizations that are produced, reproduced and changed in a particular set of practices where meaning is given to physical and social realities. The extent to which a discourse is active in form of reproduction and transformation determines whether changes or permanence occur. This is where the actors in a process are holders of different positions, with possible different opinions, and where these differences create discussions and debates, and thus this gradual change in the understanding of a discourse. These different opinions and belonging arguments become elements of different stories, storylines that give a common understanding (Hajer 1997). A further explanation of establishment and structure in discourses is explained under Foucault's approach below.

A storyline is usually a total or partial unconscious explanatory theory that is supported and shaped by attitudes, concerns, ideas, statements and opinions, distributed to different people in a social group, that helps to explain why the phenomenon has the different situated understanding for the specific social group of people (Gee 1999). Storylines show the interaction between physical and social reality and appear as the driving forces behind change, as being the components of a discourse (Hajer 1997).

2.1.3 Foucault's approach

Michel Foucault had a great interest in social institutions, where he concentrated on splitting a discourse as far as possible, to find the start of its social setting and to discover the rules of discourse self-regulation (Dreyfus & Rabinow 1983). He explained that when people experience and discover the nature, the understanding of the experience will be communicated to the society and the culture, and becomes a truth to them. At the same time, people from other places experience the same in nature, but their understanding might be different, and thus the truth in their society. As the world is a multitude of cultures and societies, the above explanation will indicate that there will be many different understandings of the nature and in particular social phenomena. Foucault meant that this fundamental process of the creation of understanding in society excluded for a general and shared truth to all human beings. By investigating institutions, he wanted to prove that a discourse was built as a series of assumptions and understandings. He meant that a discourse is self-regulating, where power and central positions are strategic to convey their understanding of the world (Dreyfus & Rabinow 1983).

2.1.4 Discourse analysis as approach

A discourse analysis examines the structures and importance of discourse by investigating the content or limitations of concepts, and has historical roots in the

analysis of ideology, rhetoric, philosophy of language and science sociology. The discourse analysis aims to understand why some opinions and assumptions of the reality are dominant, and in some circumstances therefore regarded as authoritarian, whilst others are undermined. By finding this underlying imbalance or disagreement, one can analyse how different problems and challenges are presented and therefore how social collisions occur. Discourse analysis is suitable for explaining the dynamics of various desired development lines and power relations in a society, by identifying the distribution between storylines, as storylines show direction for the driving forces for change (Hajer 1997).

2.2 Institutional pillars in planning

Planning is an extensive field of frameworks, guidelines, subjects and participants. It is an institutional practice, by being a social practice based on different cultures, structures and procedures at several levels of governance. The institution is run and structured by three pillars: regulatory, normative and cultural-cognitive structures that ensure stability by being relatively resistant to change (Scott 1995).

The regulatory pillar in planning involves the establishment of rules, inspecting conformity of the law and regulation of sanctions to influence future behaviour. This constitutes a stable system of rules that is supported by surveillance and sanctioning power (Scott 1995).

The normative pillar in institutions includes values and norms. Values are principles, standards or preferred or desirable behaviour. Norms explain how things should be done, as a pattern of behaviour in society is accepted as normal, and what is considered correct or incorrect. Normative systems are imposing constraints on social behaviour, but also encourage social action and duties. The normative dimension in institutions has an influencing emphasis on social beliefs and norms (Scott 1995).

The cultural-cognitive pillar in institutions focuses on the shared conceptions of the social reality, and the frame where meanings are made. Where the representation of

reality within a society or for individuals, is regarded as the basis for their actions and meanings. The common meanings in society arise as an unreflected and taken-for-granted reality, and are maintained and transformed through an on-going routine and repetition of actions. The cultural-cognitive conception emphasise the role played by this social construction of a common meaning, by highlighting the importance of taking into account the actor's subjective interpretation of the actions when analysing a social phenomenon (Scott 1995).

These three pillars are interdependent and mutually reinforcing elements in institutions that maintain continuity, contributing to a powerful social network that provides stability and order. Changes and development interact between these conscious and unconscious realities in society, which contributes to a limited and gradual change. Therefore, institutions function to provide stability and order, however, institutions themselves undergo change. Thus, when investigating institutions, attention must be given to the process of change, and not limited to how institutions arise and are maintained. Even though the strength of the interaction between the pillars maintains a powerful social framework in an institution, it also blurs the differences between elements in an institution. Hence, it can be difficult to clarify the distribution of power within institutions (Scott 1995).

Legitimacy is generalized assumptions or perspectives, with actions that are desirable, appropriate or correspond to institutional framework of norms, values and beliefs. Each of the pillars provides a basis for legitimacy, by providing basis for reflection consistent with rules and laws, normative values and the cultural-cognitive framework. Furthermore, support from authorities is necessary to achieve legitimacy. Legitimacy provides the basis for power, where the power-holder must act in accordance with the law, norms and represent convincing ideas. On the other hand, power is reduced by contradiction with another power allied with more convincing ideas (Scott 1995).

Even though rules, norms and cultural beliefs are presented as the three central elements in an institution, material resources and behaviour are involved in the interaction between them. Material resources, such as capital or properties, are central in terms of power relations, and are also important to include in social structures.

Sanctions are necessary to make rules and norms effective, by influencing people's choices through economic benefits or disadvantages. Furthermore, processing powers with resources have to apply for permission and legitimation to invest in a project. On the other hand, the municipalities are dependent of these processing powers for further investments in terms of local development in the municipality. This forms interdependence between the authorities and the developers, and affects the balance of power (Scott 1995).

2.3 Vacation home development and climate change

In this section, theory about vacation homes in Norway and climate change will be presented, before a further explanation of which factors related to use and development of vacation homes that have impact on climate change. These factors' impact on climate change provides the basis for a critical investigation of development of vacation homes throughout this thesis.

2.3.1 Vacation homes

The term vacation home refers to privately owned houses and units used as homes in the leisure time, such as weekends and holidays. This is a home mainly used for accommodation and stay in an area for the purpose of recreation, relaxation and leisure activities. Often, these homes are located within rural areas and belong to a different local community than their primary residence (Farahani & Mirani 2015). Both older, simple vacation homes and new, high standards will fall under the concept of vacation homes. Other similar terms will be cottage, cabin, second home and holiday house, but removable units such as caravans, mobile homes and houseboats will fall outside the concept of vacation home in this thesis (Vittersø 2007).

Vacation homes have a long tradition in the Norwegian society. From earlier times when people were largely responsible for their own food supply, summer farms were used,

often in the highland, which provided the animals fresh pasture for a period of time. Furthermore, there were cabins for hunting and fishing in mountainous-, forest- and coastal areas. These were then small shelters in the natural environment, which were used during periods throughout the year, located away from residential areas and roadside streets. At this time, leisure time used for recreation was not common among the majority of the population, but these were places used for harvesting and grazing for the animals. Some of these buildings from the small cabins and summer farms do still exist, but very few are used as their original purpose, but rather as a vacation home for recreational use (Kaltenborn & Clount 1998). The first cabins for recreation use were small, preferably one room, with no water and electricity, with an outdoor toilet, and rarely no driveway up to the cabin. These were often located in areas that can provide recreation in the form of unspoiled natural areas such as high mountain areas or coastline (St. Meld Nr. 21 2004-2005).

In more recent times, these traditional cabins have been challenged by increases in standard, where it has become more common to build high-quality vacation homes, which often are size equivalent to permanent residences, often located in connection to large driveways, inlay water, drainage and electricity. Newly planned vacation home areas are often planned to be similar to residential areas with large plots, integrated into a larger development area (St. Meld. Nr. 21 2004-2005). In 2018, Norway has a number of 431.028 vacation homes, with an annual increase of about one per cent over the last ten years, indicating that one vacation home per fifth residential unit exists. These vacation homes constitute an area of 444.48 square kilometres, located in natural environments in mountain areas, woodlands and along the coast in Norway (Statistikknett 2018a).

2.3.2 Climate change

Global warming refers to the global average temperature on the soil surface that increases overtime. Note that global warming does not imply that there is warming everywhere, nor that each year is warmer than the previous year (NCCS 2015). The climate has always changed gradually for natural reasons. This is due to the insolation

from the sun, the solar radiation to space, and variation between the radiance from earth and the atmosphere. Human activity affects these energy developments, for example by deforestation and agriculture that affects the reflection of solar radiation. However, during the last 100-150 years, human influence has been noticed globally, as humans began to affect the climate in several ways, whereby the dominant global effect is the warming caused by greenhouse gas emissions (NCCS 2015). Whether it is human activity that causes climate change, can immediately be questioned, as we know that the earth has historically experienced climatic changes before humanity. However, the majority of the scientific community has stated that the earth's climate change is rapidly changing as a direct result of human activity, showing that little doubt exists regarding the human influence on climate changes today (Bray 2010; Heffron 2015). Climate change is one of the greatest environmental concerns facing mankind in the future. Surface temperatures are expected to increase globally and major changes are likely to occur in global hydrological and energy cycles (Beniston et al 2007). These changes in climate and physical conditions have initiated the introduction of adaptation measures in the climate change agenda, along with climate change mitigation.

2.3.3 Vacation homes' impact on climate change

Vacation home development and accompanying lifestyle have different impacts on the climate. Land use, increased mobility and energy consumption are consequences of vacation homes that have impacts on climate change, and will be described in this section.

Land use related to vacation home development involves the reduction of nature for plots, road systems, and excavation and changes of nature related to infrastructure. Vacation homes occupy large areas of land, usually in the highland or in coastal areas. These areas do often have vulnerable ecosystems for intervention and change, and can generate negative consequences for the environment (Miljødirektoratet 2017). Land use, land-use change and forestry have complex impacts on greenhouse gas emission, because they both absorb and release greenhouse gases. Removal of natural vegetation

and biomass has significant consequences for carbon dioxide absorption on the ground. At the same time encroachment on nature will release carbon dioxide that have been bound in the biomass through photosynthesis (Dirmeyer et al 2010).

An *increased mobility* is related to vacation home development, as it provides a more mobile lifestyle where cabin owners travel between their cabin and permanent home, meaning that cabin development creates a desire to travel more, and often by car (Aall 2011). In today's mobile society, travel distances are increasing, as technology and facilities allow you to travel for longer distances in less time. With regard to the vacation home lifestyle, this also provides a more frequent use and shorter stays at the vacation homes. Furthermore, there is an increase in people having the opportunity to bring along work from the workplace to the vacation home, thus generating both possibilities for more use and a change in the use of the vacation home (Dijst et al 2004). A survey conducted by Østlandsforskning in 2007, showed the significance of cars on the main roads to vacation home areas that were traffic related to tourism centres and private vacation homes (Overvåg & Ericsson 2007). The private car is the dominant mode of transport for longer trips to domestic vacation homes in Norway, as there are rarely any good opportunities for collective solutions going to vacation home areas, as they are scattered in natural environments (Aall 2011). Road traffic accounts for 62 per cent of all pollution from transport in Norway, and private cars account for 54 per cent of the emissions from road traffic, which indicates that a mobile lifestyle with much use of private cars has significant impacts on emissions (Miljødirketoratet 2018). Furthermore, attitudes and the usual-making of private car-use increase the use of private cars while staying in the primary residence rather than collective alternatives, as shown in a survey of the relationship between ownership and travel (Dijst et al 2004).

The *energy consumption* related to use of vacation homes are mainly linked to electrical equipment and heating, as well as wood burning, while the use of paraffin and solar panels has decreased. Again, there are significant differences in vacation home standards and energy consumption, where some vacation homes' electricity use is limited to energy from their own solar cells, and wood burning for heating. On the opposite side, there are vacation homes that have an energy use on a par with a primary residence, where vacation homes even are heated when not in use. Figures from 2001

indicate that Norwegians have energy consumption equal to 17.555 Tj caused by vacation homes annually. 26 per cent of this is related to the transport, indicating that 12.990 Tj in annual energy consumption are caused by vacation homes, disregarding the energy caused by transport (Aall 2011).

Vacation home development has as elaborated above different impacts on climate change. However, according to Hall, vacation home development is managed in different institutional fields, such as land-use planning, environmental policy and infrastructure planning, as well as being implemented in tourism strategies a contributor for economic growth and local development. This results in vacation homes being part of different and also conflicting policy agendas. Therefore, vacation home development, as it has impacts on climate change, must be planned and governed in a provident and comprehensive way, as it have significant impacts on social challenges related to mobility and land use (Hall 2015).

2.4 Sustainable development and vacation homes

This section presents two paradigms that aim to achieve sustainable development; green growth and de-growth. These will be presented and explained in a context of vacation home development, and propose how a further development can be proceed sustainably.

2.4.1 Sustainable development

Sustainable development is a concept of a leading global policy, and has been incorporated into the global policy since its first introduction in 1987. As it is explained in *Our Common future* – the core of the concept is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED 1987, paragraph 27). Sustainable development is divided into three pillars: social-, economic- and environmental development.

There are different interpretations to achieve environmental sustainable development, whereby green growth and de-growth are two interpretations for today's sustainable discourse. Green growth, also referred to as ecological modernisation and green economy, focuses on investments and innovations that will provide economic opportunities while ensuring natural assets to continue to provide the resources and environmental services for the future generations (OECD 2011). De-growth is an opposing interpretation to green growth within the sustainable development discourse, by promoting a transition towards a smaller economy, with less production and consumption (Alier et al 2010).

2.4.2 The green growth paradigm

Green growth is a concept that signifies support to policies and processes in institutions that aim to ensure growth with reduced environmental impacts. The organisation of Economic Co-operation and Development (OECD) has in order to promote a transition towards green growth as a new development paradigm, produced several documents containing policies towards green growth (OECD 2011). Where OECD's definition of green growth is "fostering economic growth and development while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities" (OECD 2011 p. 9). The green growth paradigm consists of several perspectives aiming to achieve green growth, including ecological modernization, as further explained here.

Ecological modernization was first developed in the early 1980's of social scientists as new perspective and environmental reform (Mol & Sonnenfeld 2000). The concept of ecological modernisation is used at two levels. First, ecological modernization theory is a theoretical concept to analyse necessary and fundamental changes in modern institutions in society to ensure ecological values, and second, ecological modernization is a concept on a policy strategy (Gibbs 1998). Economic growth and environmental protection become reconciled through technological improvements for resource

efficiency, and is therefore central in both levels for ensuring sustainable development (Sezgin 2013).

Ecological modernization theory aims to explore and analyse important dimensions of contemporary societies, and how these deals with environmental crisis, by focusing on environmental reforms in social institutions, discourses and social practices to ensure maintenance of the societies' sustenance basis. Thus, ecological modernization focuses on fundamental transformations, by shedding light on how social institution design consider and facilitate for an improved sustainable development in regard for environmental challenges, instead of focusing of the physical changes per se (Mol & Sonnenfeld 2000). The theory has developed with diversity and debate, and can be divided into three stages; the 1980's technological innovations within the industrial production; the late 1980's and early 1990's state-market, with more attention to institutional and cultural dynamics; and the late 1990's and forward with an escalation from Europe to be a global perspective on the transformation of consumption (Mol & Sonnenfeld 2000). Ecological modernization as a policy strategy for environmental sustainability has a purpose to ensure protection of the environment through economic growth, with development of new technology and institutional change. Great beliefs exist in eco-innovations, compact development, energy efficiency, emission trading and green industry (Berger et al 2001).

2.4.3 The de-growth paradigm

The first discussion on de-growth started in the 1980s, were the term stands for *socially sustainable economic de-growth*. De-growth did develop as a concept in social ecology, human ecology and ecological economy, and with historical roots back to the 1930's with World War I and economic crisis (Alier et al 2010). De-growth is a paradigm in the sustainable development discourse, as a social movement and an opposition to the strong economic ideologies. The paradigm challenges the ideology of growth, emphasising that there is a contradiction between sustainability and economic growth, and promotes a contrasting proposal whereby economic gain becomes of a lot less importance. By shrinking the size of the economy, it will ease the circulation of capital,

and overconsumption be reduced. De-growth does not necessarily mean lack of growth, or a reduced gross domestic product, but a changed ideology towards less material consumption, quality of life and solidarity among people, as opposed to productivity and individualism (Asara et al 2015). De-growth has great belief in happiness and well-being in the society through reduction in consumption, less emphasis on economy and more voluntary work, reuse of buildings, reduced availability to energy sources, limitation of the exploitation of natural resources and preservation of the biodiversity and elimination of large infrastructures with a transition from car based to walkability and biking (Alier et al 2010).

2.4.4. Sustainable vacation home development

As green growth and de-growth are concepts representing two different approaches towards sustainable development, it also implies different perspectives on whether vacation home development can be sustainable according to the two paradigms.

In the green-growth paradigm economic growth and sustainability are linked, where new technology, more dense development and more energy efficient alternatives will ensure sustainable development without reducing growth. This implies that vacation home development can be sustainable, providing it follows green growth strategies. To explain how sustainable vacation home development can be achieved according to the green growth paradigm, green growth strategies will be presented in the context of challenges associated with vacation homes today.

Vacation homes occupy land areas, both by constructions on the property and by development of associated infrastructure. Furthermore, vacation homes increase material- and energy consumption, in terms of buildings material, energy for heating and electricity, as well as consumption of equipment and furnishing (Farstad et al 2009). Green growth strategies such as green technology, use of local resources and renewable energy will contribute to sustainable energy use (Jacobs 2012). A more dense development limits the land-use and smaller dwellings will use less energy. Vacation homes increase mobility, as a second home is often located away from the residence

used in the everyday life (Aall 2011). The green growth paradigm's strategy for transport is related to the strategy of more dense development, where the public transport and land use development are seen in context and located together, which open up the use of public transport, a shift towards more electrified cars, and less use of private cars (Jacobs 2012). This indicates that more dense development located in connection with public transport solutions, energy efficient building methods and energy solutions related to new technology are ways to continue development of vacation homes in a sustainable way according to green growth.

As a paradigm opposed to green-growth, de-growth does not find new and greener technology as the mere solution for sustainable vacation home development. A vacation home, as a phenomenon, is a luxurious lifestyle that contributes to an unnecessary use of resources. A change towards green technologies is regarded as a positive development, but is not considered as the best solution as it will fail to change people's lifestyle and attitude, and therefore not contribute to a reduced consumption. The de-growth paradigm has great belief in more time for leisure, by reducing the quest for privatization and private investment and high private loans. Therefore, a private vacation home, according to the de-growth paradigm, is incorrect prioritizing and a high financial burden, as vacation homes in some coastal areas are very expensive. A different financial scenario appears when vacation homes are inherited through generations, but a dilemma might appear when it has been inherited for a few generations and the number of owners increases. Then it might be considered appropriate to buy out the rest of the family, and then the inherited vacation home becomes subject for a high financial burden. On the other hand, vacation homes could be used as rental accommodation, owned in a co-ownership, where several families could have access, or vacation homes could be available through workplaces. To explain how sustainable vacation homes can become, central perspectives in the de-growth paradigm will be related to consequences caused by vacation home development.

First, the very essence of the de-growth paradigm is that a happy and successful life should not be promoted through personal profits, increased consumption, privatization and enquiry of economic growth (Asara et al 2015). Vacation homes, as we know them today, in turn, provides a private second home intended for recreational use. The second

home is well equipped and provides double the level of consumption, as they often are as equipped as a residence (Farstad et al 2009). Furthermore, vacation homes are subjects for investment (Kaltenborn & Clout 1998), which also opposes core perspectives in the de-growth paradigm. A changed use and ownership in vacation homes, facilitating for rent or time-sharing will contribute to a decrease in the expansion of built environment, by building a lower number of vacation homes, without restricting people to have access to a vacation home (NOU 2017). To have access to a vacation home, or maybe several, but together with several families, or access through a workplace, would contribute to a reduction in consumption, as well as higher utilization of the building stock. Secondly, de-growth intends to promote for development of transport infrastructure for non-motorized transportation and transits, but reduce the transport infrastructure for cars. With a changed desire to travel long distances with private cars, as well as reducing the levels of consumption and production that is dependent on infrastructure for cars, more sustainable alternatives for transport, such as cycling and walking will be found appropriate within vacation home areas (Alier et al 2010). Vacation homes provide a mobile lifestyle, where the alternatives of transport often are limited to the use of private cars (Aall 2012). With changed society towards de-growth, people will have more leisure time, which potentially encourages people to use collective transport alternatives. Furthermore, the frequent use of vacation homes will change as the units are shared between a numbers of people, or rented for a week or so.

According to the green growth paradigm, sustainable vacation home development can be ensured through dense development, in connection with public transport solutions and new technologies that ensures an energy efficient construction and use. The de-growth paradigm, as a contradiction, indicates that the ownership of vacation homes have to change, towards more rent, or co-ownership, to achieve more use of the existing building stock and control the further construction of vacation homes.

Chapter 3: Methodology

In this section methodological assumptions for the investigation and research design will be presented, and how the assimilation of the data in the research field will be examined through the thesis. A qualitative research approach based on discourse analysis and case study, within the social constructivist research paradigm is used for answering the research questions. A discourse analytical approach and narrative structuring are used to identify and structure storylines within the discourse of vacation home development and climate change. A discourse analytical approach constitutes both the theory and methodology, and is fundamental to the analysis for this thesis. The discourse analysis is critical as the analysis intends to display a description of unsolved issues and challenges within the planning discourse of vacation home development in the case study area of Kragerø municipality.

3.1 Methodological approach

The social constructivism research paradigm considers the truth as socially constructed. People may look at the same things and perceive them differently, and these different perceptions become subjects to attempts to understand the world. Constructivists try to understand an action in the context of conversation, beliefs and assumptions. By capturing something appearing as socially meaningful or real to a person, it will be possible to investigate and understand why this is meaningful for this person. Social actions performed on a basis of the conviction being meaningful, suggests that any assumptions and shared experiences may affect the behaviour and have real consequences for actions in society (Moses & Knutsen 2012). A socially constructive research perspective is used to understand the origin of meaning and action, and by focusing on the cultural-cognitive dimension of planning, where the research question is related to the qualitative dimension of science. Qualitative methods are appropriate for this thesis to systematize and to provide insight into human opinions and actions, and how it affects the planning practice. For research areas where little research-based

knowledge exists, qualitative research methods can be appropriate, where it can help display phenomena that lack understanding. Qualitative methods include forms of systematic collection, processing and analysis of material from conversation, observation or written text (Johannessen et al 2011).

3.1.1 Data collection and research method

Qualitative research is a broad methodological approach that comprises many different research methods, where case study and discourse analysis are the chosen research methods for this thesis.

Case study is a detailed examination of a single example, providing a context to a social phenomenon. As a research method it has the advantage of being able to investigate the depth of a phenomenon, where a case study can contribute to new insight and knowledge (Flyvbjerg 2001). Case studies may involve one or several cases, and have various strategies for selection (Johannessen et al 2011). For this thesis, a case study is appropriate for investigating the phenomenon of development of vacation homes in relation to climate change in depth, where a single-case research design and a critical case selection are used. The objective to critical cases is, according to Flyvbjerg “to achieve the greatest possible amount of information on a given problem or phenomenon” (Flyvbjerg 2001, p. 77). An information-orientated selection is conducted in this case study, where the thesis aims to achieve information oriented around the phenomenon of vacation homes and challenges related to climate change within the institutional planning practice in Kragerø municipality.

Case studies used as a method is criticized for not providing knowledge on the basis of an individual case, and therefore a case study cannot contribute to scientific development (Flyvbjerg 2001). Where it is criticized that context-independent knowledge is more valuable than concrete and context-dependent knowledge (Dreyfus & Bourdieu referred to in Flyvbjerg 2001, p. 38-73). There are also claims that case studies as a method is not appropriate for theory building, as there are difficulties in developing general theories on the basis of specific case studies (Giddens, referred to in Flyvbjerg 2001, p. 73-74). In order to respond to the critical perspectives of case studies

as a method, new perspectives and further reflections will argue for the positive aspects of a case study, and why this method is appropriate for this thesis.

Firstly, case studies are suitable for investigating social phenomenon, where social actions are influenced by their contexts (Flyvbjerg 2001). As this thesis aims to investigate the planning discourse related to vacation home development, which being a social phenomenon, the importance of a case study will here be explained. A case study is essential as method to relate reflections due to vacation home development to the specific context of Kragerø municipality, where the municipal and political strategies and goals, natural conditions and traditions may differ between municipalities elsewhere. Therefore, general knowledge is difficult to produce in social science, without connecting it to a context through case studies, meaning that case studies are necessary for all social research (Flyvbjerg 2001). Secondly, in terms of theory building, case studies do not provide general knowledge in itself, but will provide new knowledge and provide hypotheses for other case studies, and in the long term can be subjects for theory building. Furthermore, by being an in-depth approach, case studies are suitable for identifying details, and thus falsification of general knowledge. As Popper used for explaining the importance of case study, he used the example “all swans are white,” before the observation of one black swan (Popper, referred to in Flyvbjerg 2001, pp. 76-77). The swan-example emphasizes the significance of case studies, as its findings are not of less importance than context-independent and generalised knowledge. Based on this, case studies can contribute to theory building and scientific development, where they are ideal for generalization, in terms of falsification, used as alternative or supplement to other methods (Flyvbjerg 2001).

Kragerø as case is selected on the basis of being a municipality with a large proportion of vacation homes, and the expectations of further development. However, it would have been interesting to have two case studies to have the opportunity to compare and reconcile the findings. On the other hand, this would have been too extensive to ensure the depth in both cases, thus a single case is chosen for this master thesis. Kragerø municipality is an interesting location to investigate in relation to vacation home development, as it is a coastal area that has been developed with vacation homes over a long period of time, and is strongly affected by coastal development restrictions.

Furthermore, Kragerø has an interesting location in relation to climate change, as it is likely to be exposed to storm surges and more extreme weather in the future.

Discourse analysis is a research method and an approach that aims to analyse expressions, statements and texts. When applied to social sciences, discourse analysis examines how linguistic structures give meaning to experiences, and how this effects how reality is understood (Hajer 2006). A discourse analytical approach is key for this investigation, as an approach that contributes to increasing the awareness of how discourses shapes perceptions of reality. The thesis investigates the discourse of planning for vacation home development, and the extent to which climate change is taken into account. In order to investigate the planning discourse, the analysis will focus on the cultural-cognitive dimension of the planning institution, even though all dimensions must be explored and understood, as they are dependent and complementary to each other (Scott 1995). An argumentative discourse analysis will be appropriate, focusing on the arguments within the discourse. The argument must be identified in regards to who is speaking, what is suggested and what counterarguments are presented. Furthermore, it is crucial to investigate how others react to the argument and how opinions are produced in the interaction of argumentation (Hajer 1997).

The collection of data is related to several sources of information; planning documents, political documents, meeting reports, newspaper articles, sites of argumentation and central actors. Documents and articles included in the discourse analysis were collected from political documents, plan-documents, impact assessments and articles from the local newspaper Vestmar. All these documents are available on the municipal or county website, and the articles in the online archive of Vestmar newspaper. Respondents for interviews are municipal and regional planners, politicians and actors with influence on the development of vacation homes in Kragerø.

Interviews are flexible in nature for collecting rich and detailed information and descriptions from individual actors. Qualitative interviews occur based on conversations that are set into a structure and with a purpose (Johannessen et al 2011). In this thesis, semi structured interviews are used, meaning that the interviews are structured by an interview-guide that lists topics relevant to the interview discussion. The actual

formulations of the questions are made during the interviews, and thus occur in different ways and order in the various interviews. Semi structured interviews were very suitable for the purpose of the thesis, where it investigates a very complex, but concrete topic within the planning practice. Furthermore, this topic lacks modern literature, which indicates that it would be difficult to prepare an exact structured interview that could obtain all the requested information. In total eight interviews were conducted, including two local politicians, two municipal planners, a local environmental councillor and a buildings application processor, a climate- and energy planner from the county and co-owner in a local architectural firm that also contributes with regulatory work for developers. This provided a wide range of different and relevant actors, and thus individuals with a varying base and professional backgrounds, resulted in interviews with an unequal distribution and weight on the different elements of the interview guide. Detailed and self-formulated answers from the respondents were considered important, as their arguments supporting their opinions were necessary for identifying discourse coalitions in the analysis. Therefore, follow-up questions and more detailed questions were often required. The questions that were asked dealt with how and what impacts vacation home development provides to the municipality, the perceived environmental impacts of this development, how development is related to climate adaptations and what climate change mitigations have been done and could be done.

In front of the interviews, all participants received a thematic list of what they could be asked about, practical information about what the purpose of the interview was and how the data was intended to be handled. Six out of eight interviews were carried out in personal meeting, and two over telephone conversation. The first interview was not recorded, but noted continuously and fulfilled immediately following the interview. In order to ensure high accuracy, the rest of the interviews were recorded and transcribed. All interviews lasted for about one hour.

3.1.2 Selection of participants and documents

Selection of data in qualitative research are determined by research questions and guided by the theoretical framework. Qualitative research methods generate a large amount of information, where a small selection is studied intensively and in depth. Relevant and possible informants were listed up, and organized after municipal administration, politicians, regional planners and private businesses and developers. Then a few from each of the most central professions were contacted by mail. Eventually, even more were contacted, as new findings proved them relevant, or in the absence of answers from the first group I tried to reach. The selection proceeding to a wide selection was achieved, with politicians, municipal and regional planners, an environmental councillor, a building application processor and developer interests.

Newspaper articles were also collected in the purpose of contributing with relevant information to underpin the research question, and evolved as the research proceeded. By searching in the newspapers online archive, it was possible to look up all articles related to vacation homes and climate change. Articles that contained argumentative expressions of development or the existence of vacation homes were saved for later analysis. Political documents, guidelines, municipal planning documents, impact assessments and private suggestions to the new municipal plan were familiarized, and the documents related to vacation home development or perspectives on climate change mitigation and adaptation were saved. These were further studied and analysed as part of the discourse analysis.

3.2 Analysis strategy

When the data were gathered a discourse analytical approach and narrative structuring were used to identify and analyse storylines within the discourse of vacation home development and climate change. The analysis is divided into two chapters, where the first chapter concerns the three dimensions of the planning institution, and is where the storylines are defined and presented within the cultural-cognitive dimension. In the

second chapter, a further analysis of the cultural-cognitive dimension is presented with a discourse analysis that discusses the arguments and storylines in relation to each other.

Within social science, storylines are used to clarify a message, emphasizing on a stream of considerations and stories. A storyline will be a compaction or a reconstruction of many narratives identified through the first part of the analysis. This results in one or several narratives that are richer and more coherent than the many individuals' uncoordinated stories (Johannessen et al 2011). To form the storylines, processes of structuring and reformulations have been conducted. The narrative structuring started already while gathering data, to start the thinking process and try to see structures and similarities between arguments and small narratives, by forming preliminary storylines. When the interviews were conducted, I organised the data after positive and negative effects of vacation home development, climate change considerations and the development being promoted. This was helpful in terms of clarifying the different perspectives on vacation home development and climate change for adjustments of the storylines. Political documents, planning documents and articles in the local paper were continually gathered and studied to acquire a wide range of sources and to underpin the arguments sources from interviews. When storylines were clearly identified, the analysis continued to investigate the relation between the arguments within the different storylines, by finding what arguments form coalitions, conflicts, tensions, synergies and interdependences. In this interaction of arguments, a range of opinions is found, and therefore displaying which actors promoting and fighting for arguments for a particular type of development. I then asked questions and discussed limitations and potentials in the storylines in terms of the contribution of more sustainable development of vacation homes.

Analysis method	What (Research questions)	How
Step 1 Gather and organize	Extract relevant information from the collected data.	Find all collected data: transcribed interviews, suggestions for new municipal plan, impact assessments, political decisions, newspaper articles, guidelines and political meeting minutes. <ul style="list-style-type: none"> Analyse collected data Find opinions and arguments Collect the findings in a diagram
Step 2 Narrative structuring Presented in Analysis part 1	Research question 2: What storylines can be identified within the discourse of vacation home development in Krgaerø?	Make storylines as a reconstruction of uncoordinated and small stories identified in Step 1. The forming of storylines will be a process, where the storylines will be changed and developed several times as knowledge and structures emerge.
Step 3 Discourse analysis Presented in Analysis part 2	Research question 3.1: What are the arguments and the coalitions within each storyline?	<ul style="list-style-type: none"> Make an arrangement of arguments to each storyline. See if there are shared arguments and opinions within each storyline. What coalitions are being displayed?
	Research question 3.2: What are the interdependent and conflicting arguments between the storylines?	<ul style="list-style-type: none"> See if there are any similarities in the arguments between the storylines. Are the arguments the same, or interdependent to each other? Are the coalitions different and conflicting to each other and between the storylines?
	Research question 3.3: Which storylines are dominate and subordinate, and how do this influence the vacation home development in Kragerø?	<ul style="list-style-type: none"> Look into the distribution of supporters of the different storylines, and the power relation between actors and coalitions where the dominant storyline will be displayed as the one with most influence in decision-makings. Look into to what extent the different storylines are visible in the actual development in Kragerø.
Step 4	Research question 4: How does the planning discourse of vacation home development in Kragerø act as either a barrier or a mediator for climate change mitigation and adaptation?	From step 3 the supported development has been clarified, and it will therefore be possible to compare it with theory on sustainable vacation home development. This make possible a discussion on how the planning discourse acts as either a barrier or a mediator for climate change mitigation and adaptation.

Table 1: Analysis strategy

3.3 Methodological reflections

In relation to validity and reliability, particular problems relate to the fact that it is difficult to verify qualitative data, and that interviewer-respondent relation may occur. Interviewer-respondent relation is when an informant's inherent opinions are being influenced by the interviewer, and thus resulting in answers that are unreliable. In order to achieve a high degree of validity, several elements and actions have been given focus in my work. First, when conducting these interviews, I tried to allow the participants talk as freely as possible, and let them navigate the conversation in a way comfortable for them. The following and more specific questions were based on what they already had expressed during the conversation, in order to not influence their answers. When changing the theme or angle, I followed with an open question. I tried to ignore my own opinions, by leaving myself open to all responses, so the informant would not view me as sceptical or contesting with what was said (Johannessen et al 2011). Secondly, quotes and referring were used for the interpretations I made, in order to make my interpretations visible and accessible to the reader. These considerations are of importance as making it to the greatest extent possible for the reader to see and understand the interpretations I made.

As this case study is investigating a social phenomenon in depth, it allows for concrete and precise collecting of data, providing a high degree of internal validity. On the other hand, the possibilities for using the findings for generalisation, is limited to be used as supplement for other methods in other case studies, and thus the findings have a lower degree of external validity.

Chapter 4: Case study

Case studies are suitable for investigating social phenomenon, as social behaviours and actions are influenced by the context (Flyvbjerg 2001). For this thesis Kragerø is chosen as a case for investigating to what extent climate change is considered when planning for vacation home development. In this chapter Kragerø's role as both a residential and a vacation home destination will be presented, as well as local climate change scenarios.

4.1 Kragerø

Kragerø municipality is located furthest south in Telemark, with 496 islets and islands in its archipelago, and is also 149 kilometres from Oslo in the southern coast of Norway (snl 2018). Kragerø has a well-preserved built environment, with narrow streets and old wooden houses, reminiscent of an old and vibrant town. From the 1500s, forestry and timber export were major industries in Kragerø, and it lasted until the end of World War I. During the 1800s shipping became a growing industry, and Kragerø became one of Norway's largest seafaring towns. Furthermore, important historical industries were wood processing, ice export and mining (Kragerø 2018). It was after World War II that the first vacation homes, simple cottages, were built in conjunction with more free time and a better economy. This was firstly an upper class phenomenon, but with increased welfare, more and more people were able to realize the dream of owning a second home for recreation use in vacations (Gardåsen et Haave 2012).

Christian Krohg stated once "this town should be painted," supported of Edvard Munch's assertion of Kragerø as "the pearl among the coastal towns" (Visit Kragerø 2018). There is little doubt that there are many who agree with the two artists, where Kragerø annually has about 100 000 guests stays, according to the average between 2016 and 2017 (Statistiknett 2018c). Furthermore, Kragerø has the total of 3384 vacation homes, accounting for about 40 per cent of the total housing stock in the municipality, where the total housing stock refers to both permanent dwellings and vacation homes.

About half of the vacation homes are from before 1980 (Statistiknett 2018c), implying that Kragerø has been a municipality with a large number of vacation homes for a long time, and thus become part of the identity of Kragerø today. The increase in number of vacation homes has been stable in the last few decades, where the average annual growth is equivalent between 1983-1999 and 1999-2017; with approximate 45 new vacation homes (Statistiknett 2018b). Numbers of new vacation homes the last thirteen years and the average area per unit are displayed in the following table. The table indicates a stable increase in number of vacation homes, but a slight decline in the average area per unit. Today, vacation homes in Kragerø are regulated to a maximum size of 100 square metres.

Year	Number of new units	Size per unit (m ²)
2005	150	94
2006	53	92
2007	35	163
2008	39	82
2009	35	425
2010	23	137
2011	18	89
2012	22	68
2013	31	67
2014	46	61
2015	34	71
2016	33	85
2017	16	77

Table 2: Vacation home development 2005-2017 (Statistiknett 2018b)

“It is highly reputable to have vacation home in Kragerø,” claims Tor Kjetil Gardsåsen, author of *Vacation life in Kragerø* (Gardsåsen 2012), where he identifies vacation as not just relaxation and pleasure but a symbolic game for people to show others who they are and who they want to be, and to have a different role from what they have in everyday life (Øverbø 2012). The popularity of Kragerø is also noticed by the web search engine Finn.no, which indicates that Kragerø is Norway’s second most popular coastal destination by number of searches and bookings for vacation homes (Nilsen 2018b). The tourism sector is of great importance for local industries (Kragerø 2018), and can be related to trade and service and secondary industries that are the largest industries in the municipality (SSB 2018). Kragerø municipality had 10 506 permanent residents in the fourth quarter of 2017 (SSB 2018), which is a small decrease in the population since the beginning of 1900s, where Kragerø had a population of about 11 000 (Nilsen 2017). Structural changes in the industry sector related to important industries, such as shipyards, offshore operations and other mechanical industries have caused a substantial decline in employment in Kragerø. Further reduction in workplaces is related to downscaling at the local hospital in the period between 2005 and 2010. It is therefore a municipal goal to create more jobs, to ensure population stability or growth,

and to overcome challenges related to an increased elderly population (Kragere Kommune 2017).

4.2 Climate change scenarios

Human influence contributes to climate change by deforestation and release of greenhouse gases, meaning human activities are causing global warming, where more extreme weather and a change in physical conditions are likely to occur (NCCS 2015). If the emissions continue to increase at the same rate as they have done for previous decades, a global rise in temperature is calculated as from the period 1850-1900 to be about 4,5 °C in 2100. If we can manage to limit the warming to below 2 °C, global emissions should be reduced by approximately 50 per cent by 2040, and then reduced further until they become negative towards the end of the century. Negative emissions indicate that we absorb more greenhouse gases from the atmosphere than we release. Global warming due to greenhouse gases will lead to changed weather conditions on the planet, as well as variations in weather patterns across different regions. Norway is located North of the globe, where circulations in the air and the sea mainly source warm air. With global warming, there will be variations in these circulation patterns and therefore changes in the regional climate for Norway. As a consequence, there will be changes in the extent and intensity of migratory low pressure, including changes in volume and heat value of the Norwegian Atlantic Sea Currents (NCCS 2015).

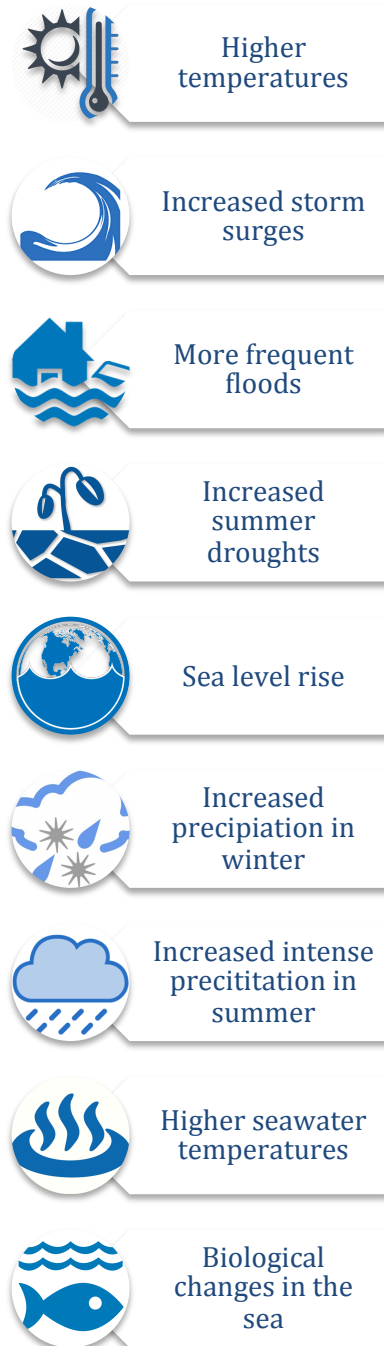


Figure 2: Climate change scenarios, Kragere (Norsk klimaservicesenter 2016)

According to the estimation of Norsk Klimaservicesenter, climate change will likely have consequences in terms of changed weather conditions and physical conditions in Kragerø in the future. The following climate scenarios are estimated for the period between 2081 and 2100. Changes that may occur include annual average temperature increase by 4-5 °C, meaning a temperature above 20°C during most of June, July and August. Higher annual temperature will have consequences in terms of drier summers, increased seawater temperatures and biodiversity changes in the sea. Furthermore, a warmer climate all year round provides increased vegetation cover, leading to covers of natural and cultural landscapes. The precipitation during the summers will not change significantly, however, more intense rains will occur in short periods in the summer season. More intense precipitation increases the chances for floods in dense built environment and changes flood directions from streams and rivers. Furthermore, more intense precipitation and increased temperatures will cause more droughts due to increased evaporation. Additionally, the precipitation in the winter will increase by approximately 30 per cent, 25 per cent in the spring and 10 per cent in the autumn. Increased precipitation will increase the level of water in streams, rivers and drainage systems and cause increased risk for floods and landslides, due to water saturation in the soil. The snow season will be shorter, respectively between one and four months shorter, due to increased temperatures. Changes in wind conditions are related to significant uncertainties, and municipalities are therefore encouraged to take into account possible changes in their assessments when planning. Sea level rise increases the risks and damages related to storm floods and storm surges, such as damage to buildings and infrastructure close to the coast and waterways. The sea level rise in Kragerø is estimated to be 44 cm, where land rise is included in the calculations (Norsk Klimaservicesenter 2016).

These weather and physical changes related to climate change can affect the attractiveness of Kragerø as a destination for vacation homes. Due to increased temperatures, the summer season will be longer, and there might be attractive to use a vacation home in Kragerø from earlier in the spring and further out in the autumn. On the other hand, increased wind and intense rain can have negative consequences of the attractiveness.

Chapter 5: Analysis part 1

As explained in the theory section, planning is an institutional practice that can be divided into a regulatory, normative and cultural-cognitive dimension. Even though this thesis focuses on the cultural-cognitive dimension, an understanding of the regulatory and the normative dimension is necessary to be able to fully understand the cultural-cognitive one. All dimensions of the institution are relevant and important to understand and explain, as they have influence on each other and are mutually complementary to ensure a stable institution. In this chapter the planning and building act will be presented as the law has significant impact on development of vacation homes, as well as several guidelines that are relevant for development of vacation homes and climate change. Finally in this chapter, the findings from the analysis step two, the narrative structuring, will be presented as storylines.

5.1 The regulatory pillar

The Planning and Building Act (pbl.) is central as a legal basis of interest for protection and development of land and built environment. The law is applied to all buildings and all planning in Norway, and is a legal framework that covers national, regional and local levels. With the purpose to ensure future planning, the law aims to coordinate national, regional and municipal tasks in order to ensure the basis for decisions regarding use and protection of resources. Furthermore, planning will be a public and predictable process, and ensure participation opportunities for affected parties and authorities. The solution will be long-term and the consequences for environment and society have to be described, as well as climate concerns will be shown through land and transport solutions (plan- og bygningsloven 2008).

Vacation home is included as area-purpose in The Planning and Building Act, and is basically regulated much to the same extent as housing. The exceptions apply to connection to infrastructure, where water supply and sanitation regulations only apply

if it is regulated in the plan, cf. pbl §30-6 (plan- og bygningsloven 2008). Vacation homes must according to this law, “be planned and performed in a way that ensures safety, health, environment, energy and sustainability requirements, and ensures protection of life and material values” (plan- og bygningsloven 2008 §29-5). This is followed by requirements for building design that fulfil requirements for proper energy consumption, lightning conditions, insulation, heating and so on. In addition to this, the Ministry regulates supplementary provisions in the *Regulations on technical requirements for construction work*, cf. pbl. §29-5 fourth paragraph (plan- og bygningsloven 2008). The technical requirements aim to “ensure measures being planned, projected and implemented based on visual quality, universal design and in such a way that the measures correspond to technical requirements for safety, environment, health and energy” (Byggteknisk forskrift 2017 §1-1). Chapter seven in the technical requirements regulates safety against acts of nature, where vacation homes should be developed in safety in relation to floods, storm surges and landslides. However, it is not made clear in the requirements the physical conditions that can occur in the future due to climate change. Therefore, the requirements mainly take into account extreme weather that is regarded as extreme today, and not necessarily future extreme weather related to climate change. The planning and building act does further regulate the preparation of national, regional and municipal plans, as well as regulation plans. The Ministry has the administrative responsibility for governmental planning, to ensure that the national expectations are observed in regional and municipal planning cf. pbl. §3-5 (plan- og bygningsloven 2008).

5.2 The normative pillar

The ministries draw up national guidelines to ensure municipal planning that incorporates national and regional interests. Also politicians and the administration, with councillors, caseworkers, professions and decision makers, both use and develop guidelines for regional and municipal planning. The guidelines aim for disseminating national values and desired development at local level. The guidelines are part of the normative planning dimension but are an initiative from the regulatory dimension by the planning and building act §3-5 (plan- og bygningsloven 2008). The guidelines are

not legally binding, however, they are powerful as they represent national or regional values and strategies for further development, and where municipal developments that contradict the guidelines can be objected. Furthermore, thematic guidelines are developed, where it is considered necessary to focus some more attention to some central values. *The Government's guidelines for differentiated management of the coastal zone along the sea* (Statlige retningslinjer for differensiert forvaltning av strandsonene langs sjøen), *The Government's guideline for planning of vacation homes 2005* (Veilderer for planlegging av fritidsbebyggelse), *National expectations for regional and municipal planning* (Nasjonale forventninger til regional og kommunal planlegging), and *The regional guideline for tourism and adventures* (Regional plan for reiseliv og opplevelser) are guidelines with the purpose of ensuring and carrying forward national and regional values to local level. These guidelines apply for vacation home development, and will be described below, before be included in the further analysis in the following chapter.

The Government's guidelines for differentiated management of the coastal zone along the sea has the purpose to clarify the national land use policy within the 100-metres zone along the sea, with the aim of protecting public interests and avoiding unwanted development along the coastline. Coastal areas are regarded as of national interest, and should therefore be protected from privatization and downsizing. Vacation home development is regarded as unfortunate within the 100-metres zone along the sea, where consideration of the natural and cultural environment, recreation, landscape and public interest should be emphasized. This guideline is to be used when planning in municipalities and counties, and while evaluating dispensation applications.

Professional authorities do also have to include the guideline in their work, and provide objections to decisions that go against the guidelines (Miljøverndepartementet 2011).

The Government's guideline for planning of vacation homes intends to guide counties, municipalities, developers and actors in planning and development process of vacation homes. The purpose is to ensure a more environmentally friendly development, as vacation homes occupy large areas of nature, but on the other hand promotes development in the business sector in local communities. To achieve both long-term and predictable development, the guideline encourages municipalities to develop a policy for further vacation home development. This vacation home policy should be considered in

correlation with local policy goals and environmental criteria, such as landscapes, biodiversity and local climate. The guideline note that today's development to some extent take place as densification of existing vacation home areas, and how this provides the opportunity to clean up in unorganized and old road-, water and drainage conditions. Furthermore, it outlines which natural environments should not be further developed, and what elements and criteria should be clarified in municipal plans and regulation plans as the foundation for development or conservation. Where coastal areas within the 100-metres zone, areas of rare natural habitats or unique ecosystems, areas close to national parks or protected landscape values and cultural heritage are elements and criteria applying to Kragerø (Miljøverndepartementet 2005).

The national expectations for regional and municipal planning is prepared every fourth year, and is a document that promotes national policies and goals to ensure sustainable development, and aims to guide the regionals and municipalities towards a desired development that ensures national interests, cf. pbl. §6-1. "Development of areas for vacation homes and tourism provides a basis for development in the business sector in many rural municipalities. The landscape and recreational opportunities are in regards to development both an important resource and a consideration that must be achieved through local and regional planning" (Kommunal- og moderniseringsdepartementet 2015 p. 16). This quote highlights a positive perspective of vacation homes, but the challenges associated with conflicts of interest between economic growth and conservation of natural environments. The national expectations notices that "the energy consumption for homes and vacation homes has been stable the last years, and accounted for 21 per cent of the domestic energy consumption in 2014" (Kommunal- og moderniseringsdepartementet 2015 p. 13). Furthermore, it emphasises the role of regional and municipal planning where "it is important for limiting energy consumption and greenhouse gas emission, where all decisions considering location and design of buildings, services and infrastructure affect energy consumption and emissions for the future" (Kommunal- og moderniseringsdepartementet 2015 p. 13), where the national expectations points at the importance of land use effectiveness and coordinated land use and transport systems.

The regional guideline for tourism and adventures aims at ensuring a long-term and comprehensive profitability in businesses associated to the tourism industry, whilst both increasing and retaining quest satisfaction for all visitors. Challenges associated with climate change and other environmental challenges must be met with measures that contribute to environmentally sustainable development. There are objectives that aim for balanced growth in the number of vacation homes whilst increase the use for each vacation homes, in order to contribute to economic development and more activities in local communities (Telemark Fylkeskommune 2011).

5.3 The cultural-cognitive pillar

In the analysis part two, I will analyse the planning discourse in regards to vacation home development and climate change. For that purpose data are gathered through interviews, documents and articles in the local newspaper. The collection provided a range of data of both different and similar opinions and arguments. A narrative structuring is appropriate to clarify and gather all these small and uncoordinated statements and opinions. The structuring resulted in three coherent and complete storylines that reflects the discourse of vacation home development in regard to climate change in Kragerø. These storylines will be presented in this chapter, before being subjects for further discourse analysis in the analysis part two.

5.3.1 Narrative structuring

The narrative structuring resulted in three storylines that represent different focus and opinions related to vacation home development in relation to climate change. The three different views that have been identified will here be represented as Kragerø – a place to visit, Kragerø – a place to live, and Kragerø – a climate friendly community.

Storyline 1: *Kragerø – a place to visit*

Development of vacation homes provides economic gain to landowners and developers, and is crucial for the local community, by ensuring income and workplaces for the local population. Landowners should be able to develop their own property, as it will provide benefits in all possible ways, and facilitate more people in having the opportunity for a vacation home. There is nothing negative about development of vacation homes, and it is a sustainable development, as it has no climate impacts or pollution. Climate change is not an issue in Kragerø, where the sea level decreases and the weather conditions are stable, and is therefore an unnecessary consideration when developing more vacation homes. Anyway, new development should be places in harmony with the landscape to maintain Kragerø's attractiveness as a vacation home destination.

Storyline 2: *Kragerø – a place to live*

Vacation homes are being developed to ensure that there is a basis for additional local development and population growth in Kragerø. Development of vacation homes provides income for the municipality, as it provides a customer base for local businesses and property tax for the municipality. Therefore, maintaining its aesthetic value and attractiveness for visitors contributes to the appeal of living in Kragerø, as increase in number of visitors provides more jobs. However, it is important to ensure that a balance by increasing the number of vacation homes, but without compromising the development of new residences for local population growth. Climate change can cause more extreme weather, and new development should at least follow the technical regulations for adaptation. Increased vacation home development is preferable, as well as increasing the usage of each current vacation home. Anyway, it is important to preserve the natural environment and landscape, in order to maintain the biodiversity and a publically accessible coastline.

Storyline 3: *Kragerø – a climate friendly community*

Vacation homes are developed for economic growth, both for the municipality and the developers. Kragerø is depending on the profits from visitors and vacation home development. However, vacation home development is not sustainable the way they are developed today, due to its significant energy consumption, the increased use of cars and boats, and the land areas it occupies. Climate change does and will in the future cause more frequent extreme weather. Therefore, development of vacation homes should be limited and new development should utilise green technology and be developed based on stricter adaptations regulations than today. Solar panels and electric cars and boats are good solutions, as well as smaller and more land use efficient vacation homes.

Chapter 6: Analysis part 2

In this chapter, the storylines identified in the previous chapter will be further analysed by a discourse analysis. The discourse analysis consists of four sections, where the first aims to understand why some opinions and understandings are dominant in Kragerø in terms of vacation home development, by examining structures of opinions and arguments in each of the storylines. The second section aims to see the arguments in each storyline in relation to each other, where similarities, interdependence and conflicts will be displayed. The third section focuses on the distribution of supporters to the coalitions in each storyline, and aims to display which storylines being more or less prominent in the planning discourse, and the extent they influence the vacation home development in Kragerø. Finally, the fourth section aims to reflect on whether the planning discourse acts as either a barrier or a mediator for climate change mitigation and adaptation.

6.1 Arguments and coalitions in each storyline

In this section research question 3.1 will be investigated, where arguments and coalitions in each storyline will be identified and seen in context to each other. A coalition is an alliance of actors that are sharing the same storylines and aims to achieve a common purpose or way of thinking (Hajer 2006). The same actors can be incorporated in several coalitions, as the coalitions may have some similar interests in what they try to achieve. Conflicts are where two or several coalitions can only achieve their purpose at the expense of the others'. The coalitions are identified in the following table, which also illustrates an overview of the three storylines, their main considerations and arguments.

	Storyline 1	Storyline 2	Storyline 3
Title	Kragerø – a place to visit	Kragerø – a place to live	Kragerø – a climate friendly community
Key words	<ul style="list-style-type: none"> • More vacation home development • Economic growth • A tourist destination 	<ul style="list-style-type: none"> • Balanced growth of new vacation homes and increased use of existing vacation homes • Population growth • Protect the coastal areas 	<ul style="list-style-type: none"> • Energy efficient development of vacation homes • Increased use of existing vacation homes • Protect the biodiversity and landscapes
Coalitions (actors)	<ul style="list-style-type: none"> • Developers • Landowners • Private business sector • Building application processor • Liberal politicians • The Ministry of the Environment 	<ul style="list-style-type: none"> • Municipal planners • Regional planners • Building application processor • Socialist politicians • Liberal politicians • The Ministry of the Environmental 	<ul style="list-style-type: none"> • Environmental councillor • Regional planner • The Ministry of the Environment
Sources	<ul style="list-style-type: none"> • <i>The Government's guideline for planning of vacation homes</i> • Suggestions and comment to the municipal plan • Interviews with politicians and architectural office 	<ul style="list-style-type: none"> • <i>The regional guideline for tourism and adventures</i> • <i>The Government's plan guidelines for differentiated management of the coastal zone along the sea</i> • <i>Regulations on technical requirements for construction work</i> • <i>National expectations for regional and municipal planning</i> • Interviews with planners, politicians and building application processor • The municipal plan 2018-2030 	<ul style="list-style-type: none"> • <i>The Government's guideline for planning of vacation homes</i> • <i>Municipal climate and energy plan</i> • <i>The Government's plan guidelines for differentiated management of the coastal zone along the sea</i> • <i>National expectations for regional and municipal planning</i> • Interview with environmental councillor
Arguments	<ul style="list-style-type: none"> • Increased quality of life for tourists • Economic growth 	<ul style="list-style-type: none"> • Local development; jobs, income, population growth 	<ul style="list-style-type: none"> • Contribute to achieve national emissions goals • Ensure precautionary development

Table 3: Overview of the storylines

Storyline 1: Kragerø – a place to visit

A discourse-coalition of liberal politicians, developers, landowners and The Ministry of the Environment promotes the first storyline, Kragerø – a place to visit. This coalition aims to facilitate for further vacation home development to both encourage and meet people's desire to own vacation homes, to achieve economic growth for developers and landowners. The title of the storyline *Kragerø – a place to visit*, indicates its perspective on Kragerø as a vacation home destination, where vacation home development is aimed at private economic growth, while facilitating for increased standards in vacation homes. The storyline puts Kragerø in a position considered with an outside-in view, where the positive effects are intended for people not necessarily living in Kragerø.

“Increased number, use and standard in vacation homes enable more people to achieve their leisure and recreations needs, thus increased quality of life”

(Miljøverndepartementet 2005, p. 7). This quote highlights the public positive effect of vacation homes, as it is regarded as contributing to a quality of life for those having access to a vacation home, and thus motivating people to acquire a vacation home. Furthermore, this quote conveys a vacation home destination as a place to visit for recreational activities, where the intention is to satisfy the tourists. This emphasises that a vacation home destination is a place to visit, and should therefore be developed for tourists' desire. It is essential that landowners want to develop their property or release land by selling to developers in order to increase the number of vacation homes. Willingness for further development exists to a great extent in Kragerø, and it is visible in the proposals to the municipality in relation to a new municipal plan in 2018. The proposals apply to projects that vary in scope, and relate to the division of one property for more vacation homes due to growing families, where the new generations require more space, and a desire for an additional vacation home. Others proposals for development are related to the desire to develop for economic gains. According to politicians, guidelines, municipal and regional planners, developers and landowners, a consensus exists that vacation home development provides significant economic benefits for the local community, as it generates income in terms of property tax and provides benefits for the local businesses as the customer base increases with more people staying in Kragerø.

Peoples possibilities of financing a loan for vacation homes, is considered important, where “a further vacation home development is absolutely dependent on the private economy, because as long people can afford a vacation home, they would not renounce it” (interviewee: Liberal politician). This quote confirms how the first storyline regards the positive factors of owning a vacation home and the economic benefits in sale and development as the drivers for vacation home development. A change in people’s attitude and lifestyle in terms of vacation homes is considered unlikely, where “vacation homes are implemented into the Norwegian culture, and people are willing to invest in a vacation home to ensure having a nice vacation” (interviewee: Architecture office). As long as a willingness to buy vacation homes exists, a market in developing and selling will continue, where landowners can achieve economic benefits. *The Government’s guideline for planning of vacation homes* has further considerations of vacation home development as positive; “as it provides such as health and wellbeing effects, local and regional value creation, economic benefits for landowners, increases the basis for local services and transport, and better access to recreation areas” (Miljøverndepartementet 2005, p. 7). Economic gain to developers and landowners, and Kragerø’s attractiveness are emphasised by some articles in the local newspaper Vestmar Kragerø Magazine, which showed Kragerø as Norway’s second most popular vacation destination along the coast (Nilsen 2018a), and that the total purchase price for the ten most expensive properties sold in 2017 of 188,6 million kroner (Nilsen 2018b).

Conservation of coastal areas is regarded as significant to maintain Kragerø’s attractiveness, according to liberal politicians, developers and *The Government’s guideline for planning of vacation homes*. Where access to the coastline contributes to maintain Kragerø as an attractive vacation home destination. This emphasises agreement to *The Government’s guideline for differentiated management of the coastal zone along the sea*, where restrictions in new development and adjustments exist and are regarded as important. Where the guideline’s objective is to ensure management of “values in natural environment, cultural heritage and recreational areas as a resource of national importance, to the benefit of the people today and in the future” (Miljøverndepartementet 2011 p. 7), referring to preservation of above mentioned values and the possibility for public use.

However, “new vacation homes can be considered and be given approval in the 100-metres zone in some places, where the landscape character does not invite public use, in already privatized areas or in areas where new development will not disturb or be in conflict with the public’s access to the coastline” (interviewee: Architectural office). Therefore it is considered that a distinction between significant and minor developments and changes within the 100-metres zone should be appropriate, where smaller improvements and renovations and development in some areas to a greater extent should be possible, compared to how the conservation regulations are today. Where “all the dispensations given to insignificant adjustments leads to an impression of little importance given to the conservation of the coastal areas, and therefore should these small adjustments be except from the dispensation process” (interviewee: Liberal politician). Articles in Vestmar Magazine correspond with these quotes, showing willingness to adjustments and minor developments within the 100-metres zone, both referring to the construction of driveways for cabins (Fivelstad 2017a), and the possibilities for renovation and replacements of older cabins close to the sea (Fivelstad 2017b), where several arguments for exceptions from conservation of the 100-metres zone are included in the decision-making process. These exemptions from the guideline show that the coalition supporting this storyline promotes values different from those promoted by The Ministry of the Environment, where “the 100-metres zone is of national interest, and the ban must therefore be practiced strictly and dispensations must be avoided” (Miljøverndepartementet 2011 p. 5). Furthermore, “it must be a very restrictive attitude towards new vacation homes and substantial expansions of existing vacation homes” (Miljøverndepartementet 2011 p. 6), emphasising the consideration of how little priority vacation homes should be given in coastal areas, and clarifies the distance between The Ministry of the Environment’s and this storylines coalition’s differences in values.

“Vacation home development is sustainable, where it does not pollute” (interviewee: Liberal politician), referring to the municipal sanitation system, that prevents pollution due to waste from vacation homes. In contrast, private and simple sanitations systems are considered unsafe, as they can leak and are out of municipal control. According to this storyline vacation homes are sustainable, as they do not necessarily increase the mobility and energy usage. “Today, new vacation homes are similar to residences, in

terms of equipment, electricity and standard, consumption of energy is only relevant in terms of the energy use in the residence when staying at the vacation home, where the consumption will be the same independent of staying home or in vacation homes” (interviewee: Building application processor). Furthermore, “development of vacation homes provides a sustainable type of holidaying compared to going abroad; if owning a vacation homes results in less flights abroad every year, it is contributing to sustainable development” (interviewee: Architecture office). An understanding of climate change as minimal in Kragerø today further supports these reflections. Climate change is regarded as “not being an issue in Kragerø, where the sea level decreases and the weather is great” (interviewee: Liberal politician). The sea level decrease is explained as the land rises in this area, where a sea level rise will not significantly affect Kragerø as it will be equalized due to the land rise. However, climate change is likely to occur in the future, however not for hundreds of years, so promoting a change in use and adaptations for vacation home development are regarded as unnecessary and unfortunate use of resources in regards to time and money.

“Densification in existing vacation homes areas is desirable, where this provides opportunities to clean up in older, simple and private sanitation systems” (Miljøverndepartement 2005, p. 8), furthermore “densification of existing areas will be economical beneficial for developers as they can connect to existing infrastructure, and also prevent untouched landscapes other places” (interviewee: Liberal politician). Densification is here referred to as areas in the outskirts of the 100-metres zone, where several areas are considered to have capacity for more vacation homes. Development in existing areas with detached vacation homes are according to this storyline very attractive and easy to sell, and regarded as a desirable type of development. In regard to building type and design, vacation homes must not compromise the landscape values and be undue disturbing for neighbours, where this will cause negative impacts on the attractiveness. Furthermore, “people are not interested in renovation and work while having vacation, so apartments and new and high standard is desirable” (interviewee: Architectural office), so new developments should be designed to meet people’s preferences, as this will be easier to sell and contribute to a development that suits the market. Vacation home apartments and development in clusters are, according to politicians, developers and *The Government’s guideline for planning of vacation homes*

considered as positive, as people regard the simplicity of an apartment as positive and it is area effective. An area effective development is regarded as positive as it prevents the downsizing of attractive landscapes, and is cost beneficial in terms of infrastructure.

Storyline 2: Kragerø – a place to live

A discourse-coalition of politicians and the administration, consisting of municipal planners, regional planners, liberal and socialist politicians and the municipal building application processor promote the second storyline, Kragerø – a place to live. This coalition aims to contribute for local population growth, where the objectives of creating jobs and increased attractiveness for residents are central. Development of vacation homes is regarded as contributing to local profitable businesses, where an increase in the number of vacation homes and increased use of each is considered positive. The title of the storyline *Kragerø – a place to live* emphasises its core perspective, where growth and development of vacation homes is seen as contributors for increased attractiveness for its residents.

The regional guideline for tourism and adventures has a vision to “create conditions for growth, innovation and sustainable economic development in the business sector and public sector” (Telemark fylkeskommune 2011p. 6), and considers development of vacation homes and increased use of existing units as a long-term objective for their vision. “The vacation home users are important for the villages and towns in Telemark. They contribute to local economy by buying goods and services, and to create activity in the local communities. Vacation home tourism is a local growth industry and important for local development” (Telemark fylkeskommune 2011 p. 25).

A wide consensus exists between municipal planners, regional planners and politicians related to the opinion that development of vacation homes provides positive impacts in the municipality. “Vacation homes increase the customer base for shops and services” (interviewee: Municipal planner) and “some tourists and vacation home users are thinking of these local shops as a summer activity, and like to spend time looking in these niche stores, while the locals rather shop at the shopping centres outside the town,

or online,” (interviewee: Liberal politician) and emphasise the importance of the visitors for the local stores and for the maintenance of a lively town center. “Customers from the vacation homes provide income, therefore it would not be profitable for the local shops to lose this source of income,” (interviewee: Socialist politician) and emphasises the economic importance of vacation homes for the local shops. The economically positive consequences do also apply for the municipality, where “an increase of vacation homes will provide more income due to property tax, as well as rental income on the municipal sanitation system” (interviewee: Liberal politician). Even though more visitors generate profitable businesses, it also poses challenges, such as “it makes it difficult to offer a job that is fixed all year around” (interviewee: Municipal planner), Furthermore, “lack of parking in the summer is a problem, when all are coming to Kragerø during the same time” (interviewee: Socialist politician). This points to challenges related to seasonal fluctuation use, where a high degree of coverage in use of vacation homes takes place during the summer. On the other hand, “seasonal jobs are positive for the youths and students in Kragerø, that can be offered a job during their summer vacation” (interviewee: Socialist politician). “For this season, local youths have been assigned for summer jobs” (Eckholdt 2018), informs a local that usually hires four to five employees during the summer season. The company provide services for vacation home owners, such as housework, painting and gardening.

The exposure draft to the municipal plan also considers tourism as important for the local community. Population growth is a central objective in the municipal plan 2018-30, and is considered as being the long-term objective behind strategies to increase Kragerø’s attractiveness. “Local population growth does not necessarily happen if it’s a goal in itself, but is achieved as a consequence of the local community’s different qualities, and the initiatives that improve these qualities,” referring to being attractive for businesses, tourists and residents (Kragerø kommune 2018, pp. 15). To be attractive for tourists, areas for vacation homes, existing vacation homes and accommodation are considered to be important. Areas for development of residences are also important, to increase the attractiveness for the residents (Kragerø kommune 2018). Considerations in regards to whether areas are being regulated available for vacation home development or residential development may be of conflict where “development of vacation homes occupy areas that could be used for residences in the future – and can

therefore cause negative impacts on the population growth” (interviewee: Building application processor). This point out counteracting strategies, where the goals of being an attractive place to visit is important providing it does not impair the ability for development of residences. Kragerø municipality priorities strategies to increase the attractiveness for businesses and residents, as “Kragerø according to the terminology of attraction theory is defined as a place to visit” (Kragerø kommune 2018 s. 54) and thus the attractiveness for tourism has a better starting point, and is not considered a main priority. The municipal plan does further elaborate that being attractive as a place to visit are and still will be in the future, but because Kragerø is considered being attractive for tourists as it is today, it is not necessarily the main priority. However, tourism and further vacation home development is considered important, and will be supported (Kragerø kommune 2018).

In regards to climate change “vacation home development is a good alternative to travelling abroad” (interviewee: Building application processor). However, municipal and regional planners note that people’s lifestyle have a high degree of private car usage, where people among other things drive long distances to spend time in their vacation home. On the other hand, a consideration that “people probably would have used the car much anyway, by driving to other activities far away” (interviewee: Regional planner), highlights little belief in people’s willingness to change their lifestyle. “To not have access to a vacation home, I think that is some of the last people would have given up on. You have to meet very good persons, if they chose to not have a vacation home due to climate considerations” (interviewee: Regional planner). This quote is further supported by the consideration that “most people will to little extent chose to change their lifestyle, unless economic sanctions will motivate for change, or that they to a greater extent experience the climate changes” (interviewee: Building application processor). Despite these reflections, this coalition is conscious about climate change is taking place, and considers measures for climate change mitigations and adaptations important. “Climate change will most likely cause more extreme weather, where new development should be planned in areas regarded safe in terms of floods and sea level rise” (interviewee: Regional planner), referring to the importance of following all requirements for adaptations, where challenges related to storm water management is regarded as a main challenge. The municipal planner substantiates this concern as “consequences of

climate change are very uncertain, but most likely more extreme weather will occur, and therefore, in particular handling of increased quantity of water and handling of storm water will be important” (interviewee: Municipal planner). In regards to these concerns, the municipal planners regard the *Regulations on technical requirements for construction work* of great importance, where vacation homes at the lowest can be built 2.5 metres above the sea level, and referring to § 12-7 in the national technical requirements (Byggteknisk forskrift 2017).

In regards to climate change mitigation, considerations are given to “measures for reduction of greenhouse gas emissions, as well as energy efficiency and alternative energy solutions” (Kragerø kommune 2018, p. 16). Furthermore, land use efficiency and coordinated land use and transport systems are regarded as measures to reduce emissions, as private car usage is considered as causing the most negative environmental impacts locally (Kommunal- og moderniseringsdepartementet 2015 p. 14). These considerations refer to development of industry, but where “this considerations principally also applies to planning of residences and vacation homes” (Kragerø kommune 2018 p. 17). “Development of vacation home apartments is a sustainable alternative as it is more energy efficient, and more area effective, which is positive in terms of protecting natural environments and preventing a spread of development that would have occupied areas that could have been used for properties for residences in the future” (interviewee: Municipal planner). However, the statement is further complemented with the consideration that “development of apartments should not be developed if it would cause impacts on the landscape” (interviewee: Municipal planner), and emphasises that considerations for the landscape are regarded of more importance, than a climate friendly development.

According to *The regional guideline for tourism and adventures*, it is an objective to “have an increase in use of vacation homes, both in terms of a balanced growth in number and more use of each vacation home” (Telemark fylkeskommune 2011 p. 26). More use of existing vacation homes is also considered as “being a good alternative, as more use generates more income to local stores and services, but without downsizing more of the natural environment” (interviewee: Building application processor). Even though vacation home apartments is regarded as sustainable, “more densification in existing

vacation home areas is desirable, as there are places having space for more single vacation homes between existing vacation homes” (interviewee: Liberal politician). However, “more densification is relevant in the coastal areas outskirts the 100-metres zone, and thus further development must take place in new areas in the future” (interviewee: Regional planner) This quote refers to the importance of protecting the coastal areas for development, to protect the natural environment and cultural heritages to ensure that these areas will remain available for the public use. These considerations correspond with *The Government’s guideline for differentiated management of the coastal zone along the sea* where “is should be a very restrictive attitude towards development of new vacation homes and substantial expansion of existing vacation homes, and the municipalities should in the municipal plan, according a concrete assessment, form regulations for size and standard of existing vacation homes within the coastal zone” (Miljøverndepartementet 2011 p. 6). Where this is regarded important as “the 100-metres zone is of national interest, and the ban must therefore be practiced strictly and dispensations must be avoided” (Miljøverndepartementet 2011 p. 5).

In regards to whether a vacation home lifestyle is sustainable, most concerns are related to an increased use of boats, where it is considering being noise polluting and causing damages in the marine ecosystems. However, there is a lack of initiative for changing this lifestyle, and a further facilitation of boat jetties and berths is regarded important.

Storyline 3: Kragerø – a climate friendly community

The third storyline is promoted by a discourse-coalition of the municipal councillor and The Ministry of the Environment. This coalition aims to reduce greenhouse gas emissions for achievement of national and international emission targets. Furthermore, the coalition supports development of vacation homes planned in a long-term perspective, where substantial climate change adaptations are considered of great importance for vacation homes to withstand more extreme weather. The title of the storyline, Kragerø – a climate friendly community, emphasises its main perspective of further vacation home development, where the coalition aims to promote the use of

renewable energy sources and energy efficient solutions to maintain the phenomenon of vacation homes, without compromising the reduction of greenhouse gas emissions.

“Vacation home development generates economic growth for developers and landowners, as well as to the municipality, by providing customers to local shops and services, however, it increases energy consumption, due to occupation of large areas, increased energy consumption related to building stock for a second home, use of boats and increased mobility” (interviewee: Environmental councillor). This statement is further supported and supplemented by *The Government’s guideline for planning of vacation homes*, as it considers “vacation home development for causing a range of area- and environmental political challenges, such as increased road constructions and car usage, land use and landscape interventions, increased traffic in vulnerable areas, downsizing of large and contiguous natural environments and increased energy consumption” (Miljøverndepartementet 2005 p. 7). This quote highlights this coalition’s perspective of the significant climate impact vacation homes cause, the way they are developed today. Vacation homes are considered as directly related to increased energy consumption, where “the total national energy consumption will be affected by the trend in the number of vacation homes” (Miljøverndepartementet 2005 p. 7), and the municipal climate and energy plan’s considerations that “Kragerø has many vacation homes, and the number will increase, and thus the energy consumption” (Kragerø kommune 2014 p. 25).

Although vacation homes are considered having negative impacts on climate change, they also “provide economic growth for developers, landowners and local workplaces, and contributing to increased local social life, by generating more people coming to the districts of Norway” (interviewee: Environmental councillor). Furthermore, “Kragerø is a very popular vacation home destination, and the municipal planners and building application processors are experiencing much pressure for further vacation home development by proposals from owners of vacation homes, land owners and developers” (interviewee: Environmental councillor). On the basis of these reflections, the coalition supporting the third storyline regards vacation homes as a persistent phenomenon, where “further development will continue, but not at the same rate, and

new development will be of better quality” (interviewee: Environmental councillor), referring to better quality as of more energy efficient building design.

In terms of further vacation home development and the objective to combat climate change, “the main measure to reduce emissions from buildings is considered to be a transition from fossil fuels to renewable energy sources” (Kragerø kommune 2014 p. 28), referring to the building sector’s three per cent of the direct emissions at national level. However, even though “energy efficiency measures in buildings have little effect on direct national emissions, due to the large part of energy consumption in buildings being covered by electricity produced by hydropower” (Kragerø kommune 2014 p. 28), the rationale is seen in a comprehensive perspective, where “efficiency measures can release energy that can be used for other purposes and for export. Thus, for example, electricity can replace fossil energy sources nationally and internationally, and achieve reduction in greenhouse gas emission” (Kragerø kommune 2014 p. 28). This perspective is central in this storyline, where the coalition aims to take action for reduction of greenhouse gases, and where local measures are regarded as contributing for combating climate changes at global level.

Renewable energy sources and reduction of energy consumption are considered as significant and central for climate change mitigation, where “several types of instruments have been considered to limit energy consumption, including stricter insulation requirements, power limitation and two-price system on energy” (Miljøverndepartementet 2005 p. 7). Furthermore, energy efficiency can also be achieved where “local topography are used as a basis for finding the areas for development, in regards to climate and the best lighting conditions, where solar exposure has an impact on energy consumption in terms of heating” (Miljøverndepartementet 2005 p. 21), where also vegetation is considered as a factor, where more vegetation provides an increased isolation of the vacation home. “The best areas for development are in terrain sloping to southwest, as it maximises the sun exposure” (Miljøverndepartementet 2005 p. 21), beyond this, “the objective when planning for vacation homes should be to protect large contiguous natural environments from development, to preserve important natural values and cultural heritages” (Miljøverndepartementet 2005 p. 7). Conservation of coastal areas within the 100-metres

zone is regarded as very important to retain availability for public use and corresponds with *The Government's guideline for differentiated management of the coastal zone along the sea*, where “constructions that could reduce the natural and cultural environment and the possibilities for recreation and fishing should not take place” and “constructions of new and significant expansion of existing vacation homes will generally not be allowed” (Miljøverndepartementet 2011 p. 9). Conservation of the natural environment is further considered important as biomass in nature absorbs carbon dioxide, as well as it “prevents reduction and altering of important areas for the biodiversity” (Kragerø kommune 2014 p. 6). The consideration of the significance of absorption of greenhouse gases is also related to choice of materials, “because trees absorb carbon dioxide, use of timber materials in building projects does contribute positively in regard of climate change mitigation” (Kragerø kommune 2014 p. 33), and thus promotes more use of timber materials.

According to a regional planners, “solar energy is a good alternative as energy source in Kragerø, where the sun conditions are good” (interviewee: Regional planner), and refers to the little extent of vacation homes installed with solar panels today. “Use of solar panels would also have positive side effects, such as reduced intervention in the natural environment due to no need for wires” (interviewee: Environmental councillor), however, infrastructure in terms of sanitation systems are considered important, as the private sanitation systems is regarded more unsafe. Because connection to the public sanitation system is important, “new vacation home development should be located in clusters or as apartments, so the interventions in the natural environment will be as limited as possible” (interviewee: Environmental councillor). The Ministry of the Environment suggests a greater possibility to control energy usage, where they consider that “in the same way as the municipality today can control the size of vacation homes, a system could be developed for control of energy formed through plans” (Miljøverndepartementet 2005 p. 7).

Furthermore, smaller vacation homes and apartments, and increased use of each unit are considered as contributing to more climate-friendly development, where “reduced size per vacation home has positive consequences for reduction in energy consumption for heating and for building materials, as well as it occupies less area in the natural

environment” (interviewee: Regional planner). Increased usage of each unit is considered as a strategy contributing to general decrease of new development, where a greater willingness to rent vacation homes will reduce the pressure on facilitating for increased numbers of vacation homes. However, “more use of existing vacation homes will not be a solution in itself, as it not solves the challenges associated with the increased use of private cars” (interviewee: Environmental councillor). Great faith is given to electrical cars, where it is considered that “establishment of charging stations for electrical cars and boats would make it more attractive for individuals to acquire such vehicles” (Kragere kommune 2014 p. 20). On the other hand, use of electrical cars is also regarded as a challenge where “people travel from distances far away, meaning that they might have to charge on their way, and that is not considered as desirable for most people” (interviewee: Environmental councillor). However, increased battery capacity and possibilities for longer distances are considered coming in the future, referring to great faith in innovations of green technology both for cars and boats.

“Climate change will cause more extreme weather, and adaptations are therefore of great importance” (Kragere kommune 2014 p. 17), referring especially to adaptation to land slides near waterways and coastal areas. “Adaptations to climate change should be stricter than what the requirements suggest today, as these requirements are based on a goal achievement of high degree of greenhouse gas reduction” (interviewee: Environmental councillor), and does therefore consider increased precautionary important, as the outcome and consequences can be worse than predicted, when planning for further vacation home development. Furthermore, The ministry of the Environment concludes that “the knowledge of the overall effects of existing and new vacation home development is inadequate” (Miljøverndepartementet 2005 p. 7) and emphasises the importance of knowledge building.

6.2 Interdependent and conflicting arguments

In this section research question 3.2 will be investigated, by seeing arguments in each storylines in relation to arguments in the other storylines. A comparison of the

arguments will detect similarities, independence and conflicts between the storylines. The following relation diagram displays the relation between the storylines in keywords, followed by a further elaboration, where similarities, conflicts and interdependence between the storylines are explained.

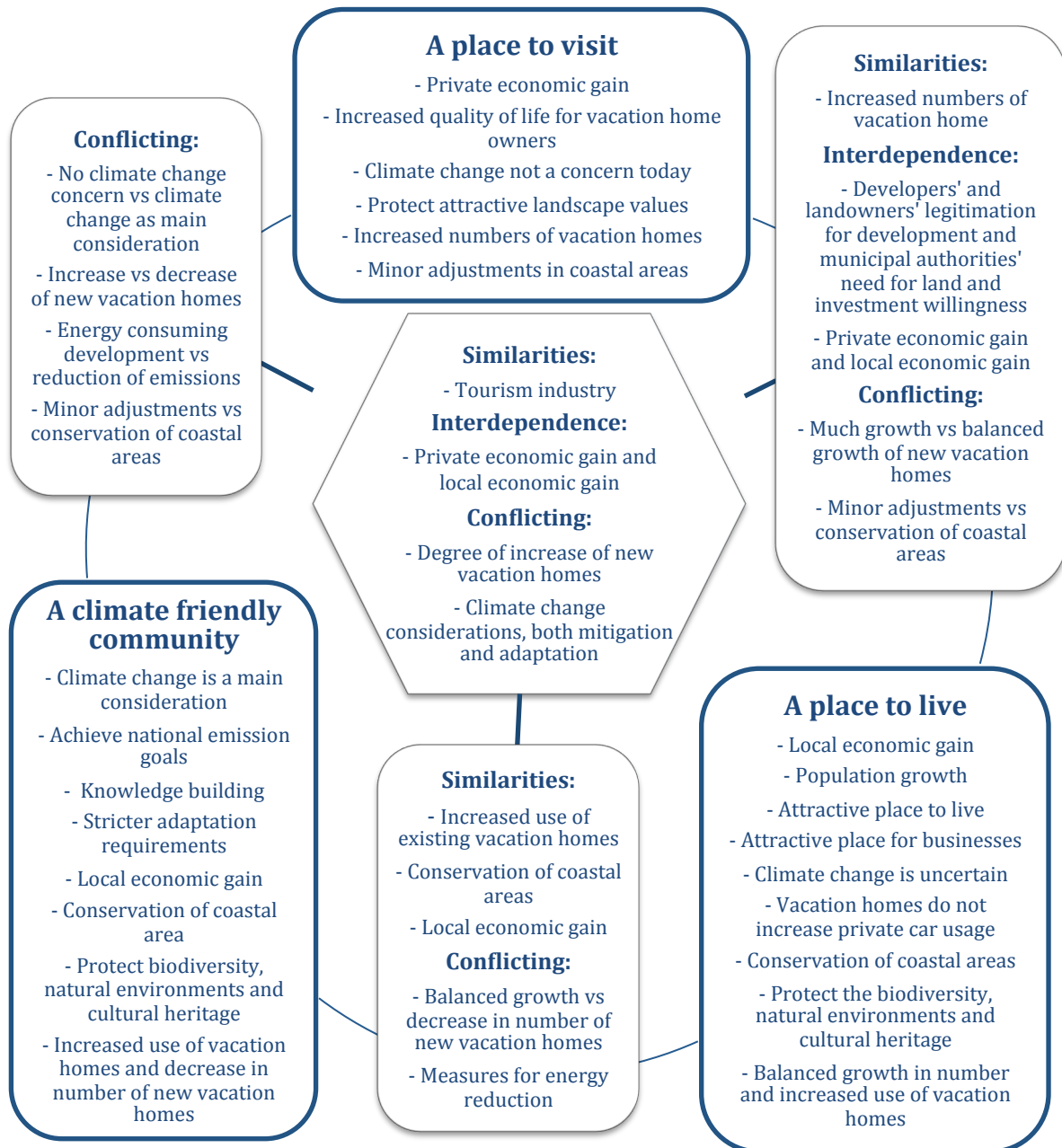


Figure 3: Arguments supporting each storyline, and the relation between the storylines

All the coalitions supporting the three different storylines regard the tourism industry as important for the local businesses and a basis for economic growth in the municipality. However, there exist different arguments and values in the coalitions for

their reason of supporting vacation home development. The first storyline considers increased vacation home development important as it facilitates for more people having the access to a vacation homes, and providing an opportunity for landowners and developers to ensure economic growth. However, development will further provide income for the municipality in terms of property tax and increased customer base for local businesses, as a positive side effect. The second storyline has another angle on the perspective of vacation home development, where the coalition aims to increase Kragerø as an attractive place to live, by increasing the possibilities for more jobs and thus achieve population growth. Vacation home development is in this context regarded as a contributor for increased customer base for local businesses, income to the municipality due to property tax and a generator of jobs for local craftsmen, according to the exposure draft to the municipal plan. Landowners' and developers' possibility of economic gain is not considered as the driver, but as a necessary factor to ensure an increased number of vacation homes. This is explained as the coalition supporting the second storyline are dependent on landowners' and developers' desire to develop vacation homes, but the coalition supporting the first storyline is dependent on legitimisation from the municipal authorities by adapting their proposals. The third storyline regards tourists as positive in terms of contributing to local economic gain, however its coalition do not consider significant increases in new vacation homes as sustainable. Instead, this coalition regards increased usage of each vacation home as a sustainable development, and only a low growth in numbers of new units. Therefore, conflicts occur between the three storylines; as the first is supporting increased growth in vacation homes and the second regards a balanced growth desirable, where development of residences is considered of more importance. The third storyline' coalition aims to reduce the development of new vacation homes, and this conflicts with the two other storyline. This reasoning highlights interdependence between the coalitions in the first and the second storyline, but also conflict between all three storylines in terms of the degree of increase of new vacation homes.

The considerations and belief in climate change appears as different perspectives between the storylines. The first storyline is supported by a coalition that regards climate change as not being a current challenge, but most likely of more importance in the future. The second storyline considers the extent of climate change very uncertain,

where more frequently extreme weather is considered as of high probability. The coalition supporting the third storyline regards climate change with another perspective; where it is considered a global crisis, causing challenges and dangers, and thus of great importance when planning for vacation homes.

These differences cause some conflicts in terms of to what extent climate change adaptations should be prioritized over development interests, and what measures are considered necessary and beneficial for mitigation of climate change. Whether vacation homes are understood as a sustainable phenomenon, do also differ to some extent between the coalitions to each storyline. "Vacation home development is sustainable, where it does not pollute" (interviewee: Liberal politician), referring to vacation homes being connected to sanitation systems, and presents a perspective in the first storyline, where vacation homes are considered as being absolutely sustainable. The second storyline considers "vacation home development as a good alternative to travelling abroad" (interviewee: Building application processor), and as little belief exists in people's willingness to significant lifestyle changes, vacation home development is considered as contributing to a sustainable way of holidaying. The third storyline, regards "vacation home development for causing a range of area- and environmental political challenges, such as increased road constructions and car usage, land use and landscape interventions, increased traffic in vulnerable areas, downsizing of large and continuous natural environments and increased energy consumption" (Miljøverndepartementet 2005 p. 7). However, the coalition supporting the perspective in the third storyline has belief in vacation home as a phenomenon can be sustainable, but not if they are developed and used with the same high energy rates as today. These different perspectives provide a different basis between the storylines for further consideration of what measures being appropriate and necessary for climate change mitigation and adaptation.

The first storyline is supported of a coalition of actors regarding new vacation homes similar to residence, where the energy consumption will be the same independent of staying home or in vacation homes. This emphasises the storyline's limited concern of vacation homes having impacts on climate change, and thus no reason for changing the ways vacation homes are being developed today. In contrast, the second storyline is

supported for a coalition that regards technical requirements, such as proper insulation, land effective development and a maximize vacation home size of 100 square metres as measures for climate change mitigation. The third storyline is formed of a coalition that aims to reduce the energy consumption, and where “several types of instruments have been considered to limit energy consumption, including stricter insulation requirements, power limitation and two-price system on energy” (Miljøverndepartementet 2005 p. 7). This reasoning highlights the difference between the coalitions to each storyline in regards to measures for climate change mitigation. As their perspectives are different, it may cause conflicts in terms of regulations of energy consumption and what type of energy source to be implemented in new vacation homes.

Where climate change is considered as “not being an issue in Kragerø, where the sea level decreases and the weather is great” (interviewee: Liberal politician), the first storyline’s perspective of climate change adaptations for vacation home development is being emphasised as being unnecessary. The coalition in the second storyline, on the other hand, considers outcomes of climate change uncertain, and therefore important to develop vacation homes that correspond with the requirements provided in *Regulations on technical requirements for construction work*. “Adaptations to climate change should be stricter than what the requirements suggest today, as these requirements are based on a goal achievement of high degree of greenhouse gas reduction” (interviewee: Environmental councillor), highlights the importance of adaptations according to the coalition supporting the third storyline. These different perspectives on climate change adaptation correspond with their perceptions of whether climate change is occurring. Because the three coalitions have different perspectives of whether adaptations for climate change are necessary, conflict may occur where stricter adaptation regulations limit possibilities for vacation home development in areas considered attractive for vacation homes.

The first storyline considers an increase in numbers of vacation homes important to achieve the objective of economic growth for landowners and developers, and facilitate for more people being able to have a vacation home in Kragerø. Where the coalition aims to develop more vacation homes in existing vacation home areas outskirts the 100-metres zone. Small adjustments within the 100-metres zone, on the other hand, are

considered as allowed. The coalition supporting the second storyline is in agreement with the considerations of densification in existing vacation homes, and differ mainly from the first storyline in terms of the amount of new development, where they consider small and balanced growth in numbers of vacation homes desirable, as “smaller projects to a greater extent will make use of local craftsmen, and more areas will be available for properties for residences” (interviewee: Liberal politician). Furthermore, the coalition of the second storyline aims to have increased use of vacation homes, as this will provide more people visiting Kragerø and spending money there, without compromising areas that could be developed for residences. The coalition also has stricter perceptions of the building ban in the coastal zone, and does not support developments and minor adjustments within these areas. The coalition for the third storyline aims to reduce the energy consumption in vacation homes, and promotes increased use of existing vacation homes, a decrease in new vacation homes, and reduction in size of vacation homes. “New projects should be of high quality in terms of being energy efficient and take usage of renewable energy sources” (interviewee: Environmental councillor). The building ban in the 100-metres zone is regarded of importance by the coalitions of the second storyline and the third storyline, where no development or adjustments should be allowed.

The coalitions within each of the storylines promote both arguments with similarities and differences, and also some interdependent and conflicting arguments or interests are been detected. The coalitions in the second storyline is dependent on the coalition in the first storyline, as new development of vacation homes are dependent on developers and landowners having a desire to sell properties or vacation homes. The developers and landowners ability to achieve this is dependent on peoples’ willingness to buy vacation homes, as well as legitimacy from the municipality. Thus, interdependence exists between the first and the second storyline. Conflict appears between the coalition in the first and the coalition in the second storyline, as the second storyline is supported by a coalition that aims to make Kragerø attractive as a place to live, thus have attractive properties for residences. The coalition supporting the first storyline, on the other hand, aims to have a greater extent of vacation home development, but are held back by considerations of the permanent residents and the political strategy of make Kragerø a more attractive place to live. Conflict is further detected between the three coalitions of

the storylines in terms of the desired degree of new vacation homes. The three coalitions further present different perceptions of climate change, and do therefore regard the importance of climate change mitigation and adaptation differently. Therefore, conflict can occur as stricter requirements for adaptation and mitigation can put restrictions that reduce the economic benefits or the number of new vacation homes.

6.3 Dominate and subordinate storylines

In this section research question 3.3 will be investigated, by focusing on the distribution of supporters of the different storylines, and the power relations between actors and coalitions. This aims to display which storylines are dominant and which is subordinate, to make able a reflection and elaboration of how the supporters of the different storylines influence the vacation home development in Kragerø. It appears a major support to the second storyline, following the first storyline, and then less support to the third storyline. This leads to a desire of further vacation home development, following requirements for climate change adaptation and climate change mitigation considerations that must be balanced and prioritized in relation to interests for economic gain and local development.

As illustrated in the figure below, the first storyline, Kragerø – a place to visit, is promoted by a coalition of landowners, developers, the private business sector, liberal politicians, the Ministry of the Environment and building application processors. The second coalition consists of regional planners, municipal planners, socialist politicians, liberal politicians, building application processors and The Ministry of the Environment, and promotes the second storyline, Kragerø – a place to live. Finally, the third storyline, Kragerø – a climate friendly community, is promoted by a coalition of regional planners, the environmental councillor and The Ministry of the Environment.

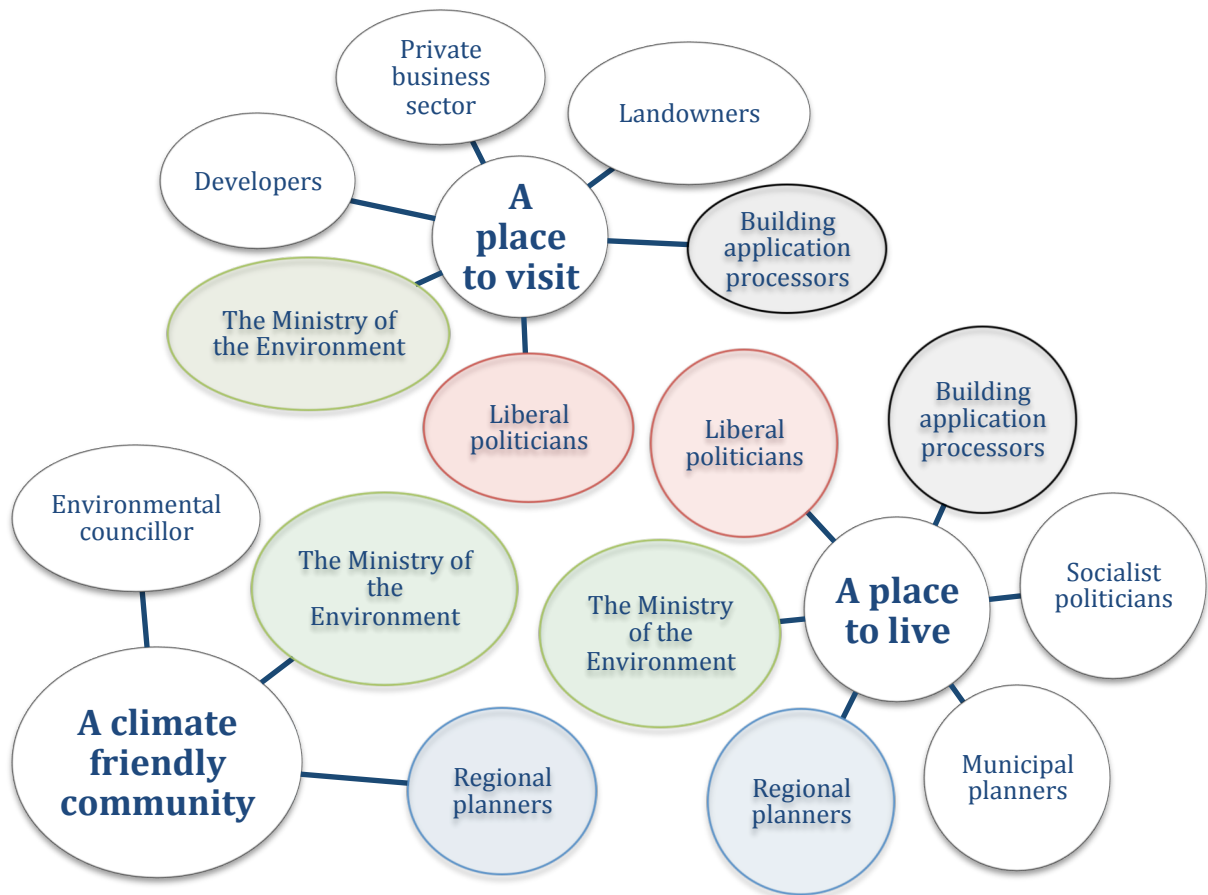


Figure 4: Actors supporting the different storylines

This presentation of the distribution, as well as the case related chart above, displays actors both associated to the different storylines. Actors linked to several storylines, indicates that their interests and arguments corresponds with elements in more than one storylines. There are three actors in the first storylines that correspond to actors in the second storyline. Furthermore, two actors are the similar between the second and the third storyline. The Ministry of the Environment is an actor in all the three coalitions; however, the coalition of the first storyline is mainly related to the Ministry by *The Government's guideline for planning of vacation homes*. This distribution of similarities and differences in actors between the coalitions in each storyline emphasises which storylines being support of the same actors.

As actors aiming to achieve a common objective form a coalition, the actors' professional focus and background will have impact in how they regard vacation home development and challenges related to climate change. Where the actors in the first coalition in general regard economical profitable alternatives as the best solution, as developers and

landowners aim to achieve the best possible financial result. This claim is supported of their attitudes of little climate impacts caused of vacation homes, and their role as proposers and push factors for a further development. Where politicians and the administration are experiencing much pressure from proposals for development, extensions and adjustments of vacation homes. Politicians are divided into several parties, where socialistic and liberally beliefs are diverse, but where their task is to govern the municipality in a way that mirrors the local population's desire. This task is diverse and wide, where politicians are influenced by contradictory agendas, such as trade and business associations, natural environmental conservationists and cultural heritage interests. This means that politicians, as the decision makers, do not necessarily themselves have a single agenda but are influenced by several drivers for change and conservation in the municipality, where their choices are based on the values their party regards as the most important for Kragerø municipality. Planners aim to manage the land use for a holistic and long-term development in the municipality, and ensure development in reasonable localised to infrastructure and road systems, and safe from landslides and extreme weather. The environmental councillor's agenda is to manage a development towards less energy consumption and to ensure conservation of biodiversity and the natural environment. The regional planners have different agendas, such as tourism, coastal planning and energy- and climate planning, where they develop thematic regional plans and guidelines for the municipalities. This elaboration of the agendas related to the different actors, can be related to how the coalitions are formed. The coalition of the first storyline aims to achieve economic benefits in the building and selling process, where developers, landowners, liberal politicians and The Ministry of the Environment regard vacation home development as a financial beneficial development. The second storyline also aims to achieve economic benefits, but for the benefits of the local community, and relate to agendas for increased attractiveness to establish businesses and as a place to live. The third storyline, are emphasised by professionals on natural and energy related issues, where economic factors is not central, as their profession is advisory, and thus does not emphasise other agendas in their work.

The coalition in the second storyline consists both of liberal and socialist politicians and planners, which are being detected as central decision-makers when planning for

vacation home development in Kragerø. According to The Planning and Building Act § 3-2, the municipal council has the planning authorities for municipal planning. Where the municipal council has the authority for management of areas and natural resources, cf. pbl. § 3-3 (Plan- og bygningsloven 2008). As the municipal council consists of politicians, the politicians will significantly affect decision-makings in the municipality. The administration, consisting of planners and environmental advisors, will come up with professional suggestions, however, the politicians in the council has the authority to make decisions independently from these suggestions. Therefore, local politicians have significant decision-power for municipal implementations for development of vacation homes or initiatives for climate friendly actions and adaptations. As local politicians have the most significant power for decision-makings, as directly participate in the meetings, coalitions largely based on politicians will have much influence on the decisions for vacation home development. The coalition of the second storyline, is consists of politicians and planners, and thus much influence on the decisions making process. However, the county governor and the Ministry have the authority to object to decisions that opposes regional and national values. Therefore, politicians must consider whether their decisions correspond to the regional and national expectations and values to avoid objections.

As detected in the previous section, the interdependence exists between the coalitions of the first and the second storyline in terms of ability for vacation home growth and legitimacy. As the developers and landowners are considered being necessary actors for further vacation home development, their development proposals will be the starting point for land use regulations for new vacation homes. If the proposals convince the politicians with their ideas, little space is left to the administration for suggestions and influence on the decision-making. Therefore, the first storyline will be of importance for the coalition in the second storyline, and thus also have a great influence on the vacation home development in Kragerø. The coalition supporting the third storyline consist of environmental advisor and the Ministry of the Environment, and has arguments and interests that to a great extent are in conflict with interests in the coalitions to the first and second storyline. The third storyline, in contrast, is not supported of a coalition largely based on politicians, thus little power to influence the decision-making process is left to this coalition.

By considering the development that takes place in Kragerø, it is possible to remark which coalitions that has fulfilled their arguments, by seeing correspondence to physical or planned development. Firstly, as highlighted in the case study, there exists a steady growth in new vacation homes in Kragerø, which corresponds to the coalitions of the first and the second storyline. According to the new municipal plan, “there is argued that much traffic and new or extensions of vacation homes are the most important explanations and reasons for downsizing of natural environments” (Kragerø kommune 2018 p. 44), referring an increasing pressure on the natural environment along the coast. However, vacation homes development is regarded as of much importance, where the pressure on natural areas considered of being a “concern that must be balanced towards the desire of further development of the local community, both in terms of attractiveness for industries, tourism and residents (Kragerø kommune 2018 p. 45). The priority in interests is further being highlighted, where “with references to the environmental challenges and the desire of maintains of permanent settlement in some of the most environmental vulnerable areas, it is still a desire to be able to contribute to further development of vacation home, even though the goal of a sustainable natural environment can be difficult to achieve” (Kragerø kommune 2018 p. 45). Furthermore, it is not regulated for an extension in areas available for vacation home development, which corresponds with the second storyline, where its coalition aims to have a balanced growth. Development and adjustments within the 100-metres zone do still exist, indicating that arguments associated to the coalition in the first storyline have been followed. “Local responsibility to prevent and adapt for consequences of climate change” (Kragerø kommune 2018 p. 45) and “further development must be considered and carried with regard to climate impacts” (Kragerø kommune 2018 p. 45), highlight that the aim of the coalition to the third storyline also is included to some extent. However, the coalition of the second storyline does also consider climate adaptations important to the extent presented in the *Regulations on technical requirements for construction work*.

Based on the balance of power in actors and coalitions the second storyline is considered most prevalent. The further distribution of support is followed by the first storyline, as being interdependent with the second storyline, and as Kragerø still

currently is considered as being a place most attractive to visit. The coalition of the third storyline is consisting of consulting actors with less influence in the decisions-making process, and is considered as being little considered and implemented while planning for vacation homes.

6.4 The vacation home discourse' consideration of climate change

The planning discourse analysed and elaborated earlier, highlighted the balance in the most prominent and dominant storylines, as representatives of the most central perceptions and values of the cultural-cognitive dimension of the planning discourse. This basis enables reflection on whether the cultural-cognitive dimension acts as a mediator or a barrier for climate change mitigation and adaptation. In this section research question 4 will be investigated, where findings earlier in the discourse analysis will be compared to theory about sustainable vacation home development and climate scenarios from the case study chapter. Where the purpose is to discuss to what extent the planning discourse take climate change concerns into account when planning for vacation home development.

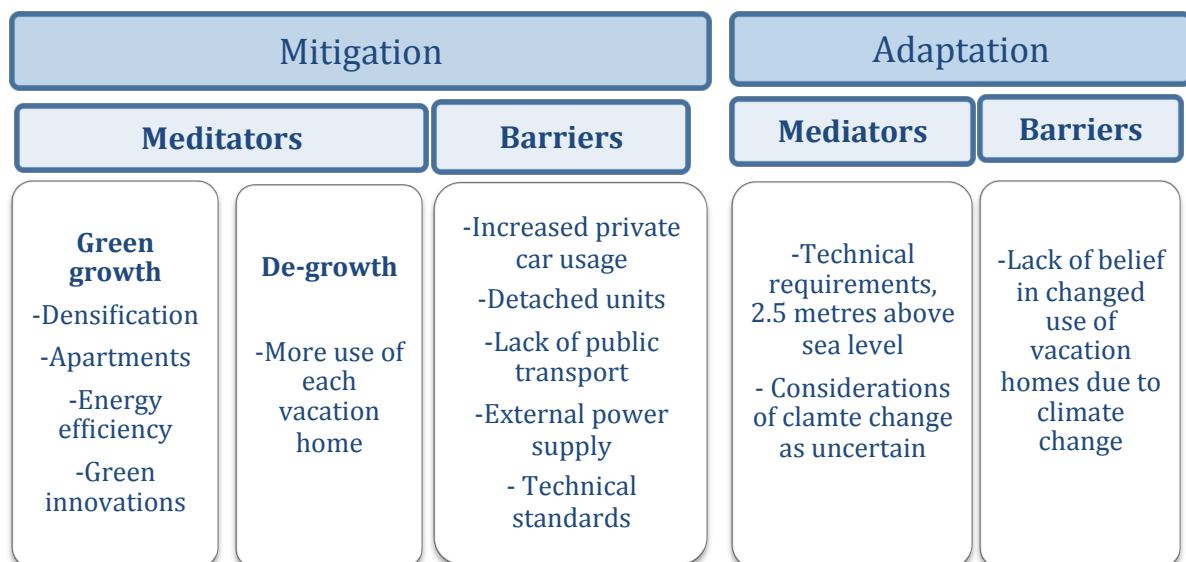


Figure 5: Findings in case study of climate change mitigation and adaptation, barriers and mediators

Climate change mitigation

It is a desire to have further vacation home development in Kragerø, as it is considered contributing to economic gain for local businesses, developers and landowners, as well as property tax to the municipality. In terms of climate change mitigation, energy efficiency, increased densification, increased usage of each unit and new technology are presented as measures that are appropriate and desired for further vacation home development in Kragerø. As elaborated in the theory chapter, land use, mobility and energy consumption are listed as factors causing impacts on climate change in relation to vacation home development.

Densification in existing areas for vacation homes have positive consequences, where larger and contiguous natural environments will be protected from development, and the natural interventions related to infrastructure and extensions of sanitation systems will be limited, as it already existing in these areas. By limiting interventions in the natural environment the carbon dioxide stored in the biomasses will not be released, as well as protection of nature is a measure for absorption of greenhouse gases, thus contributing to climate change mitigation. The planning discourse regards development of vacation apartments as positive in an economically perspective, as these units are popular for buyers, and enables development of more vacation homes within a smaller area. Furthermore, more compact development reduces the interventions of infrastructures, and facilitates for increased use of public transport. According to the green growth paradigm, compact development is of importance for an efficient coordinated transport and land use development. In Kragerø, development of vacation home apartments is regarded as most applicable close to the town center, where the landscapes along the coast are regarded to less suitable for major construction projects. Where major constructions are regarded as not desirable as they will be visible from the seaside along the coast and at the islands. In terms of facilitation for public transport, this is not considered being a priority, as the private car is considered most suitable for transportation to vacation homes, and where areas for parking are regarded as of more importance. Public transport is limited in Kragerø, but more vacation homes located in the center will increase the possibilities for cycling and walkability when staying in Kragerø, as there will be short distances to facilities in the town and to the ferry port for

trips to other islands. However, development of vacation apartments and densification in already developed areas are not solving issues related to private car usage for the travel to and back from the vacation homes. This can be seen in context with the planning discourse's attitude where increased mobility is regarded as not being related to vacation home development, where it is little belief in people travelling less if not access to a vacation homes. However, private car usage is regarded as causing significant impact on climate change, even though vacation homes are not regarded as contributor for increased car usage, according to the planning discourse in Kragerø. There are varying attitudes to the extent electrical cars produced today are sustainable, but there exists belief in new innovations, and charging stations for cars and boats are regarded as important for motivating people to acquire and use electrical cars and boats. This corresponds to the green growth paradigm, where green innovations are considered contributing to achieve sustainable development, without reducing the consumption or the mobility. Electrical boats are little common today, and much belief in electrical boats are related to the coalition of the third storyline, which to a little extent affect the development of vacation homes in Kragerø today.

The planning discourse does not regard energy consumption caused by vacation homes as unsustainable, where the energy consumption in primary residences will be reduced when staying at the vacation homes. Therefore, energy consumption related to vacation homes is not regarded as a factor for climate change. However, insulation requirements, and also heating pumps in new vacation homes, are considered as measures that reduce the energy consumption. Furthermore, the area regulations of maximum size in vacation homes of 100 square metres is also regarded as a contributor to prevent unnecessary use of land and energy consumption, as it prevents extremely large vacation homes to be build. Installation and use of solar panels are little common in vacation homes in Kragerø, but is regarded as an alternative electrical supply, where the planners encourage people to consider the possibilities for installation of solar panels. Furthermore, topology is considered of importance in terms of energy consumption, where maximized sun exposure contributes to reduced energy for warming. These perspectives in the planning discourse of vacation homes in Kragerø limit measures for climate change mitigation, as the attitudes of energy consumption in vacation homes related to climate change are limited. Whereas little reflections of stricter regulations

size on vacation homes exists, where 100 square metres not are regarded as being large vacation homes. Furthermore, according to an interview with the architectural office, when developers have planned for installing alternative energy sources, such as solar panels, changes often occur in the final stages in the building projects, where investments in green technology often are being abandoned as considered expensive. When power for decisions is given to the developers and the politicians, no authority for implementation of green technology exists when the proposals have got approval, and the politicians do not regard renewable energy sources of more importance.

The de-growth paradigm is to less extent visible in the planning discourse, where it differs from the desire of increased development of vacation homes. However, it is a desire to have increased use of each vacation home. This perspective corresponds with the de-growth paradigm, in the way that more people can have access to vacation homes without building more units. This can be achieved through requirements for renting out vacation homes. However, this depends on a change in social attitude, where people must change their attitude to be more willing of renting out their vacation homes when not in use. Further, people must be willing to sacrifice owning a vacation home for choosing to rent a place when plans for going away for the weekend or on a vacation.

In regards to whether the planning discourse acts as either a barrier or mediator for climate change mitigation, the desire of economic gain by increased number of vacation homes is considered as causing a barrier for reduction of greenhouse gases. The desire of economic gain for developers, landowners and local businesses by development of vacation homes are causing conflicts in interest with conservation of natural environments, reduced energy consumption and mobility. The green growth paradigm considers renewable energy sources and coordinated land use and transport, public transport and electrical cars as measures not being in conflict with sustainable development and measures for climate change mitigation. The third storyline considers use of solar energy and electrical cars, as well as energy efficient vacation homes of great importance to achieve sustainable vacation home development. This stands out as opposed to the first and second storyline, where vacation home development to a greater extent is emphasised for economic reasons. As the second storyline is dominant and interdependent with the first storyline, it occurs great desire for further

development, where economic profitability is emphasised. This results in vacation home development being largely affected by private proposals and municipal politicians, and thus lacking a comprehensive context for municipal strategies and goals for climate change mitigation. The municipality is conscious in regard of land use efficiency; to the extent it does not compromise the landscape values. On the other hand, it forms a barrier for implementations for measures of climate change mitigation related to energy consumption in terms of electrical equipment and size of vacation homes and mobility, which however are key considerations in the subordinated third storyline.

Climate change adaptation

The planning discourse consists of storylines of different perceptions to climate change, and thus different perceptions of the necessity of adaptation. The coalition supporting the first storyline does not regard climate change as being current today, and considers adaptation requirements as unnecessary. The third storyline, on the other hand, perceives climate change as of great importance and potential danger for humans, buildings and infrastructure, and considers the requirements listed up as little precautionary. The dominant second storyline considers the extent and consequences of climate change to be uncertain, where these concerns are considered as been taken into account in the *Regulations on technical requirements for construction work*. Because climate change most likely will cause periods with increased levels of water and increased risks for landslides, adaptations are considered as important to incorporate into the risk and vulnerability analyses. These requirements are considered as being important following to ensure new development to be built in areas and with a design resistant for changed climate. Where Kragerø municipality operates with a lowest height for vacation homes of 2.5 metres above the sea, referring to the requirements listed up. This minimum altitude is considered to be significant enough for management of increased levels of water, in terms of sea level rise, more intense rains and floods. The planning discourse lacks reflections and considerations on whether climate change has an effect on the use of vacation homes. Meaning that vacation homes in Kragerø are planned and built with regards to the same preferences and use as tourists have today.

In regards to whether the planning discourse acts as either a barrier or a mediator for climate change adaptations, the planning discourse acts as a mediator for adaptations for concerns related to more extreme weather, however, it is acting as a barrier for adaptations for changed use or attractiveness for vacation homes in Kragerø caused of climate change. As explained in the climate scenarios in the case study chapter, increased temperatures, sea level rise, more intense rains and risks for lands slides are considered as the most significant consequences of climate change in Kragerø. By considering climate change as current and causing uncertain consequences, a precautionary attitude has been detected in the planning discourse. Much confidence is given to the requirements that are listed up in the guideline, however, climate change adaptations are regarded as important to be incorporated into risk and vulnerability analysis. This reflection indicates that the planning discourse to some extent contributes to climate change adaptations and follows the requirements listed up, and thus acts as a mediator for these concerns. In terms of adaptations for a changed use or attractiveness caused by climate change this has been detected as not a current reflection in the planning discourse. Without a consciousness of the impacts climate change can have on vacation homes in Kragerø, the planning discourse will act as a barrier for adaptations for climate change for use of vacation homes.

Chapter 7: Conclusion

In this chapter, the main research question will be answered:

To what extent is climate change mitigation and adaptation considered when planning for vacation home development in Kragerø, and how does the planning discourse act as either a barrier or mediator for such concerns?

The planning discourse of vacation home development in Kragerø has by a narrative structuring been divided into three storylines, each presented by a coalition of actors. A coalition aims to achieve a common purpose, based on their understanding and opinions about vacation home development and climate change. To make able an investigation of the distribution of influence from the storylines, the balance of power, similarities, interdependence and conflicts have been recognized between the actors, arguments and the purposes for the coalitions to each storyline. Storyline 2, Kragerø – a place to live, has been identified as having the coalition of most powerful decision makers, and the major influence in the planning discourse. Furthermore, storyline 1, Kragerø – a place to visit, is considered having some influence on the decision-making process, followed by storyline 3, Kragerø – a climate friendly community, considered to be of less significance when planning for vacation homes. This distribution of the coalitions' influence to the planning discourse made possible a reflection of how the discourse acts as either a barrier or a mediator for climate change mitigation and adaptation.

The planning discourse considers climate change mitigation important to some extent, where focus is given to protection of natural environments. However, vacation homes are to a little extent planned for reduction of greenhouse gases in terms of mobility, where there is lack of measures that reduce emissions from private car usage and boats. Furthermore, energy consumption in vacation homes is to a little extent regarded as relevant for climate change, where a limited requirement for installation of renewable energy sources exists, or strategies for reduced energy consumption. Thus, it concludes that climate change mitigation to some extent has been considered, but it lacks a comprehensive development that ensures environmentally friendly solutions for mobility and energy consumption. The desire for economic gain and a lack of

implementation of green technology and sustainable transport alternatives, are conflicting with considerations represented by the coalition of the third storyline. Thus, it concludes that the planning discourse act as a barrier for climate change mitigation.

The planning discourse considers climate change as a current concern, with uncertain consequences for the future. Adaptations to increased levels of water and landslides are regarded as important, where the requirements listed up in guideline are considered as important to follow. Besides following the requirements, adaptations are regarded as important to incorporate into the risk and vulnerability analysis when planning for vacation homes. It is thus concluded that the planning discourse considers climate change as current, and regard adaptations as important. In regard of whether the planning discourse acts as a barrier or a mediator for climate change adaptations, the conclusion is that it acts as a mediator in terms of adaptations for more extreme weather. Adaptations for changed use of vacation homes in Kragerø due to climate change, do not exist as a reflection in the planning discourse, and thus acts as a barrier for adaptations for possible change in use and attractiveness caused by climate change when planning for vacation homes.

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Attachments

Interview guide

Questions will be limited to:

Vacation homes

- Contributions and/or disadvantages to Kragerø
- What make Kragerø attractive for vacation home development?
- Who are the proposals and drivers for vacation home development? And who are the actors in opposition?

Coastal areas

- Considerations of public and private
- Regard to the 100-metres building ban

Kragerø in the future

- Is tourism a growing industry in Kragerø?
- How do you regard Kragerø in the future?

Climate change

- What measures can be done at local or regional level?
- If climate change occurs, will Kragerø still be as attractive as today, or a change towards decrease or increase in attractiveness?
- What challenges will occur related to climate change?
- How will climate change influence use of vacation homes?
- What are the relations between vacation home development and climate change?



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